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August 3, 2018

Job No. 3-418-0257

Mr. David Dawud **Property Plus Mobil, LLC** 9051 Van Nuys Blvd., Suite 2 Panorama City, CA 91402

Subject: BIOLOGICAL HABITAT ASSESSMENT Proposed Commercial Development 1100 West Foothill Boulevard Rialto, CA

Dear Mr. Dawud:

At your request and authorization, a Biological Habitat Assessment for the above-referenced project (a portion of Riverside County Assessor Parcel Number [APN] 0128-571-16-0000 totaling 2.50-acres) located at 1100 West Foothill Boulevard in Fontana, California (subject property) was conducted. The Biological Habitat Assessment was conducted to identify potential biological resources including sensitive species and habitats located on the subject property.

During the course of this assessment, evidence of sensitive species was not observed.

We appreciate the opportunity to assist you with this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (909) 980-6455.

Respectfully submitted,

SALEM Engineering Group, Inc.

Maria G. Ruvalcaba, EP Project Manager

## HABITAT ASSESSMENT Southern 1/2 of APN # 0128-571-16-0000 (2.5 acres) City of Rialto, San Bernardino County, California



**Completed For** Salem Engineering 13355 Noel Road, Suite 1100 Dallas, Texas 75240 **Completed By** VHBC, Incorporated 6895 Ironwood Drive Riverside, CA 92506

#### **Executive Summary:**

A Habitat Assessment was completed on 2.50-acres in Rialto, California (southern ½ of APN 0128-571-16-0000) to determine if sensitive species and habitats could be on-site. No signs of sensitive species or habitats were found. The site was historically disced and the vegetation on-site is limited to invasive non-native grasses and forbs.

Survey Dates: 4-12-18, 4-13-18, 8-3-18

**Report Date**: 4-21-18 **Revision Date**: 8-3-18

<u>CERTIFICATION</u>: I certify that the statements furnished above and in the 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.

SIGNED:

Victor M. Horchar

DATE: <u>8-3-18</u> 8-3-18

# **TABLE OF CONTENTS**

<u>Section</u> 1.0 INT	RODUCTIO	ON	•	•	•	•	•	•	•	•	<u>Page</u> 3
2.0 PRC	JECT SITI	E LOCA	TION	AND D	DESCRI	IPTION	N		•	•	3
3.0 BAC	CKGROUN	D AND	REGUI	LATOP	RY SET	TING	•	•	•	•	28
4.0 COV	VERED SPH	ECIES	•	•	•	•	•	•	•	•	31
5.0 ME	rhodolo	GY	•	•	•	•	•	•	•	•	57
6.0 FIE	LD-CONFI	RMED ]	EXISTI	ING SE	CTTIN	7	•	•	•	•	59
7.0 RES	SULTS	•	•	•	•	•	•	•	•	•	59
8.0 COI	NCLUSION	s.	•	•	•		•	•	•	•	59
9.0 LIT	ERATURE	•	•	•	•	•	•	•	•	•	60
<u>APPEN</u>	DICES										
APPEN	DIX A: BO'	TANIC	AL CO	MPEN	DIUM	•	•	•	•	•	64
APPEN	DIX B: WII	LDLIFE	E COMI	PENDI	UM	•	•	•	•	•	65
APPEN	DIX C: CN	DDB PF	RINTOU	UTS	•	•	•	•	•	•	67

## **1.0 INTRODUCTION**

The project owner proposes to develop a 2.50-acre area in Rialto, California (southern ½ of APN 0128-571-16-0000). The site is a biologically isolated parcel within the City. It is located along an active four lane city road and is adjacent to existing developments on two sides. The owner has requested a Habitat Assessment of the site to determine if any species or habitats could require the implementation of conservation measures. The California Department of Fish & Wildlife and the U.S. Fish 7 Wildlife Service have identified the following covered species as either being in the City or as once have been possibly located in the City: burrowing owl (*Athene cunicularia*), western yellow bat (*Lasiurus xanthinus*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), coast horned lizard (*Phrynosoma blainvillii*), California glossy snake (*Arizona elegans occidentalis*), Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), San Bernardino aster (*Symphyotrichum defoliatum*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), Santa Ana River woollystar (*Eriastrum densifolium ssp. sanctorum*), mesa horkelia (*Horkelia cuneata* var. *puberula*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), and Los Angeles pocket mouse (*Perognathus longimembris* brevinasus).

## 2.0 PROJECT SITE LOCATION AND DESCRIPTION

Project site located in the City of Rialto, San Bernardino County, California (Figure 1). The project (Figure 2, Figure 3, Figure 4) is limited to the southern ½ of APN 0128-571-16-0000 which is along Foothill Boulevard between Larch Avenue to the east and a shopping center to the west. The northern border is defined by an existing residential block wall and the southern border is Foothill Boulevard. The site is flat (Figure 5), with no discernable elevational change relative to the surrounding area (1,290-feet above sea level) as shown in the Fontana U.S.G.S. Quadrangle (Section 3, Township 1 South, Range 5 West) and as confirmed during these surveys.

The soils on-site (Figure 6) have been mixed during previous site uses, including a winter Christmas tree stand. The soil base is comprised of Tujunga loamy sand, 0-5% slopes. The flat nature of the site versus the historic soil slopes is indicative of the level to which this site has been flattened mechanically. Photographs of the site are shown from Figure 7 to Figure 15 to provide a thorough representation of the subject area.

## **Site Location**



## Vicinity Map



# Aerial Close-up



## **Project Plan Sheet**



## **Topographic Map**



# Soil Map



Map Unit Symbol	Map Unit Name	Percent of AOI
TuB	Tujunga loamy sand, 0 to 5 percent slopes	100.0%
Totals for Area of Interest	100.0%	

# Photograph Key Updated 8-3-18















## Photograph 7

## **Before Discing**



# Photograph 8

## **Before Discing**



## 3.0 BACKGROUND AND REGULATORY SETTING

#### **3.1 Federal Laws and Regulations**

## 3.1.1 Endangered Species Act

The Endangered Species Act (ESA) of 1973 (16 United States Code [USC] 1531 et seq.; 50 Code of Federal Regulations [CFR] 17.1 et seq.) designates and provides for protection of threatened and endangered plant and animal species and their critical habitat. Section 9 of the ESA prohibits "take" of threatened or endangered species. Under the ESA, a lead agency or project proponent must formally consult with the U.S. Fish & Wildlife Service (USFWS) regarding a proposed action that may adversely affect listed species. After consultation, the USFWS will determine whether to issue an incidental take statement. If a permit on private lands is required under the ESA, it would be conducted following Section 10 of the ESA to obtain an incidental take permit.

#### 3.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918, as amended, prohibits "take" of migratory birds (16 USC 703-712). Under the MBTA it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product. All birds that are native to the United States and belong to a family, group or species covered by at least one of the four migratory bird conventions to which the United States is party are covered under the MBTA. There is currently no permitting framework (i.e., incidental take permits) that allow liability protection for project developers. The administering agency is the USFWS.

The USFWS Division of Migratory Bird Management also maintains a list of Birds of Conservation Concern, which identifies species, subspecies, and populations of migratory and non-migratory birds that may need additional conservation actions. This action was an outcome of a 1988 amendment to the Fish and Wildlife Conservation Act, which mandates the USFWS to identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the ESA.

#### 3.1.3 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) prohibits the take of any bald or golden eagle, alive or dead, including any part, nest, or egg. "Take" is defined as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" a bald or golden eagle. "Disturb" means to agitate or bother an eagle to a degree that causes or is likely to cause (1) injury to an eagle; (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. The administering agency is the USFWS.

#### 3.1.4 Clean Water Act

Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344) regulates all discharge of dredged and fill material into waters of the United States, including wetlands. The United States Army Corps of Engineers (USACE) and United States Environmental Protection Agency (USEPA) share responsibility for administering and enforcing Section 404 including jurisdictional delineations, permitting decisions, and development of policy and guidance. Waters of the United States and wetlands are those defined by the USACE/USEPA in CWA regulations (33CFR 328.3).

## **3.2 State Laws and Regulations**

## 3.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires review of any project that is undertaken, funded, or permitted by a state or local governmental agency. Typically, the state or local agency with overall project permitting authority takes the lead for CEQA compliance. The lead agency has the discretion to consider any non-listed species a de facto listed species by the statement that "a species not included in any listing in subsection (c) shall nevertheless be considered to be rare or endangered if the species can be shown to meet the criteria in subsection (b)" (CEQA Guidelines §15380, Subsection d). If significant project effects were identified, the lead agency would have the option of requiring mitigation for those effects through changes in the project or deciding that overriding considerations make mitigation infeasible (CEQA Sec. 21002).

## 3.2.2 California Endangered Species Act

The California Endangered Species Act of 1984 (CESA, California Department of Fish and Wildlife (CDFW) Code Sections 2050 et seq.) protects California's rare, threatened, and endangered species. CDFG Code Sections 1900 et seq. designate rare, threatened and endangered plants under the Native Plant Protection Act of 1977. If a federal biological opinion is issued for a project, the CDFW can choose to find it consistent with state law (a 2080.1 consistency determination), or choose to require a separate state incidental take permit (ITP or a 2081 permit) if species listed by CESA could be harmed or killed during construction or operation of the project. CDFW is the administering agency.

#### 3.2.3 California Code of Regulations, Title 14, Sections 670.2 and 670.5

Under this code, animals are designated as threatened or endangered in California. California Species of Special Concern (SSC) is a category conferred by CDFW on those species that may have declining population levels, limited ranges or continued threats that may ultimately result in their CESA listing as protected species. These species do not have any special legal status but are often considered during the CEQA process. The SSC designation is used by CDFW as a management tool for consideration when land use decisions are made.

## 3.2.4 Native Plant Protection Act; CDFG Code Sections 1900 et seq.

The Native Plant Protection Act (NPPA) includes measures to preserve, protect, and enhance rare and endangered native plant species. Definitions for "rare and endangered" are different from those contained in CESA, although CESA-listed threatened and endangered species are included in the list of species protected under the NPPA.

#### 3.2.5 California Department of Fish and Wildlife Code Sections 3503 and 3503.5

These codes state that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, including birds of prey, or take, possess, or destroy birds of prey, except as otherwise provided by this code or any regulation made pursuant thereto.

<u>3.2.6 California Department of Fish and Wildlife Code Sections 3511, 4700, 5050, and 5515</u> These state laws classify and prohibit the take of "fully protected" bird, mammal, amphibian, reptile, and fish species in California.

## 3.2.7 California Department of Fish and Wildlife Code Section 3513

This code prohibits any take or possession of birds that are designated by the MBTA as migratory non-game birds, except as allowed by federal rules and regulations pursuant to the MBTA.

## 3.2.8 California Department of Fish and Wildlife Code Section 4150

This state law makes it unlawful to take or possess any non-game mammal or parts thereof except as provided in the CDFG Code or in accordance with regulations adopted by the commission. However, Title 14 Section 460 prohibits the taking of desert kit foxes.

#### 3.2.9 California Desert Native Plants Act; California Food and Agriculture Code §§ 80001-80006

The California Desert Native Plants Act (CDNPA) allows the harvest of certain species of nonlisted native plants under permits issued by the county Agricultural Commissioner or Sheriff. The purpose of the CDNPA is to prevent the unlawful harvesting of native desert trees and cacti, either for wood, landscaping, or other purposes. Regulated species include: trees, cacti, ocotillo (*Fouquieria splendens*), yucca, and fan palms (*Washingtonia filifera*). Where feasible and practicable, individual plants can be salvaged and used for the project's revegetation program or salvaged by an approved nursery, landscaper, or other group to indirectly reduce unlawful harvesting elsewhere.

## 3.2.10 CDFW Streambed Alteration Agreement; CDFG Code Section 1600-1616

Waters of the state of California are subject to the jurisdiction of the CDFW. The CDFW monitors streambed alteration to conserve, protect, and manage California's fish, wildlife, and native plant resources. CDFG Section 1602 requires any person, state or local governmental agency, or public utility to notify the CDFW before beginning an activity that will substantially divert, obstruct, or change the natural flow of the bed, channel, or bank (including associated riparian vegetation) of a river, stream, or lake; or use material from a streambed prior to commencement of the activity. If CDFW determines that the action could have an adverse effect on existing fish and wildlife resources, a Lake or Streambed Alteration Agreement is required.

#### **4.0 COVERED SPECIES**

**Species:** Burrowing Owl (*Athene cunicularia hypugaea*)

Status: Species of Special Concern

**Species Background:** The burrowing owl is the smallest owl in the United States. Unlike most western birds this owl utilizes the existing burrows of ground squirrels primarily for nesting, although it can dig its own burrow in the absence of ground squirrel burrows. The mammal burrows are modified and enlarged. One burrow is typically selected for use as the nest, however, satellite burrows are usually found within the immediate vicinity of the nest burrow within the defended territory of the owl.

The burrowing owl occurs in shortgrass prairies, grasslands, lowland scrub, agricultural lands, prairies, coastal dunes, desert floors, open areas as a year-long resident (Haug, et al. 1993), forb and open shrub stages of pinyon-juniper and ponderosa pine habitats (Zeiner, et al. 1990). They may also use golf courses, cemeteries, road allowances within cities, airports, vacant lots in residential areas and university campuses, fairgrounds, abandoned buildings, and irrigation ditches. This small owl has been observed using abandoned pipes and gaps in rockpiles for nesting and cover. However, it typically occurs in very low numbers where it is found.

Prey consumed by the burrowing owl includes insects and small vertebrates such as mice, lizards, small birds and snakes. During the breeding season, there are significant declines in the percentage of vertebrate prey in the diet and increases in the invertebrate prey (Haug, et al. 1993).

**Distribution:** The burrowing owl occurs in low numbers throughout Californian (CDFW, 2018; Garrett and Dunn 1981). It has a sparsely scattered distribution throughout San Bernardino County outside of the highest montane areas.

**Proximity to Site:** Burrowing owls have been observed in the Rialto area in various habitats according to California Department of Fish and Wildlife and regional survey data. This owl has been observed on the edges of Lytle Creek, in undisturbed to moderately disturbed open space, along highway grades and within old construction sites using old pipes for cover and nesting.

**Likelihood of Occurrence On-site:** The presence of ground squirrel burrows on the parcel to the east (off-site) and an abundance of insects indicate that although the burrowing owl is not nesting on-site it could use the site to forage if passing through the general area.

## **Burrowing Owl Range in California**

## BURROWING OWL (Athene cunicularia)

Jennifer A. Gervais, Daniel K. Rosenberg, and Lyann A. Comrack



Species: San Bernardino Kangaroo Rat (Dipodomys merriami parvus)

#### Status: Endangered

**Species Background:** The San Bernardino kangaroo rat is not a typical rat as the name hints but rather a small unique rodent with kangaroo-like rear appendages. This species has the appearance of an enlarged mouse that hops around on its rear legs. The San Bernardino kangaroo rat is found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub (McKernan, 1997) where dig shallow burrows within the alluvial sage scrub, coastal sage scrub, and chaparral vegetation.

Soil texture is a primary factor in this subspecies' occurrence. Sandy loam substrates allow for the digging of simple, shallow burrows (McKernan, 1997). *D. merriami*, and other kangaroo rat species, actively avoid rocky substrates (Brown and Harney, 1993). Soils along occupied portions of the San Jacinto River include riverwash, Tujunga loam sand, Soboba cobbly loamy sand, Hanford coarse sandy loam, Gorgonio loamy sand (Knecht 1971).

The highest quality San Bernardino kangaroo rat habitat supports California buckwheat (*Eriogonum fasciculatum*), scale-broom (*Lepidospartum squamatum*), California croton (*Croton californicus*), yerba santa (*Eriodictyon sp.*), deerweed (*Lotus scoparius*), scattered Spanish bayonet (*Yucca whipplei*), cacti (*Opuntia spp.*) and a variety of native annual forbs such as phacelia (*Phacelia sp.*), lupine (*Lupinus sp.*), cryptantha (*Cryptantha sp.*), and popcorn flower (*Plagiobothrys sp.*). Poor quality habitat occurs in areas dominated by black mustard (*Brassica nigra*), brome grasses (*Bromus sp.*), and heavy soil disturbance.

**Distribution:** The USFWS estimates that at the time of listing in 1998, the San Bernardino kangaroo rat was present on only 16,440 acres. It was found near the Santa Ana River, Cajon Creek Wash, Lytle Creek Wash, City Creek, and upper Etiwanda Wash in San Bernardino County.

**Proximity to Site:** This species has historical sightings through live-trapping records in the alluvial scrub of Lytle Creek, east of the project site.

Liklihood of Occurance On-site: Viable habitat for this species is not present on-site.



## SAN BERNARDINO KANGAROO RAT CRITICAL HABITAT MAP

Species Name: Los Angeles pocket mouse (Perognathus longimembris brevinasus)

Status: Endangered

**Species Backround:** The Los Angeles pocket mouse is a small rodent that is about the size of a typical house mouse. This species is found in the sandy soils of drainages, and sandy soils of sparsely vegetated habitats including non-native grassland, Riversidean sage scrub, Riversidean alluvial fan sage scrub, chaparral and redshank chaparral. It does not occur in other areas of any of these habitat types because soil type may be a critical range-limiting factor for this species.

Pocket mice tend to forage under shrub and tree canopies, or around rock crevices, in contrast to kangaroo rats and kangaroo mice which tend to forage in more open areas (Reichman and Price 1993). Brown and Lieberman (1973) observed the little pocket mouse foraging around clumps of vegetation. Kenagy (1973) also observed that little pocket mice rarely occurred in the open and spent most of their time in or near bushes. The reliable occurrence of different species in different microhabitats is well documented, but reasons for these microhabitat preferences are not well understood (Reichman and Price 1993). Factors such as inter-specific competition, foraging economics, and predation risk probably are important factors in microhabitat selection, but the mechanisms and functions of such selection are not known.

**Distribution:** This species has a very limited distribution. The range of the Los Angeles pocket mouse is thought to once extend from Burbank and San Fernando in Los Angeles County east to the City of San Bernardino, San Bernardino County (Hall 1981). Its range extends eastward to the vicinity of the San Gorgonio Pass in Riverside County, and southeast to Hemet and Aguanga, and possibly to Oak Grove, in north-central San Diego County (Hall 1981; Patten et al. 1992). Its present range has declined throughout this area and is being assessed by mammologists at this time.

The Los Angeles pocket mouse is present in low numbers throught its range. This species occurs in sparsely vegetated habitat areas within patches of fine sandy soils that are associated with washes or of aeolian sand. Biologists have concluded that the Los Angeles pocket mouse is in serious decline because it is seldom trapped and much of its suitable habitat has been lost to agriculture and urban development. Biologists believe that the conservation of sage scrub and grassland habitats is needed to slow the population decline.

**Proximity to Site:** The nearest trapping record is in Lytle Creek Wash, between 5th Street and Baseline Road (O'Farrell, 2002).

Likelihood of Occurrence On-site: Habitat for this species is not present on-site.

## Los Angeles Pocket Mouse Occurrence Map



Perognathus longimembris brevinasus

Species: Northwestern San Diego pocket mouse (Chaetodipus fallax fallax)

Status: Species of Concern

**Species Background:** Like other desert-adapted heteromyid rodents, the San Diego pocket mouse primarily is a granivore. In a study of a rodent community in Irvine, Orange County, Meserve (1976) determined that the diet of the San Diego pocket mouse consisted almost purely of seeds during the autumn and early winter. The pocket mouse harvested seeds of the shrubs *Eriogonum, Rhus*, and *Artemisia* in the winter and spring, and then returned to grass seeds in the summer. Herbaceous forbs and green grasses were seldom utilized except in the latter part of the spring. Insects also were taken.

The northwestern San Diego pocket mouse occurs in coastal sage scrub, Diegan sage scrub, Riversidean sage scrub, and alluvial fan sage scrub, sage scrub/grassland ecotones, chaparral, and desert scrubs at all elevations up to 6,000 feet. This species is considered to be fairly common in suitable habitat. The San Diego pocket mouse generally exhibits a strong microhabitat affinity for moderately gravelly and rocky substrates (Bleich 1973; Price and Waser 1984), and, to a lesser extent, shrubby areas. It is commonly is found in disturbed grassland and open sage scrub vegetation with sandy-loam to loam soils (S. Montgomery 1998).

**Distribution:** This pocket mouse inhabits open, sandy areas of both the Upper and Lower Sonoran life-zones of southwestern California and northern Baja California. Records of the northwestern San Diego pocket mouse include Claremont, San Bernardino, Banning, and Jacumba. It is uncertain where the boundary between the northwestern San Diego pocket mouse and the pallid San Diego pocket mouse (C. f. pallidus) lies. The pallid San Diego pocket mouse occurs on the eastern slopes of the Peninsular Ranges in eastern Riverside County, but occurs in the transitional Cabazon area of Riverside County and the San Felipe Valley in San Diego County (Hall 1981).

Proximity to Site: Habitat for this bat is not present on-site or in the immediate vicinity.

**Likelihood of Occurrence On-site:** Habitat for this species is not present on-site. The site has been subjected historically to repeated weed abatement discing and illegal trash dumping.

## Northwestern San Diego Pocket Mouse Range



**Species:** California glossy snake (*Arizona elegans occidentalis*)

Status: Species of Concern

**Species Background:** The California glossy snake occurs in arid scrub, rocky washes, grasslands, chaparral. It prefers microhabitats of open areas and areas with soil loose enough for easy burrowing. Lays from 3 - 23 eggs (more often 5-12) in June and July. (Stebbins, 2003). The eggs most likely hatch in late summer and early fall. This snake preys mostly on sleeping diurnal lizards, small snakes, terrestrial birds, and nocturnally-active mammals. It hunts active mammals at night by waiting in ambush. This snake shelters underground in the daytime under rocks, in existing burrows, or uses its specialized nose to make its own burrow. It is typically active from late February until November, depending on the weather.

**Distribution:** California Glossy Snake occurs from the eastern part of the San Francisco Bay Area southward to northwestern Baja California. It is absent along the central coast. There are records of historical sightings in the Santa Monica Mountains.

**Proximity to Site:** One record citation exists for this species from 1966 near Bloomington. No other records have been found.

**Likelihood of Occurrence On-site:** The habitat within which this snake occurs is described as arid scrub, rocky washes, grasslands, chaparral. These are not present on-site.



California Glossy Snake Range in California – Yellow on Map of Subspecies Below

Approximate Range of Arizona elegans - Western Glossy Snake

- A. e. arenicola Texas Glossy Snake
- A. e. candida Mohave Glossy Snake A. e. eburnata Desert Glossy Snake
- A. e. elegans Kansas Glossy Snake
- A. e. expolita Chihuahua Glossy Snake

- A. e. philipi Painted Desert Glossy Snake

Species: Coast horned lizard (Phrynosoma blainvillii)

Status: Species of Concern

**Species Background:** The coast horned lizard is a flat-bodied lizard with enlarged cranial scales resembling horns. It is an ant specialist, foraging almost entirely on harvester ants. Periodic opportunistic foraging does occur and includes other insects when easily available. This lizard species is difficult to find even in areas of because of its cryptic coloration pattern. This species or horned lizard is known to seek cover in leaf litter. This lizard inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. It is found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills. It is active during daytime hours when it can warm with sun exposure and then forage. It makes and lays eggs in the spring and very early summer months.

**Distribution:** This horned lizard is widely distributed throughout southern California outside of arid desert locations east of Calimesa. It occurs in the undeveloped coastal sage scrub, Riversidean sage scrub, and chaparral located in San Bernardino County, Riverside County, Orange County, Los Angels County, and San Diego County. Although it has a wide range it occurs in low overall numbers throughout this range.

Proximity to Site: Habitat for this bat is not present on-site or in the immediate vicinity.

**Likelihood of Occurrence On-site:** Local development, repeated weed control, vehicle use and illegal trash dumping exclude the site as potential habitat for this horned lizard.



## **Coast Horned Lizard Range in California**

Approximate Range of the Phrynosoma coronatum complex

Phrynosoma blainvillii - Blainville's Horned Lizard
Phrynosoma cerroense - Cedros Island Horned Lizard
Phrynosoma coronatum - Cape Horned Lizard

Species: Delhi Sands flower-loving fly (Rhaphiomidas terminatus abdominalis)

#### Status: Endangered

**Species Background:** The species was federally-listed as endangered on September 23, 1993 (U.S. Fish and Wildlife Service 1993) and a Recovery Plan (U.S. Fish and Wildlife Service 1997) was developed which outlines requirements for down listing the fly. The life cycle of the Delhi Sands flower-loving fly make it difficult to study the life history and requirements of this species. Although recent studies have been conducted on the Delhi Sands flower-loving fly and related species, further studies and information are needed regarding food requirements, microhabitat needs, survivorship, dispersal requirements, socio-spatial requirements, and effectiveness of habitat restoration efforts.

**Distribution:** The range of this species in California is limited and includes very small portions of southwestern San Bernardino County and northwestern Riverside County. The Endangered Delhi Sands flower-loving fly is restricted to Delhi Series Soils in open habitats. The Delhi Sands flower-loving fly is restricted (endemic) to the Colton Dunes that once covered over approximately 40 square miles in northwestern Riverside and southwestern San Bernardino counties in southern California (USFWS 1997; USDA 1980, 1990) in irregular patches. The historic range of the Delhi Sands flower-loving fly likely extended over much of this area. All known extant populations of the Delhi Sands flower-loving fly occur within an 8 to 11-mile radius of each other within the counties of Riverside and San Bernardino (USFWS 1993; 1997) straddling Interstate 10 in the vicinity of Colton and Rialto, Riverside and San Bernardino counties ranging from Colton west to Mira Loma. Nearly all of the remaining habitat is privately owned and distributed largely within the vicinity of Colton, Rialto, Fontana, Ontario, and the Prado-Mira Loma area, with the most contiguous and highest quality in Colton.

The fly is found in relatively intact, open, sparse, native habitats with less than 50 percent vegetative cover (USFWS 1997). The vegetation type, desert sand-verbena series includes *Eriogonum fasciculatum, Croton californicus, Lotus scoparius*, and *Oenothera californica* (Sawyer and Keeler-Wolf 1993). In some cases, *Eriogonum fasciculatum, Heterotheca grandiflora*, and *Croton californicus* are associated with the presence of Delhi sands flower-loving fly (Ballmer1989, USFWS 1997). In addition, *Ambrosia acanthocarpa, Amsinkia intermedia, Eriastrum sapphirinum, Eriogonum thurberi, Lessingia glandulifera* (USFWS 1993), and *Eriastrum filifolium* (Cazier 1985) have also been found in association with this endangered fly species.

**Proximity to Site:** The project site is within the northeastern corner of the range for this species but the site does not include the required Delhi Series Soils. The soils on-site are Tujunga loamy sand of the Tujunga Series of Soils. Habitat is not present on-site for this species.

#### Likelihood of Occurrence On-site: None



## Delhi Sands flower-loving fly Range in California

Species: Mesa horkelia (Horkelia cuneata var. puberula)

#### Status: Sensitive

**Species Background:** This small plant is found on sandy or gravelly substrates within chaparral, woodland, and coastal scrub habitats. Mesa horkelia has many fine hairs on its stems and leaves and produces small flowers with five narrow white petals. Its flowering season typically begins in February and ends in September. While very similar in appearance to other horkelia subspecies, the mesa horkelia's flowers bloom all at once (called "open inflorescence"), unlike other horkelia, whose flowers bloom in a certain order.

**Distribution:** The mesa horkelia is distributed along the central to south coast of California, found in San Luis Obispo, Riverside, Santa Barbara, and Los Angeles counties. It once flourished in San Bernardino, San Diego, and Ventura counties as well, but has become locally extinct in these areas.

**Proximity to Site:** This species appears to have been extirpated from the region. The only recorded observations of this plant in the region were 5-miles west of San Bernardino in 1885 and two vague citations as "Bloomington" in 1888 and 1891. A third regional observation in 1904 was made several miles to the south of the project area in Jurupa.

Likelihood of Occurrence On-site: There is no habitat for this species on-site.

## Mesa Horkelia Range in California



Species: Parry's spineflower (Chorizanthe parryi var. parryi)

#### Status: Sensitive

**Species Background:** Parry's spineflower is an annual plant that blooms from April to June. This plant is a small, sprawling herb with hairy stems spreading along the ground or somewhat upright. There are a few leaves up to four centimeters long located mainly around the base of the stems where they emerge from the ground. The flowers have urn-shaped bases of woolly bracts whose points may be straight or hooked. The tiny flower is white and sometimes hairy. It occurs within the alluvial chaparral and scrub of the San Gabriel, San Bernardino and San Jacinto Mountains, at elevations of 100 to 1,300m above sea level.

**Distribution:** This spineflower species is restricted to alluvial floodplains and alluvial chaparral and scrub in the Santa Ana, Agua Tibia, San Bernardino and San Jacinto Mountains. This species is known from the flats and foothills of the San Gabriel, San Bernardino and San Jacinto Mountains within Los Angeles, San Bernardino and Riverside Counties of southern California (Reveal and Hardham 1989). Parry's spine flower is possibly extirpated from Los Angeles County (CNPS 2001).

**Proximity to Site:** The nearest locations were as follows: (1) a 1938 observation located 500m northeast of the project site, and; (2) a 1947 questionable observation 800m southeast of the project site. No recent observations near the project site have been recorded.

**Likelihood of Occurrence On-site:** This species is found in alluvial floodplains and alluvial chaparral and scrub which are not present on-site.



# Parry's Spineflower Range in California

**Species:** Pocketed free-tailed bat (*Nyctinomops femorosaccus*)

Status: Species of Concern

**Species Background:** This bat occurs in rocky areas with high cliffs. It prefers rock crevices in cliffs as roosting sites. This bat feeds on flying insects detected by echolocation high over ponds, streams, or arid desert habitat. Large moths are the principal food, but a wide variety of insects is taken (Easterla and Whitaker 1972).

The status of this species in California is poorly known, but it appears to be rare. The roost described by Krutzsch (1944b) is abandoned, although an active roost is located in Anza Borrego State Park. A California Species of Special Concern (Williams 1986).

**Distribution:** The pocketed free-tailed bat is found in Riverside County, San Diego County, and Imperial County. In San Bernardino County the CDFW listed on 1985 sighting at Latitude/Longitude 34.11843 / -117.29904 with an accuracy of 5-miles. This species is rare in California but is more common in Mexico. Habitats used include pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis.

Proximity to Site: Habitat for this bat is not present on-site or in the immediate vicinity.

Likelihood of Occurrence On-site: None

# Pocketed free-tailed Range



Species: Santa Ana River woollystar (Eriastrum densifolium ssp. sanctorum)

#### Status: Endangered

**Species Background:** This endangered plant species is found only within open washes and early-successional alluvial fan scrub on open slopes above main watercourses on fluvial deposits where flooding and scouring occur at a frequency that allows the persistence of open shrublands. Suitable habitat is comprised of a patchy distribution of gravelly soils, sandy soils, rock mounds and boulder fields (Zembal and Kramer 1984; Zembal and Kramer 1985; U.S. Fish and Wildlife Service 1986). Suitable habitat typically contains low amounts of clay, silt and micro-organic materials (Burk, et al. 1989). These areas typically maintain a perennial plant cover of less than 50 percent. Associated perennial plants include California buckwheat (*Eriogonum fasciculatum*), California croton (*Croton californicus*), yerba santa (*Eriodictyon trichocalyx*) and scale-broom (*Lepidospartum squamatum*) (Burk, et al. 1989; Zembal and Kramer 1984; Zembal and Kramer 1985). The Santa Ana River woollystar is an early-successional species and possibly requires flood-mediated habitat rejuvenation (Wheeler and Burk 1990). Sheet flood flows probably occur in this habitat every one hundred to two hundred years (U.S. Fish and Wildlife Service 1986). A 1989 study of woollystar habitats and surrounding habitats revealed that the percent cover of European annuals is lowest in woollystar habitats (Burk, et al. 1989).

**Distribution:** The Santa Ana River woollystar occurs along the Santa Ana River, Lytle Creek flood plain and Cajon Creek flood plain from the base of the San Bernardino Mountains in San Bernardino County southwest along the Santa Ana River through Riverside County into the Santa Ana Canyon of northeastern Orange County from about 150 to 580 meters (Munz 1974; Patterson 1993; Roberts 1998; Zembal and Kramer 1985; Patterson and Tanowitz 1989).

**Proximity to Site:** The nearest recent sighting of this species was in Frisbie Wash in northeastern Rialto in 2012. The habitat was defined as follows: Riversidean alluvial fan sage scrub, within a sandy wash.

**Likelihood of Occurrence On-site:** This species requires sandy soils on river floodplains or terraced alluvial deposits between 180m-700m above sea level. The project site does no fit these requirements.



## Santa Ana River Woollystar Range in California

Species: San Bernardino aster (Symphyotrichum defoliatum)

#### Status: Sensitive

**Species Background:** The San Bernardino aster occurs in vernally wet sites (such as ditches, streams, and springs) in many plant communities below 6,700 feet in elevation. CalFlora describes the San Bernardino aster as an erect rhizomatous perennial growing to 3-1/2' tall. The acute alternate leaves are narrowly oblong to oblanceolate and covered with strigose hairs, and there are often fascicles of smaller leaves in the axils. The flowering heads are in narrow cymes, with  $\pm$  oblong phyllaries that are ciliate and pubescent on the back, the outer obtuse-tipped and the inner acute. The many ray flowers are white to pale violet with corollas 3/8'' to 1/2'' long.

**Distribution:** The San Bernardino aster grows in grasslands and disturbed places to about 4500' in the San Gabriel and San Bernardino Mountains and the Peninsular Range and blooms from July to November. NatureServe indicates that although this species usually occurs in meadows, springs and streams, it also occurs in upland habitats. Many of the occurrences in Los Angeles and Orange County have been extirpated. Most of the occurrences in Riverside, San Diego, San Bernardino and Orange Counties are on private lands and are threatened. It should be noted that there are some occurrences in these counties that are on Forest Service lands (Ward and Bittman 2004).

**Proximity to Site:** The nearest San Bernardino County occurrence is from one anonymous source in 1985 at Lat/Long 34.04235 / -117.48919 and it has not been corroborated.

**Likelihood of Occurrence On-site:** Habitat for this bat is not present on-site. No signs of this species were observed in the residential run-off ditch adjacent to the eastern border of the site.



## Nearest San Bernardino Aster Observation in 1995

Species: Western yellow bat (Lasiurus xanthinus)

Status: Species of Concern

**Species Background:** The California Department of Fish & Wildlife indicates that this bat species feed on a variety of insects including ants, wasps, bees, flies, mosquitoes, butterflies, moths, beetles, grasshoppers, crickets, and others. They are known to leave day roosts and begin foraging at dusk. Yellow bats have been captured over water holes but it is unknown if they were foraging or drinking. and forages over water and among trees. It roosts in trees and has been captured roosting under palm trees. It roosts and feeds in and near palm oases and riparian habitats.

**Distribution:** The California Department of Fish & Wildlife notes that the western yellow bat is uncommon in California, known only in Los Angeles and San Bernardino Cos. south to the Mexican border. This species has been recorded below 600m (2000 ft) in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. This species occurs year-round in California. Barbour and Davis (1969) suggested that this species may be increasing in range and abundance in the U.S.

According to the Lower Colorado River MSHCP general range maps for the western yellow bat include the southern portion of California, the southern half of Arizona, and the southwestern corner of New Mexico. The range continues south into Baja, California, and west and central Mexico (Kays & Wilson 2002 and NatureServe 2006).

Proximity to Site: Habitat for this bat is not present on-site.

Likelihood of Occurrence On-site: None



## Western Yellow Bat Range

#### HABITAT ASSESSMENT SALEM ENGINEERING RIALTOPROJECT

## **5.0 METHODOLOGY**

#### 5.1 Literature Review

Biologists completed a literature review to determine the existence or potential occurrence of covered species and habitats on and near the project site. California Natural Diversity Data Base records were evaluated for the project area including surrounding USGS 7.5-minute quadrangles. Local biological survey literature was reviewed prior to surveys. Soil information was obtained from the Natural Resource Conservation Service 2003). Current and historical satellite photographs were reviewed from Google Earth (2018).

#### **5.2 Habitat Assessment Surveys**

Habitat Assessment surveys were completed on 4-12-18, 4-13-18 and 8-3-18 during acceptable weather conditions (Table 1). Surveys were completed along 10-meter wide linear transects that spanned the length of the project site (Figure 16). Surveys excluded buffer area transects to the north where access was granted but did not cover the area to the east because legal access was not obtained.

TABLE 1						
Date	Time	<b>Temperature</b>	Wind Speed	Cloud Cover	<b>Precipitation</b>	
4-12-18	7am-9am	57 F	9 mph	75%	none	
4-13-18	2pm-5pm	81 F	19 mph	clear	none	
8-3-18	10am-12pm	100 F	3 mph	clear	none	

No rain within 5-days of survey start. 2018 Rialto, CA rainfall: 4.01-inches

## Habitat Assessment Survey Transects 8-3-18 update transects in yellow:



## 6.0 FIELD-CONFIRMED EXISTING SETTING

#### 6.1 Existing and Adjacent Land Use

The project site is a degraded parcel of land bordered by existing developments to the north and west and Foothill Boulevard to the south. The eastern side is bordered by a degraded parcel. The site has been disced for weed abatement purposes and has been utilized extensively for illegal trash dumping. Vagrants have been observed on-site depositing trash. Mounds of debris from illegal trash dumping are present in all areas of the site.

#### 6.2 Topography and Soils

The flat site has been altered significantly from required weed abatement activities as well as illegal trash dumping. The soils on-site are uniformly Tujunga sandy loam which is common in the region. The site does not include any clay or alkaline soils that are typically required to support some sensitive flora.

#### 6.3 Vegetation

The site has been weed-abated to reduce fire risk. The plants on-site are limited to scattered common invasive grasses and forbs such as foxtail chess (*Bromus madritensis ssp. rubens*), California brome grass (*Bromus coronatus*), fescue (*Festuca sp.*), dandelion (*Taraxicum officionale*), Bermuda grass (*Cynodon dactylon*), red-stemmed filaree (*Erodium cicutarium*), rattlesnake weed (*Chamaesyce albomarginata*), tacalote (*Centaurea melitensis*), telegraph weed (*Heterotheca grandiflora*), short-pod mustard (*Hirschfeldia incana*), and a few castor bean (*Rhincus communis*). No trees are located on-site.

#### 6.4 Wildlife

The wildlife observed on-site were comprised of common species found in suburban areas including the mockingbird (*Mimus polyglottos*), red-tailed hawk (*Buteo jamaicensis*), raven (*Corvus corax*), pocket gopher (*Thomoys bottae*), California ground squirrel on the adjacent parcel to the east (*Spermophillus beechyi*), domestic dog (*Canis familiaris*), western fence lizard (*Sceloporus occidentalis*), and side-blotched lizard (*Uta stansburiana*).

#### 7.0 RESULTS

No signs of covered species or habitats were observed on-site. Remnants of a degraded nuisance route is located along eastern side of the site wherein street runoff from Larch Street to the north used to travel southward to Foothill Boulevard. The nuisance flow area does not have an ordinary high-water mark or typical wetlands flora.

#### **8.0 CONCLUSIONS**

No sensitive species or habitats were observed on-site.

#### 9.0 LITERATURE

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## APPENDIX A - Botanical Compendium

## **Asteraceae - Sunflower Family**

Species	
Centaurea melitensis	
Heterotheca grandiflora	
Helianthus annus	

Common Name tacalote telegraph weed California sunflower

#### **Boraginaceae - Borage Family** <u>Species</u>

Cryptantha sp.

Common Name cryptantha

#### **Brassicaceae - Mustard Family**

<u>Species</u>	Common Name
Brassica tournefortii	Saharan mustard
Hirschfelia incana	short-pod mustard

## **Euphorbiaceae - Spurge Family**

<u>Species</u> Chamaesyce albomarginata Chamaesyce polycarpa <u>Common Name</u> rattlesnake weed small-seeded spurge

### **Geraniaceae - Geranium Family**

Species		
Erodium	cicutarium	

Common Name storksbill

#### MONOCOTYLEDONEAE MONOCOT FLOWERING PLANTS Poaceae - Grass Family

<u>Species</u>	<u>Common Name</u>
Bromus madritensis rubens	foxtail chess
Bromus tectorum	cheatgrass
Bromus coronatus	California brome
Cynodon dactylon	Bermunda grass
Festuca sp.	fescue
Poa annua	common poa
Schismus barbatus	Mediterranean grass

#### APPENDIX B - Wildlife Compendium

## REPTILES

Iguana and Chuckwalla FamilySpeciesCommon NameSceloporus occidentalisfence lizardUta stansburianaside-blotched lizard

#### BIRDS

Accipitridae - Hawk Family Species Buteo jamaicensis

Common Name red-tailed hawk

#### **Cathartidae - Vulture Family** <u>Species</u> *Cathartes aura*

<u>Common Name</u> turkey vulture

## Corvidae - Jay, Magpie and Crow Family

SpeciesCommon NameCorvus coraxcommon raven

#### **Emberizidae - Sparrow and Towhee Family**

<u>Species</u> Amphispiza bilineata <u>Common Name</u> black-throated sparrow

# Fringillidae - Finch Family

<u>Species</u> Carpodacus neomexica Common Name house finch

#### Mimidae - Mockingbird Family

<u>Species</u> Mimus polyglottos <u>Common Name</u> northern mockingbird

# MAMMALSCanidae - Fox, Wolf, and Relatives FamilySpeciesCommon NameCanis familiarisdomestic dog

**Felidae - Cat Family** <u>Species</u> *Felis domesticus* 

Common Name domestic cat

## Geomyidae - Gopher Family

<u>Species</u> Thomomys bottae Common Name pocket gopher

## Sciuridae - Ground Squirrel Family

<u>Species</u> Spermophilus beechyii <u>Common Name</u> California ground squirrel (off-site)