

**General Biological Survey and Focused Surveys
for Desert Tortoise and Burrowing Owl,
with an Evaluation of Habitat for Mohave Ground Squirrel,
on a 26.3-acre± site (APN 3121-034-025, Lots 1, 2, & 3)
in the City of Lancaster, Los Angeles County, California
(U.S. Geological Survey 7.5' Lancaster West Quadrangle, Township 7 North, Range 12
West, a portion of Section 17, S.B.B.&M)**

Job#: 17-039

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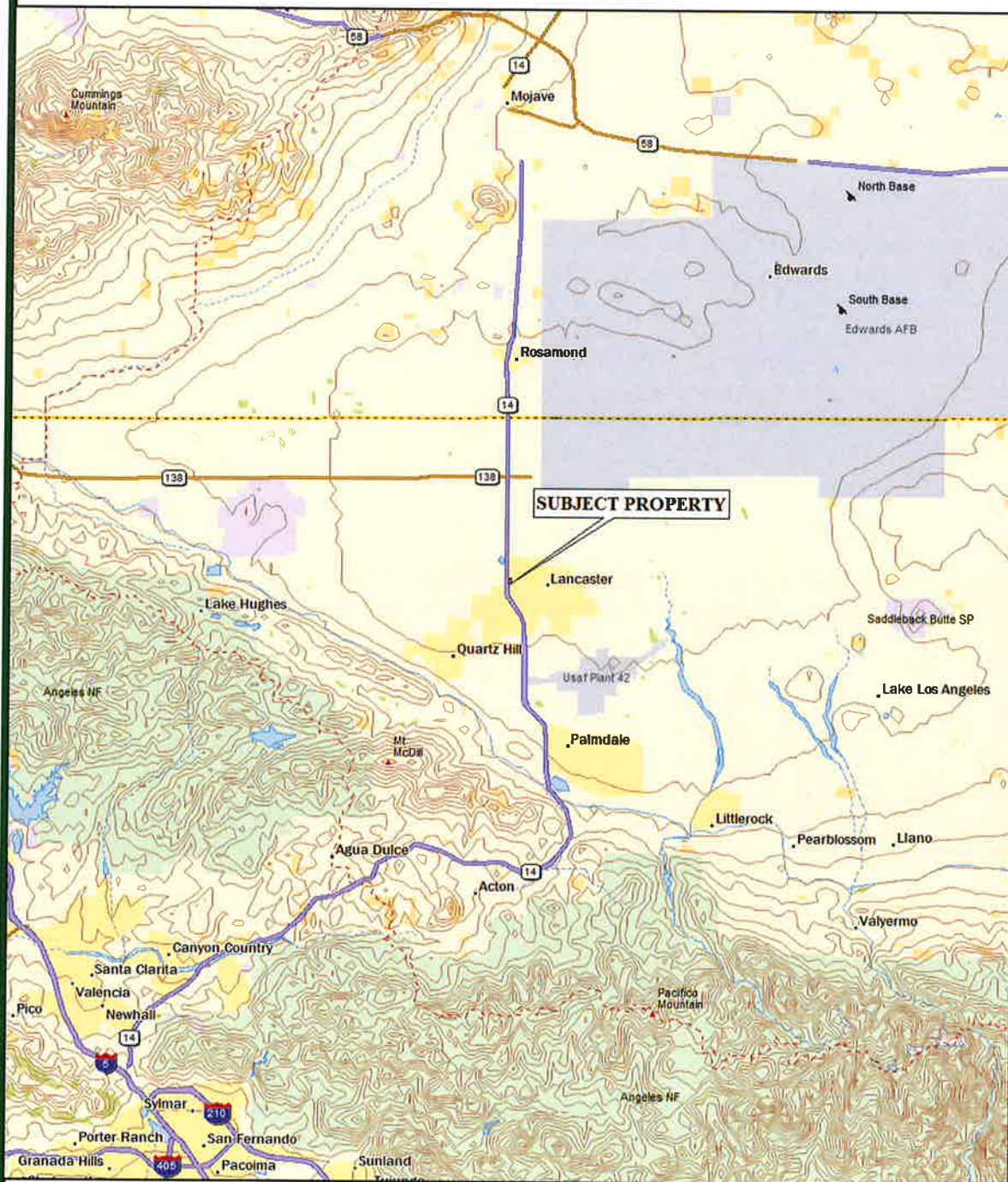
I hereby certify that the statements furnished herein, including attached exhibits, present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for 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.

Sharon Dougherty

Circle Mountain Biological Consultants, Inc.
Author and Field Investigator: Sharon E. Dougherty

December 2017

Figure 1. APN 3121-034-025: Vicinity Map



Map produced by Circle Mountain Biological Consultants, Inc. December 2017



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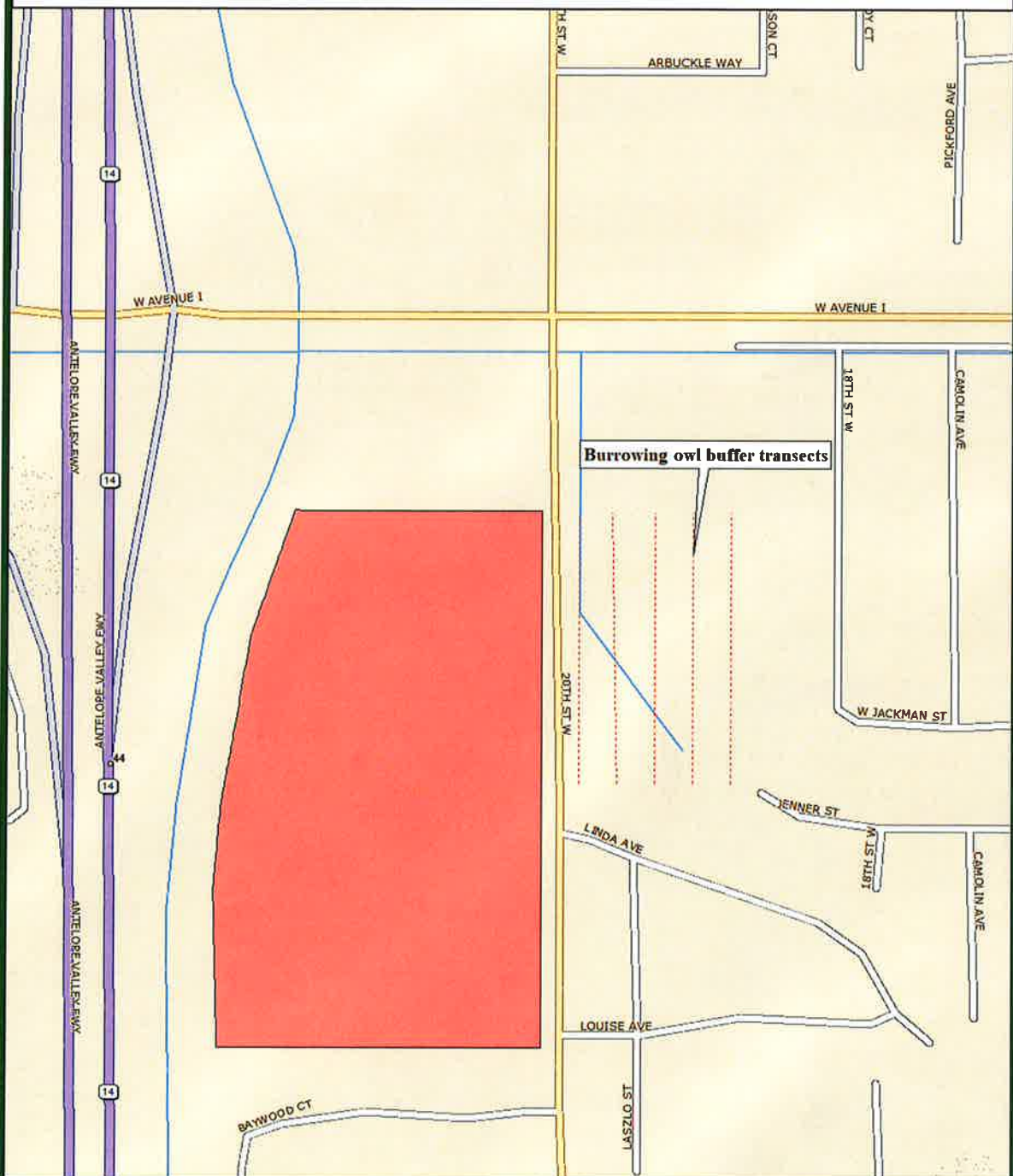
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Data Zoom 8-7

Figure 2. APN 3121-034-025: Site Map



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MN (12.1° E)



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Data Zoom 15-5



Figure 4. APN 3121-034-025: Aerial Photograph (©2017GoogleTM Earth)

Executive Summary

Circle Mountain Biological Consultants, Inc. was contacted in December of 2017 by Investment Concepts, Inc. to perform a focused survey for Agassiz's desert tortoise, habitat assessments for burrowing owl and Mohave ground squirrel, and a general biological resource assessment on a 26.3-acre± site (APN 3121-034-025, Parcels 1, 2, & 3) in Los Angeles County, California, in the City of Lancaster.

The subject property is a 26.3-acre± site located on the west side of 20th Street West, about 500 feet south of West Avenue I. The legal description for the subject property is Township 7 North, Range 12 West, a portion of Section 17, S.B.B.&M.

For a total of 7 survey hours, between 0830 and 1200 on 8 December 2017, Sharon Dougherty of CMBC and subcontractor, Jeff Erway, surveyed the site and adjacent areas. This entailed a survey of 26 transects, spaced at 30-foot (10-meter) intervals and oriented in a north-south direction throughout the parcel. Buffer area transects were surveyed for detection of burrowing owls at 50-foot intervals to the east of the northern roughly half of the subject property, where a vacant lot is present.

The plant community present is degraded saltbush scrub. Dominant plants on the subject property include fourwing saltbush, rabbitbrush, and Great Basin sagebrush. Other shrubs present on the site include a few California junipers, Nevada joint-fir, and Mormon tea. A few perennial grasses were present. Desert olive, possibly derived from nearby ornamental plantings, is present on the southern parts of the property. Several plants associated with alkali clay soils and seasonal flooding were noted. Many annual plants were difficult or impossible to identify or detect, given the winter timing of the survey. Those identified are primarily non-native, invasive species and native annuals tolerant of disturbed conditions.

Nine bird and seven mammal species were identified during the survey. Most are common desert species, apparently persisting in an area of urban development. Kit fox sign on the property appeared old, and burrows did not appear to be active. The drainage channel to the west may serve as a wildlife corridor, facilitating movement of these species between the site and other undeveloped areas to the north and south.

Based on the absence of tortoise sign on-site and in adjacent areas, and available regional information reviewed for this habitat assessment, CMBC concludes that tortoises are absent from the subject property.

Based on the field survey and habitat assessment, CMBC concludes that alkali mariposa lily, a California Native Plant Society List 1B.2 species, may be present on the site. It was reported from the site in 2005 (CDFW 2017a). Habitat on the site is suitable for the species, but given the winter season of the survey, the species would not have been detectable.

Suitable habitat for the following species is present on the site, but none of the species were detected during the current survey: Rosamond eriastrum, Lancaster milk-vetch, northern California legless lizard, and coast horned lizard.

Burrowing owl is considered absent from the site at the present time. However, an old pellet was found at a burrow, and suitable habitat is present for the species. Burrowing owl could reoccupy the site, although current levels of disturbance could prevent this.

Given that the subject property is more than a mile west of the western boundary of the presumed range of the Mohave ground squirrel, habitat on the site is marginal for the species, and the site is surrounded by development, CMBC concludes that the Mohave ground squirrel is not expected to occur on the site.

No development is proposed at present for the site, and as such, no adverse impacts have been identified and no mitigation measures are recommended. If development of the site is proposed, the CDFW is likely to require additional surveys for plants during the spring season, as many species are not detectable during winter surveys. Additional surveys for burrowing owl may also be required.

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for Desert Tortoise and Burrowing Owl,
with an Evaluation of Habitat for Mohave Ground Squirrel,
on a 26.3-acre± site (APN 3121-034-025, Lots 1, 2, & 3)
in the City of Lancaster, Los Angeles County, California**

1.0. Introduction

1.1. Purpose and Need for Study. Circle Mountain Biological Consultants, Inc. (CMBC) was contacted in December of 2017 by Investment Concepts, Inc. (Proponent) to perform a focused survey for Agassiz's desert tortoise (*Gopherus agassizii*), habitat assessments for burrowing owl (*Athene cunicularia*) and Mohave ground squirrel (*Xerospermophilus mohavensis*), and a general biological resource assessment on a 26.3-acre± site (APN 3121-034-025, Parcels 1, 2, & 3) in Los Angeles County, California, in the City of Lancaster. Since the city planning department does not have a specified protocol for biological technical reports, this report has been prepared according to County of San Bernardino's *Report Protocol for Biological Assessment Reports* (County of San Bernardino 2006), which is considered an appropriate, comprehensive format to report results of the field survey and habitat evaluation.

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

1.2. Project Description. APN 3121-034-025, Parcels 1, 2, & 3, is a 26.3-acre± site located on the west side of 20th Street West, about 500 feet south of West Avenue I (see Figures 1 and 2). Parcel 1, the southernmost of the three, measures 9.99 acres, Parcel 2, in the center, comprises 10.0 acres, and Parcel 3, on the north, comprises 6.313 acres. The legal description for the subject property is Township 7 North, Range 12 West, a portion of Section 17, S.B.B.&M. The subject property is in escrow, and no development is planned for the immediate future.

2.0. Methods

2.1. Literature Review. CMBC consulted materials included in our library to determine the nearest locations of special status plant and animal species that have been reported from the vicinity of the subject property. Between 1991 and 2017, CMBC has completed 66 focused tortoise surveys in the Lancaster-Palmdale areas. Focused tortoise surveys completed for 25 projects, located between approximately 460 feet and three miles of the parcel, between 1992 (Tierra Madre Consultants 1992) and 2017 (Circle Mountain

Biological Consultants, Inc. 2017b), 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.

In accordance with *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (California Department of Fish and Game 2009), CMBC also consulted the latest version of the California Natural Diversity Data Base (CDFW 2017) for rare plant (and animal) records reported from the USGS 7.5' Lancaster West quadrangle, which encompasses the site. These and other materials used in the completion of this report are listed in Section 5.0, below.

2.2. Field Survey.

2.2.1. *Survey and Habitat Assessment Protocols.* For **Agassiz's desert tortoise**, CMBC generally followed the survey protocol identified by the USFWS (2017) for their detection. USFWS protocol recommends that transects be surveyed at 30-foot (10-meter) intervals throughout all portions of a given parcel.

The *action area* is defined by regulation as all areas to be affected directly or indirectly and not merely the immediate area involved in the action (50 CFR §402.02). For this site, the action area is considered the subject property only, since the site is mostly surrounded by existing development.

For **burrowing owl**, the CDFW (California Department of Fish and Game 2012) survey protocol recommends transects be surveyed at 30-meter intervals throughout a given site, with five additional transects surveyed at 30-meter intervals out to 150 meters in adjacent areas in potential habitat (i.e., excluding areas substantially developed for commercial, residential, and/or industrial purposes). With its narrower transect intervals, the tortoise survey is sufficient to cover the site for burrowing owl. The focus of the survey is to find and inspect all burrows sufficiently large to be used by burrowing owls. Importantly, this methodology is considered a formal *habitat assessment* for presence of burrowing owls, which can be conducted any time of the year.

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

2.2.2. *Field Survey Methods.* For a total of 7 survey hours, between 0830 and 1200 on 8 December 2017, Sharon Dougherty of CMBC and subcontractor, Jeff Erway, surveyed the site and adjacent areas as described herein. This entailed a survey of 26 transects, spaced at 30-foot (10-meter) intervals and oriented in a north-south direction throughout the 26.3-acre± parcel. As depicted in Figure 2, five buffer area transects were surveyed for detection burrowing owls at 50-foot intervals to the east of the northern roughly half of the subject property, where a vacant lot is present. A copy of CMBC's data sheet completed in the field is included in this report (see Appendix C). Habitat quality, adjacent land uses, and observable disturbances are discussed below in Section 3.2 relative to the potential occurrence of Agassiz's desert tortoise and other special status species on and adjacent to the subject property.

As transects were surveyed, Dougherty kept tallies of observable human disturbances encountered on each of the transects. 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 at the beginning of the survey included a temperature [measured approximately 2.5 inches (5 centimeters) above the ground] of 53°F (11.7°C), with 5% cloud cover, and average winds of 1.5 miles per hour out of the west, as measured by a hand-held Kestrel® weather and wind speed meter.

All plant and animal species identified during the survey were recorded in field notes and are listed in Appendices A and B, respectively. A Garmin® hand-held, global positioning system (GPS) unit was used to survey straight transects and record Universal Transverse Mercator (UTM) coordinates (North American Datum – NAD 83) for property boundaries, and other pertinent information (Appendix C). A digital camera was used to take representative photographs (Appendix D). ©2017 Google™ Earth was accessed via the internet to provide recent aerial photographs of the subject property and surrounding areas (Figure 4).

3.0. Results

3.1. Common Biological Resources. The common plant and animal species identified during the survey are influenced by multiple factors such as elevation, topography, soil substrates, and adjacent land uses. Based on DeLorme Topo USA® 10.0 software, elevations on the subject property range from approximately 2,333 feet (711 meters) at the southeastern corner down to 2325 feet (709 meters) at the northwestern corner. Terrain is relatively flat. Soils are clay, with small barren areas where water accumulates seasonally. No USGS-designated blue-line streams occur on-site.

3.1.1. *Common Flora*. The 21 plant species identified during the survey are listed in Appendix A. The plant community present is degraded saltbush scrub. Dominant plants on the subject property include fourwing saltbush (*Atriplex canescens*), rabbitbrush (*Ericameria nauseosus*), and Great Basin sagebrush (*Artemisia tridentata*). Other shrubs present on the site include a few California junipers (*Juniperus californica*), Nevada joint-fir (*Ephedra nevadensis*), and Mormon tea (*E. californicus*). A few perennial grasses were present, but without seed heads, making identification problematic. These were tentatively identified as desert needlegrass (*Stipa speciosa*). Desert olive (*Forestiera neomexicana*), possibly derived from nearby ornamental plantings, is present on the southern parts of the property.

Several species associated with alkali clay soils and seasonal flooding were noted, including Torrey's sea-blight (*Suaeda moquinii*), and salt grass (*Distichlis spicata*). Many annual plants were difficult or impossible to identify or detect, given the winter timing of the survey. Those identified are primarily non-native, invasive species, such as cheatgrass (*Bromus tectorum*), red brome (*B. madritensis* ssp. *rubens*), hare barley (*Hordeum murinum*), red-stemmed filaree (*Erodium cicutarium*), Russian thistle (*Salsola tragus*), Saharan mustard (*Brassica tourneforti*), and star thistle (*Centaurea melitensis*). Mares tail (*Conyza canadensis*) and pigweed (*Chenopodium fremontii*) were common native annuals, and are tolerant of disturbed conditions. Other native annual wildflowers and forbs are likely to occur during the spring months.

3.1.2. *Common Fauna*. The nine bird and seven mammal species identified during the survey are listed in Appendix B. Audubon cottontail (*Sylvilagus audubonii*), blacktailed hare (*Lepus californicus*), coyote (*Canis latrans*), kit fox (*Vulpes macrotus*), and bobcat (*Lynx rufus*) are common desert species, apparently persisting in an area of mostly urban development. Kit fox sign on the property appeared old, and burrows did not appear to be active. The drainage channel to the west may serve as a wildlife corridor, facilitating movement of these species between the site and other undeveloped areas to the north and south. California ground squirrels (*Otospermophilus beecheyi*) and botta pocket gopher (*Botta thomomys*) are present on the site, and are often associated with human disturbance.

Bird species noted included horned lark (*Eremophila alpestris*), white-crowned sparrow (*Zonotrichia leucophrys*), California gull (*Larus californicus*), mourning dove (*Zenaidura macroura*), house finch (*Carpodacus mexicanus*), rock dove or pigeon (*Columba livia*). Great horned owl (*Bubo virginianus*) pellets were found near an old fence post, which probably served as a hunting perch. One, very old burrowing owl pellet was found at an abandoned kit fox burrow.

No reptiles were detected, probably due to the season of survey (winter). Locally common reptile species that may occur include side blotch lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris*), desert horned lizard (*Phrynosoma platyrhinos*), red racer (*Masticophis flagellum*), gopher snake (*Pituophis melanoleucus*), and various others.

3.2. Uncommon Biological Resources.

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

No tortoise sign was found either on-site or in adjacent areas during this focused, protocol survey (U.S. Fish and Wildlife Service 2017) for the species. Based on the absence of tortoise sign on the subject property, in adjacent areas, and reported from the region (see Figure 3), CMBC concludes that the Agassiz's desert tortoise is absent from the subject property and adjacent survey areas. Also, there is no likelihood of wild tortoises entering the site from adjacent areas, either to pass through the site or establish residency.

Encounter rates for observable human disturbances included (in descending order of prevalence) dump sites (24), dirt roads and tracks (21), vehicle tracks (7), and dog waste (5). Twenty-four discreet dump sites, of mostly landscaping waste and broken concrete, were noted, as well as windblown trash throughout the site. Several vacant homeless camps were present. Large piles of soil have been dumped in an area of about 2.5 acres in the northeastern corner of the site, and such dumping of spoil piles appears to be an active disturbance. Old fence posts and barbed wire are also present on the site, indicating that the site may have been used for agriculture in the past. The site is mostly surrounded by existing commercial and residential development, and a freeway to the west, beyond a channelized drainage.

As depicted in Figure 3, CMBC personnel have surveyed 25 sites within approximately 3 miles of the subject property. No evidence of tortoises has been found on any of these surveys. In fact, no evidence of *living* tortoises has been found on any of the focused surveys completed by CMBC personnel in the Palmdale-Lancaster area since 1991. In June and July 1991, LaRue and two other tortoise biologists surveyed 342 linear miles of transects on 90 square miles within the city limits and sphere of influence of the city of Lancaster (Tierra Madre Consultants, Inc. 1991). No tortoise sign was found. Another team of two biologists simultaneously evaluating 122 square miles for Mohave ground squirrel in the same area found three tortoise carcasses. Dr. Kristin Berry, then with the Bureau of Land Management, judged that these tortoises had died between 1971 and 1989 (personal communication to LaRue in July 1991). On 19 July 2007, Brian Ludicke with the City indicated that no tortoises have been reported on any focused surveys within the city limits since the 1991 surveys.

With the publication of the 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 site is not found within tortoise critical habitat, which was designated in 1994 (U.S. Fish and Wildlife Service 1994a) nor is it within a Desert Wildlife Management Area as recommended in the Desert Tortoise (Mojave Population) Recovery Plan (U.S. Fish and Wildlife Service 1994b) and formally adopted in March 2006 as a result of the West Mojave Plan Record of Decision (U.S. Bureau of Land Management 2006). The southern boundaries of the Fremont-Kramer Critical Habitat Unit and Desert Wildlife Management Area are north of El Mirage dry lake, some 20 miles east-northeast of the subject property.

3.2.2. *Other Special Status Species*. U.S. Fish and Wildlife Service (2008), California Department of Fish and Wildlife (CDFW 2017a for California Natural Diversity Data Base; 2017b for Special Plant Species list; and 2017c for Special Animal Species list), and California Native Plant Society (CNPS 2017) maintain lists of animals and/or plants considered rare, threatened, or endangered, which are collectively referred to as “special status species.” The only special status species detected on-site during the current survey was burrowing owl. Other special status species reported from the area are listed below.

Lancaster milk-vetch (*Astragalus preussii* var. *laxiflorus*), a CNPS List 1B.1 plant, has been reported from alkali clay soil areas in the Antelope Valley in 1902 (CDFW 2017a). Suitable habitat is present on the subject property.

White pygmy-poppy (*Canbya candida*), a CNPS List 4.2 plant, has been reported from areas of granitic soils in the Antelope Valley area (CDFW 2017a). Habitat on the subject property is not suitable for this species.

Parry's spineflower (*Chorizanthe parryi* var. *parryi*), a CNPS List 1B.1 species, has been reported from dry slopes and flats in the Lancaster area (CDFW 2017a). Habitat on the subject property is not suitable for this species.

Rosamond eriastrum (*Eriastrum rosamondense*), a CNPS 1B.2 plant, has been reported in the California Natural Diversity Data Base (CDFW 2017a) from “alkali pool beds” 2.7 miles and 3.6 miles northwest in 2005, and 2.5 miles northeast in 1993 (CDFW 2017a). Suitable habitat may be present on the subject property.

Alkali mariposa-lily (*Calochortus striatus*), a CNPS List 1B.2 plant, was reported in the California Natural Diversity Data Base (CDFW 2017a) **from the subject property in 2005**, from 6.3 miles north-northeast in 2015, 3.2 miles west in 1988, 5.1 miles northwest in 2008, 2.2 miles west-southwest, 2.2 miles and 1.9 miles southwest in 2005, 2.0 miles northeast in 2010, 3.7 miles northeast in 2015 (CDFW 2017a). CMBC has also observed

the species 1.4 miles to the north (CMBC 2005b), 1.4 miles to the north-northwest (CMBC 2005d), and 1.3 miles to the south in 2017 (CMBC 2016 amended).

Northern California legless lizard (*Aniella pulchra*), a California Species of Special Concern, was reported approximately 8 miles south of the site and 3 miles west in 1988, and 2.5 miles southwest in 2005 (CDFW 2017a). Suitable habitat may be present. This and other reptile species are inactive in winter, and would not have been detectable at the time of surveys.

Coast horned lizard (*Phrynosoma blainvillii*), a California Species of Special Concern, was reported in the vicinity of Lancaster in 1964, and 5.2 miles southwest of the site in 1991 (CDFW 2017a). Suitable habitat may be present. This and other reptile species are inactive in winter, and would not have been detectable at the time of surveys.

Unless otherwise noted, each of the bird species discussed below is considered a Bird of Conservation Concern by the USFWS (2008) and/or a Bird Species of Special Concern by the CDFW (2017c).

Least Bell's Vireo (*Vireo bellii pusillus*), a Federal and California Endangered Species, was observed 1.1 mile north in the drainage channel parallel to Highway 14 in 2006 (CDFW 2017a). Habitat on the site is not suitable for this species.

A colony of **tri-colored blackbirds** (*Agelaius tricolor*), a candidate California Endangered Species, has been observed 4.5 miles southwest in 2011 (CDFW 2017a). Habitat on the site is not suitable for this species.

An active **Swainson's hawk** (*Buteo swainsoni*) nest was observed in the vicinity of Lancaster in 1978 (CDFW 2017a). No suitable nesting habitat is present on the site, and the species is unlikely to nest in nearby areas due to existing development.

Ferruginous hawks (*Buteo regalis*) have been observed wintering 4.9 miles northwest in 1998 and 4.5 miles west in 1999 (CDFW 2017a). The species is unlikely to forage or roost in nearby areas due to existing development.

Merlin (*Falco columbarius*) was observed 3 miles north-northwest of the site in 2010 (CDFW 2017a). This species could pass through the site during migration but would be unlikely to remain on the site.

Burrowing owl is one of the focal species specifically sought during field studies. Diagnostic signs of this species include regurgitated pellets with small reptile and/or mammal bones, or those that are primarily composed of insect parts. There may also be distinctive feathers, zygodactyl (x-shaped) tracks, and whitewash, although fecal material deposited away from burrows may be from other bird species. Although pellets and feathers are sufficiently distinctive that they may be identified away from burrows, it is one or more of these signs at sufficiently large burrows that are the most definitive means of determining burrowing owl use of a given site.

In the case of the subject property, the only evidence of burrowing owl was one old pellet found at an abandoned kit fox burrow. The burrow did not appear to be currently occupied by 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. During the survey, 133 ground squirrel burrows and several old kit fox burrows of appropriate size were inspected, and no other evidence of burrowing owl was seen.

Burrowing owls have been observed or detected by CMBC personnel 1.3 miles northeast of the site (CMBC 2005d) and 2.4 miles south-southeast of the site (Tierra Madre Consultants, 1994). The California Natural Diversity Data Base (CDFW 2017a) reports the species from 2.4 miles to the southwest (2006), 2.9 miles southwest (2005), and 2.4 miles west (2006 and 2011). The species has occupied the site in the past and there is potential for the species to return, although habitat is degraded.

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 (Adrienne Disbrow, personal communication to CMBC in 2004): (1) Is the site within the range of the species? (2) Is there native habitat with a relatively diverse shrub component? (3) Is the site surrounded by development and therefore isolated from potentially occupied habitats?

First, Figure 5 shows known locations of Mohave ground squirrels relative to the subject property (CDFW 2017a) and the suspected range of the species (Gustafson 1993; U.S. Bureau of Land Management 2005). The nearest reported occurrence was approximately 3.0 miles southeast where a squirrel was found in 1984. Other proximate occurrences have been 7.7 miles south-southeast (1944), 8.7 miles east-southeast (1973), 9.4 miles southeast (1977), 10.0 miles south-southeast (1934), and 15.6 miles northeast (2006). Numerous surveys performed in the surrounding region in much more suitable habitats (Leitner 2008) have failed to capture the species.

When a line is drawn to connect the known occurrences to determine the approximate range of the species (the “red line” in Figure 5), the site is approximately 1.6 miles west of the extrapolated western boundary (U.S. Bureau of Land Management 2005), or approximately 1.6 miles outside of the suspected species range.

Second, Mohave ground squirrel has been reported between 1,800 feet (549 meters) and 5,600 feet (1,707 meters) elevation from a wide range of habitats including creosote bush scrub, Joshua tree woodland, juniper woodland, and Mohave mixed woody scrub (U.S. Bureau of Land Management 2005). Although at 2,330-feet (710-meters) elevation, the site is well within the known elevational range of the species, habitat on the subject property is marginal for the species. There is a relatively low level of diversity of native perennial plants, with about six shrub species identified.

In the northern part of the range, winterfat and spiny hopsage are ecologically important shrubs for Mohave ground squirrel (U.S. Bureau of Land Management 2005). Both winterfat and spiny hopsage are absent from the subject property. In any case, the presence of these plants does NOT imply that the Mohave ground squirrel occurs. There are no data to suggest that these plants are important to the species in the south as they appear to be in the Coso Range, near the northern extent of the Mohave ground squirrel known range.

Finally, contiguous lands are nearly all developed.

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

3.3. Other Protected Biological Resources. There are no washes present on the site, and the drainage channel immediately to the west of the site has been channelized and does not support a community of riparian vegetation. No protected plant species 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 regional information reviewed for this habitat assessment, CMBC concludes that tortoises are absent from the subject property. As such, no impacts are anticipated and no mitigation measures are recommended.

According to USFWS (2010) pre-project survey protocol the results of this survey will remain valid for the period of one year, or until 8 December 2018, after which time, if the site has not been developed in the interim, another survey may be required to confirm the absence of tortoises on-site.

Regardless of survey results and conclusions given herein, tortoises are protected by applicable State and federal laws, including the California Endangered Species Act and Federal Endangered Species Act, respectively. As such, if a tortoise is found on-site at the time of construction, all activities likely to affect that animal(s) should cease and the City contacted to determine appropriate steps.

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

Finally, it has been CMBC's practice since 1994 to NOT submit technical reports to either the USFWS or the CDFW unless asked to do so by the Proponent. However, the Proponent is advised of the following conditions identified in January 2010 in the

USFWS' revised pre-project survey protocol and assumes responsibility for implementing (or not) these recommendations:

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

4.2. Impacts to Other Biological Resources and Proposed Mitigation.

4.2.1 *Other Special Status Species.* Based on the field survey and habitat assessment, CMBC concludes that alkali mariposa lily, a California Native Plant Society List 1B.2 species, may be present on the site. It was reported from the site in 2005 (CDFW 2017a). Habitat on the site is suitable for the species, but given the winter season of the survey, the species would not have been detectable.

Suitable habitat for the following species is present on the site, but none were detected during the current survey: Rosamond eriastrum, Lancaster milk-vetch, northern California legless lizard, and coast horned lizard.

No development is proposed at present for the site, and as such, no adverse impacts have been identified and no mitigation measures are recommended. If development of the site is proposed, the CDFW is likely to require additional surveys for plants during the spring season, as many species are not detectable during winter surveys.

Burrowing owl is considered absent from the site at the present time. However, an old pellet was found at a burrow, and suitable habitat is present for the species. Burrowing owl could reoccupy the site, although current levels of disturbance could prevent this. CDFW (California Department of Fish and Game 2012) has stipulated that the following should be considered impacts to the species:

- *Disturbance within 50 meters (approximately 160 feet), which may result in harassment of owls at occupied burrows;*
- *Destruction of natural or artificial burrows (i.e., culverts, concrete slabs, and debris piles that provide shelter to burrowing owls); and*
- *Destruction and/or degradation of foraging habitat adjacent [within 100 meters (approximately 320 feet)] of an occupied burrow(s).*

No development is currently proposed for the subject property. In the case of future development, if impacts cannot be avoided, specified mitigation measures include (a) avoiding occupied burrows during the breeding season, between February 1 and August 31; (b) purchasing and permanently protecting 6.5 acres of foraging habitat per pair or unpaired resident bird impacted; (c) creating new burrows or enhancing others when destruction of occupied burrows is unavoidable; (d) implementing passive relocation if owls must be moved; and (e) provide funding for long-term management and monitoring of protected lands.

Given this information, CMBC reiterates that it is highly advisable (and cost effective) to avoid impacts. CDFW (California Department of Fish and Game 2012) states the following:

If avoidance is the preferred method of dealing with potential project impacts, then no disturbance should occur within 50 meters (approximately 160 feet) of occupied burrows during the nonbreeding season of September 1 through January 31 or within 75 meters (approximately 250 feet) during the breeding season of February 1 through August 31. Avoidance also requires that a minimum of 6.5 acres of foraging habitat be permanently preserved contiguous with occupied burrow sites for each pair of breeding burrowing owls (with or without dependent young) or single unpaired resident bird. The configuration of the protected habitat should be approved by the Department [CDFW].

Given the location of the site, the appropriate CDFW wildlife biologist is Scott Harris. He would advise the Proponent of appropriate steps to either avoid impacts or mitigate them according to latest CDFW standards. Mr. Harris' contact information follows: CDFW, Region 4, 1508 North Harding Avenue, Pasadena, California 91104, (626) 797-3170.

Although a focused Mohave ground squirrel trapping survey was not performed, CMBC assessed habitats and reviewed available information to provide a professional opinion as to the presence or absence of this species on the subject property. Given the information discussed herein, CMBC concludes the species is absent from the site.

4.2.1. 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.

At this time, no development of the site is proposed. If and when development is planned, 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 focus floral inventory described in this report.

CONIFERAE

Cupressaceae

Juniperus californica

GNETAE

Ephedraceae

Ephedra californica

Ephedra nevadensis

ANGIOSPERMAE: DICOTYLEDONES

Asteraceae

Artemisia tridentata

**Centaurea melitensis*

Conyza canadensis

Ericameria (Chrysanthamnus) nauseosus

Gutierrezia sarothrae

Helianthus sp.

Brassicaceae

**Brassica tournefortii*

Chenopodiaceae

Atriplex canescens

Chenopodium fremontii

**Salsola tragus*

Suaeda moquinii (nigra)

Geraneaceae

**Erodium cicutarium*

Oleaceae

Forestiera neomexicana

CONE-BEARING PLANTS

Cypress family

California juniper

GNETAE

Joint-fir family

Desert tea

Nevada joint-fir

DICOT FLOWERING PLANTS

Sunflower family

Great Basin sagebrush

Star thistle

Mare's tail

Rubber rabbitbrush

Matchweed

Sunflower

Mustard family

Saharan mustard

Goosefoot family

Fourwing saltbush

Pigweed

Russian thistle

Torrey's sea-blight

Geranium family

Red-stemmed filaree

Olive family

Desert olive

ANGIOSPERMAE: MONOCOTYLEDONES

MONOCOT FLOWERING PLANTS

Poaceae

**Bromus madritensis* ssp. *rubens*

**Bromus tectorum*

Distichlis spicata

**Hordeum murinum*

Stipa (Achnatherum) speciosa [c.f.]

Grass family

Red brome

Cheat grass

Salt grass

Hare barley

Desert needlegrass

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

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

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

Appendix B. Animal Species Detected

The following animal species were detected during the general biological inventory described in this report. Special status animal species are highlighted in red and signified by "(SC)" following the common names.

AVES

Laridae

Larus californicus

Columbidae

Columba livia

Zenaida macroura

Tytonidae

Tyto alba

Strigidae

Bubo virginianus

Athene cunicularia

Alaudidae

Eremophila alpestris

Emberizidae

Zonotrichia leucophrys

Fringillidae

Carpodacus mexicanus

MAMMALIA

Leporidae

Lepus californicus

Sylvilagus audubonii

Sciuridae

Otospermophilus beecheyi

Geomyidae

Thomomys bottae

Canidae

Canis latrans

Vulpes macrotis

BIRDS

Gulls and terns

California gull

Pigeons and doves

Rock dove

Mourning dove

Barn Owls

Common barn owl

Typical owls

Great horned owl

Burrowing owl (SC)

Larks

Horned lark

Sparrows, warblers, tanagers

White-crowned sparrow

Finches

House finch

MAMMALS

Hares and rabbits

Black-tailed hare

Audubon cottontail

Squirrels

California ground squirrel

Pocket gophers

Botta pocket gopher

Foxes, wolves and coyotes

Coyote

Kit fox

Felidae*Lynx rufus***Cats**

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 8 December 2017

The USFWS and County require consultants to include copies of the data collected in the field from which the results and conclusions given in this report are derived. As such, following this page are copies of the data sheets completed by Sharon Dougherty on 8 December 2017.

JOB #/NAME	DATE	DRIVE TIME		MILES	FIELD TIME		SURVEYORS		
		TO	FROM		BEGIN	END			
17-039	12-8-17	0720	1230	54	0830	1200	SD, JE		
WEATHER CONDITIONS (Start/End)				UTM (NAD 83) (circle starting corner)					
TEMP: 53°F WIND X: 1.5↑ NSEW CLOUD: 5%				NE→ NW→ SE→ SW→					
TEMP: °F WIND X: ↑ NSEW CLOUD: %				0293201 - 3201					
				3040689 - 0260					
PERENNIAL PLANTS		ANNUAL PLANTS		BIRDS		HERP	MAM		
Eri. nan			Brated		HOLA	GHOW		AU CO	
Atr. can			Sal tra		WICSP	MODD		KFOX	
Jun. cal			Erag. c		CORP	HDFI		BTNA	
Ste. pau			Che. fre		RODO	CAGU		COYO	
Dis. spi			Can. mel					Norway	
Sti. spe (cf.)			Hor. mur		BNOW	3029, 0356		BCAT	
Art. tri			Bra. mad		Sign. sp.			BOTH	
Sun. mag			Can. can					CAGS	
For. nes			Hel. sp.						
Eph. nev									
Eph. cal									
Out. sac									
Photographs									
NE→SW 1									
SE→NW - 2									
NW→SE									
OBSERVABLE HUMAN DISTURBANCES									
T#	East	North	OHV	Road	Dog	Dump	S Gun	Rifle	Target
2	3190	0690							
4	3170	0270				13			
	6	3180	0690			13			
	8	3130	0270			13	vegetation	concrete	
	10	3110	0690			13			
	12	3090	0270			13			
	14	3070	0690			13			
	16	3050	0276			13			
	18	3030	0690			13			
	20	3010	0270			13			
	22	2990				13			
	24	2970	0690			13		homeless camp	
	26	2950	perce line			13			
	BNOW	Buffer							
		1240	0469						
		3240	0469						
		3340	0696						
		3340	0690						

soil is clay. NE end of property has hummocks from fill dumped on site.

Appendix D. Photographic Exhibits



Exhibit 1. APN 3121-034-025: View from northeast corner of property to southwest, showing soil dumping piles



Exhibit 2. APN 3121-034-025: Northwest corner of subject property to southeast



Exhibit 3. APN 3121-034-025: Southeast corner of subject property to northwest



Exhibit 3. APN 3121-034-025: Southwest corner of subject property to northeast