

**Focused Survey for Agassiz's Desert Tortoise, Habitat Assessments for  
Burrowing Owl and Mohave Ground Squirrel, and  
General Biological Resource Assessment for a  
5-acre± Site (APN 3153-022-044) in the City of Lancaster,  
Los Angeles County, California**

(U.S. Geological Survey 7.5' Lancaster West Quadrangle, Township 7 North, Range 12  
West, a portion of the NE ¼ of Section 19, S.B.B.&M.)

**Job#:** 14-031

**Prepared by:**

Circle Mountain Biological Consultants, Inc.

P.O. Box 3197

Wrightwood, California 92397

PH: (760) 249-4948

FAX: (760) 249-4948

Email: [sharon\\_dougherty@circlemountainbiological.com](mailto:sharon_dougherty@circlemountainbiological.com)

Contacts: Ed LaRue, Sharon Dougherty

**Prepared for:**

Global Investment and Development, LLC

3470 Wilshire Blvd., Suite 1020

Los Angeles, California 90010

PH: (213) 365-0005

FAX: (213) 365-0405

Contact: Denise Villanueva

email: [Denise@GIDLLCO.COM](mailto:Denise@GIDLLCO.COM)

I hereby certify that the statements furnished herein, including 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 nondisclosure or consultant confidentiality agreement with the project applicant or applicant's representative and that I have no financial interest in the project.

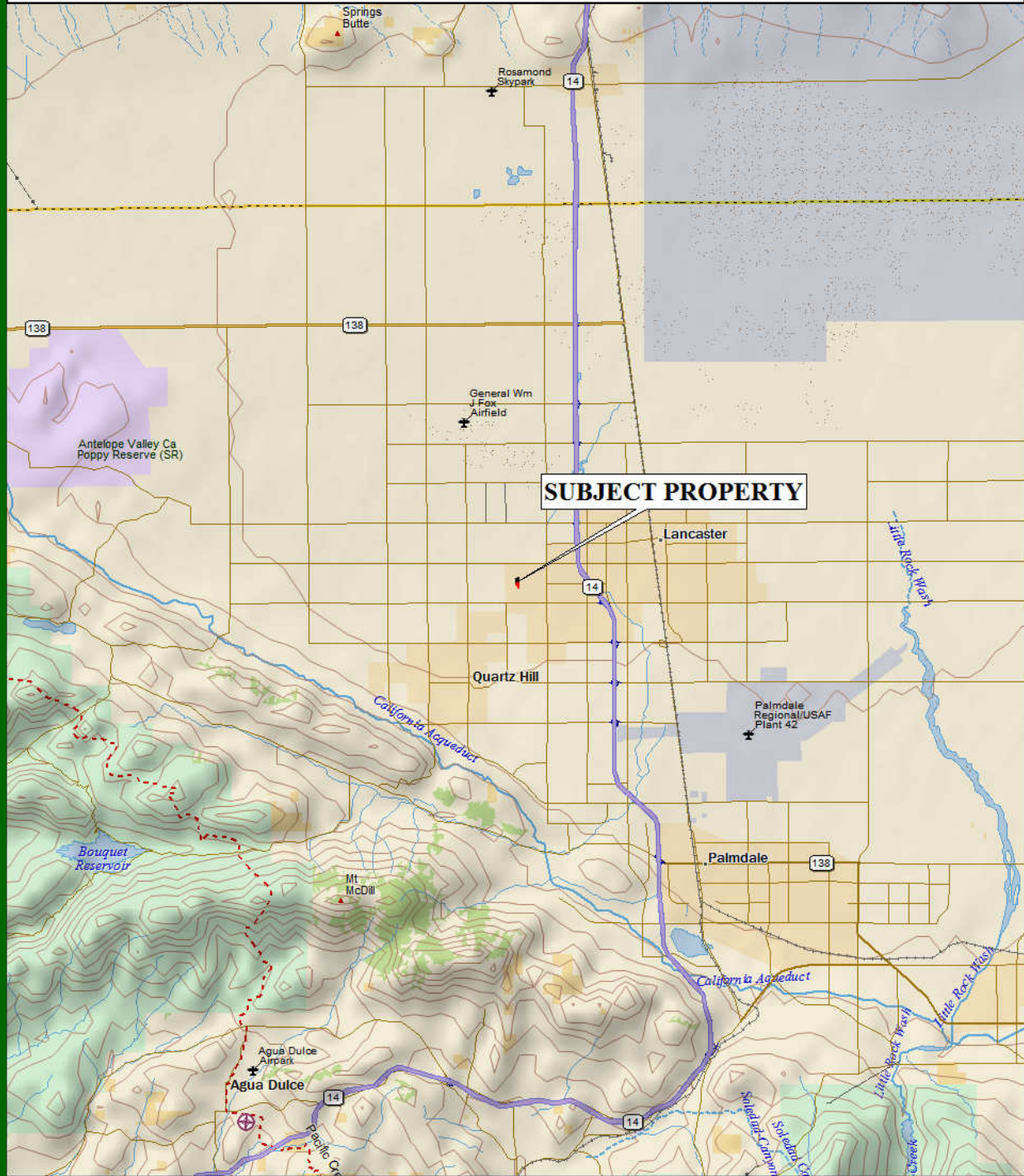


Circle Mountain Biological Consultants, Inc.

Author and Field Investigator: Sharon E. Dougherty

November 2014

# Figure 1. APN 3153-022-044: Vicinity Map



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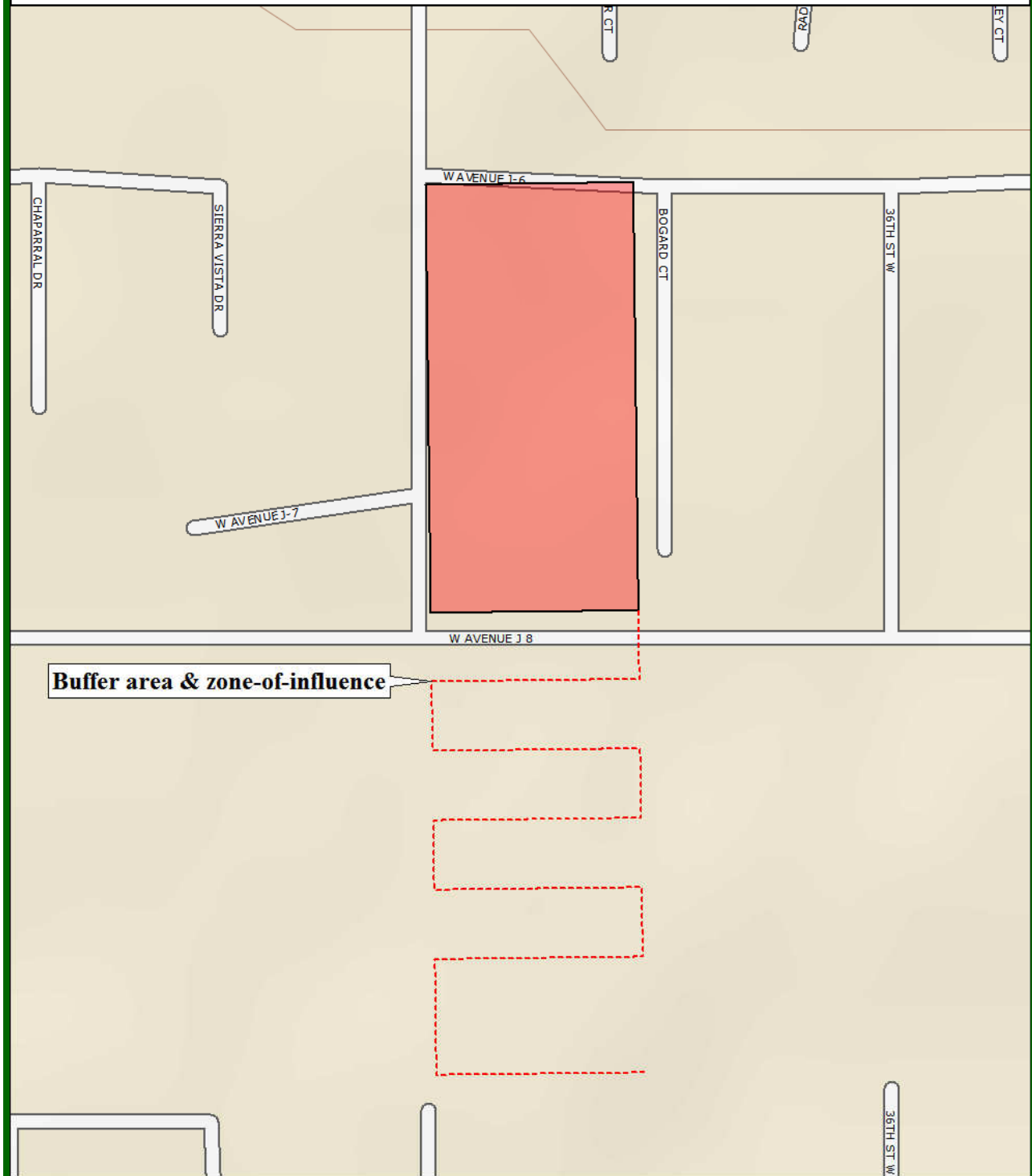
MN (12.4° E)



0 1 2 3 4 5 6

Data Zoom 9-7

# Figure 2. APN 3153-022-044: Site Map

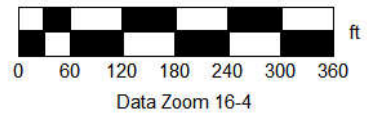


Buffer area & zone-of-influence

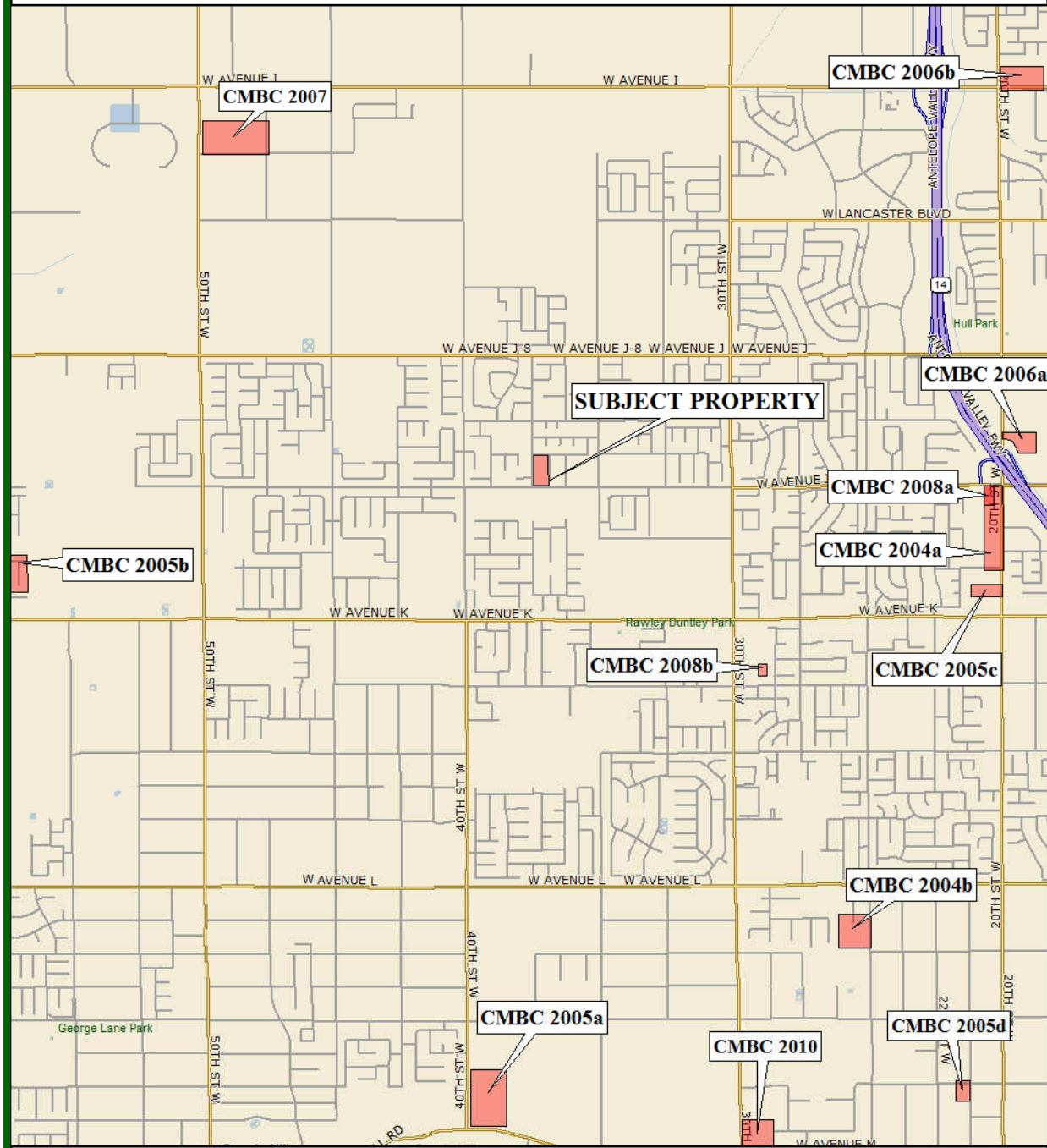
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# Figure 3. Results of 12 Tortoise Surveys in the Area between 2004 and 2014



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 MN (12.4° E)

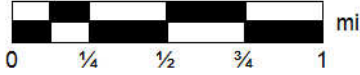
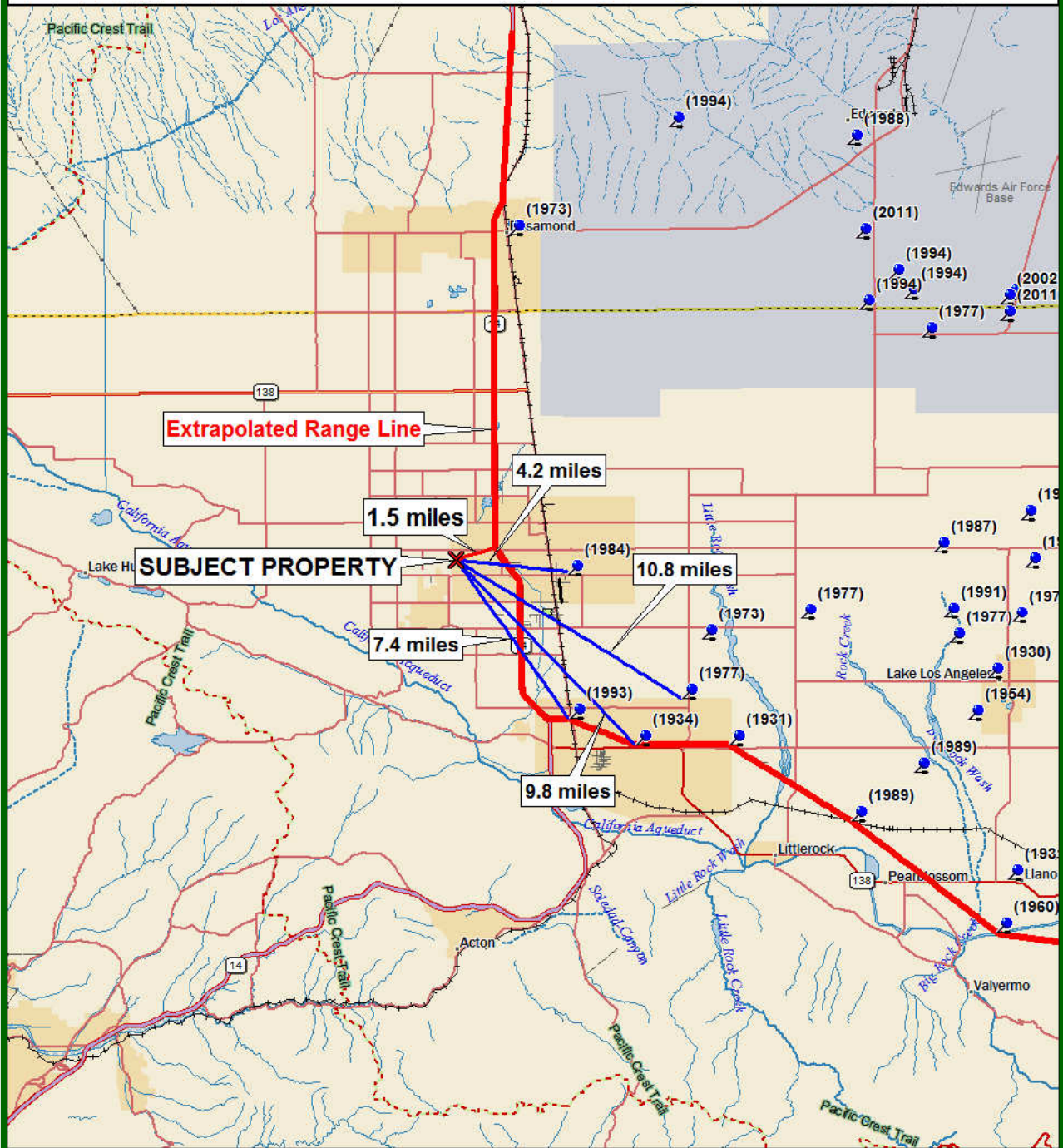

 0 1/4 1/2 3/4 1 mi  
 Data Zoom 12-5



Figure 4. APN 3153-022-044: Aerial Photograph (©2014Google™ Earth)

# Figure 5. Known Mohave Ground Squirrel Locations



Map Produced by Circle Mountain Biological Consultants, Inc., 2014



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MN (12.4° E)



0 2 4 6 8 10 mi

Data Zoom 9-2

## Executive Summary

Circle Mountain Biological Consultants, Inc. (CMBC) was contacted by Global Investment & Development, LLC (Proponent) to perform a focused survey for Agassiz's desert tortoise, habitat assessments for burrowing owl and Mohave ground squirrel, and a general biological resource assessment on a 5-acre± site located in the city of Lancaster, Los Angeles County, California. CMBC consulted materials included in our library to determine the nearest locations of special status plant and animal species that have been reported from the vicinity of the subject property. CMBC also consulted the latest version of the California Natural Diversity Data Base (CDFW 2014a) for rare plant and animal records reported from the USGS 7.5' Lancaster West quadrangle, which encompasses the site.

For a total of 1.25 hours, between 1330 and 1445, on 11 November 2014, Sharon Dougherty of CMBC surveyed the site and adjacent areas as described herein. This entailed a survey of 10 transects, spaced at 10-meter intervals and oriented in a north-south direction throughout the 5-acre± parcel. Six zone of influence transects were surveyed for detection of tortoise sign and burrowing owls, at 30, 60, 90, 120, 150, and 200 meters south of the subject property.

The plant community found on the site is best described as severely degraded California juniper series in the system devised by Sawyer and Keeler-Wolf (1995) for the California Native Plant Society. Dominant perennials found on the site include California juniper, four-winged saltbush, rubber rabbitbrush, and California ephedra. One Joshua tree remains on the site, and there were several dead trunks found on the ground. Very few annual plants were detectable at the time of surveys, and nearly all were non-native exotics or disturbance-adapted natives. It is likely that more native annuals are present and detectable during the spring months. The 11 bird and 5 mammal species identified during the survey are listed in Appendix B. No reptile species were observed, likely due to the late season and cooler temperatures, as well as the disturbed conditions found on the site.

No sign of **Agassiz's desert tortoise** was found either on-site or in adjacent areas during this focused, protocol survey (U.S. Fish and Wildlife Service 1992, 2010). Based on the absence of tortoise sign on the subject property, in adjacent areas, and reported from the region (see Figure 3), CMBC concludes that the Agassiz's desert tortoise is absent from the subject property and adjacent survey areas. Also, there is no likelihood of wild tortoises entering the site from adjacent areas, either to pass through the site or establish residency.

**Burrowing owl** has been observed 0.6 miles to the southwest in 2006, 0.7 miles to the north-northwest in 2006, 0.9 miles to the west-southwest in 2004, and 1.2 miles to the north-northwest in 2013 (CNPS 2014). Thirty-one California ground squirrel burrows that were considered suitably large for burrowing owls were inspected on the site during the current survey, but no burrowing owl sign was detected. The species is considered absent from the subject property at the present time.

In recent years, the CDFW has considered three criteria in assessing potential impacts to the **Mohave ground squirrel**: (1) Is the site within the range of the species? (2) Is there native habitat with a relatively diverse shrub component? (3) Is the site surrounded by development and therefore isolated from potentially occupied habitat?

The nearest reported occurrence of Mohave ground squirrel was approximately 4.2 miles to the east-southeast where a squirrel was found in 1984. Other proximate occurrences have been 7.4 miles southeast (1993), 9.8 miles southeast (1934), and 10.8 miles southeast (1977). The site is located approximately 1.5 miles outside of the suspected species range. There is a relatively low level of diversity of native perennial plants on the subject property, with about 6 shrub species identified. In the northern part of the range, winter fat and spiny hop-sage are ecologically important shrubs for Mohave ground squirrel. Winter fat is relatively rare and spiny hop-sage is absent from the site. Finally, contiguous lands are mostly developed neighborhoods, with vacant, undeveloped parcels interspersed. Given the above information, CMBC concludes that the Mohave ground squirrel is not likely to occur on the site. Although it is CMBC's professional opinion that Mohave ground squirrel is likely absent from the site, it is prudent to have CDFW wildlife biologist Scott Harris review this report to agree or disagree with this finding.

No blueline streams or washes are found on the site, and no protection or permits for such resources will be needed. Joshua tree is the only protected plant species that was observed on the subject property. Only one individual living Joshua tree was observed on the site.

Based on the field survey and habitat assessment, CMBC concludes that none of the following special status species reported from the region will be adversely affected by site development: pale yellow layia, Lancaster milkvetch, white pygmy-poppy, Parry's spineflower, Rosamond eriastrum, alkali mariposa lily, Swainson's hawk, ferruginous hawk, northern harrier, merlin, burrowing owl, loggerhead shrike, least Bell's vireo, silvery legless lizard, and coast horned lizard. As such, no adverse impacts have been identified and no mitigation measures are recommended.

Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests, including raptors and other migratory nongame birds (as listed under the Migratory Bird Treaty Act). Typically, CDFW requires that vegetation not be removed from a project site between March 15 and September 15 to avoid impacts to nesting birds. If it is necessary to commence project construction between March 15 and September 15, a qualified biologist should survey all shrubs and structures within the project site for nesting birds, prior to project activities (including construction and/or site preparation).



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Burrowing Owl and Mohave Ground Squirrel, and  
General Biological Resource Assessment for a  
5-acre± Site (APN 3153-022-044) in the City of Lancaster,  
Los Angeles County, California**

**1.0. Introduction**

1.1. Purpose and Need for Study. Circle Mountain Biological Consultants, Inc. (CMBC) was contacted by Global Investment & Development, LLC (Proponent) to perform a focused survey for Agassiz's desert tortoise (*Gopherus agassizii*), habitat assessments for burrowing owl (*Athene cunicularia*) and Mohave ground squirrel (*Xerospermophilus mohavensis*), and a general biological resource assessment on a 5-acre± site located in the city of Lancaster, Los Angeles County, California (see Figures 1 and 2). Since the city planning department does not have a specified protocol for biological technical reports, this report has been prepared according to County of San Bernardino's *Report Protocol for Biological Assessment Reports* (County of San Bernardino 2006), which is considered an appropriate, comprehensive format to report results of the field survey and habitat evaluation.

As the California Environmental Quality Act (CEQA) Lead Agency, the city of Lancaster planning department (City) is required to complete an initial study to determine if site development will result in any adverse impacts to rare biological resources. The information may also be useful to federal and State regulatory agencies, including U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), respectively, if the Lead Agency asks them to assess impacts associated with proposed development. Results of CMBC's focused tortoise survey, burrowing owl and Mohave ground squirrel habitat assessments, and general biological resource assessment are intended to provide sufficient baseline information to these agencies to determine if impacts will occur and to identify mitigation measures, if any, to offset those impacts.

1.2. Project Description. APN 3153-022-044 is a 5-acre± parcel located on the east side of 37<sup>th</sup> Street West between West Avenue J-8 and West Avenue J-6 in the City of Lancaster, Los Angeles County, California (see Figures 1 and 2). The legal description for the subject property is Township 7 North, Range 12 West, a portion of the NE ¼ of Section 19, S.B.B.&M.

**2.0. Methods**

2.1. Literature Review. CMBC consulted materials included in our library to determine the nearest locations of special status plant and animal species that have been reported from the vicinity of the subject property. Between 1991 and 2014, CMBC has completed 63 focused tortoise surveys in the Lancaster-Palmdale areas. Of particular relevance given their proximity to the subject property are 12 focused tortoise surveys completed on 12 sites, located between approximately 1.08 and 2.25 miles of the parcel, between 2004 (Circle Mountain Biological Consultants 2004) and 2010 (Circle Mountain

Biological Consultants, Inc. 2010), which, along with the subject property, are mapped in Figure 3. These and other materials used in the completion of this report are listed in Section 5.0, below.

In accordance with *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (California Department of Fish and Game 2009), CMBC also consulted the latest version of the California Natural Diversity Data Base (CDFW 2014a) for rare plant (and animal) records reported from the USGS 7.5' Lancaster West quadrangle, which encompasses the site. These and other materials used in the completion of this report are listed in Section 5.0, below.

## 2.2. Field Survey.

2.2.1. *Survey and Habitat Assessment Protocols.* For **Agassiz's desert tortoise**, CMBC generally followed the survey protocol first identified by the USFWS (1992) and recently revised (USFWS 2010) for their detection. USFWS (2010) protocol recommends that transects be surveyed at 30-foot (10-meter) intervals throughout all portions of a given parcel. If neither tortoises nor sign are encountered during *action area* surveys and the project, or any portion of project, is  $\leq 0.8 \text{ km}^2$  (200 acres) or linear, three additional 30-foot (9 meters) belt transects at 655-foot (200 meters), 1,310-foot (400 meters), and 1,970-foot (600 meters) intervals parallel to and/or encircling the project perimeter should be surveyed.

The *action area* is defined by regulation as all areas to be affected directly or indirectly and not merely the immediate area involved in the action (50 CFR §402.02). For this site, the action area is considered the subject property, since it is located within a developed neighborhood.

Like the USFWS 1992 and 2009 protocols that recommended seasonal restrictions for completing tortoise surveys, the USFWS 2010 protocol recommends that tortoise surveys should occur in the April-to-May and September-to-October time frames, with a few exceptions. Importantly, the 2010 protocol revised the 2009 version to indicate that sites *less than 40 acres* may be surveyed for tortoises year-round. As such, since this site is 5 acres, this survey conforms to the current protocol.

For **burrowing owl**, the CDFG (2012) survey protocol recommends transects be surveyed at 30-meter intervals throughout a given site, with five additional transects surveyed at 30-meter intervals out to 150 meters in adjacent areas in potential habitat (i.e., excluding areas substantially developed for commercial, residential, and/or industrial purposes). With its narrower transect intervals, the tortoise survey is sufficient to cover the site for burrowing owl. The focus of the survey is to find and inspect all burrows sufficiently large to be used by burrowing owls. Importantly, this methodology is considered a formal *habitat assessment* for presence of burrowing owls, which can be conducted any time of the year. Had burrowing owl sign been found, which it was not, it would have then been necessary to perform breeding burrowing owl surveys during the spring and summer as outlined in CDFG (2012).

2.2.2. *Field Survey Methods.* For a total of 1.25 hours, between 1330 and 1445 on 11 November 2014, Sharon Dougherty of CMBC surveyed the site and adjacent areas as described herein. This entailed a survey of 10 transects, spaced at 30-foot (10-meter) intervals and oriented in a north-south direction throughout the 5-acre± parcel. As depicted in Figure 2, six zone of influence transects were surveyed for detection of tortoise sign and burrowing owls at 30, 60, 90, 120, 150, and 200 meters south of the subject property. A copy of CMBC's data sheet completed in the field is included in this report (see Appendix C). Habitat quality, adjacent land uses, and observable disturbances are discussed below in Section 3.2 relative to the potential occurrence of Agassiz's desert tortoise and other special status species on and adjacent to the subject property.

San Bernardino County (2006) also requires that any survey limitations be identified. The survey was conducted in the fall season, and many fewer annual plants and reptile species were detected than would have been observed during the same amount of effort in the spring. None of these limitations are expected to significantly affect the results and conclusions given herein.

Weather conditions at the beginning of the survey included a temperature [measured approximately 2.5 inches (5 centimeters) above the ground] of 57°F (14°C), with 65% cloud cover, and average winds of 5 miles per hour and gusts up to 12 miles per hour out of the southwest, as measured by a hand-held Kestrel® weather and wind speed meter.

All plant and animal species identified during the survey were recorded in field notes and are listed in Appendices A and B, respectively. A Garmin® hand-held, global positioning system (GPS) unit was used to survey straight transects and record Universal Transverse Mercator (UTM) coordinates (North American Datum – NAD 83) for property boundaries and other pertinent information (Appendix C). A digital camera was used to take representative photographs (Appendix D), with locations and directions of exhibits shown in Figure 6. ©2014 Google™ Earth was accessed via the internet to provide recent aerial photographs of the subject property and surrounding areas (Figure 4).

### 3.0. Results

3.1. Common Biological Resources. The common plant and animal species identified during the survey are influenced by multiple factors such as elevation, topography, soil substrates, and adjacent land uses. Based on DeLorme Topo USA® 10.0 software, the elevation on the subject property is approximately 2,368 feet (722 meters). Terrain on the site has been altered significantly, with past stockpiling of dirt in the form of berms on the east and west, resulting in a trough in the center of the site. The parcel is elevated above street level. Soils are sandy. No USGS-designated blue-line streams occur on-site.

3.1.1. *Common Flora.* The 22 plant species identified during the survey are listed in Appendix A. The plant community found on the site is best described as severely degraded California juniper series in the system devised by Sawyer and Keeler-Wolf (1995) for the California Native Plant Society. Dominant perennials found on the site

include California juniper (*Juniperus californicus*), four-winged saltbush (*Atriplex canescens*), rubber rabbitbrush (*Chrysothamnus nauseosus*), and California ephedra (*Ephedra californica*). One Joshua tree (*Yucca brevifolia*) remains on the site, and there were several dead trunks found on the ground. Very few annual plants were detectable at the time of surveys, and nearly all were non-native exotics, such as Mediterranean split grass (*Schismus* sp.), cheat grass (*Bromus tectorum*), red brome (*B. madritensis* var. *rubens*), Saharan mustard (*Brassica tournefortii*), red-stemmed filaree (*Erodium cicutarium*), or disturbance-adapted natives such as ragweed (*Ambrosia acanthicarpa*) and vinegar weed (*Lessingia lemmonii*). It is likely that more native annuals are present and detectable during the spring months.

3.1.2. *Common Fauna.* The 11 bird and 5 mammal species identified during the survey are listed in Appendix B. No reptile species were observed, likely due to the late season and cooler temperatures, as well as the disturbed conditions found on the site. Locally common reptile species that may occur include side-blotched lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris*), desert horned lizard (*Phrynosoma platyrhinos*), desert night lizard (*Xantusia vigilis*), red racer (*Masticophis flagellum*), gopher snake (*Pituophis melanoleucus*), long-nosed snake (*Rhinocheilus lecontei*), and various rattlesnake species (*Crotalus* ssp.).

Birds observed during the survey included species common in urbanized parts of the Mojave Desert, such as common raven (*Corvus corax*), house finch (*Carpodacus mexicanus*), mourning dove (*Zenaida macroura*), rock dove or pigeon (*Columba livia*), house sparrow (*Passer domesticus*), and northern mockingbird (*Mimus polyglottos*). Several species that winter in the area, but are not year round residents, were observed, including California gull (*Larus californicus*), white-crowned sparrow (*Zonotrichia leucophrys*), and Western meadowlark (*Sturnella neglecta*). Other species present were Northern flicker (*Colaptes auratus*) and Say's phoebe (*Sayornis saya*).

Native mammals detected on the site and in surrounding areas were limited to species tolerant of human development, and included Botta pocket gopher (*Thomomys bottae*), Audubon cottontail (*Sylvilagus audubonii*), California ground squirrel (*Otospermophilus beecheyi*), antelope ground squirrel (*Ammospermophilus leucurus*), and kangaroo rat (*Dipodomys* sp.).

### 3.2. Uncommon Biological Resources.

3.2.1. *Agassiz's Desert Tortoise.* A significant paper was published in June 2011 (Murphy et al. 2011) whereby the "desert tortoise" of the Mojave Desert was split into two species, including *G. agassizii*, referred to as "Agassiz's desert tortoise," and a newly described species, *G. morafkai*, referred to as "Morafka's desert tortoise," which occurs in the Sonoran Desert. According to Murphy et al. (2011), "...this action reduces the distribution of *G. agassizii* to only 30% of its former range. This reduction has important implications for the conservation and protection of *G. agassizii*, which may deserve a higher level of protection." Agassiz's desert tortoise is the threatened species that occurs in the region surrounding the subject property.

No tortoise sign was found either on-site or in adjacent areas during this focused, protocol survey (U.S. Fish and Wildlife Service 1992, 2010) for the species. Based on the absence of tortoise sign on the subject property, in adjacent areas, and reported from the region (see Figure 3), CMBC concludes that the Agassiz's desert tortoise is absent from the subject property and adjacent survey areas. Also, there is no likelihood of wild tortoises entering the site from adjacent areas, either to pass through the site or establish residency.

Encounter rates for observable human disturbances included (in descending order of prevalence) bicycle/off-highway vehicle trails (40 encounters), dumping (29 encounters), dog sign (8 encounters), off-highway vehicle tracks (5), and children's "forts" (2). In addition to these discrete encounters, large areas of the site are devoid of vegetation, and raised berms have been built along the west and east sides of the site.

As depicted in Figure 3, CMBC personnel have surveyed 12 sites within approximately 1¼ to 2¼ miles of the subject property. No evidence of tortoises has been found on any of these surveys. In fact, no evidence of *living* tortoises has been found on any of the 63 focused surveys completed by CMBC personnel in the Palmdale-Lancaster area since 1991. In June and July of 1991, Ed LaRue of CMBC and two other tortoise biologists surveyed 342 linear miles of transects on 90 square miles within the city limits and sphere of influence of the city of Lancaster (Tierra Madre Consultants, Inc. 1991). No tortoise sign was found. Another team of two biologists simultaneously evaluating 122 square miles for Mohave ground squirrel in the same area found three tortoise carcasses. Dr. Kristin Berry, then with the Bureau of Land Management, judged that these tortoises had died between 1971 and 1989 (personal communication to LaRue in July 1991). On 19 July 2007, Brian Ludicke with the City indicated that no tortoises have been reported on any focused surveys within the city limits since the 1991 surveys.

The County (2004) requires that habitat categories designated by the U.S. Bureau of Land Management (1989) be identified in all Agassiz's desert tortoise technical reports. Although habitat categories apply only to public lands administered by the BLM, regulatory agencies typically determine habitat compensation ratios based on the nearest BLM habitat categories (U.S. Bureau of Land Management 2005, 2006). With the formulation of the West Mojave Plan (U.S. Bureau of Land Management 2005) and its formal adoption through a Record of Decision (U.S. Bureau of Land Management 2006), all lands that are outside Desert Wildlife Management Areas, including the subject property, are characterized as Category 3 Habitat, which is the lowest priority management area for viable populations of the Agassiz's desert tortoise.

The site is not found within tortoise critical habitat, which was designated in 1994 (U.S. Fish and Wildlife Service 1994a) nor is it within a Desert Wildlife Management Area as recommended in the Desert Tortoise (Mojave Population) Recovery Plan (U.S. Fish and Wildlife Service 1994b) and formally adopted in March 2006 as a result of the West Mojave Plan Record of Decision (U.S. Bureau of Land Management 2006). The southern boundaries of the Fremont-Kramer Critical Habitat Unit and Desert Wildlife

Management Area are north of El Mirage dry lake, some 16 miles east-northeast of the subject property.

3.2.2. *Other Special Status Species.* U.S. Fish and Wildlife Service (2008), California Department of Fish and Wildlife (CDFG 2011, 2014a, 2014b), and California Native Plant Society (CNPS 2014) maintain lists of animals and/or plants considered rare, threatened, or endangered, which are collectively referred to as “special status species.” No special status species were identified on-site during the current survey. The following special-status plant species have been reported from the Lancaster quadrangle:

**Pale yellow layia** (*Layia heterotrica*), **Lancaster milkvetch** (*Astragalus preussi* var. *laxiflorus*), **white pygmy-poppy** (*Canbya candida*), and **Parry’s spineflower** (*Chorizanthe parryi* var. *parryi*) have been reported from historic collections in the Lancaster area, without specific location information in 1895, 1902, an unrecorded date, and 1896, respectively (CNPS 2014). There are no recent records of these species in the area.

**Rosamond eriastrum** (*Eriastrum rosamondense*) has been observed 3.5 miles to the north in 1998 and 4.3 miles to the northeast in 1993 (CNPS 2014). This species is known from “alkali pool beds separated by very low hummocks with open chenopod scrub... often [in] sandy soil.” The elevation range for the species is 700-715 m. Habitat on the subject property is not suitable for the species.

**Alkali mariposa lily** (*Calochortus striatus*) has been observed 500 feet to the northwest of the subject property, 0.8 miles to the northwest, 2.0 miles to the northeast, and 3.7 miles to the north-northwest, all in 2005, as well as 1.5 miles to the west in 1998 and 5.0 miles to the northwest in 2008 (CNPS 2014). The species would not have been detectable at the time of surveys, but the species is typically found in low-lying alkaline meadows and ephemeral washes, and such features are absent from the subject property.

Each of the bird species discussed below is considered a Bird of Conservation Concern by the USFWS (2008) and/or a Bird Species of Special Concern by the CDFG (2011).

**Swainson’s hawk** (*Buteo swainsoni*) is of concern to CDFW, and is listed by the California Fish and Game Commission as Threatened. Swainson’s hawks have been reported nesting in the northwestern portions of Lancaster and Antelope Valley. The species was observed 3.4 miles to the east-northeast in 1978 (CNPS 2014). The site is of little use to Swainson’s hawks given the habitat degradation, proximity to residential development, and lack of suitable nesting substrates.

**Ferruginous hawk** (*Buteo regalis*) has been observed 3.3 miles to the northwest in 1999 and 4.4 miles to the northwest in 1998 (CNPS 2014). This species winters in grasslands and agricultural regions in southern California, but does not breed. It prefers open habitats, and would be unlikely to occur in a developed neighborhood such as the one in which the subject property occurs.

**Northern harrier** (*Circus cyaneus*) was not observed during the current survey but has been observed 2.25 miles south on an 18-acre± site surveyed by CMBC in 2005 (Circle Mountain Biological Consultants 2005a). The species is apparently relatively common in the area, having recently been reported dozens of times in the Antelope Valley (eBird 2014). According to CDFW's webpage (<http://www.dfg.ca.gov>), northern harrier is a widespread winter resident and migrant in suitable habitat, breeding from sea level to 5700 feet (0-1700 meters) in the Central Valley and Sierra Nevada, and up to 3600 feet (800 meters) in northeastern California. Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Northern harrier may occasionally pass over the site but is not expected to rely on prey items found on 5 acres adjacent to residential tract homes.

**Merlin** (*Falco columbarius*) has been observed 4.3 miles to the north-northeast in 2010 (CNPS 2014). This species is most often observed as a migrant or during the winter months in desert areas, and is more common along the coast of southern California. The species is not expected to occur in the area, except as a rare migrant.

**Burrowing owl** (*Athene cunicularia*) has been observed 0.6 miles to the southwest in 2006, 0.7 miles to the north-northwest in 2006, 0.9 miles to the west-southwest in 2004, and 1.2 miles to the north-northwest in 2013 (CNPS 2014). Thirty-one California ground squirrel burrows that were considered suitably large for burrowing owls were inspected on the site, but no burrowing owl sign was detected. The species is considered absent from the subject property at the present time.

**Loggerhead shrike** (*Lanius ludovicianus*) has been observed 2.3 miles south in 2005 (CMBC 2005a). There is marginally suitable, although heavily disturbed nesting and foraging habitat on the subject property for this species, but it was not observed during CMBC's survey of the site.

**Least Bell's vireo** (*Vireo bellii pusillus*) has been observed 2.9 miles to the northeast in 2006 (CNPS 2014). No suitable habitat for the species is found on the subject property

Two special status reptiles were reported from the Lancaster West quadrangle in the CNDDDB.

**Silvery legless lizard** (*Anniella pulchra pulchra*) has been observed 0.9 miles to the south in 2005, 1.6 miles to the northwest in 1988, and 3.3 miles to the southeast in 1988. This species occurs in desert scrub along the western edge of the Mojave Desert near Lancaster and in western portions of Anza-Borrego Desert State Park. California legless lizards are often found under surface objects such as logs, rocks, and leaf litter. Soil moisture is essential for the species. The species is not expected on the site due to heavy levels of disturbance.

**Coast horned lizard** (*Phrynosoma blainvilleii*) has been observed 3.5 miles to the southwest and 4.0 miles to the east-southeast in 1964 (CNPS 2014). California horned lizard occurs in a variety of habitat types, including areas with exposed gravelly-sandy substrate containing scattered shrubs, clearings in riparian woodlands, chamise chaparral,



and annual grassland with scattered perennial seepweed or saltbush. Key habitat elements are loose, fine soils with a high sand fraction; an abundance of native ants; open areas with limited overstory for basking; and areas with low, dense shrubs for refuge. Habitat on the site is only marginally suitable for the species, due to heavy levels of disturbance.

**Mohave ground squirrel** is designated as a Threatened species by the California Fish and Game Commission and is not federally listed. In spite of two petitions, one in 1993 and another in 2005, to list the Mohave ground squirrel as a federally Endangered species, the USFWS ruled in October 2011 that listing was not warranted at that time. In recent years, the CDFW has considered three criteria in assessing potential impacts to the Mohave ground squirrel (Adrienne Disbrow, personal communication to CMBC in 2004): (1) Is the site within the range of the species? (2) Is there native habitat with a relatively diverse shrub component? (3) Is the site surrounded by development and therefore isolated from potentially occupied habitat?

First, Figure 5 shows known locations of Mohave ground squirrels relative to the subject property (California Department of Fish and Wildlife 2014a) and the suspected range of the species (Gustafson 1993; U.S. Bureau of Land Management 2005). The nearest reported occurrence was approximately 4.2 miles to the east-southeast where a squirrel was found in 1984. Other proximate occurrences have been 7.4 miles southeast (1993), 9.8 miles southeast (1934), and 10.8 miles southeast (1977). Numerous surveys performed in the surrounding region in much more suitable habitats (Leitner 2008) have failed to capture the species.

When a line is drawn to connect the known occurrences to determine the approximate range of the species (the “red line” in Figure 5), the site is approximately 1.5 miles west of the extrapolated western boundary (U.S. Bureau of Land Management 2005), or approximately 1.5 miles outside of the suspected species range.

Second, although Mohave ground squirrel has been reported between 1,800 feet (549 meters) and 5,600 feet (1,707 meters) elevation from a wide range of habitats including creosote bush scrub, Joshua tree woodland, juniper woodland, and Mohave mixed woody scrub (U.S. Bureau of Land Management 2005), habitats on the subject property are only marginally suitable for the species. At 2,368 feet (722 meters) elevation, the site is well within the known elevation range of the species. There is a relatively low level of diversity of native perennial plants, with about 6 shrub species identified.

In the northern part of the range, winter fat and spiny hop-sage are ecologically important shrubs for Mohave ground squirrel (U.S. Bureau of Land Management 2005). Dougherty tallied 4 winter fat on the subject property. Winter fat is relatively rare and spiny hop-sage is absent from the site. In any case, the presence of these plants does NOT imply that the Mohave ground squirrel occurs. There are no data to suggest that these plants are important to the species in the south as they appear to be in the Coso Range, near the northern extent of the Mohave ground squirrel known range.

Finally, contiguous lands are mostly developed neighborhoods, with vacant, undeveloped parcels interspersed.

Given the above information, CMBC concludes that the Mohave ground squirrel is not likely to occur on the site.

3.3. Other Protected Biological Resources. No blueline streams or washes are found on the site, and no protection or permits for such resources will be needed.

At the State level, the 1998 Food and Agricultural Code, Division 23: California Desert Native Plants, Chapter 3: Regulated Native Plants, Section 80073 states: The following native plants, or any parts thereof, may not be harvested except under a permit issued by the commissioner or the sheriff of the county in which the native plants are growing:

- (a) All species of the family Agavaceae (century plants, nolinias, yuccas).
- (b) All species of the family Cactaceae (cacti), except for the plants listed in subdivisions (b) and (c) of Section 80072 (i.e., saguaro and barrel cacti), which may be harvested under a permit obtained pursuant to that section.
- (c) All species of the family Fouquieriaceae (ocotillo, candlewood).
- (d) All species of the genus *Prosopis* (mesquites).
- (e) All species of the genus *Cercidium* (palo verdes).
- (f) *Acacia greggii* (catclaw acacia).
- (g) *Atriplex hymenelytra* (desert holly).
- (h) *Dalea (Psorothamnus) spinosa* (smoke tree).
- (i) *Olneya tesota* (desert ironwood), including both dead and live desert ironwood.

Joshua tree is the only plant species included in the above list that was observed on the subject property. Only one individual living Joshua tree was observed on the site.

#### **4.0. Conclusions and Recommendations**

4.1. Impacts to the Agassiz's Desert Tortoise and Proposed Mitigation. Based on the absence of tortoise sign on-site and in adjacent areas, and available regional information reviewed for this habitat assessment, CMBC concludes that tortoises are absent from the subject property. As such, no impacts are anticipated and no mitigation measures are recommended.

According to USFWS (2010) pre-project survey protocol the results of this survey will remain valid for the period of one year, or until 11 November 2015, after which time, if the site has not been developed in the interim, another survey may be required to confirm the absence of tortoises on-site.

Regardless of survey results and conclusions given herein, tortoises are protected by applicable State and federal laws, including the California Endangered Species Act and Federal Endangered Species Act, respectively. As such, if a tortoise is found on-site at

the time of construction, all activities likely to affect that animal(s) should cease and the City contacted to determine appropriate steps.

Importantly, nothing given in this report, including recommended mitigation measures, is intended to authorize the incidental take of tortoises during site development. Such authorization must come from the appropriate regulatory agencies, including CDFW (i.e., authorization under section 2081 of the Fish and Game Code) and USFWS [i.e., authorization under section 10(a)(1)(B) of the Federal Endangered Species Act].

Finally, it has been CMBC's practice since 1994 to NOT submit technical reports to either the USFWS or the CDFW unless asked to do so by the Proponent. However, the Proponent is advised of the following conditions identified in January 2010 in the USFWS' revised pre-project survey protocol and assumes responsibility for implementing (or not) these recommendations:

- Occurrence of either live tortoises or tortoise sign (burrows, scats, and carcasses) in the action area indicated desert tortoise presence and therefore requires formal consultation with USFWS.
- If neither tortoises nor tortoise sign are encountered during the action area surveys, as well as project perimeter surveys where appropriate, please contact your local USFWS office. Informal consultation with the USFWS may be required even though no desert tortoises or sign are found during surveys.
- Please submit a copy of the original data sheets with results of the survey to the local USFWS office within 30 days of survey completion.

#### 4.2. Impacts to Other Biological Resources and Proposed Mitigation.

4.2.1 *Other Special Status Species.* Based on the field survey and habitat assessment, CMBC concludes that none of the following special status species reported from the region will be adversely affected by site development: pale yellow layia, Lancaster milkvetch, white pygmy-poppy, Parry's spineflower, Rosamond eriastrum, alkali mariposa lily, Swainson's hawk, ferruginous hawk, northern harrier, merlin, burrowing owl, loggerhead shrike, least Bell's vireo, silvery legless lizard, and coast horned lizard. As such, no adverse impacts have been identified and no mitigation measures are recommended.

Although a focused Mohave ground squirrel trapping survey was not performed, CMBC assessed habitats and reviewed available information to provide a professional opinion as to the presence or absence of this species on the subject property. Given the information discussed herein, CMBC concludes that Mohave ground squirrels are not likely to occur. Although it is CMBC's professional opinion that Mohave ground squirrel is likely absent from the site, it is prudent to have CDFW wildlife biologist Scott Harris review this report to agree or disagree with this finding. Mr. Harris' contact information follows:

CDFW, Region 4, 1508 North Harding Avenue, Pasadena, California 91104, (626) 797-3170.

#### 4.2.2. *Other Protected Biological Resources.*

4.2.2.a. Protected Plants. It is beyond the scope of this focused survey and general resource assessment to provide necessary baseline data and a proposed program to minimize and mitigate impacts to protected native desert plants. The City may require a Desert Native Plant Assessment to identify the numbers and locations of protected plants to be in compliance with the California Native Plant Protection Act. A single Joshua tree is the only protected plant found on-site that may be subject to pertinent development codes.

4.2.2.b. Bird Nests. Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests, including raptors and other migratory nongame birds (As listed under the Migratory Bird Treaty Act). Typically, CDFW requires that vegetation not be removed from a project site between March 15 and September 15 to avoid impacts to nesting birds. If it is necessary to commence project construction between March 15 and September 15, a qualified biologist should survey all shrubs and structures within the project site for nesting birds, prior to project activities (including construction and/or site preparation).

Surveys should be conducted at the appropriate time of day during the breeding season, and surveys would end no more than three days prior to clearing. CDFW is typically notified in writing prior to the start of the surveys. Documentation of surveys and findings should be submitted to the CDFW within ten days of the last survey. If no nesting birds were observed project activities may begin. If an active bird nest is located, the plant in which it occurs should be left in place until the birds leave the nest. No construction is allowed near active bird nests of threatened or endangered species.

### **5.0. Literature References**

Beauchamp, R. 1986. *A Flora of San Diego County, California*. Sweetwater River Press. National City, CA.

California Department of Fish and Game (CDFG). 2009. Protocols for surveying and evaluating impacts to special status native plant populations and natural communities. California Natural Resources Agency, Department of Fish and Game, 24 November 2009. Sacramento, CA.

California Department of Fish and Game. 2011. Special Animals (883 Taxa). Animal species list published and updated by State of California, The Resources Agency, Department of Fish and Game, Biogeographic Data Branch, California Natural Diversity Data Base. Dated January 2011. Sacramento, CA. 59 pp.

- California Department of Fish and Game. 2012. Staff report on burrowing owl mitigation. 7 March 2012 memo replacing 1995 staff report, State of California Natural resources Agency, Department of Fish and Game. Sacramento, CA.
- California Department of Fish and Wildlife (CDFW). 2014a. Electronic database of rare plant and animal species reported to The State Resources Agency, Natural Heritage Division, California Natural Diversity Data Base. Sacramento, CA.
- California Department of Fish and Wildlife, Natural Diversity Database. 2014b. Special Vascular Plants, Bryophytes, and Lichens List. Plant species list published and updated quarterly by State of California, The Resources Agency, Department of Fish and Game, Biogeographic Data Branch, California Natural Diversity Data Base. Dated January 2014. Sacramento, CA. 73 pp.
- California Native Plant Society (CNPS). 2014. Inventory of Rare and Endangered Plants (online edition, v7-09b). California Native Plant Society. Sacramento, CA.
- Circle Mountain Biological Consultants. 2004a. Martin Properties 14.75-acre site: General biological survey and focused surveys for desert tortoise and burrowing owl, with an evaluation of habitat for Mohave ground squirrel, City of Lancaster, Los Angeles, California. Unpublished report prepared on behalf of Martin Properties, Inc. Job #04-055. Wrightwood, CA.
- Circle Mountain Biological Consultants. 2004b. General biological survey and focused surveys for desert tortoise and burrowing owl with an evaluation of habitat for Mohave ground squirrel on a ±10-acre site in the City of Lancaster (APN 3109-011-045), Los Angeles County, California. Unpublished report prepared on behalf of Ami Adini & Associates, Inc. Job #04-075. Wrightwood, CA.
- Circle Mountain Biological Consultants. 2005a. Focused survey for desert tortoise and burrowing owl, and habitat evaluation for Mohave ground squirrel on APNs 3109-002-024 & 3111-001-011, an ±18-acre site in the City of Lancaster, Los Angeles County, California. Unpublished report prepared on behalf of Ben Kwan. Job #05-005. Wrightwood, CA.
- Circle Mountain Biological Consultants. 2005b. Focused desert tortoise survey and general biological inventory for a 5-acre site (TT 61542) in the City of Lancaster, Los Angeles County, California. Unpublished report prepared on behalf of Ellevan, Inc. Job# 05-008. Wrightwood, CA.
- Circle Mountain Biological Consultants. 2005c. General biological inventory, focused surveys for desert tortoise and western burrowing owl, and habitat evaluation for Mohave ground squirrel on a 3.38-acre site (APN 3129-016-066) in the City of Lancaster, Los Angeles County, California. Unpublished report prepared on behalf of Investment Concepts, Inc. Job #05-013. Wrightwood, CA.

- Circle Mountain Biological Consultants. 2005d. Focused survey for desert tortoise and western burrowing owl, and habitat evaluation for Mohave ground squirrel on a 2.84-acre site (APN 3109-013-078) in City of Lancaster, Los Angeles County, California. Unpublished report prepared on behalf of Carrie Slayton. Job #05-017. Wrightwood, CA.
- Circle Mountain Biological Consultants. 2006a. Focused survey for desert tortoise and western burrowing owl, and habitat evaluation for Mohave ground squirrel on a 4.67-acre site (APN 3123-004-44) located in the City of Lancaster, Los Angeles County, California. Unpublished report prepared on behalf of Antelope Valley Engineering, Inc. Job #06-040. Wrightwood, CA.
- Circle Mountain Biological Consultants. 2006b. Focused survey for western burrowing owl, and habitat evaluation for desert tortoise and Mohave ground squirrel on APN 3119-029-085, a 9.6-acre± site in the City of Lancaster, Los Angeles County, California. Unpublished report prepared on behalf of Antelope Valley Engineering, Inc. Job #06-052. Wrightwood, CA.
- Circle Mountain Biological Consultants, Inc. 2007. Focused survey for desert tortoise and western burrowing owl, habitat evaluation for Mohave ground squirrel, and general biological resource assessment for a 20-acre± site (APNs 3153-001-021, -022, -023, -024, & -025) in the City of Lancaster, Los Angeles County, California. Unpublished report prepared on behalf of David Shamsian. Job #07-076. Wrightwood, CA.
- Circle Mountain Biological Consultants, Inc. 2008a. Focused resurvey for desert tortoise and western burrowing owl, habitat evaluation for Mohave ground squirrel, and general biological resource assessment for a 2.0-acre± site (APN 3129-017-042) in the City of Lancaster, Los Angeles County, California. Unpublished report prepared on behalf of Lundgren and Associates. #08-002. Wrightwood, CA. (Resurvey of #04-055).
- Circle Mountain Biological Consultants, Inc. 2008b. Focused survey for desert tortoise and western burrowing owl, habitat evaluation for Mohave ground squirrel, and general biological resource assessment for a 0.91-acre± site (a portion of APN 3112-008-004) in the City of Lancaster, Los Angeles County, California. Unpublished report prepared on behalf of Antelope Valley Engineering. Job #08-005. Wrightwood, CA.
- Circle Mountain Biological Consultants, Inc. 2010. Focused survey for desert tortoise, habitat assessments for western burrowing owl and Mohave ground squirrel, and general biological resource assessment for a 10-acre± site (APN 3109-012-019) in the City of Lancaster, Los Angeles County, California. Unpublished report prepared on behalf of Antelope Valley Engineering, Inc. Job #10-021. Wrightwood, CA.

- Circle Mountain Biological Consultants, Inc. 2013. Desert tortoise detection in the Morongo Basin on 270 sites between 1989 and 2013. Unpublished report presented as a technical paper at the 2013 Desert Tortoise Council Symposium. Wrightwood, CA.
- County of San Bernardino (County). 2004. Standards for assessing impacts to the desert tortoise and Mohave ground squirrel. Unpublished protocol provided by the County of San Bernardino, Public and Support Services Group, Land Use Services Department, Advance Planning Division, dated December 2004. San Bernardino, CA.
- County of San Bernardino. 2006. Report protocol for biological assessment reports. Unpublished protocol provided by the County of San Bernardino, Public and Support Services Group, Land Use Services Department, Advance Planning Division, dated 31 August 2006. San Bernardino, CA.
- Gustafson, J. 1993. A status review of the Mohave ground squirrel (*Spermophilus mohavensis*). California Department of Fish and Game (Sacramento), Wildlife Management Division, Nongame Bird and Mammal Section Report 93-9, 104 pp. plus appendices. Sacramento, CA.
- Hickman, J. Editor. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley, CA.
- Holland, R. 1986. Preliminary descriptions of the terrestrial natural communities of California. California Department of Fish and Game. Sacramento, CA.
- Ingles, L. 1965. *Mammals of the Pacific States: California, Oregon, Washington*. Stanford University Press. Stanford, CA.
- Jaeger, E. 1969. *Desert Wild Flowers*. Stanford University Press. Stanford, CA.
- Leitner, P.A. 2008. Current status of the Mohave ground squirrel (*Spermophilus mohavensis*) [now *Xerospermophilus*]. Unpublished report prepared in association with Tetra Tech on behalf of 95<sup>th</sup> Air Base Wing, Edwards Air Force Base, California.
- Munz, P. 1974. *A Flora of Southern California*. University of California Press. Berkeley, CA.
- Murphy, R. W., K. H. Berry, T. Edwards, A. E. Leviton, A. Lathrop, and J. D. Riedle. 2011. The dazed and confused identity of Agassiz's desert tortoise, *Gopherus agassizii* (Testudines, Testudinidae) with the description of a new species, and its consequences for conservation. *ZooKeys* 113: 39–71.
- Sawyer, J. and T. Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society. Sacramento, CA.

- Sibley, D. 2000. National Audubon Society, the Sibley Guide to Birds. First Edition. New York, N.Y.
- Stebbins, R. 2003. *A Field Guide to Western Reptiles and Amphibians*. Third Edition. The Peterson Field Guide Series. Houghton Mifflin Company. New York, NY.
- Tierra Madre Consultants, Inc. 1991. Biological assessment for Lancaster City and planning area: Relative density surveys for desert tortoises and Cumulative Human Impact Evaluations for Mohave ground squirrel habitat. Unpublished report prepared by Ed LaRue and Jack Easton for the City of Lancaster. Riverside, CA.
- U.S. Bureau of Land Management. 1989. Map produced by BLM for the California Desert Conservation Area, dated January 1989, showing desert tortoise Category 1, 2, and 3 Habitats in California. Riverside, CA.
- U.S. Bureau of Land Management. 2005. Final Environmental Impact Report and Statement for the West Mojave Plan, a Habitat Conservation Plan and California Desert Conservation Area Plan Amendment. Moreno Valley, CA.
- U.S. Bureau of Land Management. 2006. Record of Decision: West Mojave Plan, Amendment to the California Desert Conservation Area Plan, dated March 2006. Sacramento, CA.
- U.S. Fish and Wildlife Service (USFWS). 1992. Field survey protocol for any nonfederal action that may occur within the range of the desert tortoise. Ventura, CA.
- U.S. Fish and Wildlife Service. 1994a. Endangered and threatened wildlife and plants; determination of critical habitat for the Mojave population of the desert tortoise. Federal Register 55(26):5820-5866. Washington, D.C.
- U.S. Fish and Wildlife Service. 1994b. Desert Tortoise (Mojave Population) Recovery Plan. U.S. Fish and Wildlife Service, Portland, OR. Pp. 73, plus appendices.
- U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern. Division of Migratory Bird Management. Arlington, VA.
- U.S. Fish and Wildlife Service. 2010. Preparing for any action that may occur within the range of the Mojave desert tortoise (*Gopherus agassizii*). USFWS Desert Tortoise Recovery Office. Reno, NV.



## Appendix A. Plant Species Detected

The following plant species were identified on-site or in adjacent areas (i.e., signified by “+”) during the general biological inventory described in this report. Those plant species that are protected by pertinent State ordinances are highlighted in red and signified by “(SC)” following the common name.

### CONIFERAE

#### **Cupressaceae**

*Juniperus californica*

### GNETAE

#### **Ephedraceae**

*Ephedra californica*

### ANGIOSPERMAE: DICOTYLEDONES

#### **Amaranthaceae**

*Halogeton glomeratus*

#### **Asteraceae**

*Ambrosia acanthicarpa*  
*Chrysothamnus nauseosus*  
*Gutierrezia sarothrae*  
*Heterotheca grandiflora*  
+*Lessingia lemmonii*

#### **Brassicaceae**

\**Brassica tournefortii*

#### **Chenopodiaceae**

+*Atriplex c.f. argentea*  
*Atriplex canescens*  
*Krascheninnikovia lanata*  
\**Salsola tragus*

#### **Geraneaceae**

\**Erodium cicutarium*

#### **Solanaceae**

+*Lycium cooperi*

### ANGIOSPERMAE: MONOCOTYLEDONES

### CONE-BEARING PLANTS

#### **Cypress family**

California juniper

### GNETAE

#### **Joint-fir family**

Desert tea

### DICOT FLOWERING PLANTS

#### **Amaranth family**

Halogeton

#### **Sunflower family**

Annual bur-sage  
Rubber rabbitbrush  
Matchweed  
Telegraph weed  
Lemmon's lessingia

#### **Mustard family**

Saharan mustard

#### **Goosefoot family**

Mohave silver-scale  
Four-winged saltbush  
Winter fat  
Russian thistle

#### **Geranium family**

Red-stemmed filaree

#### **Nightshade family**

Peach thorn

### MONOCOT FLOWERING PLANTS

**Liliaceae**

*Yucca brevifolia*

**Lily family**

Joshua tree (SC)

**Poaceae**

\**Bromus madritensis* ssp. *rubens*

\**Bromus tectorum*

\**Hordeum murinum*

+\**Polypogon monspeliensis*

\**Schismus* sp.

**Grass family**

Red brome

Cheat grass

Hare barley

Rabbitsfoot grass

Split-grass

\* - indicates a non-native (introduced) species.

c.f. - compares favorably to a given species when the actual species is unknown.

Some species may not have been detected because of the seasonal nature of their occurrence. Common names are taken from Beauchamp (1986), Hickman (1993), Jaeger (1969), and Munz (1974).

## Appendix B. Animal Species Detected

The following animal species were detected during the general biological inventory described in this report.

### AVES

#### **Laridae**

*Larus californicus*

#### **Columbidae**

*Columba livia*

*Zenaida macroura*

#### **Picidae**

*Colaptes auratus*

#### **Tyrannidae**

*Sayornis saya*

#### **Corvidae**

*Corvus corax*

#### **Mimidae**

*Mimus polyglottos*

#### **Emberizidae**

*Zonotrichia leucophrys*

*Sturnella neglecta*

#### **Fringillidae**

*Carpodacus mexicanus*

#### **Passeridae**

*Passer domesticus*

### MAMMALIA

#### **Leporidae**

*Sylvilagus audubonii*

#### **Sciuridae**

*Otospermophilus beecheyi*

*Ammospermophilus leucurus*

### BIRDS

#### **Gulls and terns**

California gull

#### **Pigeons and doves**

Rock dove

Mourning dove

#### **Woodpeckers**

Northern flicker

#### **Tyrant flycatchers**

Say's phoebe

#### **Crows and jays**

Common raven

#### **Mockingbirds and thrashers**

Northern mockingbird

#### **Sparrows, warblers, tanagers**

White-crowned sparrow

Western meadowlark

#### **Finches**

House finch

#### **Weavers**

House sparrow

### MAMMALS

#### **Hares and rabbits**

Audubon cottontail

#### **Squirrels**

California ground squirrel

Antelope ground squirrel

**Geomyidae**

*Thomomys bottae*

**Heteromyidae**

*Dipodomys* sp.

**Pocket gophers**

Botta pocket gopher

**Pocket mice**

Kangaroo rat

Nomenclature follows Stebbins, *A Field Guide to Western Reptiles and Amphibians* (2003), third edition; Sibley, National Audubon Society, the Sibley Guide to Birds (2000), first edition; and Ingles, *Mammals of the Pacific States* (1965), second edition.

### **Appendix C. Field Data Sheets Completed on 11 November 2014**

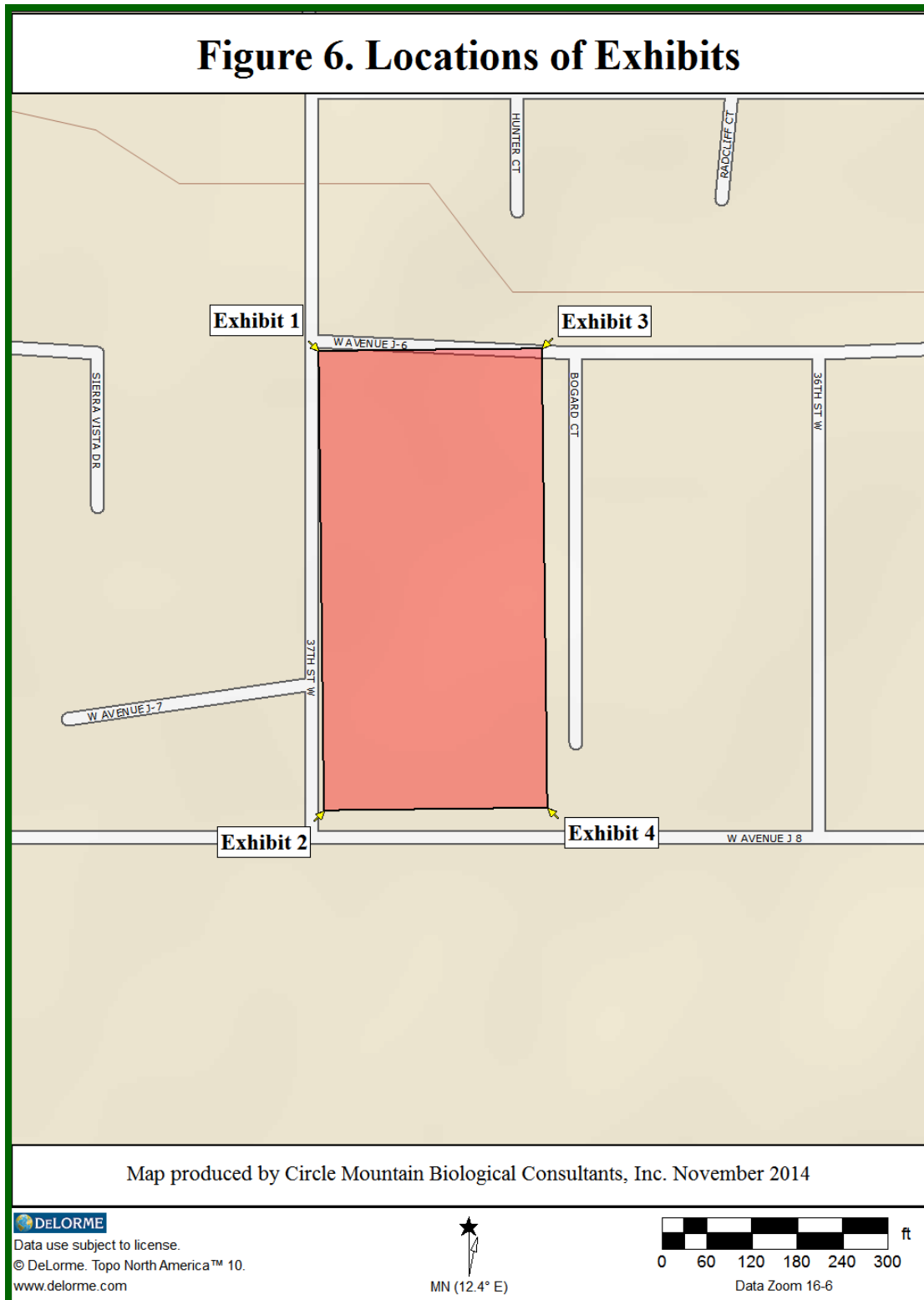
The USFWS and County have recently required consultants to include copies of the data collected in the field from which the results and conclusions given in this report are derived. As such, following this page are copies of the data sheets completed by Sharon Dougherty on 11 November 2014.

JOB #/NAME	DATE	DRIVE TIME		MILES	FIELD TIME		SURVEYORS				
Global 37W 14-031	11/11/14	TO	FROM		BEGIN	END					
		1245	1530	108	1330	1445	JD				
WEATHER CONDITIONS (Start/End)					UTM (NAD 83) (circle starting corner)						
TEMP: 57°F WIND X: 5 ↑ 12 N SE W CLOUD: 65%					NE → NW → SE → SW →						
TEMP: °F WIND X: ↑ N SE W CLOUD: %					0390450	-0360	-0450	-0360			
					3838640	-8640	-8455	-8455			
PERENNIAL PLANTS			ANNUAL PLANTS			BIRDS	HERP	MAM			
JUNCA			Sal tra			CORA		CAGS	☒ ☒ ☒ *		
Atr can			Bro ter			HOE1		KRAT			
Yuehre			Sch sp			MO DO		BOTT			
Kra lan			Bratou			RO DO		AGS			
Gui sar			Erocic			CA GU		AVCO			
Chr nau			Bro med			No mo					
Eph cal			Har mur			HO SP	Photographs				
Hef gra			Ambaca			SA PH					
Lysand			Lestern			WE ML					
Atr.c.f. arg.			Hal gla			WCSP					
			rabbit's foot			NOFL					
<b>OBSERVABLE HUMAN DISTURBANCES</b>											
T#	East	North	OHV	Road	Dog	Dump	S Gun	Rifle	Target	Other	"Fort"
1	-0365	8640				Li				.	
2	-0370	-8455			.	Li				:	
3	-0380	8640	.		Li	Li				Li	
4	-0390	-8455				Li				Li	
5	-0400	-8640			Li					Li	.
6	-0410	-8455			.					Li	
7	-0420	-8640	.			Li				Li	
8	-0430	-8455	.			Li				Li	
9	-0440	-8640				Li				Li	
10	-0450	-8455	.			Li				Li	
S 30	0450	8425									
S 60	0360	-8395									
S 90	-0450	-8365									
S 120	-0360	-8335									
S 150	-0450	-8305									
S 200	-0366	-8255									

Berms along W & E boundary of subject property

## Appendix D. Photographic Exhibits

(Locations of the 4 photographic exhibits on the next 2 pages are depicted in Figure 6.)





**Exhibit 1.** APN 3153-022-044: View from the northwest corner of the parcel, facing southeast (see Figure 6 for locations and directions of photographs).



Berm on eastern edge of property

**Exhibit 2.** APN 3153-022-044: View from the southwest corner of the parcel, facing northeast



Berm on western edge of property



**Exhibit 3.** APN 3153-022-044: View from the northeast corner of the parcel, facing southwest.



**Exhibit 4.** APN 3153-022-044: View from the southeast corner of the parcel, facing northwest (berm in foreground)