




**BIOLOGICAL RESOURCES REPORT**  
**& FOCUSED SURVEY FOR AGASSIZ'S DESERT TORTOISE,**  
**HABITAT ASSESSMENTS FOR BURROWING OWL &**  
**MOHAVE GROUND SQUIRREL**

1555 WILD ROSE ROAD, TRONA, INYO COUNTY, CALIFORNIA  
15-ACRE± SITE APN 038-300-07-00

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APRIL 2021



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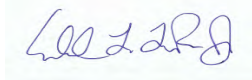
U.S. GEOLOGICAL SURVEY 7.5' TRONA EAST QUADRANGLE, TOWNSHIP 24  
SOUTH, RANGE 43 EAST, A PORTION OF SECTION 28, S.B.B.&M

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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.



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## EXECUTIVE SUMMARY

This Biological Resources Report has been prepared to support Inyo County's California Environmental Quality Act (CEQA) environmental document findings related to biological resources for the Pinnacle Growth Inc., cannabis cultivation project. In addition to a general biological resource assessment, this report includes a focused survey for Agassiz's desert tortoise (DT), and habitat assessments for burrowing owl and Mohave ground squirrel (MGS).

The Pinnacle Growth Inc. project is located on a 15-acre± segment of 80-acre Inyo County APN 038-300-07, located at 1555 Trona Wildrose Road, Trona, CA (see Figures 1 and 2). The project area is located east of Trona Wildrose Rd. and north of Trona Airport Rd. The legal description for the subject property is Township 24 South, Range 43 East, a portion of Section 28, S.B.B.&M.

For a total of 5.0 hours, between 10:15 and 15:15 hours on March 2, 2021, Ed LaRue surveyed the site and adjacent areas as described herein. This entailed a survey of 40 transects, spaced at 10-meter intervals and oriented in an east-west direction throughout the 15-acre± parcel. As depicted in Figure 2, 10 zone of influence transects were surveyed for detection of burrowing owls at 30-meter intervals to the north and east, and were not performed to the south or west due to lack of habitat on fenced private parcels.

Based on DeLorme Topo USA<sup>®</sup> 10.0 software, elevations on the subject property range from approximately 1,700 feet (518 meters) at the northwest corner down to 1,685 feet (513 meters) at the southeast corner. Terrain is flat, soils are sandy, and in many places compacted from years of heavy human uses. A single, barely-perceptible USGS-designated blueline stream occurs on the southern portions of the site. The 35 common plant species identified during the survey, including 28 species onsite and 6 species in adjacent areas, are listed in Appendix A. The site has been heavily impacted by human use, so about half of it is barren and semi-barren, and the other half is vegetated by degraded saltbush scrub. Seven of the 34 plant species (20%) are not native to California. The one reptile, three bird, and six common mammal species identified during the survey are listed in Appendix B.

Based on the absence of tortoise sign onsite and in adjacent areas, and available information reviewed for this habitat assessment, Ed LaRue concludes that tortoises are

absent from the subject property. As such, no impacts are anticipated and no mitigation measures are recommended.

Based on the field survey and habitat assessment, Ed LaRue concludes that none of the following special status species reported from the region will be adversely affected by site development: Crucifixion thorn, burrowing owl, prairie falcon, American badger, kit fox, or Nelson's bighorn sheep. As such, no adverse impacts have been identified and no mitigation measures are recommended.

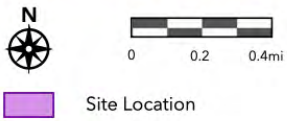
Although a focused Mohave ground squirrel trapping survey was not performed, Ed LaRue assessed habitats and reviewed available information to provide a professional opinion as to the presence or absence of this species on the subject property. Given the information discussed herein, Ed LaRue concludes that habitat loss, degradation onsite, and isolation of the site due to lack of habitats to the west and south have significantly diminished the likelihood of occurrence. Ed LaRue therefore concludes that Mohave ground squirrel is likely absent from the site and that protocol trapping surveys are not warranted. The County and/or CDFW will need to concur with this determination (or not) before the conclusion and decision not to trap are considered final.

As given herein, there are no biological components like mesic-adapted plant species that differentiate a USGS-designated blue-line stream on the southern portion of the site from surrounding upland areas. The County will need to determine if a Streambed Alteration Agreement is warranted for site development.

A single desert holly plant is the only species found on-site that may be subject to pertinent development codes under the California Native Plant Protection Act. It is located in semi-barren areas where its protection would not substantially benefit local floral resources.



Data provided by Inyo County & ESRI

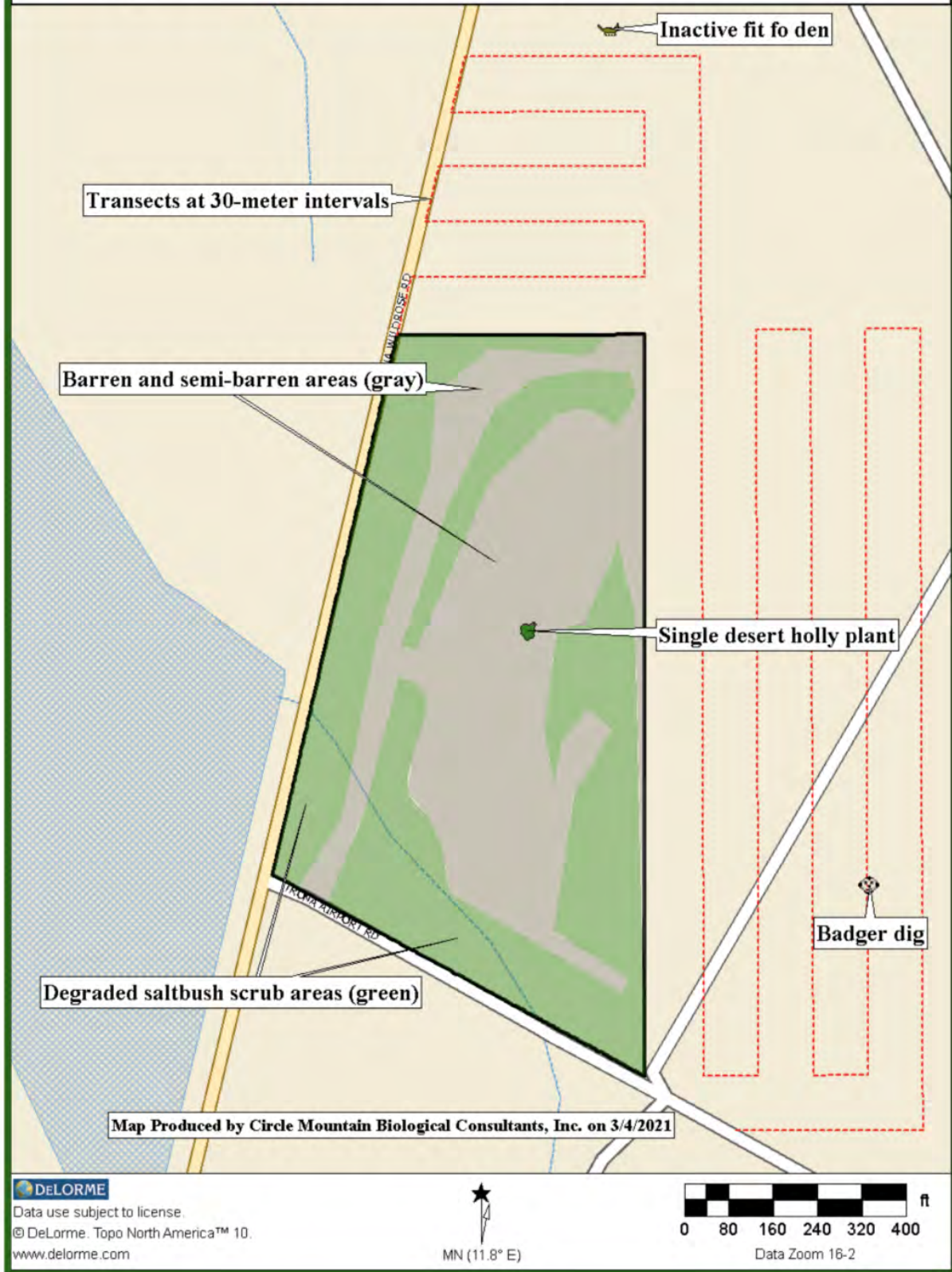


1555 WILD ROSE ROAD, TRONA, INYO COUNTY, CA  
 APN 038-300-07-00

**FIGURE 1 - SITE LOCATION MAP**

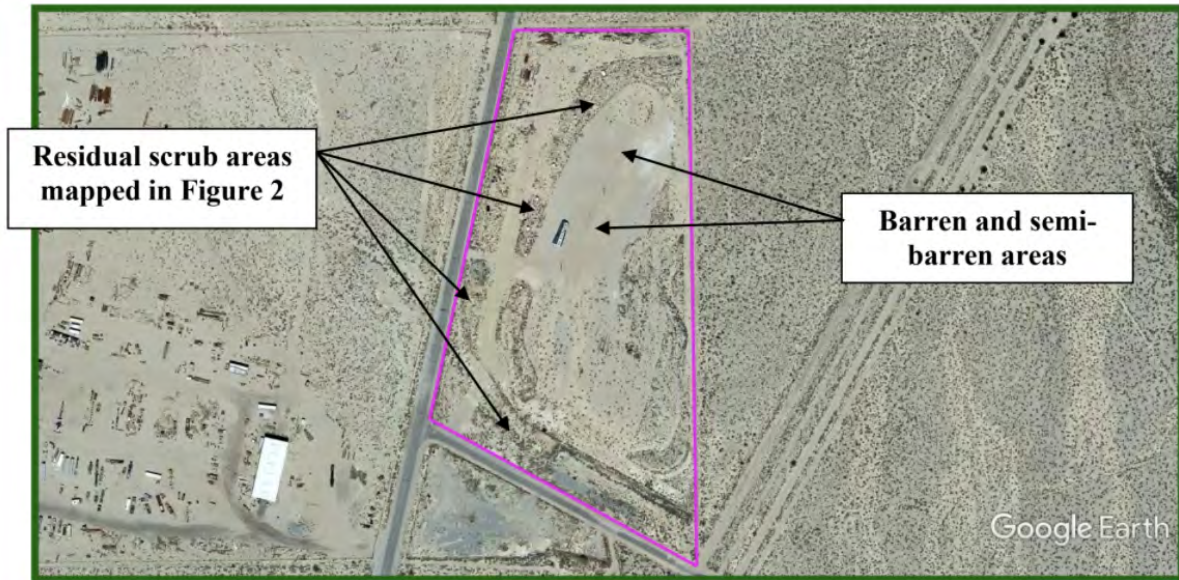


Figure 2. APN 038-300-07-00: Site Map with Transect Locations





**Figure 3. APN 038-300-07-00:  
Aerial Photograph (©2021 Google Earth)**

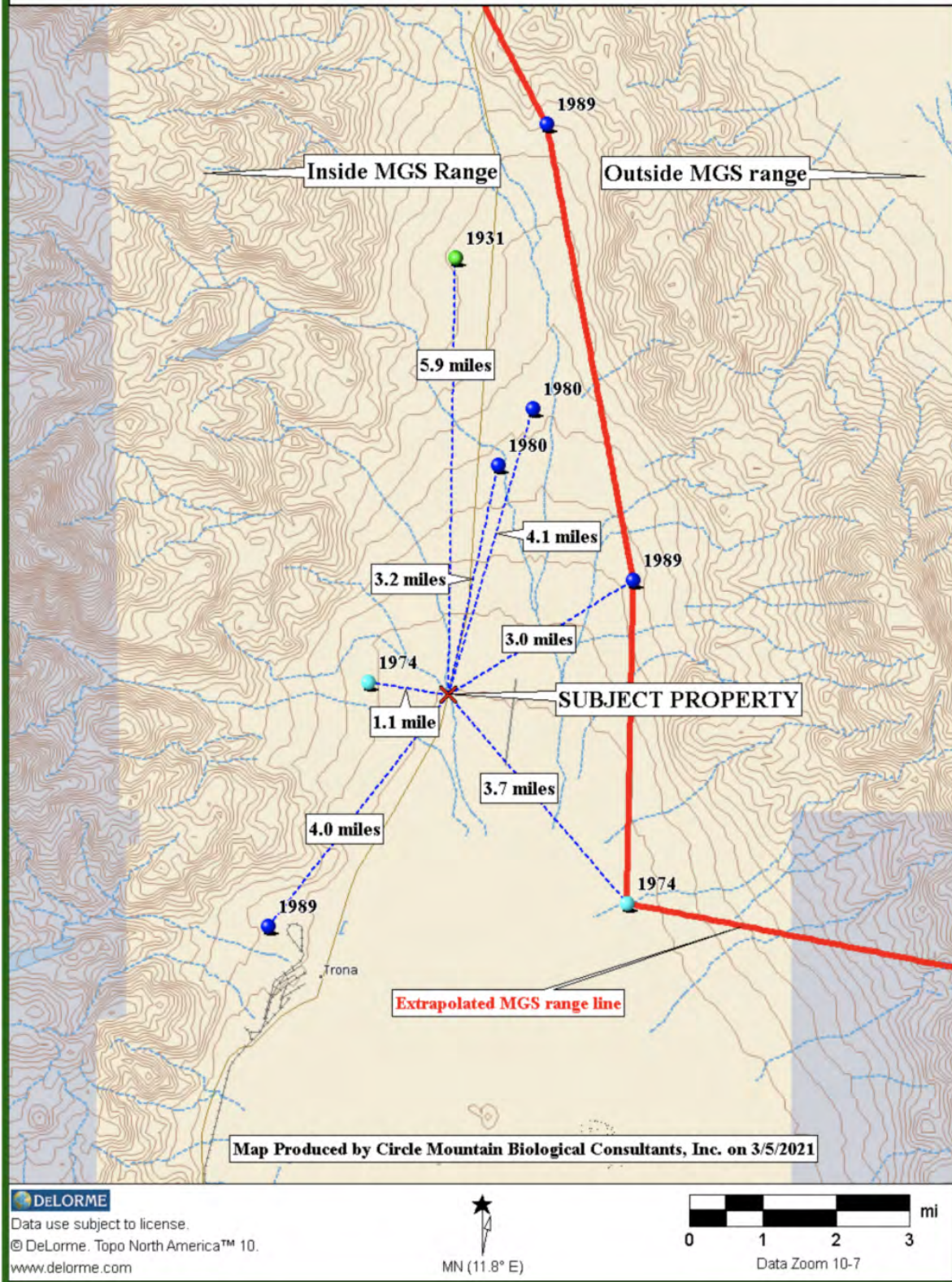


Enlarged aerial view from approximately 2,500 feet altitude (Image date: 8/30/2014)



Regional aerial view from approximately 10,500 feet altitude, showing subject property inside the pink line.

Figure 4. APN 038-300-07-00: Known Mohave Ground Squirrel Locations



## 1.0 INTRODUCTION

### 1.1. Purpose & Need for Study

This Biological Resources Report has been prepared to support Inyo County's California Environmental Quality Act (CEQA) environmental document findings related to biological resources for the Pinnacle Growth Inc., cannabis cultivation project. In addition to a general biological resource assessment, this report includes a focused survey for Agassiz's desert tortoise (*Gopherus agassizii*), and habitat assessments for burrowing owl (*Athene cunicularia*) and Mohave ground squirrel (*Xerospermophilus mohavensis*).

Given the location of the site in an unincorporated portion of the county and because Inyo County does not have specific guidelines for biological reports, 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, Inyo County Planning Department (County) 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 the 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 significant impacts will occur and to identify mitigation measures, if any, to offset those impacts.

### 1.2. Project Description

The Pinnacle Growth Inc. project is located on a 15-acre± segment of 80-acre Inyo County APN 038-300-07, located at 1555 Trona Wildrose Road, Trona, CA. The project area is located east of Trona Wildrose Rd. and north of Trona Airport Rd. The legal description for the subject property is Township 24 South, Range 43 East, a portion of Section 28, S.B.B.&M.

The California Bureau of Cannabis Control (BCC), the agency regulating commercial cannabis licenses, has issued Pinnacle Growth Inc. a Type 12 Microbusiness license (License Number 5E-001) allowing for Indoor Cultivation greater than 5,000 sqft, distribution, Manufacturing Level 1 (type 6 non-volatile), and Manufacturing Level 2 (Type 7 volatile extraction).

The project will be developed in 4 phases:

- Phase 1- Development of 2,300 sq ft small buildings for the nursery and a larger 2,300 sq ft greenhouse for the mother plants.
- Phase 2- Will consist of a large 10,000 sq ft greenhouse for cultivation. Wholesale distribution and non-storefront delivery will also begin in Phase 2.
- Phase 3- The addition of five 10,000 sq ft greenhouses increasing cultivation output.
- Phase 4- The addition of manufacturing level 1( Type 6 non-volatile) and manufacturing level 2 (Type 7 volatile) labs for infusing products and for concentrate production.

## 2.0. METHODS

### 2.1. Literature Review.

Biological data repositories like the California Natural Diversity Database (CNDDDB), an inventory of the status and locations of rare plants and animals in California, was consulted to determine the nearest tortoise locations and other special status plant and animal species that have been reported from the vicinity of the subject property. The primary source of information was taken from the March 2021 version of the CNDDDB (CNDDDB; CDFW 2021a). This 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

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.” Then in 2016 (Edwards et al. 2016), a third species of tortoise was described, referred to as the “Goode’s Thornscrub Tortoise” (*Gopherus evgoodei*), which further reduced the perceived range of Morafka’s desert tortoise. Agassiz’s desert tortoise is the threatened species that occurs in the region surrounding the subject property.

For [Agassiz's desert tortoise](#), Ed LaRue followed the presence-absence survey protocol first developed by the USFWS in 1992 and recently revised in 2019. USFWS (2019) 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. Since the site is smaller than 500 acres, it may be surveyed year-round and there is no opportunity to estimate the density of tortoises on the 15-acre± subject property (USFWS 2019), as no tortoise sign was found.

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 owls. 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 the presence of burrowing owls, which can be conducted any time of the year. Had burrowing owl signs 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 squirrels](#), 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 January 21, 2020 as an attachment to scientific collecting permit (SC-001544), which expires on December 31, 2022. 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 5.0 hours, between 10:15 and 15:15 hours on March 2, 2021, Ed LaRue surveyed the site and adjacent areas as described herein. This entailed a survey of 40 transects, spaced at 10-meter intervals and oriented in an east-west direction throughout the 15-acre parcel. As depicted in Figure 2, 10 zone of influence transects were surveyed for detection of burrowing owls at 30-meter intervals to the north and east, and were not performed to the south or west

due to lack of habitat on fenced private parcels. Copies of data sheets completed in the field and USFWS' (2019) pre-project survey data sheet are included in this report (see Appendix C).

As the site was surveyed, LaRue kept tallies of observable human disturbances encountered on each of the transects he surveyed. The results of this method provide encounter rates for observable human disturbances. For example, two roads observed on each of 10 transects would yield a tally of 20 roads (i.e., two roads encountered 10 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 recorded at the beginning and ending of the survey included temperatures measured approximately 5 centimeters (2.0 inches) above the ground, percent cloud cover, and wind speeds measured by a hand-held Kestrel weather and wind speed meter, as reported in Table 1.

<b>Date 2021</b>	<b>Begin to End = Total hours</b>	<b>Weather Conditions</b>	
		<b>Beginning</b>	<b>Ending</b>
3/2	10:15 to 15:15 = 5.0 hrs	54°F, 1 ↑ 3 mph, 0% cloud	71°F, 2 ↑ 4 mph, 0% cloud

All plant and animal species identified during the survey were recorded in field notes. 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. ©2021Google™ 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 listed in Appendices A and B, respectively. Based on DeLorme Topo USA 10.0 software, elevations on the subject property range from approximately 1,700 feet (518 meters) at the northwest corner down to 1,685 feet (513 meters) at the southeast corner. Terrain is flat, soils are sandy, and in many places compacted from years of heavy human uses. A single, barely-perceptible USGS-designated blueline stream occurs on the southern portions of the site.

### 3.1.1. Common Flora

The 35 common plant species identified during the survey, including 28 species onsite and 6 species in adjacent areas, are listed in Appendix A. The plant community onsite is best characterized as saltbush scrub, where allscale (*Atriplex polycarpa*), spiny saltbush (*Atriplex confertifolia*), and burrobush (*Ambrosia dumosa*) are the codominant species. Less abundant species include individual creosote bush (*Larrea tridentata*), cheesebush (*Ambrosia salsola*), and Torrey's sea-blight (*Suaeda nigra*).

The site has been heavily impacted by human uses. A local resident indicated that the site was used off-and-on as a motocross race track since the 1970's. This longtime use has resulted in pits (Exhibit 3), compacted soils (Exhibit 7), and there are picnic structures (Exhibits 4 and 5), benches (Exhibit 6), and extensive piles of metal debris throughout the site resulting from these historic uses. As mapped in Figure 2, about half of the site is barren and semi-barren (see the top aerial in Figure 4, which was taken in 2014), and the other half is vegetated by degraded saltbush scrub. Seven of the 34 (20%) plant species are not native to California. The presence of Russian thistle (*Salsola tragus*), London rocket (*Sisymbrium irio*), tumble mustard (*Sisymbrium altissimum*), and flixweed (*Descurainia sophia*) are all indicators of highly degraded habitats, and would not be present in pristine or even less-degraded desert areas.

### 3.1.2. Common Fauna

Appendix B lists the species identified during the surveys: one reptile, three birds, and six common mammal species. The one reptile species observed, the common side-blotched lizard (*Uta stansburiana*), is an indication of the relatively early survey period during cooler temperatures. Other locally common reptile species that occur in the region and possibly onsite include zebra-tailed lizard (*Callisaurus draconoides*), long-nosed leopard lizard (*Gambelia wislizenii*), desert horned lizard (*Phrynosoma platyrhinos*), red racer (*Masticophis flagellum*), glossy snake (*Arizona elegans*), gopher snake (*Pituophis melanoleucus*), long-nosed snake (*Rhinocheilus lecontei*), and various rattlesnake species (*Crotalus ssp.*), though habitat degradation may preclude some from occurring.

Only three bird species were observed, including common raven (*Corvus corax*), sage thrasher (*Oreoscoptes montanus*), and Say's phoebe (*Amphispiza belli*), all of which are tolerant of human development. Both ravens and phoebes benefit from human-impacted areas, utilizing degraded substrates for nesting, and ravens, forage for trash and road-killed animals. Sage thrashers are migratory and winter in southern California deserts, and may therefore have been incidentally occurring onsite at the time of the survey.

The six common mammal species that were identified included kangaroo rat (*Dipodomys sp.*), Audubon cottontail (*Sylvilagus audubonii*), black-tailed hare (*Lepus californicus*), coyote (*Canis latrans*), and bobcat (*Lynx rufus*), all of which are regularly detected in urbanizing areas. Wild burro (*Equus astinus*) droppings are common, particularly in adjacent areas, but even within the mostly-fenced site, are relatively common. As described below, American badger and kit fox, which are special status mammal species were detected east and north of the site, respectively, but there was no evidence of them onsite, which is further evidence, particularly for badgers, of habitat degradation throughout the site.

## 3.2. Uncommon Biological Resources

### 3.2.1. Agassiz's Desert Tortoise

No tortoise sign was found either onsite or in adjacent areas during this focused, protocol survey for the species (USFWS 2019). In March 2017, an adult tortoise was observed crossing a road approximately 4,000 feet west of the site, which was the only reported occurrence to the California Natural Diversity Database (CDFW 2021a). Based on the absence of tortoise sign on the subject property and in adjacent areas, and the extreme degradation of the site and adjacent areas to the south, west, and somewhat to the north, Ed LaRue concludes that 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 the west or south and limited likelihood from the north and east, either to pass through the site or establish residency.

Although encounter rates for observable human disturbances included (in descending order of prevalence) 90 off-highway vehicle (OHV) tracks, 19 roads, 7 dump sites, and 3 domestic dog signs, these tallies do not capture the full extent of impacts that have occurred onsite for decades. OHV track tallies were suspended on the northern 15 of 40 transects because they were too common to tally and occurred in otherwise barren areas, devoid of native scrub. There are pits, and although only seven dump sites were tallied, there are dozens of debris piles comprised of metal objects like vehicle parts that were also not tallied but indicate that the site has been used for years as a "boneyard," for depositing materials that may or may not be used in the future. Collectively, historic and current uses are sufficient to have eliminated tortoises from the site and adjacent areas.

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 not found within any of these conservation areas.

### 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 Database; 2021b for Special Plant Species list; 2020 for Special Animal Species list; and California Native Plant Society (CNPS 2021)] maintain lists of animals and/or plants considered rare, threatened, or endangered, which are herein collectively referred to as “special status species.” Regulatory agency-designated special status species that were identified during the current survey included American badger (*Taxidea taxus*) and kit fox (*Vulpes macrotis*). Crucifixion thorn (*Castela emoryi*), prairie falcon (*Falco mexicanus*), and desert bighorn sheep (*Ovis canadensis nelsoni*) were the other special-status species reported to the CNDDDB (CDFW 2021a). Life history and occurrence information for rare species detected during the survey or reported from the region (CDFW 2021a) are given in the next few subsections.

**Emory’s crucifixion thorn** is a List 2B.2 plant, meaning the species is rare, threatened, or endangered in California but more common elsewhere; and, specifically, fairly threatened in California (moderate degree/immediacy of threat) (CNPS 2021). Crucifixion thorn has been reported 1.6 miles northwest of the subject property, where it was reported in creosote bush scrub in gravelly soils on an alluvial fan in 1980, but was not found when sought later (CDFW 2021a). This somewhat large shrub approaching tree stature should have been detectable if present along the survey transects, and is therefore deemed to be absent.

**Burrowing owl** is designated as a California Species of Special Concern by CDFW (2020), as a Bird of Conservation Concern by the USFWS (2008), and is considered Sensitive by the BLM (CDFW 2021a). It is one of the focal species specifically sought during field surveys, and is usually detected by distinctive feathers, zygodactyl (x-shaped) tracks, and whitewash (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 owls. Those portions of the site that are vegetated by saltbush scrub are too densely vegetated to be suitable. 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. That no such burrows were found on site may be one of the reasons no burrowing owl sign was found. Burrowing owls are presumed to be absent from the site and will not be adversely affected by site development.

**Prairie falcon** (*Falco mexicanus*) is designated as a Watch List species by CDFW (2020) and a Bird of Conservation Concern by the USFWS (2008). Although not observed during the survey, prairie falcons have been reported to the CNDDDB (CDFW 2020), which does not disclose the location of this species to protect nesting sites. There are no suitable nesting substrates (cliff faces and other inaccessible areas) onsite and only marginal foraging habitat onsite. Site development would not have any adverse impacts on this species.

**American badger** is listed as a California Species of Special Concern and has no federal designation (CDFW 2020). This widespread species is found throughout California, except for the very northwestern corner of the state (Zeiner et al. 1990). However, Ed LaRue has observed that badgers are typically absent from urbanizing portions of the desert; so, absence of diagnostic digs onsite is considered an indicator of relatively degraded habitat quality. During the survey, a single badger dig was observed approximately 120 meters (400 feet) east of the site in less-degraded habitat (see Figure 2). It is a highly mobile species that would not be adversely affected by site development.

**Kit fox**, as a fur-bearing mammal, is Fully Protected by CDFW (2020) and has no status with USFWS. Kit fox is an uncommon to rare, permanent resident of arid regions of the southern half of the state, where they live in vegetation dominated by scattered brush, shrubs, and scrub. Kit foxes are typically absent from urbanizing portions of the desert; so, lack of its presence on-site is considered an indicator of relatively poor habitat quality. As depicted in Figure 2, an inactive kit fox den was found about 168 meters (550 feet) north of the site. There was no evidence of kit foxes visiting the site, the one den that was found was inactive in less-degraded habitats to the north, so no impacts are expected from developing this site.

**Desert bighorn sheep** (*Ovis canadensis nelsoni*) is designated as a BLM Sensitive species and a Fully Protected species by CDFW (2020). Although they may occasionally venture out of the mountains into valley areas, it is usually as they are moving from one mountain range to another. According to CDFW (2021a), bighorn sheep have been reported in mountains located 14 miles southeast and 29 miles northwest. There is no likelihood that they would occur on the subject property.

**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?; And, (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 2021a) and the extrapolated range line of the species (Gustafson 1993; U.S. Bureau of Land Management 2005). The nearest reported occurrence was approximately 1.1 mile west where a squirrel was found in 1974. Other proximate occurrences have been 3.0 miles northeast (1989), 3.2 miles north (1980), 3.7 miles southeast (1974), 4.0 miles southwest (1989), and 4.1 miles north (1980). When a line is drawn to connect the known occurrences to determine the approximate range of the species (the "red line" in Figure 4 from U.S. Bureau of Land Management 2005), the site is approximately 2.5 miles west of the extrapolated eastern boundary, or approximately 2.5 miles inside the suspected species range.

Mohave ground squirrel has been reported between 550 meters (1,800 feet) and 1,710 meters (5,620 feet) elevation from a wide range of habitats including creosote bush scrub, saltbush scrub, Joshua tree woodland, juniper woodland, and Mohave mixed woody scrub (U.S. Bureau of Land Management 2005). Although at 518 meters (1,700 feet) elevation, the site is well within the known elevational range of the species, there are absolutely no suitable habitats on the subject property to support the species. There is a relatively low level of diversity of native perennial plants, with six shrub species identified, but it is the degradation of the habitat that leads Ed LaRue to conclude Mohave ground squirrel is absent.

Based on studies by Phil and Barbara Leitner (as summarized in U.S. Bureau of Land Management 2005), in the northern part of the range, winterfat and spiny hopsage are ecologically important shrubs for Mohave ground squirrels. Neither of these species were found onsite. There is 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 to the west and south have been developed, so potential Mohave ground squirrel habitats have been eliminated in these two directions. There are marginally suitable habitats to the north and east where Mohave ground squirrels may occur, but they would need to leave relatively more suitable habitats and enter degraded habitats to enter the subject property. Even on the subject property, an estimated 7.4 acres of the 15-acre site are barren or semi-barren and not judged to be suitable habitat, and the remaining areas are marginal, at best. Given the above information, Ed LaRue concludes that the Mohave ground

squirrel is absent from the subject property and there should be no need to perform trapping surveys.

### 3.3. Other Protected Biological Resources

#### 3.3.1. Stream Courses

Stream courses provide relatively important resources to animals and plants. In dry years, and particularly during prolonged drought, annual plants may only germinate in the vicinity of washes where the water table is relatively near the surface. Perennial shrubs adjacent to washes are often the only plants that produce flowers and fruit, which in turn are important to insects and the avian predators that feed on them. Shrubs also tend to be somewhat taller and denser alongside washes, which provides cover for medium and larger sized animals that may use them as travel corridors. Biodiversity is generally enhanced by washes, and there are often both annual and perennial plants that are either restricted to or mostly associated with wash margins. There are both anecdotal accounts and published literature on washes being important to tortoises, which use them as travel corridors and access to nearby annual forage.

The blueline stream depicted in Figure 2, running from northwest to southeast through the southern part of the site, has been so altered on the subject property as to be unrecognizable. It is nevertheless shown as a USGS-designated intermittent blueline stream on the Trona East quadrangle. There are no mesic-adapted plants along this stream course different from those found throughout the remainder of the site.

#### 3.3.2. Protected Plant Species

At the State level, the 1998 Food and Agricultural Code, Division 23: California Desert Native Plants Act, 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) *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.

Desert holly is the only plant species included in the above list that was observed on the subject property, and the one plant found is mapped in Figure 2. It is not a rare species, would not be salvageable, and is not likely to result in any development restrictions, pending input from the County. Several silver cholla plants were observed in adjacent areas, but would not be lost to site development.

## 4.0. CONCLUSIONS & 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, Ed LaRue concludes that tortoises are absent from the subject property. As such, no impacts are anticipated and no mitigation measures are recommended.

Whereas USFWS survey protocols historically indicated that the results of a given survey were valid for the period of only one year (USFWS 2010 and 2018), according to the revised, 2019 USFWS 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, the Palm Springs office of the USFWS would be the appropriate office to contact [(760) 322-2070] to determine if another survey should be performed prior to ground disturbance, if it does not occur before March 2022.

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, Ed LaRue concludes that none of the following special status species reported from the region will be adversely affected by site development: Crucifixion thorn, burrowing owl, prairie falcon, American badger, kit fox, Nelson's bighorn sheep, or Mohave ground squirrel (see below). 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, Ed LaRue 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, Ed LaRue concludes that habitat loss and degradation onsite and isolation of the site due to lack of habitats to the west and south have significantly diminished the likelihood of occurrence. Ed LaRue therefore concludes that Mohave ground squirrel is likely absent from the site and that protocol trapping surveys are not warranted. The County and/or CDFW will need to concur with this determination (or not) before the conclusion and decision not to trap are considered final.

### 4.2.2. Other Protected Biological Resources

#### 4.2.2.a. Stream Courses

Fish and Game Code section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW before beginning any activity that will do one or more of the following: (1) substantially divert or obstruct the natural flow of any river, stream or lake; (2) substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. Fish and Game Code

section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state, including many dry washes in desert regions. As given above, there are no biological components like mesic-adapted plant species that differentiate this water course from surrounding upland areas. The County will need to determine if a Streambed Alteration Agreement is warranted for site development.

#### 4.2.2.b. Protected Plants

A single desert holly plant is the only species found on-site that may be subject to pertinent development codes under the California Native Plant Protection Act. It is located in semi-barren areas where its protection would not substantially benefit local floral resources.

#### 4.2.2.c. Bird Nests

Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit the taking 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 six species found only in adjacent areas are signified by “+.”

### ANGIOSPERMAE: DICOTYLEDONES

#### **Asteraceae**

*Ambrosia dumosa*  
*Ambrosia salsola*  
*Stephanomeria pauciflora*

#### **Boraginaceae**

*Amsinckia intermedia*  
*Cryptantha angustifolia*  
*Cryptantha pterocarya*

#### **Brassicaceae**

*Caulanthus lasiophyllus* (*Guillenia lasiophylla*)  
*Descurainia pinnata*  
\**Descurainia sophia*  
*Lepidium flavum*  
\**Sisymbrium altissimum*  
\**Sisymbrium irio*

#### **Cactaceae**

+*Cylindropuntia echinocarpa*

#### **Chenopodiaceae**

*Atriplex confertifolia*  
*Atriplex hymenelytra*  
*Atriplex polycarpa*  
\**Salsola tragus*  
*Suaeda moquinii* (*nigra*)

### DICOT FLOWERING PLANTS

#### **Sunflower family**

Burrobush  
Cheesebush  
Desert milk aster

#### **Borage family**

Fiddleneck  
Narrow-leaved forget-me-not  
Wing-nut forget-me-not

#### **Mustard family**

California mustard  
Tansy  
Flixweed  
Peppergrass  
Tumble mustard  
London rocket

#### **Cactus family**

Silver cholla (PPS)

#### **Goosefoot family**

Spiny saltbush  
Desert holly (PPS)  
Allscale  
Russian thistle  
Torrey's sea-blight

**Plantaginaceae***Plantago ovata***Plantain family**

Plantain

**Polemoniaceae***Eriastrum* c.f. *sapphirinum**Gilia latiflora* var. *davyi*+*Loeseliastrum matthewsii***Phlox family**

Woolly star

Davy's broad-flowered *gilia*

Sunbonnets

**Polygonaceae***Chorizanthe brevicornu**Chorizanthe rigida**Eriogonum inflatum**Eriogonum maculatum***Buckwheat family**

Brittle spineflower

Rigid spineflower

Desert trumpet

Spotted buckwheat

**Solanaceae**+*Lycium cooperi***Nightshade family**

Peach thorn

**Zygophyllaceae***Larrea tridentata***Caltrop family**

Creosote bush

ANGIOSPERMAE: MONOCOTYLEDONES

MONOCOT FLOWERING PLANTS

**Poaceae**\**Bromus madritensis* ssp. *rubens*+\**Bromus tectorum*\**Schismus* sp.**Grass family**

Red brome

Cheat 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. **Special status animal species are highlighted in red and signified by “(SSA)” following the common names.** Those only found in adjacent areas are signified by “+.”

### REPTILIA

#### **Iguanidae**

*Uta stansburiana*

### AVES

#### **Corvidae**

*Corvus corax*

#### **Mimidae**

*Oreoscoptes montanus*

#### **Emberizidae**

*Amphispiza belli*

### MAMMALIA

#### **Leporidae**

*Lepus californicus*

*Sylvilagus audubonii*

#### **Heteromyidae**

*Dipodomys* sp.

#### **Canidae**

*Canis latrans*

+*Vulpes macrotis*

#### **Mustelidae**

+*Taxidea taxus*

#### **Felidae**

*Lynx rufus*

#### **Equidae**

*Equus asinus*

### REPTILES

#### **Iguanids**

Common side-blotched lizard

### BIRDS

#### **Crows and jays**

Common raven

#### **Mockingbirds and thrashers**

Sage thrasher

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

Sage sparrow

### MAMMALS

#### **Hares and rabbits**

Black-tailed hare

Audubon cottontail

#### **Pocket mice**

Kangaroo rat

#### **Foxes, wolves and coyotes**

Coyote

Kit fox (SSA)

#### **Weasels and skunks**

American badger (SSA)

#### **Cats**

Bobcat

#### **Horses, burros and zebras**

Wild burro

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

The USFWS recommends 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 Ed LaRue on 2 March 2021.

**USFWS 2009 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET**

Date of survey: 2/3/2021 Survey biologist(s): Ed LaRue  
(day, month, year)

Site description: 15-acre site near community of Valley Wells, NE of Tropic  
(project name and location, general location)

County: Inyo Quad: Tirona East Location: 469130/3962825 GCS  
(UTM coordinates, UTM zone, datum, and datum)

Transect #: 40 Transect length: Variable Type of survey: 100' width  
(project area to be surveyed, 100' buffer/observation sampling)

GPS Start-point: 469120/3963875 (1,690 ft) Start time: 10:15 am/pm  
(easting, northing, elevation in meters)

GPS End-point: 469390/3964120 (1,700 ft) End time: 1:15 am/pm  
(easting, northing, elevation in meters)

Start Temp: 54 °F Weather: winds 1-4 mph west, ob cloud cover

End Temp: 71 °F

---

**Live Tortoises**

Detection number	GPS location		Time	Tortoise location <small>(in burrow, side of crevice, under debris, etc.)</small>	Approx. MCL or MCV <small>(No. 10 or otherwise)</small>	Existing tag # and color
	Easting	Northing				
1						
2						
3						
4						
5						
6						
7						
8						

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

Detection number	GPS location		Type of sign <small>(burrow, scat, carcass, etc)</small>	Description and comments
	Easting	Northing		
1				
2				
3				
4				
5				
6				
7				
8				

Page      of

JOB #/NAME Lester Purmick 2107	DATE 3/2/21	DRIVE TIME TO 0800 FROM 1730	MILES 230	FIELD TIME BEGIN 1915 END 1515	SURVEYORS Ed & Larue
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WEATHER CONDITIONS (Start/End)		UTM (NAD 83) (circle starting corner)			
TEMP: 54°F WIND X: 1 ↑ 3 NSE (W) CLOUD: 0%		NE →	NW →	SE →	SW → E
TEMP: 71°F WIND X: 2 ↑ 4 NSE (W) CLOUD: 0%		9320	9120	9320	469120
		4120	4120	3715	3763625

PERENNIAL PLANTS		ANNUAL PLANTS		BIRDS	HERP	MAM
Astr Pl	Suc Mac	Echsp	Campea	COLA	STUR	GREY
Ambscl		DesSop	Sal Tr	SAEP		C240
LeVi		GrLap	Ra Ab	SATH		STH
Stem		Cr Amy	mealy			Aug
Pr Con		Sis Dr	Gu Pre			Bobcat
Amberl		Amble	Pr Dr			Kite den
		Leptk				C 9300/4084
Cylich		Gu Lat	Com Mat			
Lyc60		Chorin	Aster			
Ho Ab		Boone	Boone			
		Men Aly				
		Pr Mc				
		Wil Lat				
		Chobe				
		SATH				

Photographs

1	SW → NE
2	SE → NW
3	92773 3880 M
4	9180/3924 PM
5	9220/4096 DS
6	NE → SW

OBSERVABLE HUMAN DISTURBANCES OHA 7 AM → SE

T#	East	North	OHV	Road	Dog	Dump	S Gun	Other	Target
1	9120	3825	9			23	3955		2
2	9320	3815				24	3965		3
3	9120	3805				25	3975		3
4	9320	3795				26	3985		
5	9120	3785				27	3995	slip	
6		3775				28	4005	jump	
7		3765				29	4015	jump	
8		3755				30	4025	jump	
9		3745				31	4035	jump	
10		3735				32	4045	jump	
11	9120	3835				33	4055	30N	4150 9350 3885
12	9320	3845				34	4065	60N	4180 9380
13	9120	3855				35	4075	90N	4210 9410
14	9120	3865				36	4085	122H	4240 9440
15	9120	3875				37	4095	150N	4270 9470
16	9320	3885	8			38	4105		
17	9120	3895	14			39	4115		
18	9320	3905	10			40	4125		
19	9120	3915	8						
20	1320	3925	10						
21	9120	3935	3						
22	9320	3945	3						

↑  
P  
S  
↑  
10  
↓

North  
9255  
3956  
  
Ampt  
9441  
3817

Ruro 61st Common

## APPENDIX D. PHOTOGRAPHIC EXHIBITS

Locations of the seven photographic exhibits on the next four pages are depicted on Figure 5.

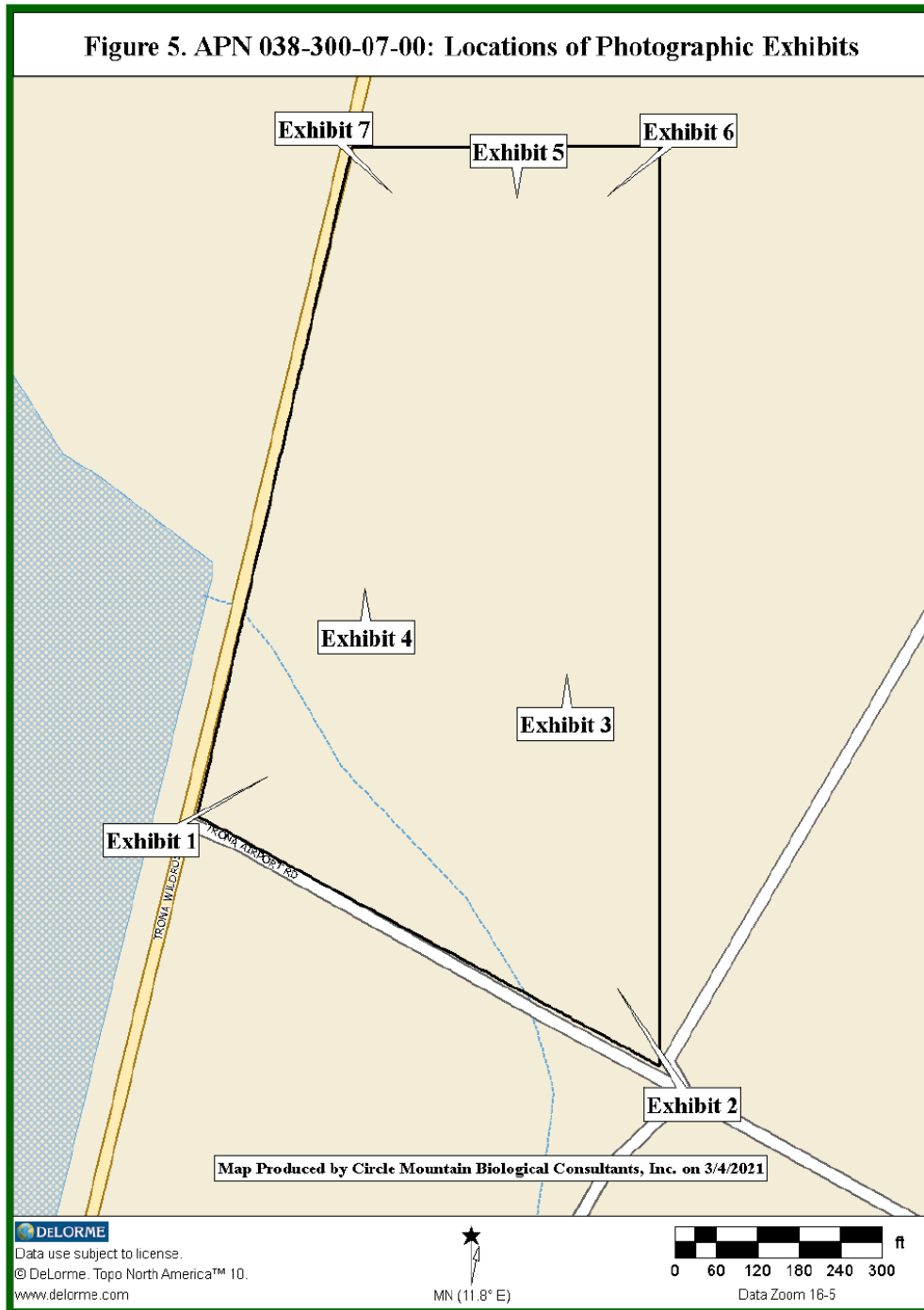




EXHIBIT 1.

VIEW FROM THE SOUTHWEST CORNER OF THE PARCEL, FACING NORTHEAST (SEE FIGURE 5 FOR LOCATIONS AND DIRECTIONS OF PHOTOGRAPHS).



EXHIBIT 2.

VIEW FROM THE SOUTHEAST CORNER OF THE PARCEL, FACING NORTHWEST.



EXHIBIT 3.

PARTIALLY VEGETATED PIT LOCATED NEAR THE EAST-CENTER BOUNDARY,  
FACING NORTH.



EXHIBIT 4.

ONE OF A HALF DOZEN PICNIC SHELTERS LOCATED NEAR THE CENTER OF THE  
SITE, FACING NORTH.



EXHIBIT 5.  
ANOTHER OF THE PICNIC SHELTERS, NEAR THE NORTH BOUNDARY, FACING SOUTH.



EXHIBIT 6.  
VIEW FROM THE NORTHEAST CORNER OF THE PARCEL, FACING SOUTHWEST.



EXHIBIT 7.  
VIEW FROM THE NORTHWEST CORNER OF THE PARCEL, FACING SOUTHEAST.



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