

**Focused Survey for General Biological Survey and Focused Surveys  
for Desert Tortoise and Burrowing Owl,  
with an Evaluation of Habitat for Mohave Ground Squirrel,  
an Evaluation of Protected Plants  
on a 10-acre± site (TT20450) in the City of Hesperia,  
San Bernardino County, California**

(U.S. Geological Survey 7.5' Hesperia Quadrangle,  
Township 4 North, Range 5 West, the NW¼ of the NE¼ of  
Section 26, S.B.B.&M)

**Job#:** 20-026

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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.

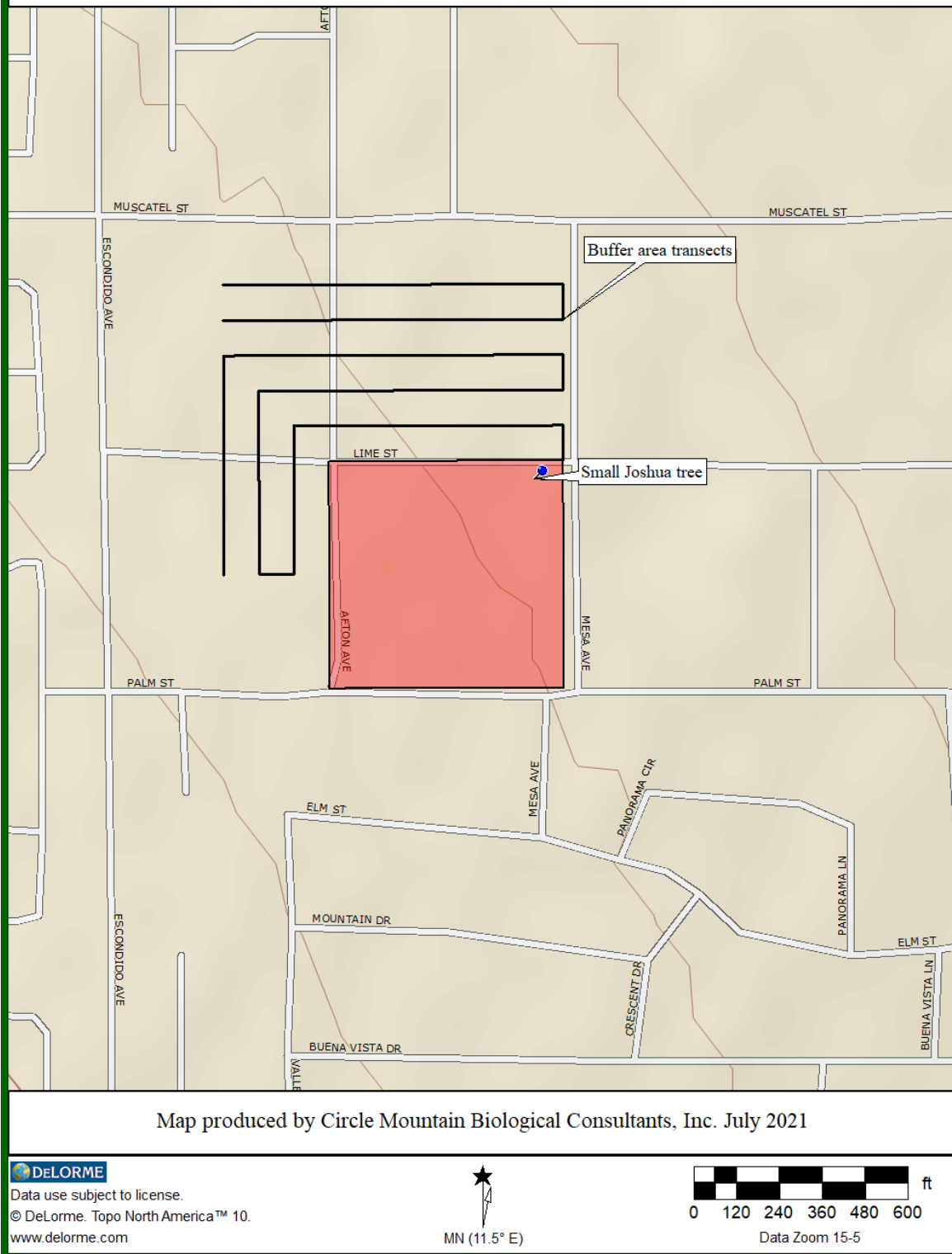
Author and Field Investigator: Sharon Dougherty

July 2020

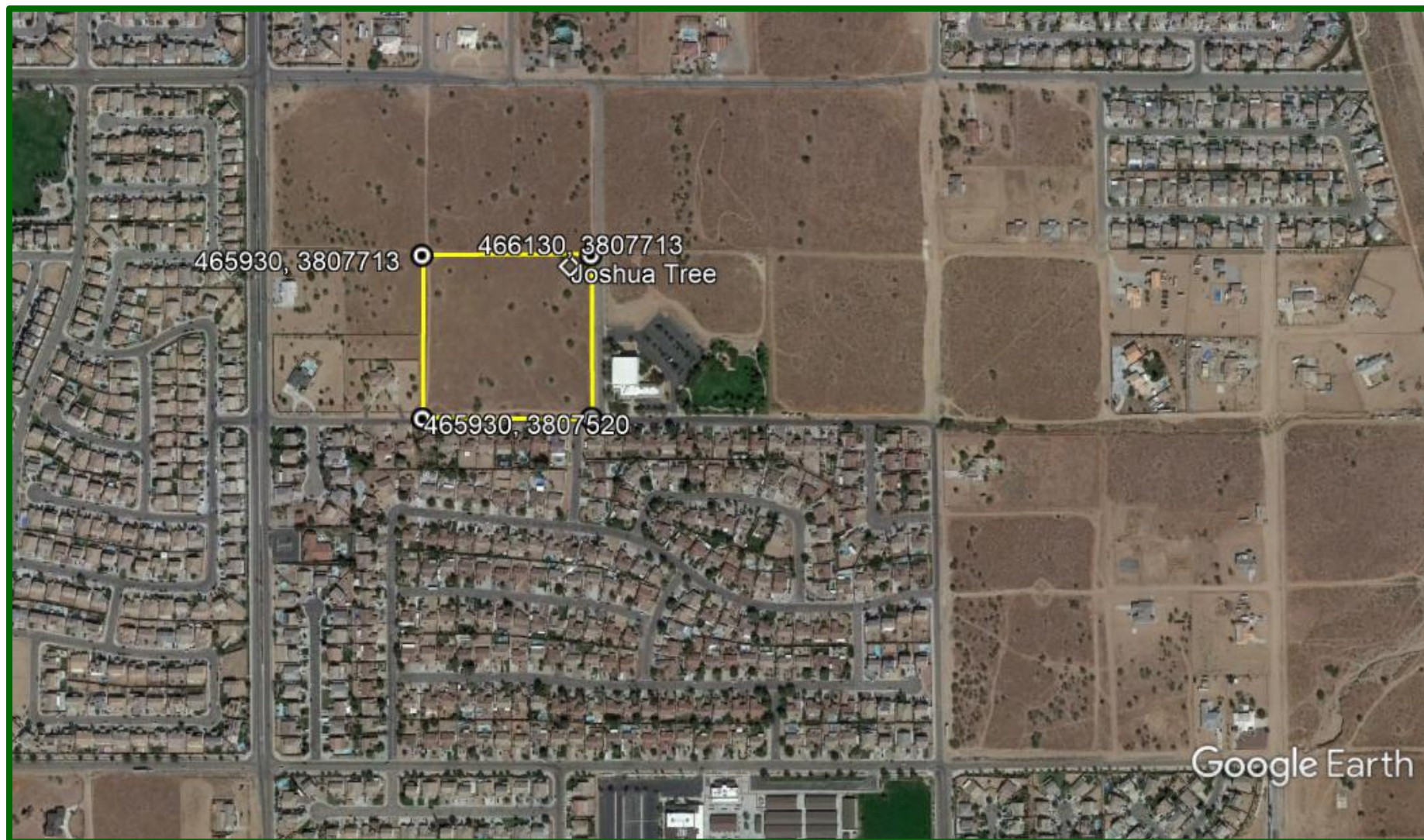
# Figure 1. TT 20450: Vicinity Map



## Figure 2. TT 20450: Site Map



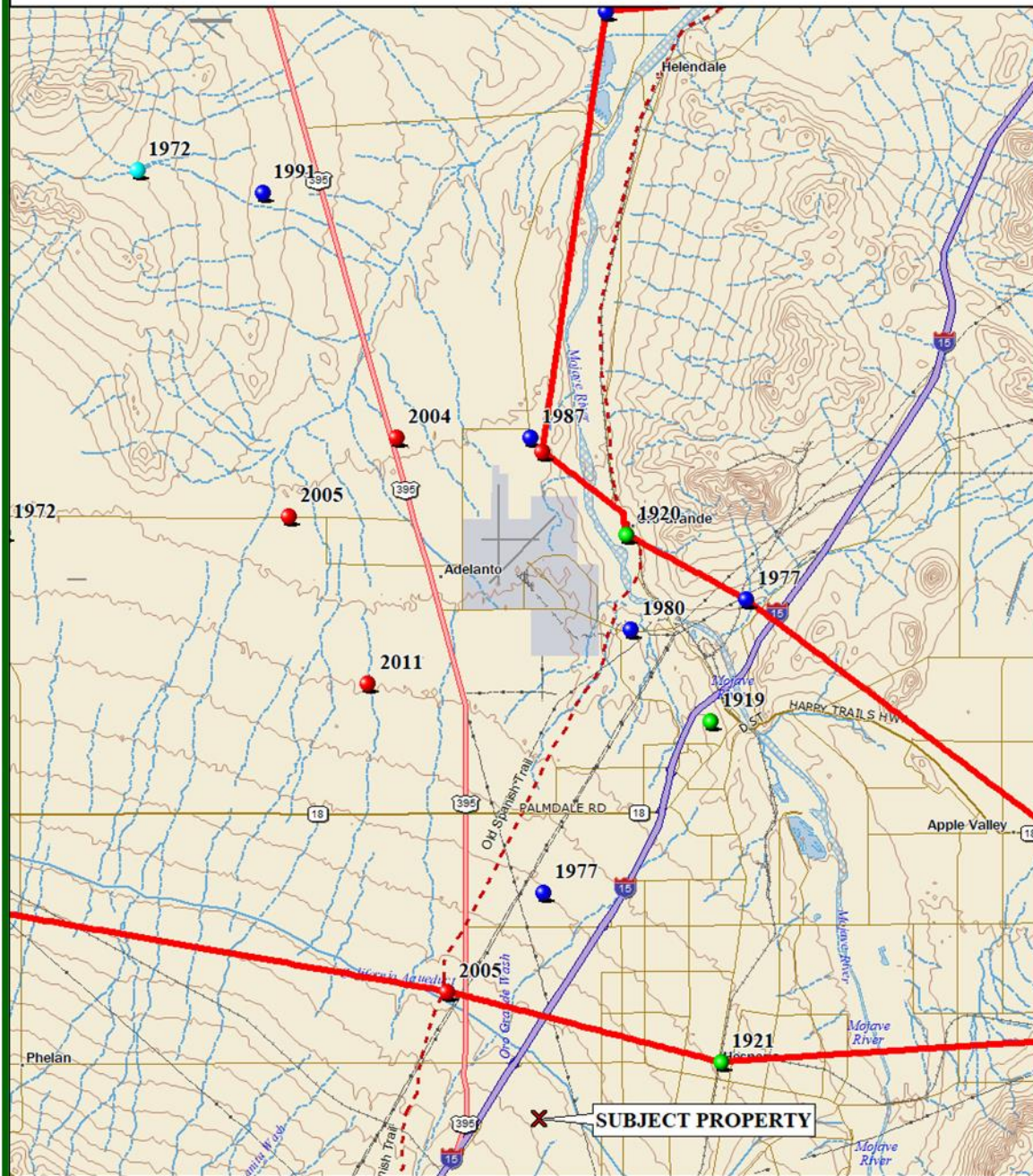




**Figure 3. Aerial Photo of Subject Property**



**Figure 4. Mohave Ground Squirrel Records in Vicinity**



Map produced by Circle Mountain Biological Consultants, Inc. JULY 2021



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## **Executive Summary**

Circle Mountain Biological Consultants, Inc. contracted with by Luis Benites of ZAB, LLC (Proponent) to perform a biological resource assessment on a 10-acre± site located in Hesperia, San Bernardino County, California. Tentative tract 20450 is located on the north side of Palm Street and immediately west of Mesa Avenue in Hesperia. A subdivision of single-family homes with 35 lots ranging from 0.17 to 0.28 acres is planned.

CMBC completed a literature review to determine the nearest records for special status plant and animal species that have been reported from the vicinity of the subject property. The California Natural Diversity Data Base and previous CMBC reports were consulted.

For a total of 2.5 hours on 30 July 2021, Sharon Dougherty of CMBC surveyed the site and adjacent areas. 21 transects, spaced at 10-meter intervals and oriented in a north-south direction were surveyed. In addition, eight zone of influence transects were surveyed for detection of burrowing owls at 30-meter intervals to the north, and to the west.

Nineteen plant species were identified during the survey. The site has been graded at some point in the past, and vegetation is highly disturbed. California juniper is the dominant perennial species. Other shrub species include rubber rabbitbrush, paperbag bush, Nevada joint-fir, and Cooper's goldenbush. Annual plants found include mostly invasive, exotic, or native species adapted to disturbance. Most annual species would likely not have been detectable during a summer survey since they germinate in the early spring months and do not persist. One reptile, 11 bird, and 3 mammal species were identified during the survey.

Joshua tree is a candidate for listing as Endangered under the California Endangered Species Act. One small Joshua tree (approximately 6 inches tall) with two stems was found on the subject property, near the northeastern corner of the site. The City of Hesperia may require a Protected Plant plan. CMBS recommends that the small tree be retained in place, if possible. Protective temporary fencing could be installed to prevent accidental damage during construction activities.

CMBC concludes that tortoises are absent from the subject property, and the vicinity. No evidence of burrowing owl was found, and the species is currently absent. CMBC considers that Mohave ground squirrels are unlikely to occur on the site or vicinity. Trapping surveys are not considered necessary, although the California Department of Fish and Wildlife should be contacted for concurrence with this conclusion. No other special status species are expected to occur.

No drainages or washes are found on the property, and no wetlands delineations are needed.

The California Fish and Game Code prohibits 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).

## Table of Contents

Figure 1. TT 20450: Vicinity Map .....	i
Figure 2. TT 20450: Site Map with Transect and Rare Species Locations.....	ii
Figure 3. TT 20450: Aerial Photograph (©2019Google™ Earth).....	iv
Figure 4. Known Mohave Ground Squirrel Locations.....	v
Executive Summary .....	vi
1.0. Introduction.....	1
1.1. Purpose and Need for Study .....	1
1.2. Project Description.....	1
2.0. Methods.....	1
2.1. Literature Review.....	1
2.2. Field Survey .....	2
3.0. Results.....	3
3.1. Common Biological Resources.....	3
3.1.1. Common Flora .....	3
3.1.2. Common Fauna.....	4
3.2. Uncommon Biological Resources.....	4
3.2.1. Agassiz’s Desert Tortoise .....	4
3.2.2. Other Special Status Species.....	5
3.3. Other Protected Biological Resources .....	7
3.3.1. Stream Courses .....	7
3.3.2. Protected Plant Species .....	8
4.0. Conclusions and Recommendations .....	9
4.1. Impacts to Agassiz’s Desert Tortoise and Proposed Mitigation.....	9
4.2. Impacts to Other Biological Resources and Proposed Mitigation .....	9
5.0. Literature References .....	10
Appendix A. Plant Species Detected .....	13
Appendix B. Animal Species Detected.....	15
Appendix C. Field data sheets completed on 30 July 2021 .....	17
Appendix D. Photographic Exhibits .....	19

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San Bernardino County, California**

**1.0. Introduction**

1.1. Purpose and Need for Study. Circle Mountain Biological Consultants, Inc. (CMBC) was contacted by Luis Benites of ZAB, 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 10-acre± site located in San Bernardino County, California (see Figures 1 and 2). This report has been prepared, in part, according to County of San Bernardino's *Report Protocol for Biological Assessment Reports* (County of San Bernardino 2006).

As the California Environmental Quality Act (CEQA) Lead Agency, the City of Hesperia 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. TT 20450 is a 10-acre± site located on the north side of Palm Street and immediately west of Mesa Avenue in the City of Hesperia, San Bernardino County, California (see Figures 1 and 2). The legal description for the subject property is Township 4 North, Range 5 West, the NW¼ of the NE¼ of Section 26, S.B.B.&M. A subdivision of single-family homes with 35 lots ranging from 0.17 to 0.28 acres is planned.

**2.0. Methods**

2.1. Literature Review. CMBC reviewed materials included in our library to determine the nearest special status plant and animal species that have been reported from the vicinity of the subject property. The California Natural Diversity Data Base (California Department of Fish and Wildlife 2021a) was also consulted for the Hesperia and six surrounding USGS quadrangles (Victorville, Apple Valley North, Apple Valley South, Lake Arrowhead, Silverwood Lake, Cajon, Baldy Mesa, and Adelanto).



## 2.2. Field Survey.

2.2.1. *Survey and Habitat Assessment Protocols.* For **Agassiz's desert tortoise**, CMBC followed the presence-absence survey protocol first developed by the USFWS (1992) and revised in 2018. USFWS (2018) protocol recommends surveying transects at 10-meter (30-foot) intervals throughout all portions of a given parcel and its associated action area. The *action area* is defined by regulation as all areas to be affected directly or indirectly by proposed development and not merely the immediate area involved in the action (50 CFR §402.02). For this site, the action area is considered to be the same as the subject property.

For **burrowing owl**, although the formal habitat assessment does not specify a given interval to survey a site (Appendix C in CDFG 2012), subsequent breeding and nonbreeding studies identify that transects are surveyed at 7 to 20 meters (23 to 65 feet) apart, with five additional transects surveyed at 30-meter intervals out to 150 meters (500 feet) in adjacent areas in potential habitat (i.e., excluding areas substantially developed for commercial, residential, and/or industrial purposes) (Appendix D in CDFG 2012). With its narrower transect intervals, the tortoise survey is sufficient to cover the site for burrowing owl. 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).

For **Mohave ground squirrel**, some jurisdictions require that habitat assessments be performed by individuals certified by CDFW for trapping the species. Ed LaRue who performed the fieldwork and drafted this assessment possesses a Mohave ground squirrel Memorandum of Understanding with CDFW, dated December 2016 as an attachment to scientific collecting permit (SC-001544), which expires in December 2019. The primary assessment herein asks the following questions: (1) Is the site within the range of the species? (2) Is there native habitat with a relatively diverse shrub component? And, (3) is the site surrounded by development and therefore isolated from potentially occupied habitat?

2.2.2. *Field Survey Methods.* For a total of 2.5 hours, between 0715 and 0945 on 30 July 2021, Sharon Dougherty of CMBC surveyed the site and adjacent areas as described herein. This entailed a survey of 21 transects, spaced at 10-meter intervals and oriented in a north-south direction throughout the 10-acre± parcel. As depicted in Figure 2, eight zone of influence transects were surveyed for detection of burrowing owls at 30-meter intervals to the north, and to the west where possible. Other areas not surveyed are occupied by fenced properties or residences, and a community center to the east. Copies of CMBC's data sheet completed in the field and USFWS' (2020) pre-project survey data sheet are included in this report (see Appendix C).

As the site was surveyed, Dougherty kept tallies of observable human disturbances encountered on each of the transects she surveyed. The results of this method provide *encounter rates* for observable human disturbances. For example, two roads observed on each of 21 transects would yield a tally of 44 roads (i.e., two roads encountered 21 times).

Habitat quality, adjacent land uses, and this disturbance information 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.

Weather conditions at the beginning of the survey included a temperature measured approximately 5 centimeters above the ground of 74°F (23°C), with 10% cloud cover, and no wind as measured by a hand-held Kestrel® weather and wind speed meter. Weather conditions at the end of the survey included a temperature of 92°F (33°C), with 75% cloud cover, and average winds of 4 miles per hour and gusts up to 6 miles per hour out of the southwest.

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, rare species locations, 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 5. ©2019 Google™ Earth was accessed via the internet to provide recent aerial photographs of the subject property and surrounding areas (Figure 3).

### 3.0. Results

3.1. Common Biological Resources. The common plant and animal species identified during the survey are listed in Appendices A and B, respectively. Based on DeLorme Topo USA® 10.0 software, elevations on the subject property range from approximately 3,569 feet (1,088 meters) at the northwest corner down to 3,559 feet (1,085 meters) at the southeast corner. Terrain is relatively flat. Soils are sandy loam. No USGS-designated blue-line streams or other drainages occur on-site.

3.1.1. *Common Flora*. The 19 plant species identified during the survey are listed in Appendix A. The site has been graded at some point in the past, and vegetation is highly disturbed. Approximately 21 California junipers (*Juniperus californica*) are present. Other dominant perennials include rubber rabbitbrush (*Ericameria nauseosus*), paperbag bush (*Sambucus nigra* ssp. *caerulea*), Nevada joint-fir (*Ephedra nevadensis*), and Cooper's goldenbush (*Ericameria cooperi* var. *cooperi*). Adjacent areas support mature Joshua trees (*Yucca brevifolia*), but only one young Joshua tree was found on the site. (See Figures 2 & 3 and Exhibit 5).

Annual plants are mostly invasive, exotic species or native plants adapted to disturbance. Non-native species include red-stemmed filaree (*Erodium cicutarium*), Saharan mustard (*Brassica tournefortii*), cheat grass (*Bromus tectorum*), hare barley (*Hordeum murinum*), and Mediterranean split-grass (*Schismus* sp.). Native annual plants include rattlesnake weed (*Euphorbia albomarginata*), Saharan mustard (*Brassica tournefortii*), telegraph weed (*Heterotheca grandiflora*), and Lemmon's lessingia (*Lessingia lemmonii*). Most annual species would likely not have been detectable during a summer survey since they germinate in the early spring months and do not persist.

3.1.2. *Common Fauna*. The one reptile, 11 bird, and 3 mammal species identified during the survey are listed in Appendix B. These include side-blotched lizard (*Uta stansburiana*), Audubon cottontail (*Sylvilagus audubonii*), coyote (*Canis latrans*), ash-throated flycatcher (*Myiarchus cinerascens*), red-tailed hawk (*Buteo jamaicensis*), horned lark (*Eremophilis alpestris*), California thrasher (*Toxostoma redivivum*), and others. Several species are associated with disturbed habitats, including California ground squirrel (*Otospermophilus beecheyi*), common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottus*), rock dove or pigeon (*Columba livia*), and house sparrow (*Passer domesticus*).

### 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 *Gopherus 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 onsite or in adjacent areas during this focused, protocol survey for the species (USFWS 2018). Based on the absence of tortoise sign on the subject property, in adjacent areas, and reported from the region, CMBC concludes that the Agassiz’s desert tortoise is absent from the subject property and action area. 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) vehicle tracks (289 encounters), dirt roads (24 encounters), dump sites (13), pet waste (1).

With the publication of the BLM’s (2016) Record of Decision, the Desert Renewable Energy Conservation Plan (DRECP) revised the 1980 California Desert Conservation Area Plan (CDCA Plan; BLM 1980) in significant ways for the conservation and recovery of desert tortoises in the California Deserts. Although desert tortoise critical habitat was not changed (USFWS 1994a), Desert Wildlife Management Areas (DWMAs; USFWS 1994b) and Multiple Use Classes on BLM lands were eliminated. In addition to critical habitat, the two main designated areas under the DRECP CDCA Plan amendment that provide for tortoise conservation and recovery are Areas of Critical Environmental Concern (ACECs) and California Desert National Conservation Lands (CDNCLs).

The subject property is approximately eight miles west of the nearest CDNCL-designated lands. As per the official DRECP website ([www.drecp.org](http://www.drecp.org)) and Appendix B, which depicts boundaries of management areas, the subject property is located 29 miles west-southwest

of the nearest desert tortoise ACEC. The site is not found within Agassiz's desert tortoise critical habitat, which was designated in 1994 (U.S. Fish and Wildlife Service 1994a). The nearest critical habitat area is the Ord Rodman Critical Habitat Unit, which coincides with the above ACEC.

3.2.2. *Other Special Status Species.* U.S. Fish and Wildlife Service (2008), California Department of Fish and Wildlife [CDFW 2021a for California Natural Diversity Data Base; 2020b for Special Plant Species list; 2019 for Special Animal Species list; and California Native Plant Society (CNPS 2020)] maintain lists of animals and/or plants considered rare, threatened, or endangered, which are herein collectively referred to as "special status species." No special status species other than a very small Joshua tree were identified during the current survey. Special status species for which suitable habitat is present on the site or in adjacent areas are considered below.

**Joshua trees** (*Yucca brevifolia*) are a candidate for listing as Endangered under the California Endangered Species Act. They are protected while under review, which should be completed by 22 September 2021. One small Joshua tree (approximately 6 inches tall) with two stems was found on the subject property, near the northeastern corner of the site. (See Figures 2 & 3, and Exhibit 5.) Mature and young Joshua trees are present on adjacent properties.

**Mojave milkweed** (*Aesclepias nyctaginifolia*) is a perennial herb, a CNPS List 2B.1 sensitive plant. It has been reported from approximately 6.8 miles southwest of the subject property. Habitat in the vicinity is suitable. The species was not detected during site surveys, and is expected to be absent from the site, likely due to past grading.

**White pygmy poppy** (*Canbya candida*) is a perennial herb, a CNPS List 4.2 sensitive plant. It has no legal protections. It has been reported from approximately 7.4 miles southeast of the subject property. Habitat in the vicinity is suitable. The species blooms from March to June and would not have been detectable during site surveys. It is expected to be absent from the site, due to past grading and continued disturbance.

**Booth's evening primrose** (*Eremothera boothii* ssp. *boothii*) is an annual herb, a CNPS List 2B.3 sensitive plant. The CNDDDB report shows six records for the species on the Hesperia and six surrounding USGS quadrangles. The closest record is about 3.3 miles south of the subject property from 1989. The species blooms from April to September. It was not detected during the survey and is considered absent from the site.

**Short-joint beavertail cactus** (*Opuntia basilaris* var. *brachyclada*), a CNPS List 1B.2 sensitive plant. It has been reported 42 times in the CNDDDB. The closest record is about 4 miles to the southeast, in 2018. This plant was not detected during the survey of the site and is considered absent.

**Coast horned lizard** (*Phrynosoma blainvillii*), a California Species of Special Concern, has been recorded 18 times in the CNDDDB (CDFW 2021) report for the Hesperia and surrounding six quadrangles. There are two records from the City of Hesperia. The species was not observed during site surveys and is considered absent.



**Cooper's hawk** (*Accipiter cooperi*) is a seasonal raptor that is designated as a Watch List species by CDFW (2021). The CNDDDB has two recorded observations. The closest record is approximately 2.4 miles to the east. There are no nesting sites on the subject property, since Cooper's hawks typically place their nests in trees at least 25 feet in height. The species preys on small and medium-sized birds and could hunt on the property.

**Golden eagle** (*Aquila chrysaetos*) is identified as a BLM Sensitive species, as a Watch List and Fully Protected species by CDFW (2021), and as a Bird of Conservation Concern by the USFWS (2008). The CNDDDB (CDFW 2021) reports that the species is present in the region, but no specific active locations are provided. There are no suitable nesting sites for golden eagles, but it is possible that eagles could forage over the subject property and adjacent areas.

**Loggerhead shrike** (*Lanius ludovicianus*) is designated as a California Species of Special Concern by CDFW (2021) and a Bird of Conservation Concern by the USFWS (2008). The CNDDDB report for the Hesperia and surrounding six quadrangles (2021) includes 4 records of loggerhead shrikes. The closest record is about 3.8 miles to the north-northwest from 2010. There are both suitable nesting and foraging substrates for loggerhead shrikes throughout the subject property, but the species was not detected during site surveys.

**Burrowing owl** (*Athene cunicularia*) has been reported 61 times in the CNDDDB from the Hesperia and surrounding six USGS quadrangles. There are no records from south of the site. The closest observations are 2.9 miles west of the site in 1989 and 2.6 miles north in 2006. Burrowing owl is one of the focal species specifically sought during field surveys. Diagnostic signs of this species include regurgitated pellets with small reptile and/or mammal bones, or those that are primarily composed of insect parts. There may also be distinctive feathers, zygodactyl (x-shaped) tracks, and whitewash, although fecal material deposited away from burrows may be from other bird species. Although pellets and feathers are sufficiently distinctive that they may be identified away from burrows, it is one or more of these signs at sufficiently large burrows that are the most definitive means of determining burrowing owl use of a given site.

In the case of the subject property, there was no evidence of burrowing owl. Burrowing owls do not create their own burrows; rather they find existing burrows, which they may slightly modify in order to occupy. Typical existing burrows used by burrowing owls include abandoned kit fox dens, both active and inactive tortoise burrows, deeper badger digs, and inactive California ground squirrel burrows. Although California ground squirrel burrows are abundant on the site, and habitat is marginally suitable, the species appears to be absent at present.

**American badger** (*Taxidea taxus*) is a California Species of Special Concern. It has been reported twice from the Hesperia and surrounding six quadrangles. The site is too isolated from larger areas of habitat to support American badger, and no evidence of the species was found during site surveys. Badger is considered absent.

**Townsend's big-eared bat** (*Corynorhinus townsendii*) is designated as a BLM Sensitive species and is proposed as a Candidate Threatened species by the California Fish and Game Commission (CDFW 2019). Found throughout California in a wide variety of habitats, most common in mesic sites, the species roosts in the open, hanging from walls and ceilings. Roosting sites are a limiting factor, and Townsend's big-eared bats are extremely sensitive to human disturbance. The CNDDDB report (CDFW 2021) has one record for the species. No roosting sites are present on the site, although the species could forage there, if it occurs in the vicinity.

**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 both instances that listing was not warranted at those times. 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 habitats?

Figure 4 shows known locations of Mohave ground squirrels relative to the subject property (CDFW 2020a) and the suspected range of the species (Gustafson 1993; U.S. Bureau of Land Management 2005). The nearest reported occurrence was approximately 3.5 miles northwest where a squirrel was found in 2005. Other proximate occurrences have been 4.2 miles northeast (1921), 5.0 miles north-northwest (1977).

When a line is drawn to connect the known occurrences to determine the approximate range of the species (the "red line" in Figure 5 from U.S. Bureau of Land Management 2005), the site is approximately 2¼ miles south of the extrapolated southern boundary, or approximately 2¼ miles outside the suspected species range.

Mohave ground squirrel has been reported between 550 meters and 1,710 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). Although at 1,088 meters elevation, the site is within the known elevational range of the species, there are no suitable habitats on the subject property to support the species. There is a relatively low level of diversity of native perennial plants, with about five shrub species identified. Finally, the subject property is located within an area that is largely developed, although there are vacant lands interspersed with residential areas.

Given the above information, CMBC concludes that the Mohave ground squirrel is not expected to occur on the subject property.

### 3.3. Other Protected Biological Resources.

3.3.1. *Stream Courses.* There are no washes or drainages located on the subject property.

3.3.2. *Protected Plant Species*. At the County level, the San Bernardino County Development Code was revised and adopted on 12 April 2007. Chapter 88.01 Plant Protection and Management, Section 88.01.020 states, “The provisions of this Chapter apply to the removal and relocation of regulated trees or plants and to any encroachment (for example, grading) within the protected zone of a regulated tree or plant on all private land within the unincorporated areas of the County and on public lands owned by the County, unless otherwise specified...”

Section 88.01.060 Desert Native Plant Protection states, “This Section provides regulations for the removal or harvesting of specified desert native plants in order to preserve and protect the plants and to provide for the conservation and wise use of desert resources...”

Section 88.01.060(c) Regulated Desert Native Plants states, “The following desert native plants or any part of them, except the fruit, shall not be removed except under a Tree or Plant Removal Permit in compliance within Section 88.01.050 (Tree or Plant Removal Permits):

- (1) The following desert native plants with stems two inches or greater in diameter or six feet or greater in height:
  - (A) *Dalea spinosa* (smoke tree).
  - (B) All species of the genus *Prosopis* (mesquites).
- (2) All species of the family *Agavaceae* (century plants, nolinias, yuccas).
- (3) Creosote Rings, 10 feet or greater in diameter.
- (4) All Joshua trees.
- (5) Any part of the following species, whether living or dead:
  - (A) *Olneya tesota* (desert ironwood).
  - (B) All species of the genus *Prosopis* (mesquites).
  - (C) All species of the genus *Cercidium* (palo verdes).”

At the State level, the 1998 Food and Agricultural Code, Division 23: California Desert Native Plants, Chapter 3: Regulated Native Plants Act, 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) *Senegalia (Acacia) greggii* (catclaw acacia).
- (g) *Atriplex hymenelytra* (desert holly).
- (h) *Dalea (Psoralea) spinosa* (smoke tree).
- (i) *Olneya tesota* (desert ironwood), including both dead and live desert ironwood.

Joshua tree is the only plant species included in one or both of the above lists that was observed on the subject property.

## 4.0. Conclusions and Recommendations

4.1. Impacts to Agassiz's Desert Tortoise and Proposed Mitigation. Based on the absence of tortoise sign onsite and in adjacent areas, and available 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.

Whereas the USFWS 2010 survey protocol indicated that the results of a given survey were valid for the period of only one year, according to the revised USFWS (2018) pre-project survey protocol, *"If the survey data are more than a year old, we encourage project proponents to contact us at the earliest possible time to allow us to assess the specific circumstances under which the data were collected (e.g., time of year, drought/rainfall conditions, size and location of the site, etc.) and to discuss whether additional surveys would be appropriate. Spatial information can be provided in pdf and GIS formats."* At the time of this writing, Scott Hoffman in the Palm Springs office of the USFWS would be the best person to contact at (760) 322-2070 x 413 or emailed at [scott\\_hoffman@fws.gov](mailto:scott_hoffman@fws.gov).

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

Importantly, nothing given in this report, including recommended mitigation measures, is intended to authorize the incidental take of Agassiz's desert 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].

### 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 special status species reported from the region will be adversely affected by site development. As such, no adverse impacts have been identified and no mitigation measures are recommended.

Only Joshua tree has been identified during the current survey or for which suitable habitats are present. CMBS recommends that the small tree be retained in place, if possible. Protective temporary fencing could be installed to prevent accidental damage during construction activities.

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 the species is unlikely to occur. Although it is CMBC's professional opinion that Mohave ground squirrel is likely absent from the site,



it is prudent to have the California Department of Fish and Wildlife review this report to agree or disagree with this finding.

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

4.2.2.a. Protected Plants. Joshua tree is the only species found on-site that may be subject to pertinent development codes. It has been discussed above.

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.

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## Appendix A. Plant Species Detected

The following plant species were identified on-site during the focused floral inventory described in this report. Protected plant species are highlighted in red and signified by “(PPS)” following the common names. The species found only in adjacent areas are signified by “+.”

### CONIFERAE

#### **Cupressaceae**

*Juniperus californica*

### GNETAE

#### **Ephedraceae**

*Ephedra nevadensis*

### ANGIOSPERMAE: DICOTYLEDONES

#### **Asteraceae**

*Ambrosia acanthicarpa*

*Ericameria cooperi* var. *cooperi*

*Ericameria (Chrysothamnus) nauseosus*

*Heterotheca grandiflora*

*Lessingia lemmonii*

#### **Brassicaceae**

\**Brassica tournefortii*

#### **Euphorbiaceae**

*Euphorbia albomarginata*

#### **Geraneaceae**

\**Erodium cicutarium*

#### **Lamiaceae**

*Sambucus nigra* ssp. *caerulea* (*Salazaria mexicana*)

#### **Polygonaceae**

*Eriogonum davidsonii*

*Eriogonum fasciculatum*

#### **Viscaceae**

*Phoradendron juniperinum*

### CONE-BEARING PLANTS

#### **Cypress family**

California juniper

### GNETAE

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

Nevada joint-fir

### DICOT FLOWERING PLANTS

#### **Sunflower family**

Annual bur-sage

Cooper's goldenbush

Rubber rabbitbrush

Telegraph weed

Lemmon's lessingia

#### **Mustard family**

Saharan mustard

#### **Spurge family**

Rattlesnake weed

#### **Geranium family**

Red-stemmed filaree

#### **Mint family**

Paper-bag bush

#### **Buckwheat family**

Davidson buckwheat

California buckwheat

#### **Mistletoe family**

Juniper mistletoe



ANGIOSPERMAE: MONOCOTYLEDONES

MONOCOT FLOWERING PLANTS

**Liliaceae**

*Yucca brevifolia*

**Lily family**

Joshua tree (PPS)

**Poaceae**

\**Bromus tectorum*

\**Hordeum murinum*

\**Schismus* sp.

+*Stipa (Achnatherum) speciosa*

**Grass family**

Cheat grass

Hare barley

Split-grass

Desert needlegrass

\* - 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.

### REPTILIA

#### **Iguanidae**

*Uta stansburiana*

### AVES

#### **Accipitridae**

*Buteo jamaicensis*

#### **Columbidae**

*Columba livia*

*Zenaida macroura*

#### **Trochilidae**

?

#### **Tyrannidae**

*Myiarchus cinerascens*

#### **Alaudidae**

*Eremophila alpestris*

#### **Corvidae**

*Corvus corax*

#### **Mimidae**

*Mimus polyglottos*

*Toxostoma redivivum*

#### **Fringillidae**

*Carpodacus mexicanus*

#### **Passeridae**

*Passer domesticus*

### MAMMALIA

#### **Leporidae**

*Sylvilagus audubonii*

### REPTILES

#### **Iguanids**

Common side-blotched lizard

### BIRDS

#### **Hawks, eagles, harriers**

Red-tailed hawk

#### **Pigeons and doves**

Rock dove

Mourning dove

#### **Hummingbirds**

Unidentified hummingbird

#### **Tyrant flycatchers**

Ash-throated flycatcher

#### **Larks**

Horned lark

#### **Crows and jays**

Common raven

#### **Mockingbirds and thrashers**

Northern mockingbird

California thrasher

#### **Finches**

House finch

#### **Weavers**

House sparrow

### MAMMALS

#### **Hares and rabbits**

Audubon cottontail

**Sciuridae***Otospermophilus beecheyi***Canidae***Canis latrans***Squirrels**

California ground squirrel

**Foxes, wolves and coyotes**

Coyote

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 30 July 2021

The USFWS and County recommend that consultants include copies of the data collected in the field from which the results and conclusions given in their reports are derived. As such, below and on the following page are copies of the data sheets completed by Sharon Dougherty on 30 July 2021.

Version: October 8, 2019

Date of survey: 30 July 2021 Survey biologist(s): Sharon Dougherty 760-792-6293  
(day, month, year) (name, email, and phone number)

Site description: Hesperia TTM 20450 10 acres  
(project name and size; general location)

County: San Bernardino Quad: Hesperia Location: 0466130, 3807713  
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or sampling Area size to be surveyed: 10 acres Transect #: 21 Transect length: 795 m

GPS Start-point: 0466930, 3807520 Start time: 0715 am/pm  
(easting, northing, elevation in meters)

GPS End-point: 0466130, 3807713 End time: 0945 am/pm  
(easting, northing, elevation in meters)

Start Temp: 23 °C End Temp: 33 °C

### Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL ≥180 mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

### Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

JOB #/NAME	DATE	DRIVE TIME		MILES	FIELD TIME		SURVEYORS		
		TO	FROM		BEGIN	END			
Benitez TT20450 21-026	7-30-21	0630	1030	45	0715	0945	S. Dougherty		
WEATHER CONDITIONS (Start/End)				UTM (NAD 83) (circle starting corner)					
TEMP: 74°F WIND X: 0 ↑ 0 NSEW CLOUD: 10%				NE→ NW→ SE→ SW→					
TEMP: 92°F WIND X: 4 ↑ 6 NSEW CLOUD: 15%				<div>466130 465930 465930 466130</div> <div>3807713 3807713 3807519 3807520</div>					
PERENNIAL PLANTS		ANNUAL PLANTS		BIRDS		HERP	MAM		
Chirano		ErociC		CoRA		SB L1	AUCCO		
Sal mex		Bro t L		HO FI			AKAS		
Eri coo		Leslem		NOMO			CAGS		
Eri fas		Eupalb		RTHA			COY		
Ephael		Ambaca		ATFL					
Suncal		Hermur		HOSP					
Het qm		Eri dav (cf)		HOLA					
mtingun		Sch sp		MODO					
Yuc bre 6104	7698	Braton		CATH *		Soils			
		Brang		unid		Photographs			
		Stisp *		RODO					
100N	6130	7743	300W	5840	7803	1	SW → NE		
100W	5900	7743	400N	5840	7833	2	NW → SE		
200W	5890	7617	500N	6130	7863	3	TSpr 6103		
200N	5870	7773				4	SE → NW		
300N	6130	7803				5	NE → SW		
OBSERVABLE HUMAN DISTURBANCES									
T#	East	North	OHV	Road	Dog	Dump	S Gun	Rifle	Target
1	0930	7519				tire			
2	0940	7713							
3	0950	7520							
4	0960	7713							
5	0970	7520							
6	0980	7713							
7	0990	7520							
8	6000	7713							
9	6010	7520				tire			
10	6020	7713							
11	6030	7520				tires			
12	6040	7713				chessat			
13	6050	7520				tire			
14	6060	7713							
15	6070	7520							
16	6080	7713				dirt			
17	6090	7520							
18	6100	7713				concrete			
19	6110	7520							
20	6120	7713							
21	6130	7520				tire			
						Juniper			



## Appendix D. Photographic Exhibits



**Exhibit 1.** View from the southwest corner of the parcel, facing northeast.



**Exhibit 2.** View from the northwest corner of the parcel, facing southeast.





**Exhibit 3.** View from the southeast corner of the parcel, facing northwest.



**Exhibit 4.** View from the northeast corner of the parcel, facing southwest.





**Exhibit 5. Young Joshua Tree near northeast corner of site**