



## **PROPOSED GENERAL RETAIL STORE PROJECT**

***DRAFT***

### **GENERAL BIOLOGICAL RESOURCES ASSESSMENT**

**LANDERS, SAN BERNARDINO COUNTY, CALIFORNIA  
USGS 7.5' YUCCA VALLEY NORTH QUADRANGLE  
TOWNSHIP 2 NORTH, RANGE 5 EAST, SECTION 27  
APN 0629-051-62**

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## TABLE OF CONTENTS

<b>1.0</b>	<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>2.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
2.1	Project and Property Description .....	1
<b>3.0</b>	<b>METHODS.....</b>	<b>2</b>
3.1	Literature Review and Records Search .....	2
3.2	General Biological Resources Assessment .....	2
<b>4.0</b>	<b>RESULTS.....</b>	<b>3</b>
4.1	Literature Review and Records Search .....	3
4.2	General Biological Resources Assessment .....	6
<b>5.0</b>	<b>IMPACTS AND RECOMMENDATIONS .....</b>	<b>7</b>
5.1	Plants .....	7
5.2	Unlisted Invertebrates, Reptiles, and Mammals.....	7
5.3	Desert Tortoise.....	7
5.4	Burrowing Owl .....	9
5.5	Migratory Bird Treaty Act.....	9
<b>6.0</b>	<b>REFERENCES .....</b>	<b>10</b>
<b>7.0</b>	<b>CERTIFICATION .....</b>	<b>11</b>

## LIST OF TABLES

Table 1	Special-Status Biological Resources with the Potential to Occur in the Vicinity of the Proposed Project
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## LIST OF APPENDICES

Appendix A	Project Vicinity and Location
Appendix B	Site Photographs
Appendix C	Wildlife and Plant Species Observed During Surveys

## 1.0 EXECUTIVE SUMMARY

AMEC Environment & Infrastructure, Inc. conducted a general biological resources assessment at the site of a proposed general retail store project located in the unincorporated community of Landers, San Bernardino County, California. No special status species were observed, but Joshua Trees (*Yucca brevifolia*) and Mojave Yuccas (*Yucca schidigera*), which are protected by county ordinance, are present. Habitat for several special status species is present. AMEC recommends focused Burrowing Owl (*Athene cunicularia*) and Desert Tortoise (*Gopherus agassizii*) surveys, preservation and/or relocation of the Joshua Trees and Mojave Yuccas per county guidelines, and pre-construction nesting bird surveys if construction activities are scheduled during the nesting bird season.

## 2.0 INTRODUCTION

AMEC Environment and Infrastructure, Inc. (AMEC) was contracted by Dynamic Development Company, LLC (Proponent) to conduct a general biological resources assessment at the site of a proposed general retail store project (Project) located in the unincorporated community of Landers, San Bernardino County, California (see Figure 1). This Biological Resources Assessment Report (BRAR) provides results and discussion of the assessment.

### 2.1 Project and Property Description

The 2.11-acre property is located at 1058 Old Woman Springs Road (Highway 247), immediately north of Cedarbird Road (see Figures 1 through 4). This is in the unincorporated community of Landers, which is also known as Flamingo Heights at this location. The property is located on the 7.5-minute Yucca Valley North United States Geological Survey (USGS) quadrangle in Township 2 North, Range 5 East, Section 27 (see Figure 2). The Project site is flat at an elevation of approximately 3,450 feet (1,050 meters).

Vegetation on the Project site is an intergrade of Creosote Bush Scrub and Joshua Tree Woodland (see Figure 3 and photos in Appendix B), dominated by Creosote Bush (*Larrea tridentata*), White Bursage (*Ambrosia dumosa*), Joshua Tree, and Cheesebush (*Ambrosia salsola*). The habitat shows signs of anthropogenic disturbance, such as mechanical disturbance of soil, vegetation removal, off road vehicle tracks, and trash. There were no drainages or hydrologic features apparent onsite.

No specific soil mapping was available for the Project site (USDA 2013), but the area is considered to be in a Wasco-Helendale-Bryman soil association. The Bryman series consists of deep, well drained soils that formed in alluvium from dominantly granitic sources. Bryman soils are on terraces and older alluvial fans and have slopes of 0 to 15 percent. The Helendale series consists of very deep, well drained soils that formed in alluvium from granitoid rocks. Helendale soils are on fan piedmonts, fan remnants, alluvial fans and terraces. Slopes range from 0 to 15 percent. The Wasco series consists of very deep, well drained soils on recent alluvial fans and flood plains. These soils formed in mixed alluvium derived mainly from igneous and/or sedimentary rock sources. Slope is 0 to 5 percent slopes.

The proposed development will consist of a retail building and associated infrastructure such as parking lots and trash enclosure (see Figure 4). The surrounding area is a patchwork of undeveloped lands, paved and unpaved roads, and rural residences, with a few roadside businesses to the south. The undeveloped lands provide potential wildlife corridors to/from the site between disturbed areas (see Figure 1 for aerial overview).

### 3.0 METHODS

#### 3.1 Literature Review and Records Search

A literature review and records search was conducted to identify the historical occurrences of special-status biological resources in the project vicinity. The review included:

- The California Native Plant Society (CNPS)
- The Jepson Herbarium (University of California, Berkeley)
- A report from the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Data Base (CNDDB) for a five mile radius of the Project site including records from the following California USGS 7.5-minute topographic quadrangles: Landers, Goat Mountain, Bighorn Canyon, Yucca Valley North, Rimrock, and Joshua Tree North (CDFW 2013)
- Recent aerial photographs
- Pertinent documents from the AMEC library and project files (e.g., other biological surveys from the general vicinity)

#### 3.2 General Biological Resources Assessment

A field survey and general biological assessment was conducted by AMEC Biologist John F. Green on 31 January 2013 to evaluate the suitability of existing habitat on-site to support special-status biological resources. The assessment conducted on 31 January 2013 occurred from 1110 to 1230 hours. Weather conditions were 61 to 62 degrees Fahrenheit, 10 to 15 percent cloud cover, average wind speeds of 3-4 mph, and no precipitation. Green walked narrow transects throughout the Project site, identifying habitat type, dominant plant species, wildlife species, and sign. Special attention was paid for any sign of the Desert Tortoise and the Burrowing Owl. Note was also taken of any plant species meeting the criteria of the San Bernardino County Development Code, Chapter 88.01 *Plant Protection and Management* (Ordinance). This ordinance contains provisions for the protection of certain desert plants (88.01.060 Desert Native Plant Protection) as follows:

1. The following desert native plants with stems two inches or greater in diameter or six feet or greater in height:
  - a. *Psorothamnus spinosus* (smoketree).
  - b. All species of the genus *Prosopis* (mesquites).
2. All species of the family Agavaceae (century plants, nolinas, yuccas).
3. Creosote Rings, 10 feet or greater in diameter.
4. All Joshua trees.
5. Any part of any of the following species, whether living or dead:
  - a. *Olneya tesota* (desert ironwood).
  - b. All species of the genus *Prosopis* (mesquites).
  - c. All species of the genus *Cercidium* (palos verdes).

## 4.0 RESULTS

### 4.1 Literature Review and Records Search

The results of the literature review and records search are presented in Table 1, which lists the special-status biological resources with the potential to occur in the vicinity of the proposed Project.

Table 1. Special-Status Biological Resources with the Potential to Occur in the Vicinity of the Proposed Project						
Scientific Name	Common Name	Status <sup>1</sup>			Habitat (for plants includes elevational range in meters & blooming period)	Occurrence Probability <sup>2</sup>
		Federal	State	CNPS (plants)		
<b>Plants</b>						
<i>Astragalus bernardinus</i>	San Bernardino Milk-Vetch	None	S2S3	1B.2	Joshua Tree woodland, pinyon and juniper woodland. Granitic or carbonate substrates. 900-2,000m., April-June	Low
<i>Astragalus nutans</i>	Providence Mountains Milk-Vetch	None	S3.3	4.3	Sandy or gravelly places in Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland, and Sonoran desert scrub. 450-1,950m., March-October	Low
<i>Berberis fremontii</i>	Fremont Barberry	None	S2?	3	Chaparral, pinyon-juniper woodland, Joshua Tree woodland. Dry rocky points and slopes. 840-1,850m., April-June	Absent. This perennial shrub is not present onsite, habitat unsuitable.
<i>Boechera dispar</i>	Pinyon Rockcress	None	S2.3	2.3	Joshua Tree woodland, pinyon-juniper woodland, Mojavean desert scrub. Granitic, gravelly slopes and mesas. Often under desert shrubs which support it as it grows. 1,200-2,540m., March-June	Absent. Site is below known elevational range.
<i>Boechera shockleyi</i>	Shockley's Rockcress	None	S2	2.2	Pinyon-juniper woodland on ridges, rocky outcrops, and openings on limestone or quartzite. 875 -2,310m., May-June	Absent. Habitat unsuitable.
<i>Calochortus palmeri</i> var. <i>palmeri</i>	Palmer's mariposa lily	None	S2.1	1B.2	Mesic places in chaparral, lower montane coniferous forest, meadows and seeps. 600-2,390m. April-July	Absent. Habitat unsuitable.
<i>Cymopterus multinervatus</i>	Purple-nerve Cymopterus	None	S2	2.2	Mojavean desert scrub, pinyon and juniper woodland, Joshua Tree woodland. Sandy or gravelly places. 790-1,800m., March-April	Low
<i>Erigeron parishii</i>	Parish's Daisy	FT	S2	1B.1	Mojavean desert scrub, pinyon-juniper woodland, Joshua Tree woodland. Usually on carbonate, sometimes granitic soils. Often on slopes; often associated with drainages. 800 -2,000m., May-August	Absent. Habitat unsuitable.
<i>Grusonia parishii</i>	Parish's Club-Cholla	None	S2?	2.2	Mojavean desert scrub, Sonoran desert scrub, Joshua Tree woodland. Sandy sites. 300-1,524m., May-July	Absent. This perennial cactus is not present onsite.

**Table 1. Special-Status Biological Resources with the Potential to Occur in the Vicinity of the Proposed Project**

Scientific Name	Common Name	Status <sup>1</sup>			Habitat (for plants includes elevational range in meters & blooming period)	Occurrence Probability <sup>2</sup>
		Federal	State	CNPS (plants)		
<i>Linanthus killipii</i>	Baldwin Lake Linanthus	None	S2	1B.2	Joshua tree woodland, meadows and seeps (alkaline), pebble (pavement) plain, pinyon and juniper woodland. 1,700-2,400m., May-July	Absent. Site is below known elevational range.
<i>Linanthus maculatus</i>	Little San Bernardino Mtns. Linanthus	None	S2	1B.2	Desert dunes, Sonoran desert scrub, Mojavean desert scrub, Joshua Tree woodland. Sandy places. Usually in light-colored quartz sand; often in wash or bajada. 195-2,075m., March-May	Low
<i>Linanthus orcuttii</i>	Orcutt's Linanthus	None	S2	1B.3	Chaparral, lower montane coniferous forest, pinyon-juniper woodland. Sometimes in disturbed areas; often in gravelly clearings. 915-2,145m., May-June	Absent. Habitat unsuitable.
<i>Monardella robisonii</i>	Robison's Monardella	None	S3	1B.3	Pinyon-juniper woodland. 610 - 1,500m., February-October	Absent. Habitat unsuitable.
<i>Saltugilia latimeri</i>	Latimer's Woodland-Gilia	None	S2.2	1B.2	Chaparral, Mojavean desert scrub, pinyon-juniper woodland. Rocky or sandy substrate, often granitic, sometimes washes. 400-1,900m., March-June	Low
<i>Yucca brevifolia</i>	Joshua Tree	San Bernardino County Development Code 88.01.060 Desert Native Plant Protection			Various desert habitats	Occurs
<i>Yucca schidigera</i>	Mojave Yucca					
<b>Invertebrates</b>						
<i>Paronomada californica</i>	California Cuckoo Bee	None	S1		Known only from two locations: near Yucca Valley (exact location unknown), and 9.5 miles NW of Pioneertown, on Burns Canyon Rd. Both were collected flying close to the ground near flowers of <i>Gutierrezia</i> , also associated with <i>Chrysothamnus</i> .	Low/Unknown. No <i>Gutierrezia</i> or <i>Chrysothamnus</i> seen onsite
<b>Reptiles</b>						
<i>Gopherus agassizii</i>	Desert Tortoise	FT	ST, S2		Most common in desert scrub, desert wash, and Joshua Tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.	Low
<i>Phrynosoma blainvillii</i>	Coast Horned Lizard	None	SC, S3S4		Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Low

**Table 1. Special-Status Biological Resources with the Potential to Occur in the Vicinity of the Proposed Project**

Scientific Name	Common Name	Status <sup>1</sup>			Habitat (for plants includes elevational range in meters & blooming period)	Occurrence Probability <sup>2</sup>
		Federal	State	CNPS (plants)		
<i>Uma scoparia</i>	Mojave Fringe-toed Lizard	None	SC		Fine, loose, wind-blown sand in sand dunes, dry lakebeds, riverbanks, desert washes, sparse alkali scrub and desert scrub. Shrubs or annual plants may be necessary for arthropods found in the diet.	Absent. No suitable habitat present on-site.
<b>Birds</b>						
<i>Athene cunicularia</i>	Burrowing Owl	BCC	SC, S2		Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, especially California Ground Squirrel.	Low
<i>Toxostoma bendirei</i>	Bendire's Thrasher	BCC	SC, S3		Migratory; local spring/summer resident in flat areas of desert succulent shrub/Joshua Tree habitats in Mojave Desert. Nests in cholla, yucca, palo verde, thorny shrub, or small tree, usually 0.5 to 20 feet above ground.	Low
<i>Toxostoma lecontei</i>	Le Conte's Thrasher	BCC	SC, S3		Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	Low
<b>Mammals</b>						
<i>Chaetodipus fallax pallidus</i>	Pallid San Diego Pocket Mouse	None	SC, S3		In desert wash, desert scrub, desert succulent scrub, pinyon-juniper, etc. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Low
<i>Lasiurus xanthinus</i>	Western Yellow Bat	None	SC, S3		Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Absent, habitat unsuitable.
<i>Taxidea taxus</i>	American Badger	None	SC, S4		Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats. Needs friable soils and open, uncultivated ground for burrows.	Low

<sup>1</sup>**Status Codes:**

Federal

FP = Fully Protected  
 FE = Federal Endangered  
 FT = Federal Threatened  
 FC = Federal Candidate  
 BCC = Bird of Conservation Concern

State

SE = State Endangered  
 ST = State Threatened  
 SR = State Rare  
 SC = State Species of Concern  
 INV = Communities that are known or believed to be of high priority for inventory in CNDDDB

CDFW state rankings are a reflection of the overall condition of an element throughout its California range. The number after the decimal point represents a threat designation attached to the rank:

**S1** =Critically Imperiled. Less than 6 Element Occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres  
**S1.1** = very threatened  
**S1.2** = threatened  
**S1.3** = no current threats known

**S2** = Imperiled. 6-20 EO<sup>s</sup>  
 OR 1,000-3,000 individuals  
 OR 2,000-10,000 acres  
**S2.1** = very threatened  
**S2.2** = threatened  
**S2.3** = no current threats known  
**S3** = Vulnerable. 21-80 EO<sup>s</sup>  
 OR 3,000-10,000 individuals  
 OR 10,000-50,000 acres  
**S3.1** = very threatened  
**S3.2** = threatened  
**S3.3** = no current threats known  
**S4** = Apparently secure within California; this rank is clearly lower than **S3** but factors exist to cause some concern; e.g. there is some threat, or somewhat narrow habitat. No threat designation.  
**S5** = Demonstrably secure to ineradicable in California. No threat designation.  
**SH**: All known California sites are historical, not extant

CNPS

1A = Presumed Extinct in California  
 1B = Rare, Threatened, or Endangered in California and elsewhere  
 2 = Rare, Threatened, or Endangered in California but more common elsewhere  
 3 = More information needed (Review List)  
 4 = Limited distribution (Watch List)  
 0.1 = Seriously Threatened in California  
 0.2 = Fairly Threatened in California  
 0.3 = Not very Threatened in California

<sup>2</sup>**Occurrence Probability**

<i>Occurs:</i>	Observed on the site by AMEC personnel, or recorded there by other qualified biologists.
<i>High:</i>	Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.
<i>Moderate:</i>	Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.
<i>Low:</i>	Site is within the known range of the species but habitat on the site is rarely used by the species.
<i>Absent:</i>	A focused study failed to detect the species, or no suitable habitat is present.
<i>Unknown:</i>	Distribution and habitat use has not been clearly determined.

## 4.2 General Biological Resources Assessment

The Project site is flat at an elevation of approximately 3,450 feet (1,050 meters). The habitat shows signs of anthropogenic disturbance, such as mechanical disturbance of soil, vegetation removal, off road vehicle tracks, and trash. The surrounding area is a patchwork of undeveloped lands, paved and unpaved roads, and rural residences, with a few roadside businesses to the south. The undeveloped lands provide potential wildlife corridors to/from the site between disturbed areas (see Figure 1).

The vegetation community present throughout the Project site is an intergrade of Creosote Bush Scrub and Joshua Tree Woodland, dominated by Creosote Bush (*Larrea tridentata*), White Bur-sage (*Ambrosia dumosa*), Joshua Tree (*Yucca brevifolia*), and Cheesebush (*Ambrosia salsola*). (see Figure 3 and Appendix B for photos). Wildlife and plant species observed are included in Appendix C. Diversity was rather low, as would be expected on a cool winter day. Annual plants are dormant at this time, although several were identified from dried remains. A variety of small mammal burrows, not identifiable

to the species using them, were also present onsite (see Photo 7), as was at least one old bird nest (see Photo 8). There were areas of relatively recent ground disturbance present (see Photos 1, 2, and 5). Several old, small slabs are present together in the northeastern portion of the Project site (see Photo 3). Relatively bare ground in the vicinity of these slabs is likely a legacy of past occupancy there.

Several Joshua Trees and Mojave Yuccas protected by county code are present onsite (see Figure 4 for their approximate locations and Appendix B for photos).

It should be noted that relatively short-term inventories of this nature are limited in their scope by the seasonality, timing and duration of surveys, and the nocturnal and fossorial habits of many desert-dwelling animals. Therefore, the species observed does not necessarily reflect the total number of animals that potentially occupy the Project site.

## **5.0 IMPACTS AND RECOMMENDATIONS**

### **5.1 Plants**

No rare plants were observed during the field visit, and most rare plants known from the surrounding area lack appropriate habitat at the Project site. No focused survey was conducted, however, and there are five species whose occurrence cannot be entirely ruled out based on habitat and elevation alone, although habitat is marginal for all of them. None of these plants are state or federally listed as threatened or endangered. There is very little chance that these species occur onsite, and on a site this small and disturbed no population of significance would occur. Therefore, no significant impacts to rare plants are anticipated and AMEC is not recommending a focused survey.

The Mojave Yuccas and Joshua Trees located on the Project site may be required to be preserved/transplanted in accordance with the San Bernardino County's *Title 8 Development Code, Division 9: Plant Protection and Management, Chapter 4: Desert Native Plant Protection*. If preservation is required, the provisions for this code can be found in Sections 89.0401 to 89.0435. Permits and authorization to remove, transport, or otherwise impact these plants would need to be obtained prior to Project approval and these species would be relocated to pre-determined, agency-approved locations, made available to a local adoption program, transplanted per facility landscape design plans, and/or used in site habitat restoration.

### **5.2 Unlisted Invertebrates, Reptiles, and Mammals**

There is a minimal possibility that four unlisted sensitive species could occur onsite: The California Cuckoo Bee, Coast Horned Lizard, Pallid San Diego Pocket Mouse, and American Badger. The cuckoo bee is a little known species, but the plants that it has been associated with in past detections are not present onsite, so it is not expected. Marginal habitat for the Coast Horned Lizard and Pallid San Diego Pocket Mouse exists onsite, but even if present, impacts to any populations on this small, disturbed lot would be insignificant. No American Badgers were present onsite at the time of the field visit, as there were no burrows present of sufficient size for this animal. It is highly unlikely that even one would occupy this small, disturbed area near a busy highway, so no significant impact to the species is likely.

### **5.3 Desert Tortoise**

The Mojave population segment of the Desert Tortoise is federally and state listed as threatened by the United States Fish and Wildlife Service (USFWS) and CDFW, respectively. The Mojave population segment includes all tortoises occurring west and north of the Colorado River. The Desert Tortoise is most common in desert scrub, desert wash, and Joshua Tree habitats in a variety of terrain types,

including alluvial fans, valleys, rocky hillsides, and washes. They require friable soil for burrow and nest construction. Burrows are typically found at the base of shrubs, in the interspaces between shrubs, and occasionally in caliche soil bank areas or underneath boulders/rocks. They are herbivores and feed on a variety of plants including annual herbs and perennial grasses.

Tortoise activity is greatest during the spring and early summer, and to a lesser extent during the fall; however, tortoises can be active at any time of the year during appropriate weather conditions. Although tortoises hibernate during the winter and typically emerge in late February or early March, hatchlings and juveniles can be fairly active during the winter months. Adults will also emerge from their burrows to drink if water resources have been limited during the previous activity season and/or winter precipitation has provided standing water. Their activity is usually much reduced during hot summer months, but they may be active following summer rains or if temperatures are moderate (Boarman 2003).

Threats to Desert Tortoises include loss or degradation of habitat, vandalism, poaching, intentional killing, predation on young tortoises by the Common Raven (*Corvus corax*) and other predators (e.g. kit fox, snakes, etc.), and disease (e.g. Mycoplasmosis). Off-road vehicles, military training maneuvers, mining, and livestock grazing also affect tortoise habitat by collapsing burrows, eroding soils, reducing availability of food plants, eliminating shrubs which would provide shade for tortoises and support for their burrows, and ultimately results in surface disturbance that promotes conditions more conducive to invasion by exotic plant species, which provide less nutritional value to tortoises than the native species that were replaced. Human activities, including garbage dumping, landfills, roads, increased nesting opportunities, irrigation, and increased vehicle use have led to increased numbers of Common Ravens in California deserts. Ultimately, the increased predation on young tortoises by Common Ravens reduces recruitment into breeding populations (Boarman 2003).

Tortoises are most often detected by their scats and burrows. Tortoises themselves can sometimes be detected in burrows by reflecting sunlight inside the burrow with a mirror. Other tortoise sign include carcasses, or fragments thereof, courtship rings, and drinking depressions. Any of these signs are an indication that tortoises either occur, or have recently occurred, at a particular location. Sign can be detected at any time of the year and always indicates suitable habitat, if not occupied habitat.

Although there is no Desert Tortoise critical habitat present on or near the Project site, the vegetation community occurring on the Project site (e.g. Creosote Bush Scrub and Joshua Trees) is a type of habitat typically utilized by Desert Tortoises. Although no focused survey for the Desert Tortoise was conducted, the site was thoroughly covered during the field visit and no tortoises or sign were observed. The presence of a busy highway on the east site boundary and the fragmented nature of the habitat around the Project site make it unlikely that a Desert Tortoise would wander onto the Project site from adjacent lands, but this cannot be ruled out. Because this is a listed species, a focused survey is recommended (USFWS 2010). If tortoises are found to occur in the area, the following minimization measures should be implemented to ensure any potential impacts to the Desert Tortoise are avoided:

- 1) A Worker's Environmental Awareness Program (WEAP) would be implemented to educate the construction crew of potential special-status species present on the Project site.
- 2) Construction and maintenance personnel would be required to inspect for Desert Tortoises under vehicles prior to moving the vehicle. If a Desert Tortoise is found beneath a vehicle, it would not be moved until the Desert Tortoise had left of its own accord. All Desert Tortoise observations would be reported to the Authorized Biologist and wildlife agencies.

- 3) Desert Tortoise fencing would be installed around the Project site (disturbance area) prior to construction. A Desert Tortoise clearance survey would be conducted after fence installation and prior to construction activities to ensure no Desert Tortoises are on the Project site.

Desert Tortoises cannot be taken under State and Federal law. This report and any recommended mitigation measures do not constitute authorization for incidental take of the Desert Tortoise.

#### **5.4 Burrowing Owl**

The Burrowing Owl is federally designated as a Bird of Conservation Concern (BCC) and state designated as a California Species of Concern. It is a small ground-dwelling owl that occurs in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation (Haug et al. 1993). In southern California, Burrowing Owls are not only found in undisturbed natural areas, but also fallow agricultural fields, margins of active agricultural areas, livestock farms, airports, and vacant lots. It is a subterranean nester, typically utilizing pre-existing burrows (e.g. California Ground Squirrel, kit fox, drain pipes, culverts, etc.). The entrance of the burrow is often adorned with animal dung, feathers, debris, and other small objects (CDFG 2005). Among the avian species of our region, their underground nests and roosts make them uniquely vulnerable to ground disturbing activities.

The species is active both day and night, and may be seen perching conspicuously on fence posts or standing at the entrance of their burrows. Burrowing Owl populations in California are clearly declining and, if declines continue, the species may qualify for listing under the state and/or federal ESA(s) (CDFG 1995). The declines in Burrowing Owl populations are attributed to loss and degradation of habitat, ongoing residential and commercial development, and rodent control programs.

Although no Burrowing Owls or their sign were observed on the Project site during the field visit, and the potential burrows present were marginally suitable in size at best (most or all appeared to be too small), this was not a focused survey. Although it is unlikely that Burrowing Owl would occupy this site near a rural residence and a busy highway, it cannot be ruled out. AMEC recommends focused surveys be conducted in accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). Impacts and mitigation measures would be determined if focused surveys detected Burrowing Owls on or adjacent to the Project site.

#### **5.5 Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) prohibits actions resulting in the pursuit, capture, killing, and/or possession of any protected migratory bird, nest, egg or parts thereof. State code also protects these species. Birds nesting within the Project site could be impacted by Project activities. To comply with the MBTA, any vegetation removal or grading occurring during the bird nesting season (generally February 1 through August 31) would require at least one nesting bird survey (more if deemed necessary) to be conducted by a qualified Biologist. If no nests are found, construction would proceed. If active nests are found, impact avoidance measures (e.g., buffers) would be required. The measures above will also protect any special status bird species found onsite.

## 6.0 REFERENCES

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## **7.0 CERTIFICATION**

CERTIFICATION: "I hereby 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. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or applicant's representative and that I have no financial interest in the project."

DATE: 7 February 2013

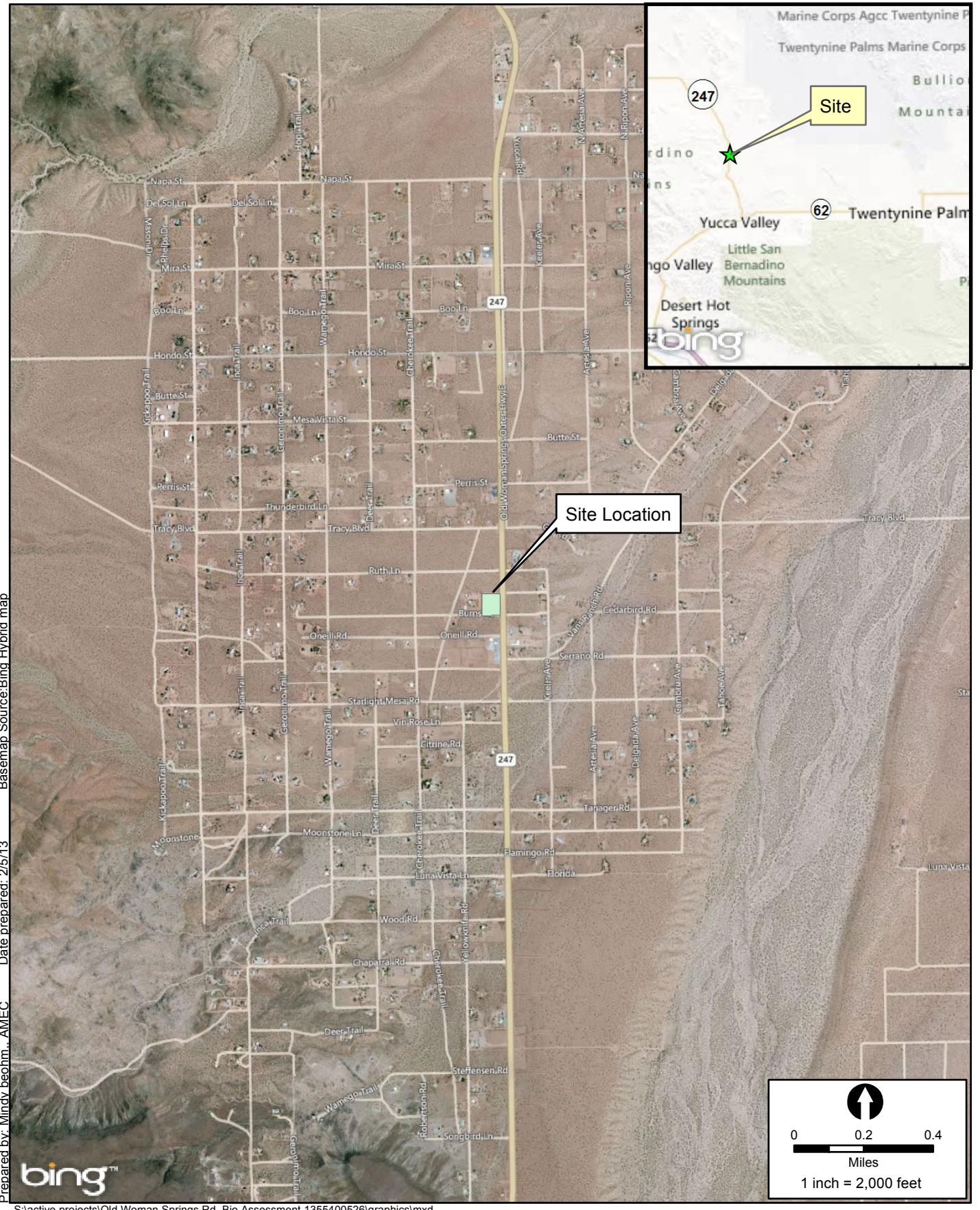
SIGNED:



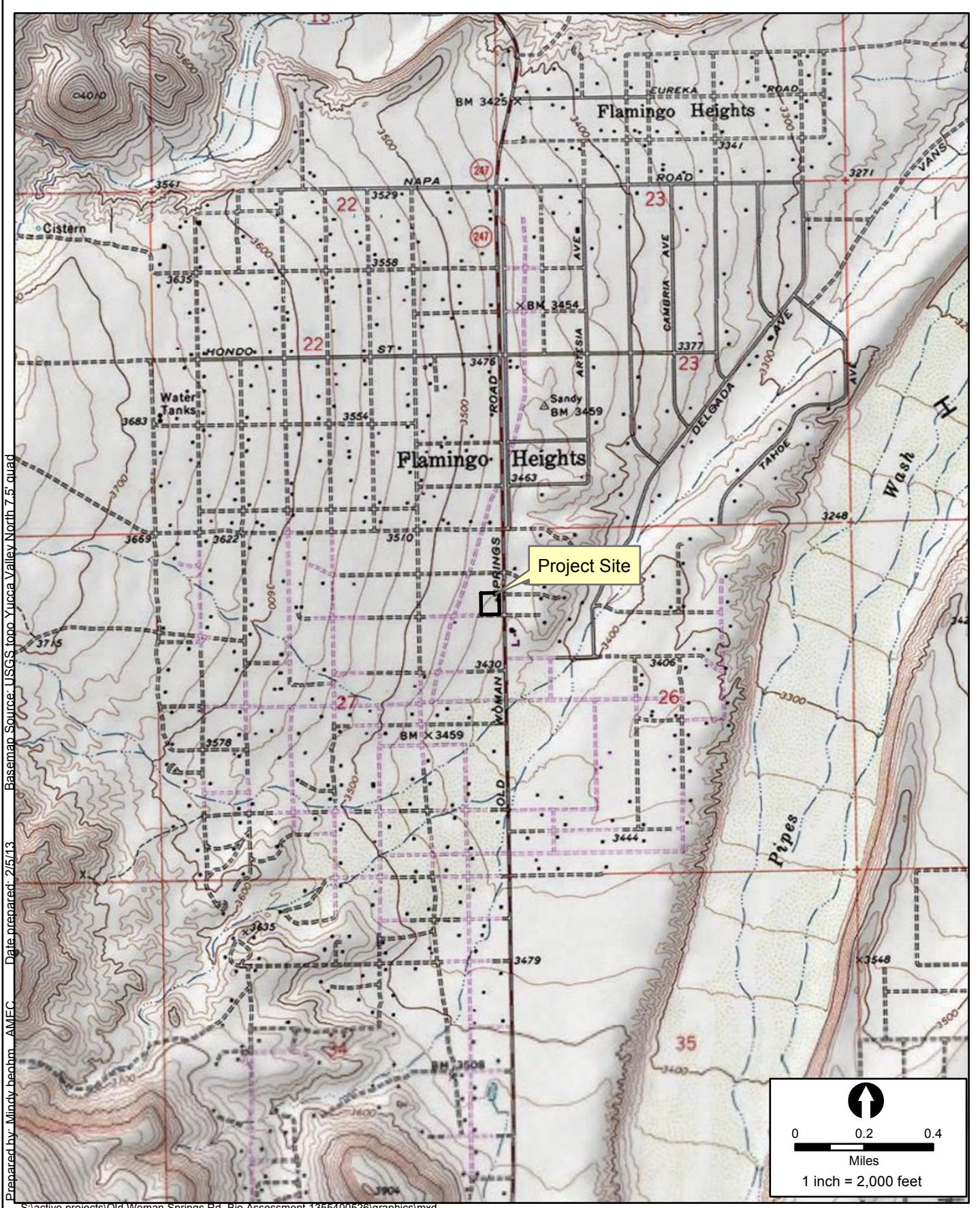
- 1) Fieldwork Performed By:

John F. Green

## **Appendix A    Project Map Figures**



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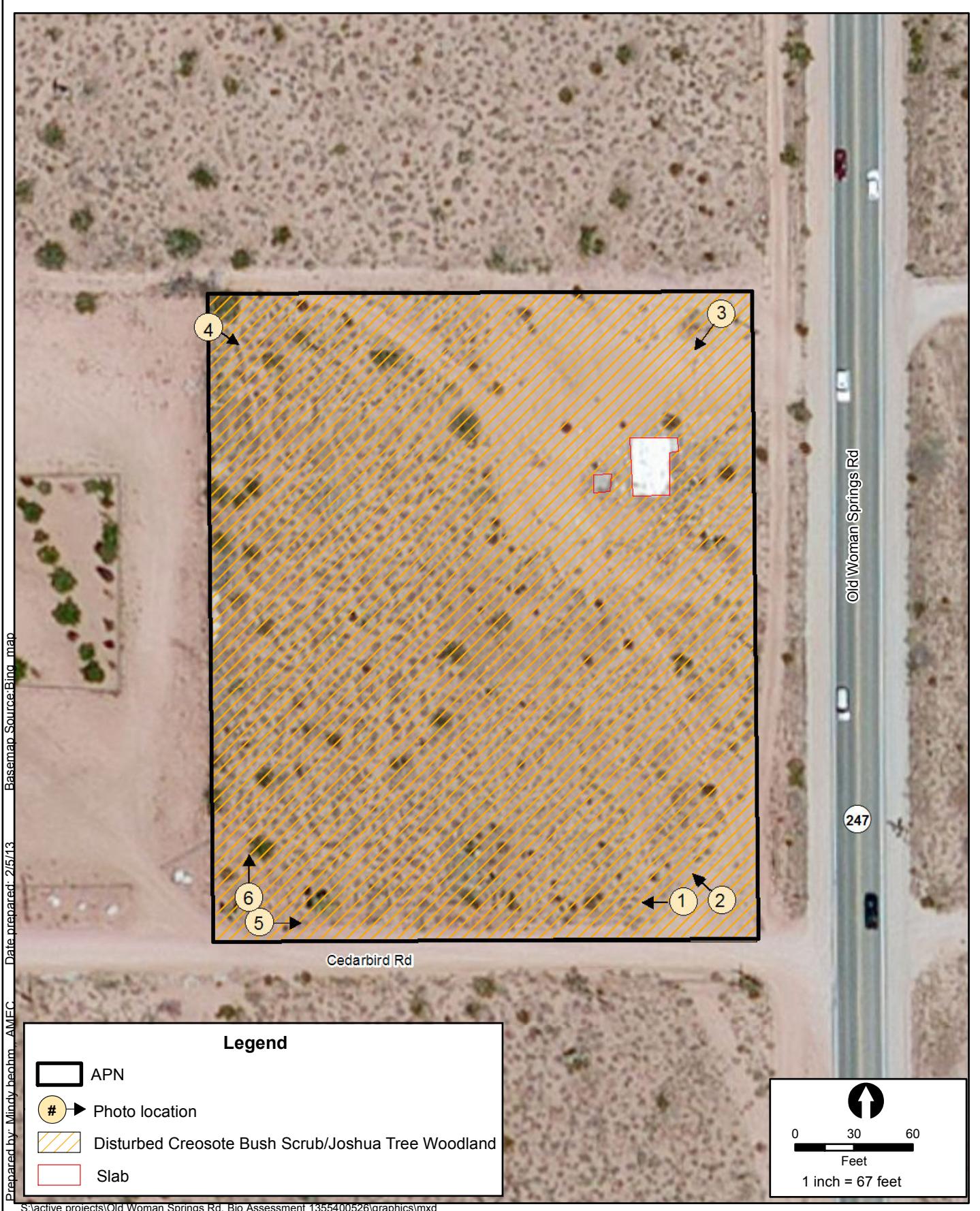


**amec**

USGS Topographic Map  
General Biological Resources Assessment: APN 0629-051-62

FIGURE

2



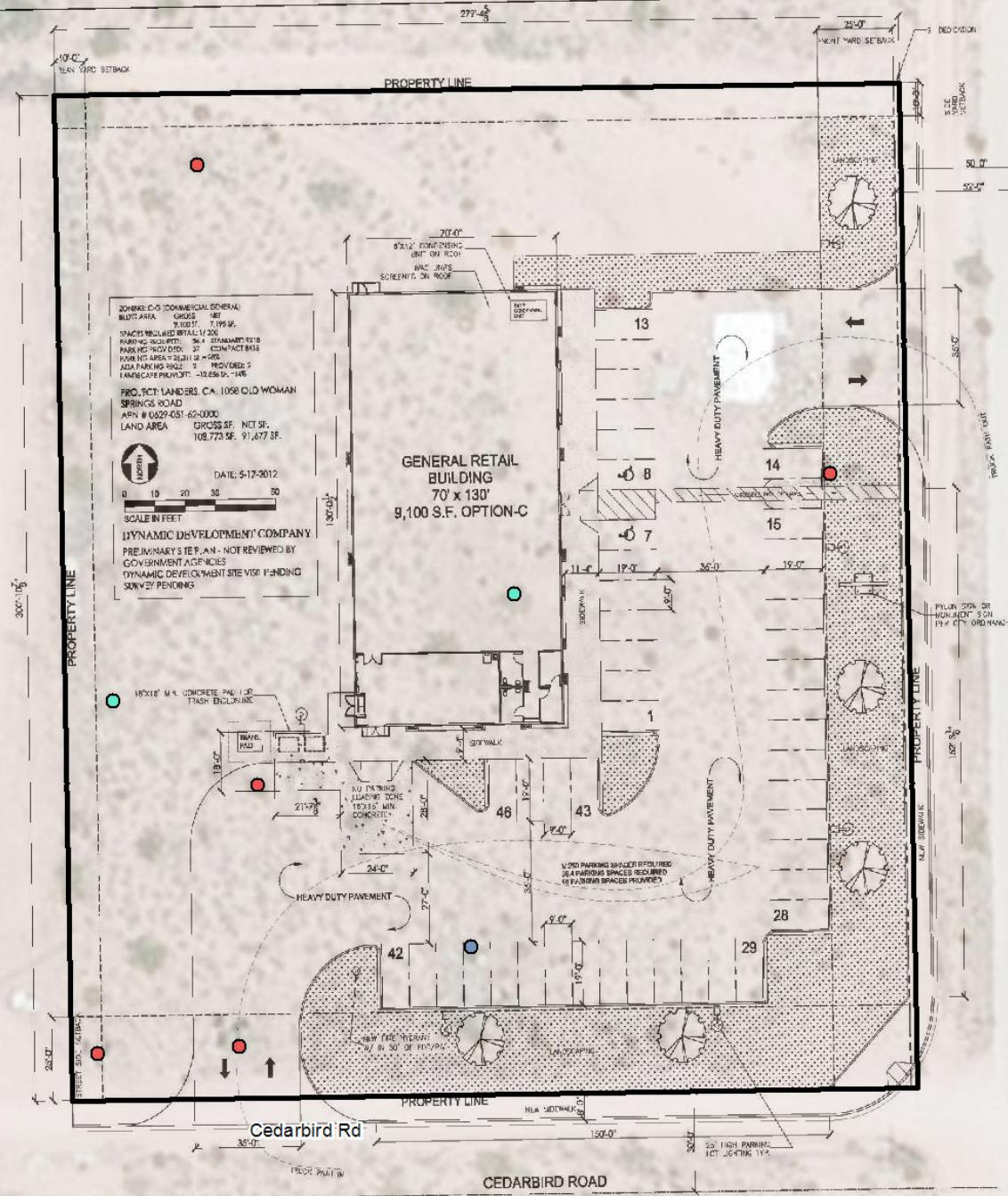
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Photo Locations & Vegetation Map  
General Biological Resources Assessment: APN 0629-051-62

FIGURE

3

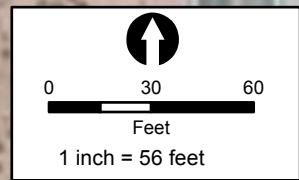


Old Woman Springs Rd

247

## Legend

- APN
  - Joshua Tree & Mojave Yucca
  - Joshua Tree
  - Mojave Yucca



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## **Appendix B      Site Photographs**



**Photograph 1.** View from southeast corner looking west. Note Joshua Trees & adjacent property to west; disturbed area at center right.



**Photograph 2.** View from southeast corner looking northwest. Note Joshua Trees and disturbed areas onsite and undeveloped lands to north.



**Photograph 3.** View from northeast corner looking southwest. Note bare ground and old slabs.



**Photograph 4.** View from northwest corner looking southeast. Note rural businesses and residences to south.



**Photograph 5.** View from southwest corner looking east. Note rural residences to east and recent onsite disturbance at left.



**Photograph 6.** View from southwest corner looking north. Note Mojave Yucca center left, just right of fenceline of adjacent fenced, rural residence.



**Photograph 7.** A variety of rodent burrows are present on site.



**Photograph 8.** At least one bird nest was noted onsite (not currently in use).

## **Appendix C     Species Lists**

### Plant Species Observed on the Project Site

#### **GNETAE (GNETOPHYTA)**

##### **Ephedraceae**

*Ephedra cf. nevadensis*

#### **DICOTS**

##### **Amaranthaceae**

*Amaranthus fimbriatus*

##### **Asteraceae**

*Ambrosia acanthicarpa*

*Ambrosia dumosa*

*Ambrosia salsola*

*Senecio flaccidus*

*Stephanomeria pauciflora*

##### **Brassicaceae**

\* *Brassica tournefortii*

##### **Cactaceae**

*Cylindropuntia echinocarpa*

*Cylindropuntia ramosissima*

*Echinocereus engelmannii*

*Opuntia basilaris*

##### **Fabaceae**

*Senna armata*

##### **Malvaceae**

*Sphaeralcea ambigua*

##### **Polygonaceae**

*Eriogonum fasciculatum*

*Eriogonum inflatum*

*Eriogonum plumatella*

*Eriogonum*-sp. (different from species above)

##### **Rosaceae**

*Coleogyne ramosissima*

##### **Zygophyllaceae**

*Larrea tridentata*

#### **MONOCOTS**

##### **Liliaceae**

\*\*\* *Yucca brevifolia*

\*\*\* *Yucca schidigera*

##### **Poaceae**

\* *Bromus madritensis* ssp. *rubens*

\* *Bromus tectorum*

*Hilaria rigida*

\* *Hordeum cf. murinum*

##### **Ephedra Family**

cf Nevada Ephedra

##### **Amaranth Family**

Fringed Amaranth

##### **Sunflower Family**

Annual Bur-sage

White Bur-sage (Burrobrush)

Cheesebush

Threadleaf Ragwort

Wire-lettuce

##### **Mustard Family**

Sahara Mustard

##### **Cactus Family**

Golden/Silver Cholla

Pencil Cactus

Engelmann's Hedgehog Cactus

Beavertail Cactus

##### **Legume Family**

Spiny Senna

##### **Mallow Family**

Apricot Mallow

##### **Buckwheat Family**

California Buckwheat

Desert Trumpet

Yucca Wild Buckwheat

Unidentified annual buckwheat

##### **Rose Family**

Blackbush

##### **Caltrop Family**

Creosote Bush

##### **Lily Family**

Joshua Tree

Mojave Yucca

##### **Grass Family**

Red Brome

Cheat Grass

Big Galleta

cf. Wall Barley

### Vertebrate Species Observed on the Project Site

#### **REPTILIA**

##### **Phrynosomatidae**

*Uta stansburiana*

#### **REPTILES**

##### **Phrynosomatid Lizards**

Side-blotched Lizard

#### **AVES**

##### **Corvidae**

*Corvus corax*

#### **BIRDS**

##### **Crows, Jays**

Common Raven

##### **Bombycillidae**

*Bombycilla cedrorum*

##### **Waxwings**

Cedar Waxwing

##### **Fringillidae**

*Haemorhous mexicanus*

##### **Fringilline and Cardueline Finches, Allies**

House Finch

#### **MAMMALIA**

##### **Leporidae**

*Lepus californicus*

#### **MAMMALS**

##### **Rabbits, Hares**

Black-tailed Jackrabbit (scat, reported locally)

##### **Canidae**

*Canis latrans*

##### **Wolves, Foxes, Coyote**

Coyote (scat)

#### **KEY**

- \* = non-native species
- \*\* = special-status species
- \*\*\* = locally-protected species
- cf. = compares favorably with
- sp. = plant identified to genus only

This list reports only plants and animals observed on the site by this study. Other species may have been overlooked or undetectable due to their growing season (plants) or their activity patterns and/or subterranean habitats (animals). Plants were identified from keys, descriptions and drawings in Jepson Flora Project (2013). Some specimens were identified or confirmed by Andrew C. Sanders (University of California Riverside Herbarium). Unless noted otherwise, plant nomenclature and systematics follows Jepson Flora Project (2013) and/or Calflora (2013). Nomenclature and taxonomy for fauna generally follows the American Ornithologists' Union Checklist (2013) for avifauna and CDFG (2008) for herpetofauna and mammals.