Focused Survey for Agassiz's Desert Tortoise,
Habitat Assessment for Burrowing Owl, and
General Biological Resource Assessment for a
72.5-acre± site (Phases 3-8 of TT 17188) in the City of Twentynine Palms,
San Bernardino County, California

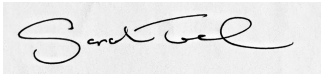
(U.S. Geological Survey 7.5' Twentynine Palms Quadrangle,
Township 1N, Range 9E, a portion of the SE ¼ of Section 21, S.B.B.&M)

Job#: 25-047

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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: Sarah Teed

January 2026

Figure 1. TT 17188: Vicinity Map

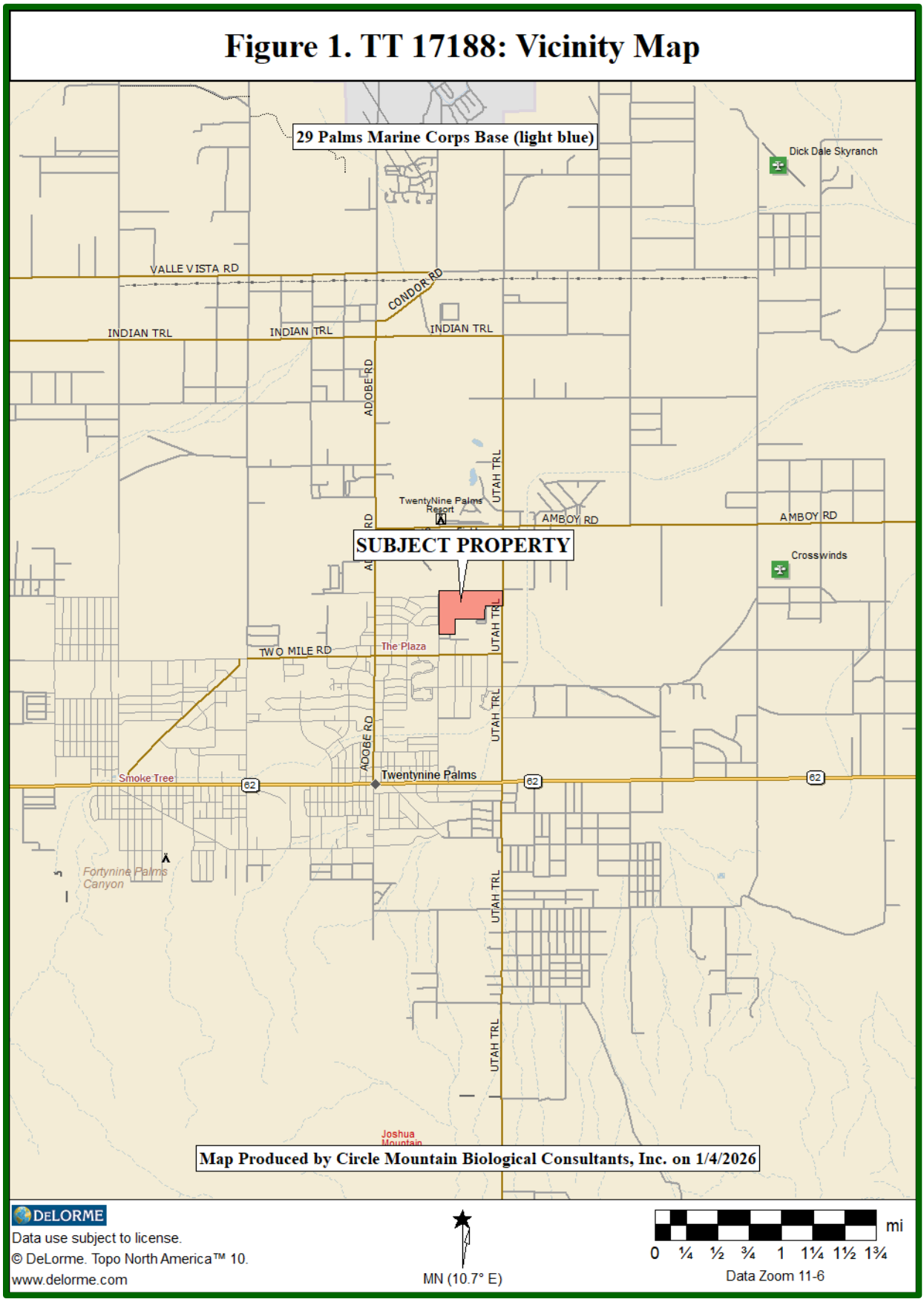


Figure 2a. TT 17188: Site Map with Special Status Species Locations

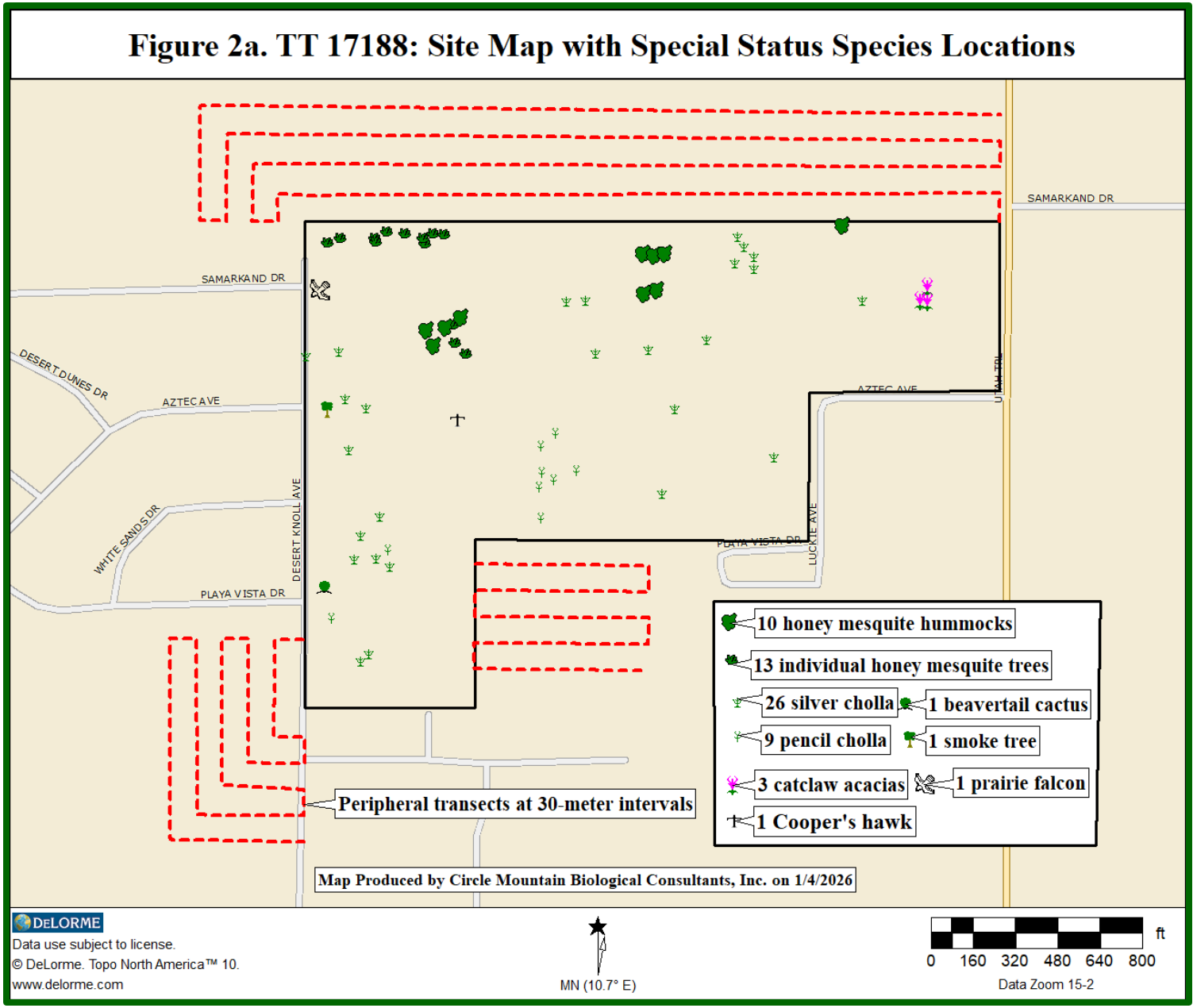


Figure 2b. TT 17188. Aerial with Locations of Special Status Species and Transects

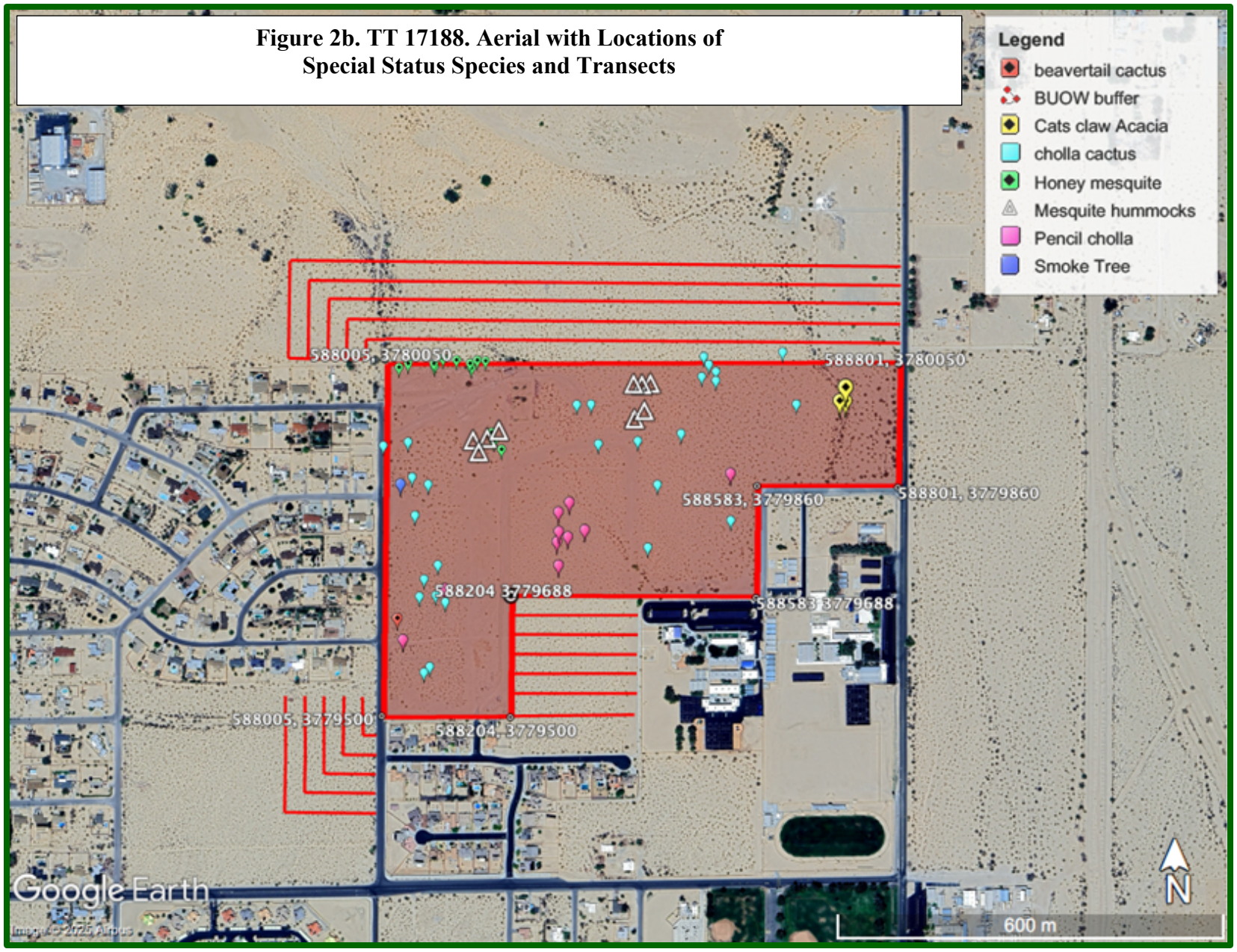


Figure 3. Results of 20 Tortoise Surveys in the Area between 1990 and 2025

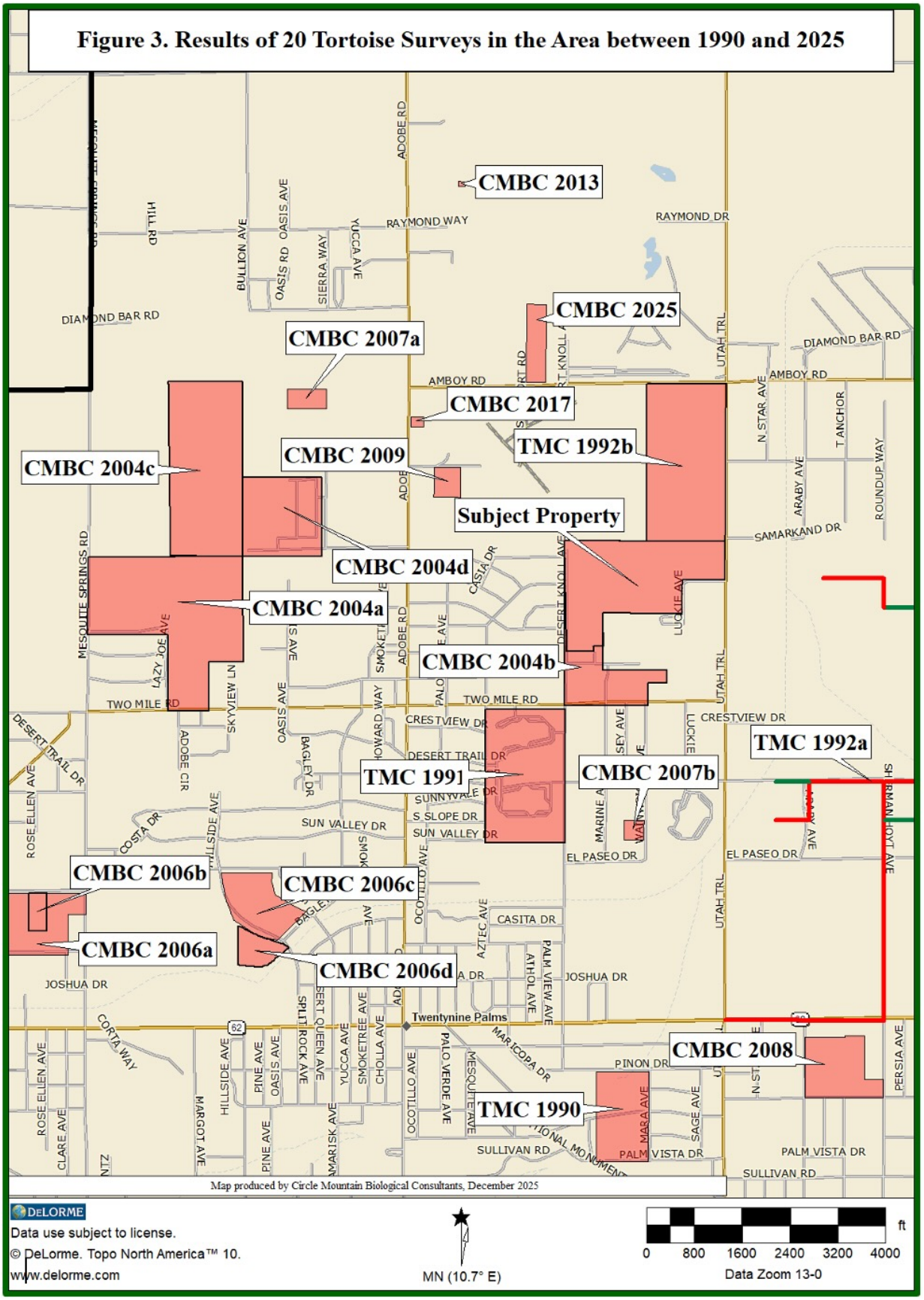
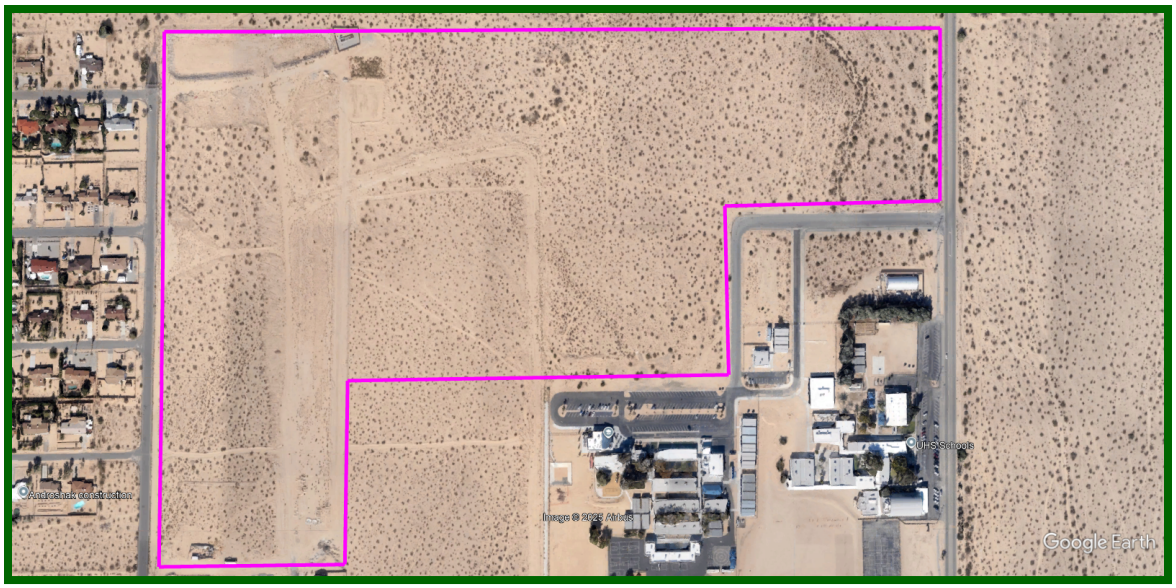
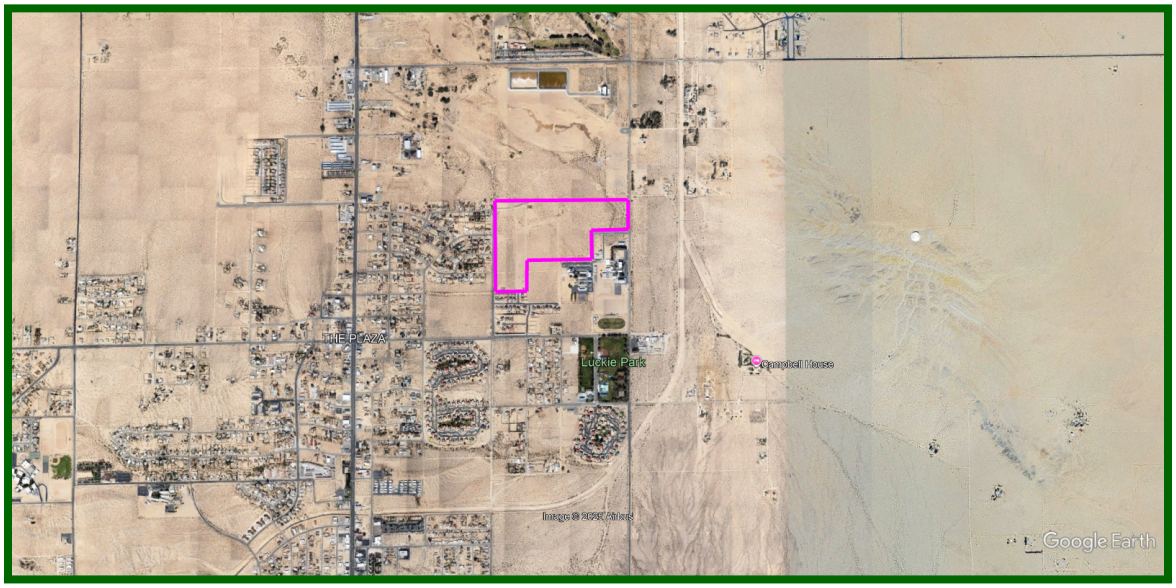


Figure 4. TT 17188:
Aerial Photograph (©2026Google Earth)



Enlarged aerial view from approximately 5,100 feet altitude (Image date: 5/13/2023)



Regional aerial view from approximately 21,000 feet altitude.

Executive Summary

Steve Enochs (Proponent) representing 29 Build LLC, contracted with Circle Mountain Biological Consultants, Inc. (CMBC) to perform a focused survey for Agassiz's desert tortoise, habitat assessment for burrowing owl, and a general biological resource assessment on a 72.5-acre± site (APNs 0621-231-11 & 14, Phases 3-8 of TT 17188) in the City of Twentynine Palms, located in San Bernardino County, California. The legal description for the subject property is Township 1 North, Range 9 East, a portion of the SE ¼ of Section 21, S.B.B.&M. The proposed project is the completion of the planned housing development, e.g., lots 41 through 177. This is considered a resurvey, since CMBC surveyed the entire property in 2004, and Phases 1 & 2 (Lots 1-40) have been completed.

On November 17, 2025 between 12:45 and 16:15 pm, and on November 18, from 08:00 to 11:45 am, Sarah Teed, Susan Seville, and Sarah Drake of CMBC surveyed the site and adjacent areas for a total of 21.75 survey hours. This entailed a survey of 54 on-site transects, spaced at 10-meter (30-foot) intervals and oriented along an east-west axis throughout the 72.5-acre± parcel. Peripheral transects were surveyed for detection of burrowing owls at 30-meter (100-foot) intervals on five transects to the north and east and west. Additional burrowing owl transects could not be completed due to fencing and existing rural residential development to the south of the site.

Based on DeLorme Topo USA® 10.0 software, elevations on the subject property range from approximately 568 meters (1,866 feet) at the southeast corner down to 558 meters (1,831 feet) at the northeast corner. Terrain is relatively flat. Soils are gravelly loam. No blueline streams designated by the U.S. Geological Survey (USGS) occur on-site. The 51 plant species identified during the survey are listed in Appendix A. The 2 reptile, 11 bird, and 5 mammal species identified during the survey are listed in Appendix B.

Based on the absence of tortoise sign on-site 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. Burrowing owl is considered absent from the site and adjacent areas. As such, no adverse impacts have been identified and no mitigation measures are recommended. CMBC concludes that habitat loss and degradation on-site have significantly diminished the likelihood of occurrence.

Based on the field survey and habitat assessment, CMBC concludes that none of the following special status species reported from the region will be adversely affected by site development: Burrowing Owl, Cooper's Hawk, Prairie Falcon, Loggerhead Skrike, Alverson's Foxtail Cactus, Alkali Mariposa Lily, Red-diamond Rattlesnake, Pallid San Diego Pocket Mouse, and Jackass Clover. As such, no adverse impacts have been identified and no mitigation measures are recommended.

Although CMBC has mapped the plant locations, it is beyond the scope of this focused survey and general resource assessment to provide a proposed program to minimize and mitigate impacts to protected native desert plants and resources. The City may require a Desert Native Plant Assessment to be in compliance with the California Native Plant Protection Act. Beavertail Cactus, Silver Cholla, Pencil Cholla, Smoke Tree, Catclaw Acacia, and honey mesquite are species found on-site that may be subject to pertinent development codes. Whereas honey mesquite is listed among the species that are protected at the County and State levels, the hummocks on which they occur are an even more important regional resource and likely to require mitigation from CDFW if they are impacted.

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. If it is necessary to commence project construction between March 15 and September 15, a qualified biologist should survey all shrubs and structures within the project site for nesting birds, prior to project activities (including construction and/or site preparation).

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**Focused Survey for Agassiz's Desert Tortoise,
Habitat Assessment for Burrowing Owl, and
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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 Steve Enochs, representing 29 Build LLC (Proponent), to perform a focused survey for Agassiz's desert tortoise (*Gopherus agassizii*), habitat assessment for burrowing owl (*Athene cunicularia*), and a general biological resource assessment on a 72.5-acre± site located in the City of Twentynine Palms, San Bernardino County, California (see Figures 1 and 2). This is considered a "resurvey" because the site was first surveyed in 2004 (CMBC 2004b), and Phases 1 & 2 (Lots 1-40) have been completed. Although the site is located within the city limits, the City Planning Department does not have a specified protocol for report preparation. Therefore, 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 Twentynine Palms Planning Department (City) is required to complete an initial study to determine if site development will result in any adverse impacts to rare biological resources. The information may also be useful to federal and State regulatory agencies, including U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), respectively, if the Lead Agency asks them to assess impacts associated with proposed development. Results of CMBC's focused survey for tortoise and burrowing owl, 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. APNs 0621-231-11 & 14 are combined 72.5-acre± parcels located in the city of Twentynine Palms, in San Bernardino County, California. The legal description for the subject property is Township 1 North, Range 9 East, a portion of the SE ¼ of Section 21, S.B.B.&M.

2.0. Methods

2.1. Literature Review. CMBC consulted materials included in our library to determine the nearest locations of special status plant and animal species that have been reported from the vicinity of the subject property. Between 1990 and 2025, CMBC has completed approximately 313 focused tortoise surveys in the Morongo Basin, which comprises the region including Morongo Valley to the west and Twentynine Palms to the east. Of relevance given their proximity to the subject property are 20 focused tortoise surveys located between the site (CMBC 2004b) and 1.8 miles WSW of the parcel which, along with the subject property, are mapped in Figure 3. These and other materials used in the completion of this report are listed in Section 5.0, below.

In accordance with *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG 2009), CMBC also consulted the latest version of the California Natural Diversity Data Base (CNDDB, CDFW 2025a) for rare plant (and animal) records reported from the USGS 7.5' Twentynine Palms quadrangle, which encompasses the site.

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**, CMBC followed the presence-absence survey protocol first developed by the USFWS in 1992 and 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 the same as the subject property. Since the site is smaller than 500 acres, it may be surveyed year-round but there is no opportunity to estimate the density of tortoises on the 72.5-acre± subject property (USFWS 2019), particularly for this site where 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 owl. The focus of the survey is to find and inspect all burrows sufficiently large to be used by burrowing owls. No such burrows were observed during this survey. Importantly, this methodology is considered a formal *habitat assessment* for presence of burrowing owls, which can be conducted any time of the year. Had burrowing owl sign been found, which it was not, it would have then been necessary to perform breeding burrowing owl surveys during the spring and summer as outlined in CDFG (2012).

2.2.2. *Field Survey Methods*. For a total of 21.75 hours, on November 17, 2025 between 12:45 and 16:15 pm (3.5 hours) and November 18, 2025, between 08:00 and 11:45 am (3.75 hours), Sarah Teed, Susan Seville, and Sarah Drake of CMBC surveyed the site and adjacent areas as described herein. This entailed a survey of 54 transects, spaced at 10-meter (30-foot) intervals and oriented along an east-west axis throughout the 72.5-acre± parcel. Peripheral transects were surveyed for detection of burrowing owls at 30-meter (100-foot) intervals to the north, west, and south where accessible (see Figures 2a and 2b). Copies of CMBC's data sheet completed in the field and USFWS's (2019) pre-project survey data sheet are included in this report (see Appendix C).

As the site was surveyed, Sarah Teed kept tallies of observable human disturbances encountered on the 18 transects she surveyed. The results of this method provide *encounter rates* for observable human disturbances. For example, two roads observed on each of 10 transects yields 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 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.

Table 1. Weather Summary Data for the Survey

Date 2025	Begin to End = Total hours*	Weather Conditions	
		Beginning	Ending
November 17	12:45 to 16:15 = 3.5 hrs.	69°F, 1 ↑ 6 mph, 80% cloud	69°F, 1.5 ↑ 1 mph, 90% cloud
November 18	8:00 to 11:45 = 3.75 hrs.	63°F, 0.5 ↑ 1 mph, 75% cloud	67°F, 1.5 ↑ 3 mph, 50% cloud

*Total hours = 7.25 hours multiplied by three for the three biologists surveying the site = 21.75 hours.

All plant and animal species identified during the survey were recorded in field notes. Garmin® hand-held, global positioning system (GPS) units were used to survey straight-line 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.

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 568 meters (1866 feet) at the southeast corner down to 558 meters (1831 feet) at the northeast corner. Terrain is relatively flat. The site is vegetated by Mojavean creosote bush scrub with an alkaline influence. Soils are sandy loam.

Within the north/central area, some elevated sand dunes, vegetated with mesquite (*Prosopis glandulosa)* are found. Such areas are often referred to as "mesquite hummocks." Though not particularly diverse in terms of vegetation, mesquite hummocks provide a very important resource to reptiles, birds, and mammals. Dune hummocks often provide habitat for fringe-toed lizards and various sand-adapted snake species, though none was observed on-site. Migrant birds are commonly observed resting and foraging among the mesquite shrubs. Local birds may nest there.

Both small mammals, such as the round-tailed ground squirrel, and larger mammals, such as bobcats and coyotes, use these areas as primary residences and for cover, respectively. No blueline streams designated by the USGS occur on-site. Although there are no major stream courses on-site, there are places along the eastern boundary and near the northwestern corner where runoff from adjacent residential areas supports several species that are typically associated with wetter areas. Some plants observed in these areas included Catclaw Acacia (*Acacia greggii*), Smoke Tree (*Psorothamnus spinosus*), Sweetbush (*Bebbia juncea*), and Sandpaper Plant (*Petalonyx thurberi*).

3.1.1. *Common Flora*. The 51 plant species identified during the survey are listed in Appendix A. Dominant species include Creosote Bush (*Larrea tridentata*), Burrobush (*Ambrosia dumosa*), White Rhatany (*Krameria grayi*), Cheesebush (*Ambrosia salsola*), and Indigo Bush (*Psorothamnus emoryi*). Four-winged Saltbush (*Atriplex canescens*), Allscale (*Atriplex polycarpa*). The bunch grass commonly known as Big Galleta (*Hilaria rigida*) was observed throughout the undisturbed areas of the site, primarily to the north and eastern portions.

3.1.2. *Common Fauna*. The two reptile species observed included Side-blotched Lizard (*Uta stansburiana*) and Red Racer (*Coluber flagellum*). Other locally common reptile species that may occur include Zebra-tailed Lizard (*Callisaurus draconoides*), Long-nosed Leopard Lizard (*Gambelia wislizenii*), Desert Horned Lizard (*Phrynosoma platyrhinos*), desert night lizard (*Xantusia vigilis*), glossy snake (*Arizona elegans*), Gopher Snake (*Pituophis melanoleucus*), Long-nosed Snake (*Rhinocheilus lecontei*), and various rattlesnake species (*Crotalus* ssp.).

The 11 bird species included Common Raven (*Corvus corax*), Rock Dove (*Columba livia*), Mountain Bluebird (*Sialia currucoides*), American Kestrel (*Falco sparverius*), Says Phoebe (*Sayornis says*), Lesser Nighthawk (*Chordeiles acutipennis*), Verdin (*Auriparus flaviceps*), and Mourning Dove (*Zenaida macroura*). The five mammal species identified during the survey included Botta Pocket Gopher (*Thomomys bottae*), Audubon cottontail (*Sylvilagus audubonii*), Black-tailed Hare (*Lepus californicus*), Coyote (*Canis latrans*), and Bobcat (*Lynx rufus*).

3.2. Uncommon Biological Resources.

3.2.1. *Agassiz's Desert Tortoise*. No tortoise sign was found either on-site or in adjacent areas during this focused protocol survey for the species (USFWS 2019). Based on the absence of tortoise sign on the subject property, in adjacent areas, and reported from the region, CMBC concludes that Agassiz's desert tortoise is absent from the subject property and action area. Also, there is low 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) 1,484 items of mainly windblown trash, 805 off-highway vehicle (OHV) tracks, 72 roads (approximately 7 roads pass through site), and 17 dump sites.

Since 1989, CMBC personnel have performed approximately 313 focused tortoise surveys on about 16,000 acres located in the Morongo Basin, between Yucca Valley and Twentynine Palms. As depicted in Figure 3, 20 of these sites have been surveyed within approximately 1.8 miles of the subject property. Tortoise sign was absent from all but one of these sites. The closest instance was observed approximately 0.6 miles to the east, along an eleven-mile pipeline surveyed in 1992. These observations included 20 desert tortoise scat, 11 burrows, and 2 carcasses (TMC 1992a).

With the publication of the Bureau of Land Management's (BLM) Record of Decision (BLM 2016), 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.

The subject property is approximately 3.3 miles west of the nearest CDNCL-designated lands in the Pinto, Lucerne Valley, and Eastern Slopes CDNCL subarea. As per the official DRECP website (www.drecp.org) and Appendix B, which depicts boundaries of management areas, the subject property is located 3.3 miles west of the nearest desert tortoise ACEC, which is the Pinto Mountains 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 Pinto Mountains Critical Habitat Unit, which is located approximately 3.3 miles east of the site.

3.2.2. *Other Special Status Species*. U.S. Fish and Wildlife Service (2008), California Department of Fish and Wildlife [CDFW 2025a for California Natural Diversity Data Base; 2025b for Special Plant Species list; 2025c for Special Animal Species list; and California Native Plant Society (CNPS 2025)] 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 other than desert tortoise that were identified during the current survey included one prairie falcon (*Falco mexicanus)*, observed flying over the site. Life history and occurrence information for rare species observed during the survey, on one or more of the sites depicted in Figure 3, or reported to the CNDDB are given in the next few subsections.

Prairie Falcon (*Falco mexicanus*) is designated as a Watch List species by CDFW (2025c) and a Bird of Conservation Concern by the USFWS (2008). In addition to the one observed during the survey (Figure 2a), Prairie Falcons have been reported to the CNDDB (CDFW 2025a), 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 but foraging habitat exists throughout. One animal was observed onsite during the survey, circling the area and flying to the north.

Loggerhead Shrike (*Lanius ludovicianus*) is designated as a California Species of Special Concern by CDFW (2025c) and a Bird of Conservation Concern by the USFWS (2008). Breeding habitat in the southern California deserts is typically relatively open desert scrub or sparse riparian woodland. Tall shrubs or trees (often Joshua trees) are an important feature. This species is known for its habit of impaling prey such as large insects, lizards, and small snakes on sharp thorns or spikes on vegetation or on barbed wire fences. The species was observed during previous CMBC surveys about 0.5 miles to the north-northwest (CMBC 2025), 1.0 mile west (CMBC 2004c), and 0.78 mile west (CMBC 2004d). While not observed during this survey, perch sites and foraging habitat are present onsite and in adjacent areas.

Cooper's Hawk (*Accipiter cooperi*) is a year-round resident raptor species that is designated as a Watch List species by CDFW (2025c). One Cooper's Hawk was observed during the survey (Figure 2a). An additional four observations which were previously recorded during CMBC surveys including 1.0 mile to the west (CMBC 2004c), 1.38 miles to the south-southeast (CMBC 2008), 0.50 mile to the north-northwest (CMBC 2025) and 1.38 miles to the south (TMC 1990). See Figure 3 for reference locations. There are no nesting sites on the subject property but there are foraging habitats throughout, and plenty of small and medium-sized birds on which Cooper's Hawks can prey.

Mesquite bosque/thickets, once considered a Community of Highest Inventory Priority (CHIP; CDFW 2010), the latest list of California State Sensitive Natural Communities[1] lists nine forms of Mesquite Thickets (CA code 61.514.00), including one that is dominated by honey mesquite (*Prosopis glandulosa* var. *torreyana*), which is the species that occurs onsite. "Bosque" and "thicket" seem to be interchangeable terms that imply a forest or significant accumulation of mesquite trees. CDFW considers it imprudent to remove the Holland (1986)-based elements from the CNDDB before assessing them and reclassifying them in terms of the currently accepted state and national standards for vegetation classification. Their existence should be addressed in the environmental review processes of CEQA and its equivalents, along with occurrences of plants and animals tracked by the CNDDB. CMBC identified 10 honey mesquite hummocks and 13 individual mesquite trees, as mapped in Figure 2a.

Alverson's Foxtail Cactus (*Coryphantha alversonii*) does not have a status designation with CDFW or USFWS but is a List 4.3 species, meaning plants that are of limited distribution - A watch list; but not very threatened in California (low degree/immediacy of threats or no threats known) (CNPS 2025). Two Alverson's Fox-tail Cacti were recorded 1.38 miles south-southeast (CMBC 2008). None was found on the subject property, within the survey area.

[1] https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#natural%20communities

Alkali Mariposa-lily (*Calochortus striatus*) is not designated as a rare species by either USFWS or CDFW, is a BLM Sensitive species (CDFW 2025a), and is designated by the CNPS (2025) as a List 1B.2 plant, which means that it is considered rare, threatened, or endangered in California and elsewhere; and, specifically, fairly threatened in California (moderate degree/immediacy of threat). CDFW (2025a) describes the plant's habitat as chaparral, saltbush scrub, Mojavean creosote bush scrub, alkaline meadows, ephemeral washes, and seeps, between 230 feet (70 meters) and 5,250 feet (1,600 meters) elevation. Although no plants were detected during this survey, suitable habitat is present onsite. Surveys conducted during spring blooms may be requested by the City or CDFW to determine presence/absence.

Red-diamond Rattlesnake (*Crotalus ruber*) is designated as a California Species of Special Concern and has no federal status (CDFW 2025c). Habitat affinities include chaparral, woodland, grassland, desert areas from coastal San Diego County to the eastern slopes of the mountains, where they occur in rocky areas and dense vegetation. They need rodent burrows, cracks in rocks, and surface cover for refuge. The closest CNDDB record is located 3.62 miles to the north-northwest, observed 2002.

Pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*) is considered a California Species of Special Concern and has no federal status (CDFW 2025c). They are found in desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, and pinyon-juniper woodland. Preferred habitats are sandy, herbaceous areas, usually in association with rocks or coarse gravel (CDFW 2025a). CNDDB reports (CDFW 2025a), dating from 1931 to 1946 indicate two areas of species observations. The closest are approximately two miles to the south (1946) and 3.8 miles to the west-southwest (1931). There is insufficient life history and location information for CMBC to determine a likelihood of occurrence for this species to occur on the subject property.

Jackass-clover (*Wislizenia refracta ssp. refracta*) is found in playas, desert dunes, Mojavean Desert scrub, Sonoran Desert scrub habitats, particularly in sandy washes, along roadsides, and in alkaline flats at elevations between 380 and 1,160 m (CDFW 2025a). There is one record in the CNDDB report, from 2002, about 1.69 miles south of the site. The species is an annual herb that blooms from April to November. It should have been detectable at the time of surveys but was not found. The species is considered absent from the subject property.

Burrowing owl is designated as a California Species of Special Concern by CDFW (2025c), as a Bird of Conservation Concern by the USFWS (2008), and is considered Sensitive by the BLM (CDFW 2025a). It is one of the focal species specifically sought during field surveys, particularly in adjacent areas, 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 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. That no such burrows were found on-site may be one of the reasons no burrowing owl sign was found.

Burrowing owls have been observed or detected in the following areas: 1 mile to the west on 100 acres (CMBC 2004a), 1 mile to the west on 80 acres (CMBC 2004c), and three burrowing owls were observed on 0.78 acres to the west on 40 acres (CMBC 2004d).

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.

Although there are no major stream courses on-site, there are places along the eastern boundary and near the northwestern corner where runoff from adjacent residential areas supports several species that are typically associated with wetter areas. Some plants observed in these areas included Catclaw, Smoke Tree, Sweetbush, and Sandpaper Plant.

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) (those that occur onsite are highlighted in red):

(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, nolinas, 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, nolinas, 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 (Psorothamnus) spinosa* (smoke tree).
(i) *Olneya tesota* (desert ironwood), including both dead and live desert ironwood.

Additionally, Chapter 4: Desert Native Plant Protection, Section 811.0405: Scope states: (a) The provisions of this Chapter shall apply to all desert native plants growing on private land within the unincorporated areas of San Bernardino County…

Section 811.0420: Subject Desert Native Plants states: The following desert native plants are subject to the regulations specified by this Division. In all cases the botanical names shall govern the interpretation of this Chapter.

(a) Regulated Desert Native Plants. The following desert native plants, or any part thereof except the fruit, shall not be harvested or removed except under a permit issued by the Agricultural Commissioner or other applicable County Reviewing Authority:

(1) The following desert native plants with stems two (2) inches or greater in diameter or six (6) feet or greater in height: (A) *Dalea (Psorothamnus) spinosa* (smoke tree). (B) All species of the family Agavaceae (century plants, nolinas, yuccas). (C) All species of the genus *Prosopis* (mesquites).
(2) Creosote rings, ten feet or greater in diameter.
(3) All Joshua trees (mature and immature).

Beavertail Cactus (*Opuntia basilaris*), Silver Cholla (*Opuntia echinocarpa*), Pencil Cholla (*Opuntia ramosissima*), Smoke Tree, and Catclaw Acacia, and honey mesquite (*Prosopis glandulosa*) are the plant species included in one or both above lists that were 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 on-site 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 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 November 18, 2026.

Regardless of survey results and conclusions given herein, tortoises are protected by applicable State and federal laws, including the California Endangered Species Act and Federal Endangered Species Act, respectively. As such, if a tortoise is found on-site at the time of construction, all activities likely to affect that animal(s) should cease and the 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 following special status species reported from the region will be adversely affected by site development: Burrowing Owl, Cooper's Hawk, Prairie Falcon, Loggerhead Skrike, Alverson's Foxtail Cactus, Alkali Mariposa Lily, Red-diamond Rattlesnake, Pallid San Diego Pocket Mouse, and Jackass Clover. As such, no adverse impacts have been identified and no mitigation measures are recommended.

4.2.2. *Other Protected Biological Resources.*

4.2.2.a. Stream Courses. Not applicable, as none was found onsite.

4.2.2.b. Protected Plants. Although CMBC has mapped special status plant locations, it is beyond the scope of this focused survey and general resource assessment to provide a proposed program to minimize and mitigate impacts to protected native desert plants and resources. The City may require a Desert Native Plant Assessment to be in compliance with the California Native Plant Protection Act. Beavertail Cactus, Silver Cholla, Pencil Cholla, Smoke Tree, Catclaw Acacia, and honey mesquite are species found on-site that may be subject to pertinent development codes. Whereas honey mesquite is listed among the species that are protected at the County and State levels, the hummocks on which they occur are an even more important regional resource and likely to require mitigation from CDFW if they are impacted.

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

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

5.0. Literature References

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

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

California Department of Fish and Game. 2012. Staff report on burrowing owl mitigation. 7 March 2012 memo replacing 1995 staff report, State of California Natural resources Agency, Department of Fish and Game. Sacramento, CA.

California Department of Fish and Wildlife. 2024a. Electronic database of rare plant and animal species reported to The State Resources Agency, Natural Heritage Division, California Natural Diversity Data Base. Updated monthly. Sacramento, CA.

California Department of Fish and Wildlife, Natural Diversity Database. 2024b. Special Vascular Plants, Bryophytes, and Lichens List. Plant species list published and updated quarterly by State of California, The Resources Agency, Department of Fish and Wildlife, Biogeographic Data Branch, California Natural Diversity Data Base. Dated January 2024. Sacramento, CA.

California Department of Fish and Wildlife, Natural Diversity Database. 2024c. Special Animals. Animal species list published and updated by State of California, The Resources Agency, Department of Fish and Wildlife, Biogeographic Data Branch, California Natural Diversity Data Base. Dated January 2024. Sacramento, CA.

California Native Plant Society (CNPS). 2024. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society. Sacramento, CA.

Circle Mountain Biological Consultants. 2004a. Twentynine Palms 100-acre Barrett Property: Focused survey for desert tortoise and general biological survey, City of Twentynine Palms, California. Unpublished report prepared by Ed LaRue on behalf of Mr. Bill Barrett. Job 04-015 Wrightwood, CA.

Circle Mountain Biological Consultants. 2004b. Focused desert tortoise survey and general biological inventory for Tentative Tract Map 12861 in the City of Twentynine Palms, California. Unpublished report prepared by Sharon Dougherty on behalf of Sunwest Modular. Job 04-027. Wrightwood, CA.

Circle Mountain Biological Consultants. 2004c. Proactive Properties 80-acre site (APN 0621-031-03): Focused survey for desert tortoise and general biological survey, City of Twentynine Palms, California. Unpublished report prepared by Sharon Dougherty on behalf of Proactive Properties, LLC. Job 04-042b. Wrightwood, CA.

Circle Mountain Biological Consultants. 2004d. Penca Capital 40-acre site (TTN 17172): Focused survey for desert tortoise and general biological survey, City of Twentynine Palms, California. Unpublished report prepared by Sharon Dougherty on behalf of Penca Capital. Job 04-059. Wrightwood, CA.

Circle Mountain Biological Consultants. 2006a. Focused desert tortoise and western burrowing owl surveys and general biological inventory for a 20-acre± site (APN 0618-131-17, Tentative Tract Map 17951) in the City of Twentynine Palms, San Bernardino County, California. Unpublished report prepared by Sharon Dougherty and Ed LaRue on behalf of Young Kwon. Job 06-029a. Wrightwood, CA.

Circle Mountain Biological Consultants. 2006b. Focused desert tortoise and western burrowing owl surveys and general biological inventory for a 5-acre± site (APN 0618-131-15 & -16, Tentative Tract Map 18003) in the City of Twentynine Palms, San Bernardino County, California. Unpublished report prepared by Ed LaRue and Sharon Dougherty on behalf of Jim Minarik. Job 06-029b. Wrightwood, CA.

Circle Mountain Biological Consultants. 2006c. Focused desert tortoise survey and general biological inventory for a 20-acre± site (APNs 0618-211-24 & 0618-162-07) in the City of Twentynine Palms, San Bernardino County, California. Unpublished report prepared by Ed LaRue on behalf of Sunwest Development. Job 06-046. Wrightwood, CA.

Circle Mountain Biological Consultants. 2006d. Focused desert tortoise survey for an 8.0-acre± site (APN 0618-211-20) in the City of Twentynine Palms, San Bernardino County, California. Unpublished report prepared by Ed LaRue on behalf of 29 Palms Development, LP. Job 06-066. Wrightwood, CA.

Circle Mountain Biological Consultants, Inc. 2007a. Focused survey for desert tortoise and western burrowing owl and general biological resource assessment for TTM 18468, a 5.0-acre± site (APN 0621-041-04) in the City of Twentynine Palms, San Bernardino County, California. Unpublished report prepared by Ed LaRue on behalf of Sunwest Development, LLC. Job 07-007. Wrightwood, CA.

Circle Mountain Biological Consultants, Inc. 2007b. Focused survey for desert tortoise and western burrowing owl and general biological resource assessment for a 2.5-acre± site (TTM 18644, APN 0623-141-06) in the City of Twentynine Palms, San Bernardino County, California. Unpublished report completed by Sharon Dougherty on behalf of M.E. Diefenbach Development, Inc. and Amir Engineering. Job 07-080. Wrightwood, CA.

Circle Mountain Biological Consultants, Inc. 2008. Focused survey for desert tortoise and western burrowing owl and general biological resource assessment for 25-acre± site (APNs 0624-131-01, -02, -03 & -17) in the City of Twentynine Palms, San Bernardino County, California. Unpublished report prepared by Ed LaRue on behalf of IED, Inc. Job 08-046. Wrightwood, CA.

Circle Mountain Biological Consultants, Inc. 2009. Focused survey for desert tortoise and western burrowing owl and general biological resource assessment for a 4.0-acre (APN 0585-061-06) in the City of Twentynine Palms, San Bernardino County, California. Unpublished report prepared by Ed LaRue on behalf of Cardinal Van & Storage. Job 09-025. Wrightwood, CA.

Circle Mountain Biological Consultants, Inc. 2013. Focused survey for Agassiz's desert tortoise, habitat assessment for burrowing owl, and general biological resource assessment for the LTE Project, LAT014, 29 Palms Marine Base, a <0.2-acre site (APN 0621-251-23) in the City of Twentynine Palms, San Bernardino County, California. Unpublished report prepared by Ed LaRue on behalf of Coastal Business Group, Inc. Job 13-009. Wrightwood, CA.

Circle Mountain Biological Consultants, Inc. 2013. Desert tortoise detection in the Morongo Basin on 270 sites between 1989 and 2013. Unpublished report presented as a technical paper at the 2013 Desert Tortoise Council Symposium. Wrightwood, CA.

Circle Mountain Biological Consultants, Inc. 2017. Focused survey for Agassiz's desert tortoise, habitat evaluation for burrowing owl, and general biological resource assessment for a 0.86-acre± site (APN 0621-211-17) in the City of Twentynine Palms, San Bernardino County, California. Unpublished report prepared by Ed LaRue on behalf of Mr. Jim Corbin. Job 17-016. Wrightwood, CA.

Circle Mountain Biological Consultants, Inc. 2024. Focused survey for Agassiz's desert tortoise, habitat evaluation for burrowing owl, and general biological resource assessment for a 10-acre site (APN 0621-241-20) in the City of Twentynine Palms, San Bernardino County, California. Unpublished report prepared by Ed LaRue on behalf of Western Home Builders, Inc. Job 24-046. Wrightwood, CA.

County of San Bernardino (County). 2004. Standards for assessing impacts to the desert tortoise and Mohave ground squirrel. Unpublished protocol provided by the County of San Bernardino, Public and Support Services Group, Land Use Services Department, Advance Planning Division, dated December 2004. San Bernardino, CA.

County of San Bernardino. 2006. Report protocol for biological assessment reports. Unpublished protocol provided by the County of San Bernardino, Public and Support Services Group, Land Use Services Department, Advance Planning Division, dated 31 August 2006. San Bernardino, CA.

eBird. 2024. An on-line database of bird distribution and abundance [web application]. Version 2. eBird, Ithaca, New York. Available: http://www.ebird.org

Edwards, T., A. Karl, M. Vaughn, P. Rosen, C. Melendez Torres, and R. Murphy. 2016. The desert tortoise trichotomy: Mexico hosts a third, new sister-species of tortoise in the *Gopherus morafkai-G. agassizii* group. ZooKeys 563: 131-158.

Hickman, J. Editor. 1993. *The Jepson Manual: Higher Plants of California.* University of California Press. Berkeley, CA.

Holland, R. 1986. Preliminary descriptions of the terrestrial natural communities of California. California Department of Fish and Game. Sacramento, CA.

Ingles, L. 1965. *Mammals of the Pacific States: California, Oregon, Washington.* Stanford University Press. Stanford, CA.

Jaeger, E. 1969. *Desert Wild Flowers.* Stanford University Press. Stanford, CA.

Munz, P. 1974. *A Flora of Southern California.* University of California Press. Berkeley, CA.

Murphy, R. W., K. H. Berry, T. Edwards, A. E. Leviton, A. Lathrop, and J. D. Riedle. 2011. The dazed and confused identity of Agassiz's desert tortoise, *Gopherus agassizii* (Testudines, Testudinidae) with the description of a new species, and its consequences for conservation. ZooKeys 113: 39–71.

Sawyer, J., J. Evens and T. Keeler-Wolf. 2009. A Manual of California Vegetation. 2nd edition. California Native Plant Society. Sacramento, CA .

Sibley, D. 2000. National Audubon Society, the Sibley Guide to Birds. First Edition. New York, N.Y.

Stebbins, R. 2003. *A Field Guide to Western Reptiles and Amphibians.* Third Edition. The Peterson Field Guide Series. Houghton Mifflin Company. New York, NY.

Tierra Madre Consultants, Inc. 1990. Monument View Plaza: Focused desert tortoise survey. Unpublished report prepared by Ed LaRue on behalf of Warner Engineering. Job 90-165. Riverside, CA.

Tierra Madre Consultants, Inc. 1991. 801 Family Housing Project for the 29 Palms Marine Corps Base. Unpublished report prepared by Ed LaRue on behalf of Sundt, Actus, Bland Corporation. Job 91-121. Riverside, CA.

Tierra Madre Consultants, Inc. 1992a. Twentynine Palms Water District Master Plan, South Hansen and Joe Davis Sites: Focused desert tortoise survey and general biological assessment. Unpublished report completed by Ed LaRue on behalf of Twentynine Palms Water District. Job 92-015. Riverside, CA.

Tierra Madre Consultants, Inc. 1992b. Twentynine Palms Water District 80-acre site: Focused desert tortoise survey. Unpublished report prepared by Ed LaRue and Kent Beaman on behalf of Twentynine Palms Water District. Job 92-015. Riverside, CA.

U.S. Bureau of Land Management (BLM). 2005. Final Environmental Impact Report and Statement for the West Mojave Plan, a Habitat Conservation Plan and California Desert Conservation Area Plan Amendment. Moreno Valley, CA.

U.S. Bureau of Land Management. 2006. Record of Decision: West Mojave Plan, Amendment to the California Desert Conservation Area Plan, dated March 2006. Sacramento, CA.

U.S. Bureau of Land Management. 2016. Record of Decision for the Land Use Plan Amendment to the California Desert Conservation Plan, Bishop Resource Management Plan, and Bakersfield Resource Management Plan for the Desert Renewable Energy Conservation Plan (DRECP). Dated September 2016. Sacramento, CA.

U.S. Fish and Wildlife Service (USFWS). 1992. Field survey protocol for any nonfederal action that may occur within the range of the desert tortoise. Ventura, CA.

U.S. Fish and Wildlife Service. 1994a. Endangered and threatened wildlife and plants; determination of critical habitat for the Mojave population of the desert tortoise. Federal Register 55(26):5820-5866. Washington, D.C.

U.S. Fish and Wildlife Service. 1994b. Desert Tortoise (Mojave Population) Recovery Plan. U.S. Fish and Wildlife Service, Portland, OR. Pp. 73, plus appendices.

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern. Division of Migratory Bird Management. Arlington, VA.

U.S. Fish and Wildlife Service. 2009. Desert Tortoise (Mojave Population) Field Manual: (*Gopherus agassizii*). Region 8, Sacramento, California.

U.S. Fish and Wildlife Service. 2010. Preparing for any action that may occur within the range of the Mojave desert tortoise (*Gopherus agassizii*). USFWS Desert Tortoise Recovery Office. Reno, NV.

U.S. Fish and Wildlife Service. 2019. Preparing for any action that may occur within the range of the Mojave desert tortoise (*Gopherus agassizii*). USFWS Desert Tortoise Recovery Office. Reno, NV.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White (Editors). 1990. California's Wildlife. Volume III. Mammals. California Statewide Wildlife Habitat Relationships System. State of California. The Resources Agency. Department of Fish and Game. Sacramento, California.

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 two species found only in adjacent areas are signified by "+."

ANGIOSPERMAE: DICOTYLEDONES	DICOT FLOWERING PLANTS
Amaranthaceae	**Amaranth family**
**Amaranthus albus*	Pigweed amaranth
Tidestromia suffruticosa	Honeysweet
Asclepiadaceae	**Milkweed family**
Asclepias subulata	Milkweed
Asteraceae	**Sunflower family**
Ambrosia acanthicarpa	Annual bur-sage
Ambrosia salsola	Cheesebush
+Baileya multiradiata	Desert marigold
Palafoxia linearis	Desert Spanish-needles
Pectis papposa	Chinch weed
**Sonchus oleraceus*	Common sow-thistle
Stephanomeria pauciflora	Desert milk aster
Boraginaceae	**Borage family**
Cryptantha sp.	
Tiquilia plicata	Fanleaf crinklemat
Brassicaceae	**Mustard family**
**Brassica tournefortii*	Saharan mustard
Cactaceae	**Cactus family**
Cylindropuntia echinocarpa	Silver cholla (PPS)
Cylindropuntia ramosissima	Pencil cholla (PPS)
Opuntia basilaris	Beavertail cactus (PPS)
Chenopodiaceae	**Goosefoot family**
Atriplex canescens	Four-winged saltbush
Atriplex polycarpa	Allscale
**Salsola tragus*	Russian thistle
Suaeda moquinii (*nigra*)	Torrey's sea-blight
Euphorbiaceae	**Spurge family**
Croton setigerus	Croton
Euphorbia albomarginata	Rattlesnake weed

Fabaceae	**Pea family**
Dalea mollissima	Dalea
Parkinsonia aculeata	Mexican palo verde
Prosopis glandulosa	Honey mesquite (PPS)
Psorothamnus emoryi	Indigo bush
Psorothamnus spinosus	Smoke tree (PPS)
Senegalia (*Acacia*) *greggii*	Catclaw acacia (PPS)
Senna armata	Senna
Krameriaceae	**Krameria family**
Krameria (*grayi*) *bicolor*	White rhatany
Krameria erecta	Pima rhatany
Loasaceae	
Petalonyx thurberi	sandpaper plant
Malvaceae	**Mallow family**
Sphaeralcea ambigua	Desert mallow
Nyctaginaceae	**Four o'clock family**
Abronia villosa	Desert sand verbena
Allionia incarnata	Trailing windmills
Onagraceae	**Evening-primrose family**
Chylismia (*Camissonia*) *claviformis*	Brown-eyed primrose
Oenothera deltoides	Devil's lantern
Plantaginaceae	**Plantain family**
Plantago ovata	Plantain
Polygonaceae	**Buckwheat family**
Chorizanthe rigida	Rigid spineflower
Eriogonum deflexum	Desert skeleton weed
Portulaceae	**Purslane family**
Portulaca oleracea	Common purslane
Solanaceae	**Nightshade family**
**Nicotiana glauca*	Tree tobacco
Tamaricaceae	**Tamarisk family**
**Tamarix ramosissima*	Tamarisk
Viscaceae	
+Phoradendron californicum	Desert mistletoe

Zygophyllaceae	**Caltrop family**
Larrea tridentata	Creosote bush
Tribulus terrestris	Puncture vine
ANGIOSPERMAE: MONOCOTYLEDONES	MONOCOT FLOWERING PLANTS
Arecaceae	
Washingtonia filifera	California fan palm
Poaceae	**Grass family**
Chloris virgata	Feather finger grass
**Cynodon dactylon*	Bermuda grass
Hilaria rigida	Big Galleta grass
**Schismus barbatus*	Common Mediterranean 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 "+."

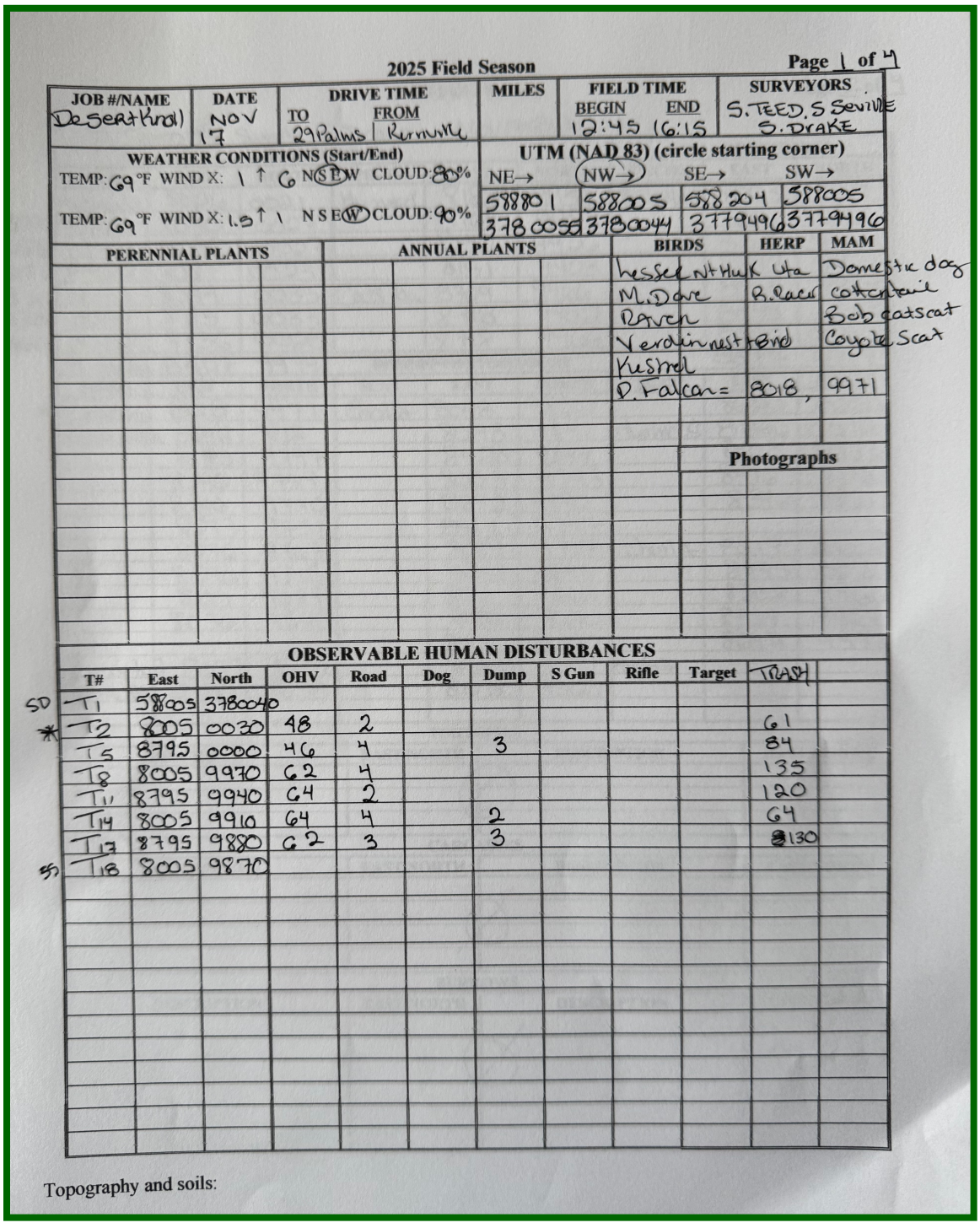
REPTILIA	REPTILES
Iguanidae	**Iguanids**
Uta stansburiana	Common side-blotched lizard
Colubridae	**Colubrids**
Masticophis flagellum piceus	Red racer
AVES	BIRDS
Accipitridae	**Hawks, eagles, harriers**
Accipiter cooperii	Cooper's hawk (SSA)
Falconidae	**Falcons**
Falco sparverius	American kestrel
Falco mexicanus	Prairie falcon (SSA)
Columbidae	**Pigeons and doves**
Columba livia	Rock dove
Zenaida macroura	Mourning dove
Camprimulgidae	**Nightjars**
Chordeiles acutipennis	Lesser nighthawk
Trochilidae	**Hummingbirds**
Calypte costae	Costa's hummingbird
Tyrannidae	**Tyrant flycatchers**
Sayornis saya	Say's phoebe
Corvidae	**Crows and jays**
Corvus corax	Common raven
Remizidae	**Verdins**
Auriparus flavipes	Verdin
Muscicapidae	**Thrushes and allies**
Sialia currucoides	Mountain bluebird

MAMMALIA	MAMMALS
Leporidae	**Hares and rabbits**
Lepus californicus	Black-tailed hare
Sylvilagus audubonii	Audubon cottontail
Geomyidae	**Pocket gophers**
Thomomys bottae	Botta pocket gopher
Canidae	**Foxes, wolves and coyotes**
Canis latrans	Coyote
Felidae	**Cats**
Lynx rufus	Bobcat

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 November 18, 2025

The USFWS and County recommend that consultants include copies of field data sheets from which the results and conclusions given in their reports are derived. As such, copies of the data sheets completed by Sarah Teed on November 17 &18, 2025 follow.



2025 Field Season — Page 1 of 4

JOB #/NAME	DATE	DRIVE TIME TO	DRIVE TIME FROM	MILES	FIELD TIME BEGIN	FIELD TIME END	SURVEYORS
DesertKnoll	NOV 17	29Palms	Kernville		12:45	6:15	S.TEED, S Senville S.DRAKE

WEATHER CONDITIONS (Start/End)
TEMP: 69 °F WIND X: 1 ↑ 6 N S E W CLOUD: 80%
TEMP: 69 °F WIND X: 1.5 ↑ 1 N S E W CLOUD: 90%

UTM (NAD 83) (circle starting corner)

NE→	NW→	SE→	SW→
588801	588005	588204	588005
3780055	3780044	3779496	3779496

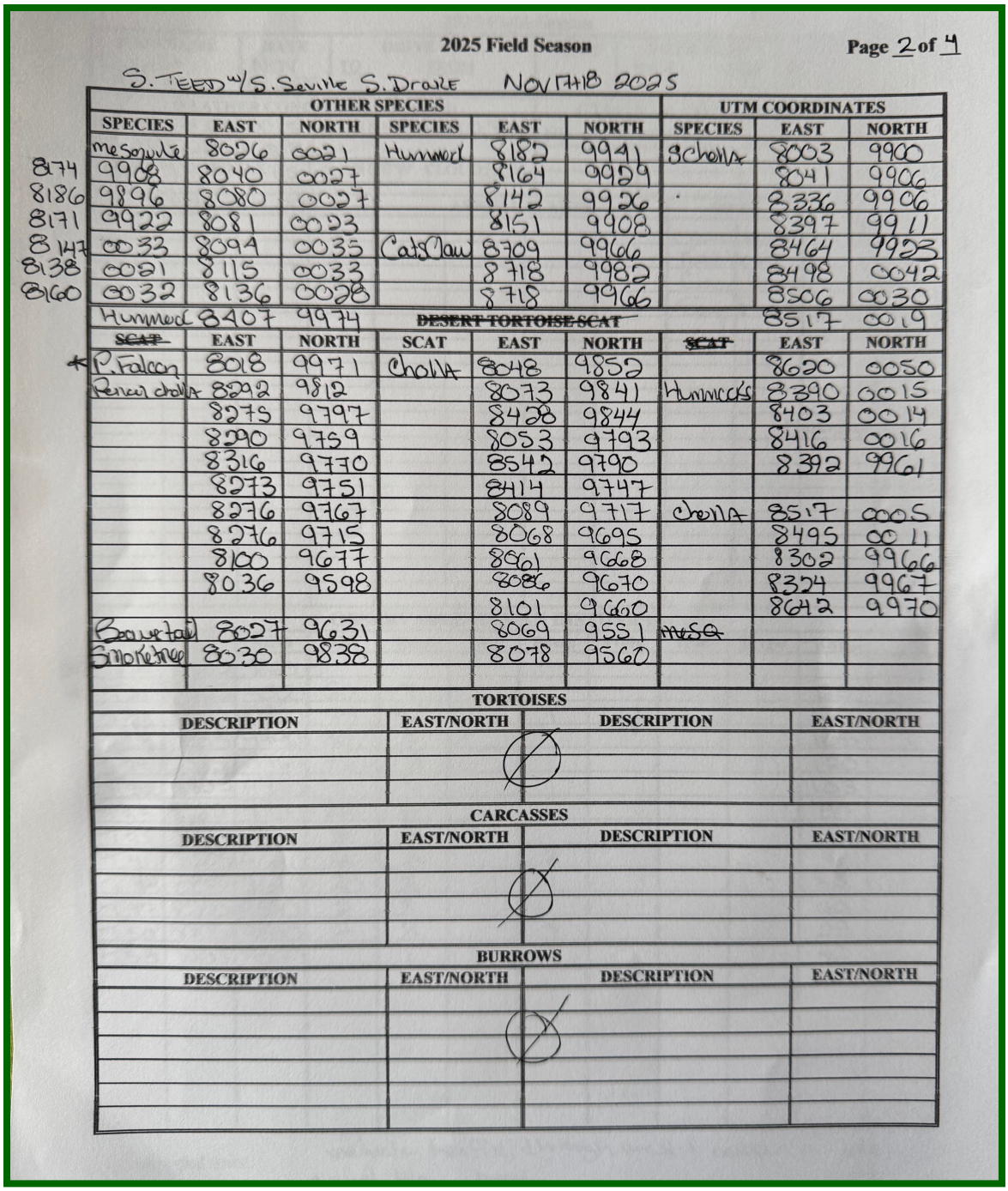
PERENNIAL PLANTS	ANNUAL PLANTS	BIRDS	HERP	MAM
		hessel NtHwk Uta		Domestic dog
		M.Dove	B.Racer	cottontail
		Raven		Bob catscat
		Verdin nest+bird		Coyote Scat
		Kestrel		
		P.Falcon=	8018, 9971	

Photographs

OBSERVABLE HUMAN DISTURBANCES

	T#	East	North	OHV	Road	Dog	Dump	S Gun	Rifle	Target	TRASH
SD	T1	588005	3780040								
*	T2	8005	0030	48	2						61
	T5	8795	0000	46	4		3				84
	T8	8005	9970	62	4						135
	T11	8795	9940	64	2						120
	T14	8005	9910	64	4		2				64
	T17	8795	9880	62	3		3				130
SD	T18	8005	9870								

Topography and soils:



2025 Field Season

Page 2 of 4

S. Teed & S. Saville S. Drozd NOV 17 & 18 2025

OTHER SPECIES						UTM COORDINATES		
SPECIES	EAST	NORTH	SPECIES	EAST	NORTH	SPECIES	EAST	NORTH
mesquite	8026	0021	Hummock	8182	9941	Cholla	8003	9900
9908	8040	0027		8164	9929		8041	9906
9896	8080	0027		8142	9926		8336	9906
9922	8081	0023		8151	9908		8397	9911
0033	8094	0035	Cat's Claw	8709	9966		8464	9923
0021	8115	0033		8718	9982		8498	0042
0032	8136	0028		8718	9966		8506	0030
Hummock	8407	9974					8517	0019

~~SCAT~~	EAST	NORTH	SCAT	EAST	NORTH	~~SCAT~~	EAST	NORTH
* P. Falcon	8018	9971	Cholla	8048	9852		8620	0050
Perenial cholla	8292	9812		8073	9841	Hummocks	8390	0015
	8275	9797		8428	9844		8403	0014
	8290	9759		8053	9793		8416	0016
	8316	9770		8542	9790		8392	9961
	8273	9751		8414	9747			
	8276	9767		8089	9717	Cholla	8517	0005
	8276	9715		8068	9695		8495	0011
	8100	9677		8961	9668		8302	9966
	8036	9598		8086	9670		8324	9967
				8101	9660		8642	9970
Bouvtail	8027	9631		8069	9551	~~MESQ~~		
Smoketree	8030	9838		8078	9560			

TORTOISES

DESCRIPTION	EAST/NORTH	DESCRIPTION	EAST/NORTH

CARCASSES

DESCRIPTION	EAST/NORTH	DESCRIPTION	EAST/NORTH

BURROWS

DESCRIPTION	EAST/NORTH	DESCRIPTION	EAST/NORTH

2025 Field Season — Page 3 of 4

JOB #/NAME	DATE	DRIVE TIME TO	DRIVE TIME FROM	MILES	FIELD TIME BEGIN	FIELD TIME END	SURVEYORS
Desert Knoll	NOV 18 2025				8:00	11:45	S. TEED S. SEVILLE S. DRAKE

WEATHER CONDITIONS (Start/End)

TEMP: 63 °F WIND X: .5 ↑ 1 N S E (W) CLOUD: 75%
light Rain @ 7am
TEMP: 67 °F WIND X: 1.5 ↑ 3 N S E (W) CLOUD: 50%

UTM (NAD 83) (circle starting corner)

NE→	NW→	SE→	SW→

PERENNIAL PLANTS	ANNUAL PLANTS	BIRDS	HERP	MAM
		mountain BB Kestrel Cooper Hawk Says Phoebe	Uta	BKT. Hare

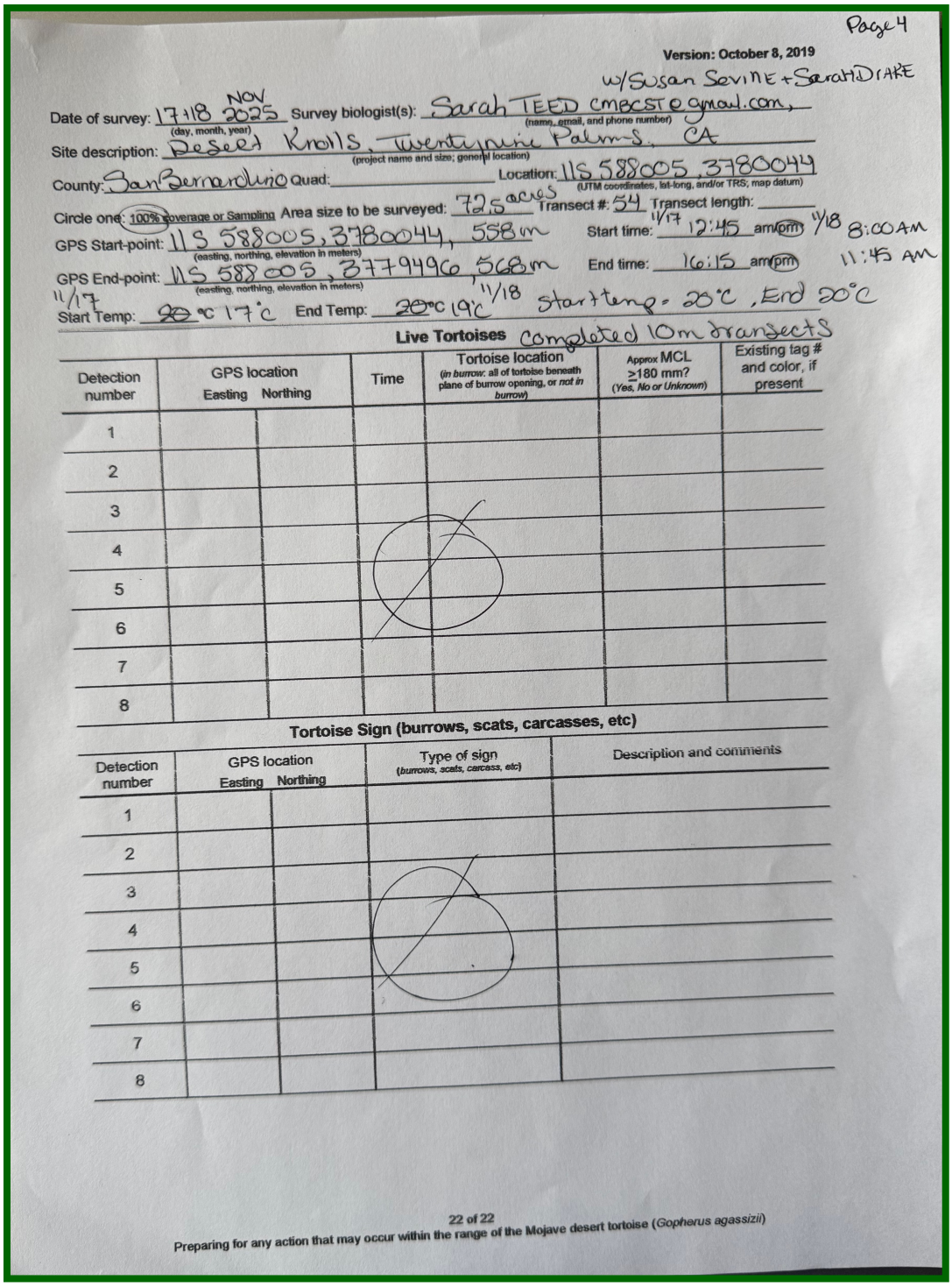
Photographs

OBSERVABLE HUMAN DISTURBANCES

T#	East	North	OHV	Road	Dog	Dump	S Gun	Rifle	Target	TRASH
T19	8805	9860								
T20	8805	9850	60	7						65
T23	8585	9820	74	6		1				100
T26	8805	9790	80	7						108
T29	8585	9760	88	7						120
T32	8805	9730	101	7						103
T35	8585	9700	28	5						80
T38	8805	9670	2	2						44
T41	8205	9640	2	2		2				81
T44	8805	9610	20	3		1				63
T47	8205	9580	2	3						60
T50	8805	9550	2	3		3				28
T53	8805	9520		1		2				40

SD 4

Topography and soils: vehicle traffic through west + center of site - ↑ wind blown trash excellent Sand grass habitat.



Page 4

Version: October 8, 2019

w/Susan Sevine + Sarah Drake

Date of survey: 17/18 NOV 2025 (day, month, year) Survey biologist(s): Sarah TEED cmbcste@gmail.com, (name, email, and phone number)

Site description: Desert Knolls, Twentynine Palms, CA (project name and size; general location)

County: San Bernardino Quad: _____ Location: 11S 588005, 3780044 (UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 72.5 acres Transect #: 54 Transect length: _____

GPS Start-point: 11S 588005, 3780044, 558m (easting, northing, elevation in meters) Start time: 11/17 12:45 am/pm 11/18 8:00 AM

GPS End-point: 11S 588005, 3779496, 568m (easting, northing, elevation in meters) End time: 16:15 am/pm 11:45 AM

Start Temp: ~~20~~ °C 17°C End Temp: 11/17 20°C 19°C 11/18 Start temp = 20°C, End 20°C

Live Tortoises completed 10m transects

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)

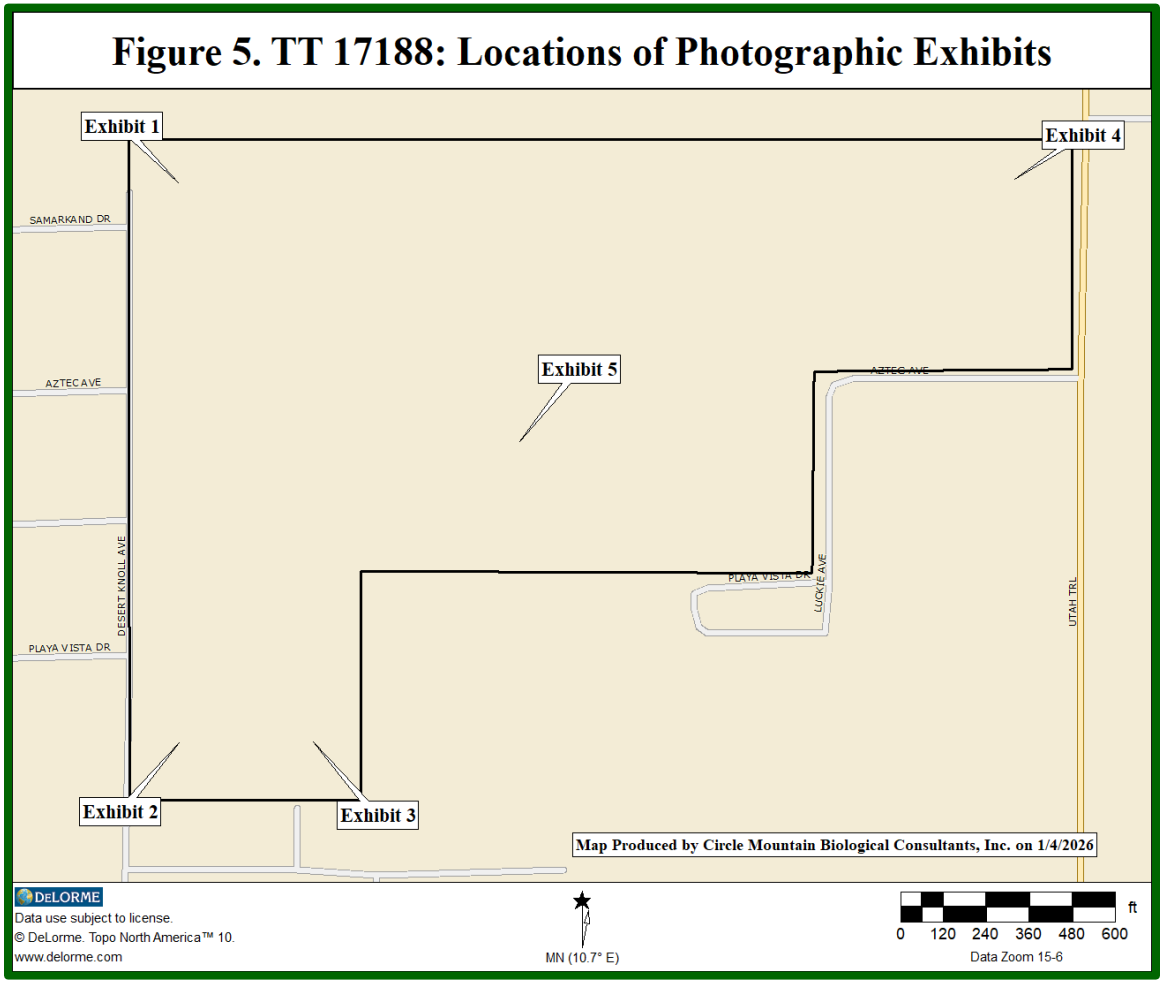
Detection number	GPS location Easting	Northing	Type of sign (*burrows, scats, carcass, etc*)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

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Preparing for any action that may occur within the range of the Mojave desert tortoise (*Gopherus agassizii*)

Appendix D. Photographic Exhibits

Figure 5. TT 17188: Locations of Photographic Exhibits



Locations of the five photographic exhibits on the next three pages are depicted in Figure 5.



Exhibit 1. View from the northwest corner of the parcel, facing southeast (see Figure 5 for locations and directions of photographs).



Exhibit 2. View from the southwest corner of the parcel, facing northeast.



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. Bunch grass found throughout the site, big galleta.