

August 29, 2022

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VIA EMAIL
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Subject: Results of a Focused Survey for Burrowing Owl for the Palmdale Logistics Park, City of Palmdale, Los Angeles County, California

Dear Ms. Anderson:

This Letter Report presents the results of focused surveys for the western burrowing owl (*Athene cunicularia hypugaea*) for the Palmdale Logistics Park Project (hereinafter referred to as “the Proposed Project”) in the City of Palmdale, Los Angeles County, California (Exhibit 1). The purpose of the survey was to determine the presence or absence of the western burrowing owl during its breeding period (i.e., March 1 to August 31) on or immediately adjacent to the Project site. The habitat assessment determined that potentially suitable habitat for the western burrowing owl was present and, as a result, focused surveys were required. The surveys were completed in accordance with the California Department of Fish and Wildlife’s (CDFW’s) *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) by Psomas biologists who have the necessary training and experience to conduct surveys for burrowing owls.

PROJECT LOCATION AND SETTING

The Proposed Project is located on approximately 75-acres in the southern portion of the Antelope Valley in the City of Palmdale. The Project site is situated south of W Avenue M, west of Sierra Hwy, north of W Avenue M, and east of 10th Street W (Exhibit 1). The Project site is located on the Lancaster West U.S. Geologic Survey 7.5-minute quadrangle map (Exhibit 2). Elevations range from approximately 2,550 feet above mean sea level (msl) in the southern portion of the site to approximately 2,530 feet above msl in the northern portion of the property. The Project site is currently undeveloped with a large dry wash running through the western portion of the site. The vegetation on the site is generally comprised of Joshua tree woodland in the east, with various shrub communities such as Mormon tea – fourwing saltbush scrub, Mormon tea – Mojave cottonthorn, great basin sagebrush – rubber rabbitbrush scrub, and ruderal occurring throughout the rest of the site. Homeless encampments were present on site along the eastern Project boundary just prior to the surveys.

BACKGROUND

The western burrowing owl is a grassland specialist distributed throughout western North America, where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments, with well-drained, level to gently sloping areas characterized by sparse vegetation and bare ground (Poulin et al. 2020; Shaffer et al. 2022). Burrowing owls in Florida excavate their own burrows, but western burrowing owls depend upon the presence of

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burrowing mammals whose burrows are used for roosting and nesting (Poulin et al. 2020). The presence or absence of colonial fossorial mammal burrows (e.g., California ground squirrels [*Spermophilus beecheyi*]) is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drainpipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks; debris; or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. Large, hard objects at burrow entrances stabilize the entrance from collapse and may inhibit excavation by predators.

Burrowing owls often use “satellite”, or non-nesting burrows, moving chicks into them from the nesting burrow, presumably to reduce the risk of predation (Desmond and Savidge 1998) and possibly to avoid nest parasites (Shaffer et al. 2022). One pair may use up to ten satellite burrows (James and Seabloom 1968). Individual burrowing owls have a moderate to high site fidelity to previously used burrow complexes and often use the same burrows for nesting year after year.

The western burrowing owl was once abundant and widely distributed within coastal Southern California, but it has declined precipitously in Los Angeles, Orange, San Diego, Riverside, and San Bernardino Counties. Although a petition was submitted to list the California population of the western burrowing owl as an Endangered or Threatened species, the CDFW declined to list the burrowing owl as either Threatened or Endangered in consideration of its overall population throughout the state. However, the CDFW considers the burrowing owl to be a California Species of Special Concern (CDFW 2022).

SURVEY METHODOLOGY

Focused surveys for the burrowing owl were conducted during the breeding season, which extends from March 1 to August 31. The CDFW protocol follows a sequence of surveys that are separated in three phases: (1) habitat assessment; (2) burrow surveys; and (3) crepuscular (dawn or dusk) owl surveys. The CDFW guidelines specify time periods in which the four focused crepuscular surveys should be conducted during the breeding season: at least one survey between February 15 and April 15; three surveys between April 15 and July 15; with at least one survey after June 15. Surveys should be conducted at least three weeks apart.

During the initial reconnaissance-level wildlife survey conducted on March 23, 2022, it was determined that potentially suitable habitat for burrowing owl was present on the Project site and immediately adjacent. The burrow survey was conducted on April 14, 2022, by Psomas Biologists Sarah Thomas, Allison Rudalevige, and Jack Underwood. The burrow survey was conducted by walking the Project site in 10- to 20-meter (approximately 33 feet to 65 feet) belt transects (depending on shrub coverage) to achieve 100 percent visual coverage. Potentially suitable burrows were marked with Garmin Global Positional System (GPS) units. Any natural or man-made cavities large enough to allow a burrowing owl to enter were inspected for evidence of occupation. Evidence of occupation may include prey remains, cast pellets, white-wash, feathers, and observations of owls adjacent to burrows. The burrow survey was conducted at least five days after rain, which could have washed away potential sign. Areas containing suitable habitat within 500 feet of the Project site were surveyed with binoculars.

The CDFW guidelines specify time periods in which the four focused crepuscular surveys should be conducted during the breeding season: at least one survey between February 15 and April 15; three surveys between April 15 and July 15; with at least one survey after June 15. Surveys should be conducted at least three weeks apart. Ms. Thomas and Mr. Underwood conducted the focused crepuscular surveys on April 15; May 19; June 9 and June 30, 2022. These surveys were conducted from either one hour before sunrise to two hours after, or from two hours before sunset to one hour after. The surveys were conducted when light conditions were sufficient to observe burrowing owl flights. All potential

habitat (e.g., areas where potentially suitable burrows were located) within the Project site and adjacent buffer was surveyed by walking in meandering transects to allow 100 percent visual coverage of the survey area. The transects were spaced no more than approximately 65 feet apart in order to ensure 100 percent visual coverage of the ground surface. At the start of each transect and, at least, every 300 feet, the survey area was scanned for burrowing owls or burrowing owl sign (e.g., pellets, prey remains, whitewash, or decoration) using binoculars. Periodically, binoculars were used to inspect holes; crevices; and potential perches such as rocks, fence posts, and other elevated structures for the presence of owls while listening for owl calls. All wildlife observed were recorded in field notes (Attachment B). Survey times and weather conditions are summarized in Table 1 below.

**TABLE 1
 SUMMARY OF BURROWING OWL SURVEYS**

Survey Number	Date	Time (Start/End)	Surveyor(s)	Weather Conditions		
				Temperature (°F) (Start/End)	Wind (mph) (Start/End)	Cloud Cover (%) (Start/End)
Habitat Assessment	3/22/2022	9:00 AM–12:00 PM	Thomas	75/84	0–3/0–3	Clear/Clear
Burrow Survey	4/14/2022	7:50 AM – 12:45 PM	Thomas, Underwood, Rudalevige	50/70	1-3/1-3	10/Clear
Crepuscular Survey 1	4/15/2022	6:10 PM–8:30 PM	Thomas, Underwood	64/61	9.2/8.4	Clear/Clear
Crepuscular Survey 2	5/19/2022	6:30 AM–9:20 AM	Thomas	66/73	0–5/0–5	25/10
Crepuscular Survey 3	6/9/2022	5:45 AM–8:30 AM	Thomas	60/76	0–3/0–3	Clear/Clear
Crepuscular Survey 4	6/30/2022	6:30 AM–9:00 AM	Thomas	68/86	0–1/0–1	30/50

°F: Fahrenheit; mph: miles per hour; %: percent

SURVEY RESULTS

No burrowing owl individuals or active burrowing owl burrows were observed during the surveys. Suitable habitat and potentially suitable burrows for burrowing owl is present throughout the majority of the Project site (except the dry wash in the west). The survey area supports high density California ground squirrel burrows, and vegetation was low in stature at the time of the surveys. One inactive burrowing owl burrow with sign (old whitewash and pellets) was documented in the survey area (Exhibit 4).

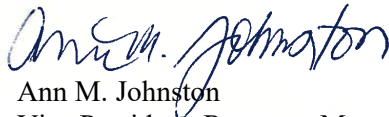
Representative photographs are included in Attachment A. A complete list of all wildlife species observed during the surveys is provided in Attachment B of this report.

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Psomas appreciates the opportunity to assist on this Project. If you have any comments or questions, please call Marc Blain at 626.351.2000.

Sincerely,

PSOMAS



Ann M. Johnston
Vice President, Resource Management



Marc T. Blain
Senior Project Manager

Exhibits: Exhibit 1– Project Location
Exhibit 2– U.S. Geological Survey 7.5-Minute Quadrangle
Exhibit 3– Survey Area
Exhibit 4– Survey Results
Attachments: Attachment A – Representative Site Photographs
Attachment B – Wildlife Compendium

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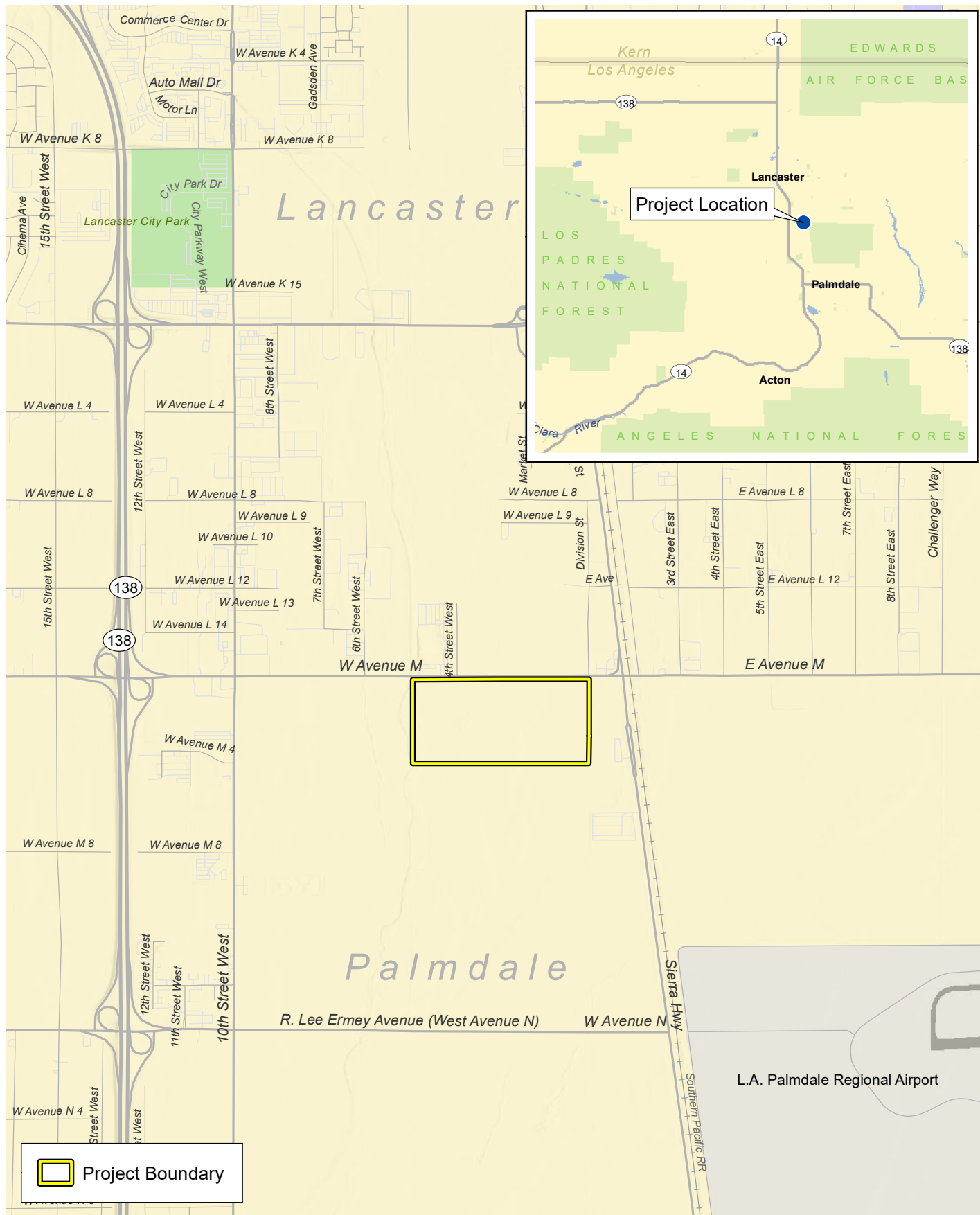
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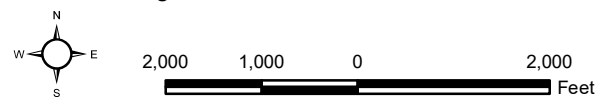


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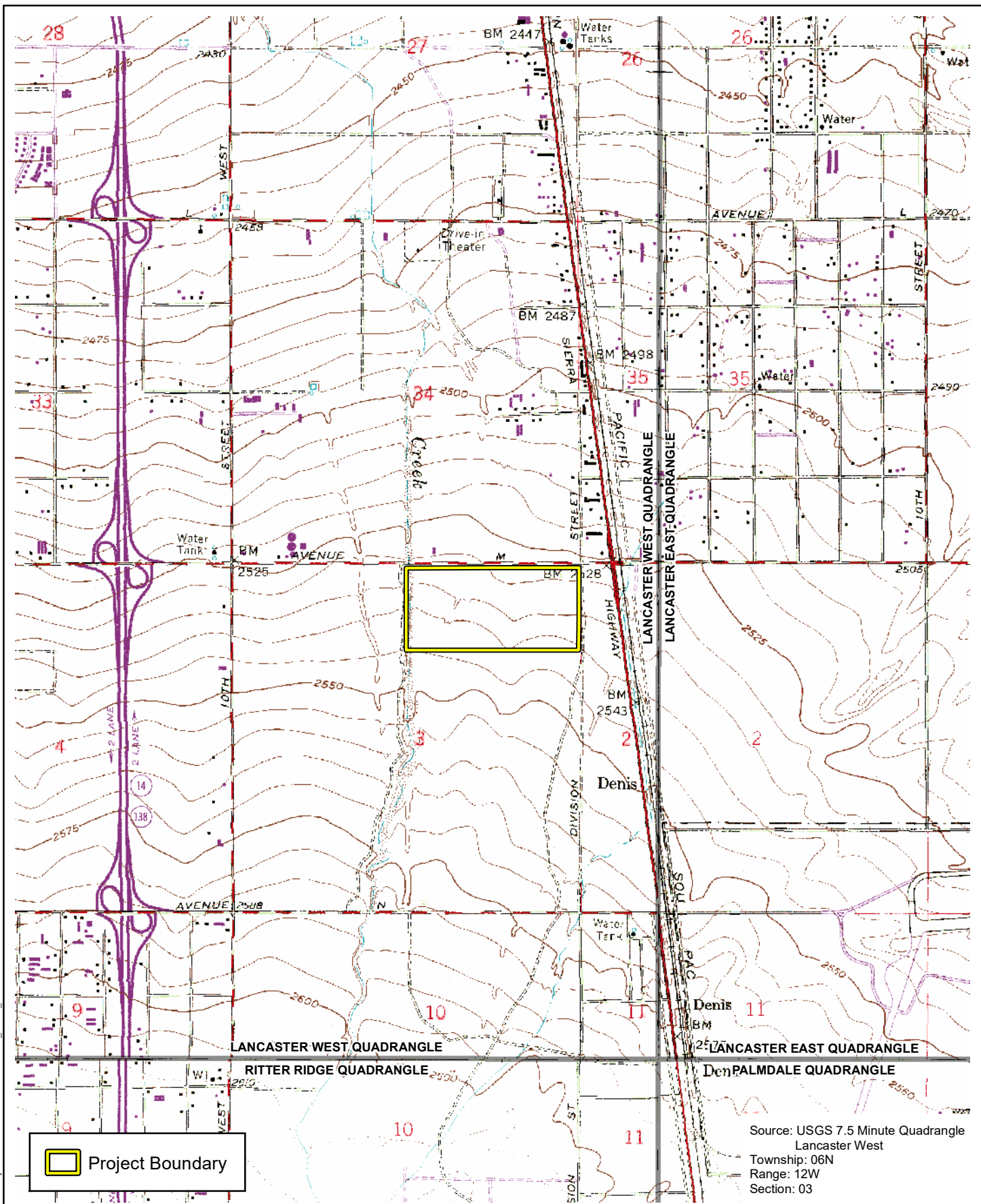
Project Location


Palmdale Logistics Park

Exhibit 1



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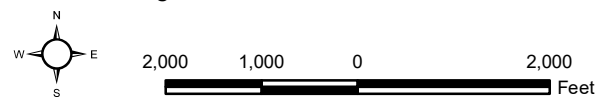
 Project Boundary

Source: USGS 7.5 Minute Quadrangle
 Lancaster West
 Township: 06N
 Range: 12W
 Section: 03

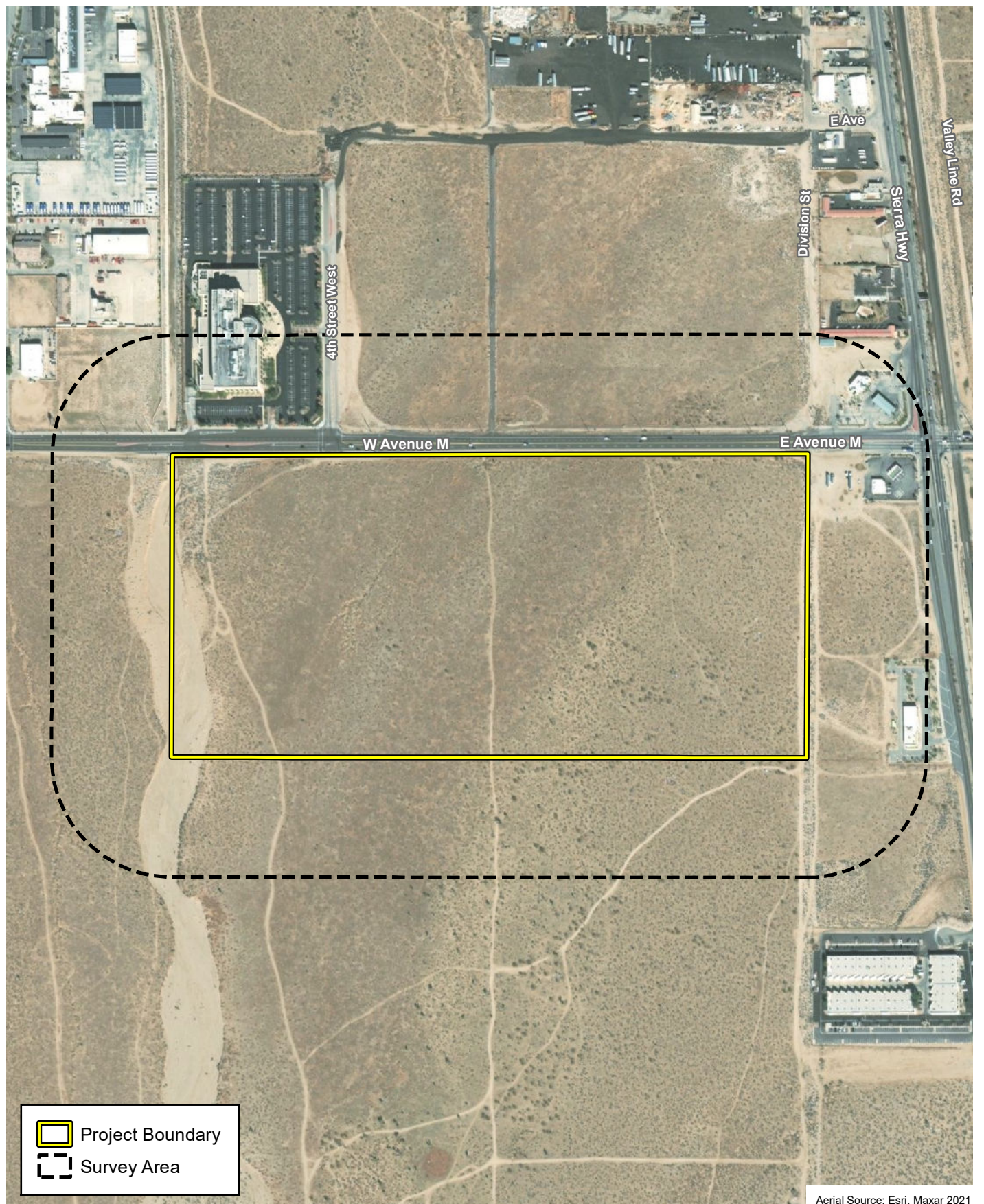
USGS 7.5-Minute Digital Quadrangle



Palmdale Logistics Park

Exhibit 2



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 Project Boundary
 Survey Area

Aerial Source: Esri, Maxar 2021

Survey Area

Palmdale Logistics Park

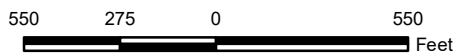
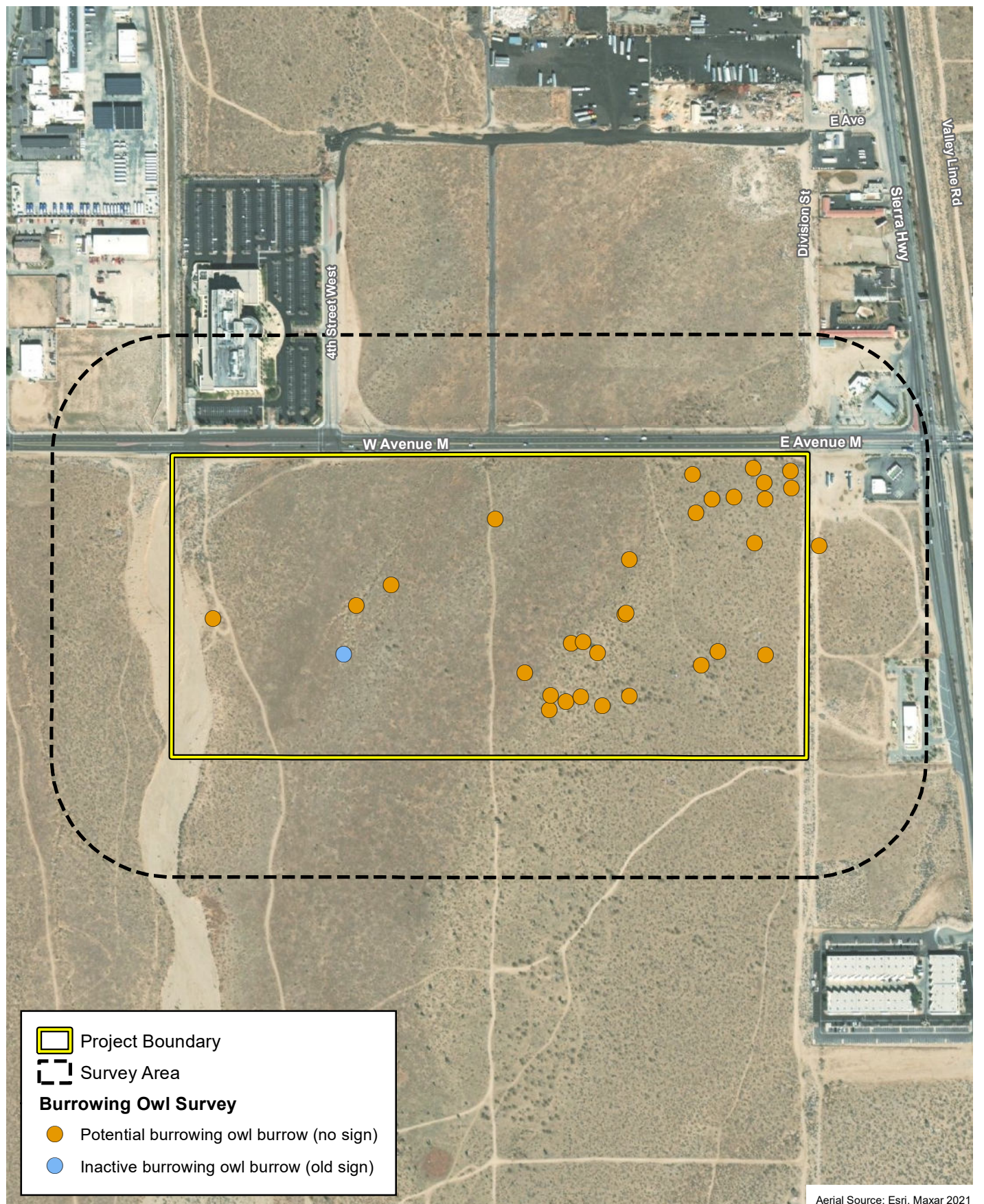


Exhibit 3





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Aerial Source: Esri, Maxar 2021

Legend

-  Project Boundary
-  Survey Area

Burrowing Owl Survey

-  Potential burrowing owl burrow (no sign)
-  Inactive burrowing owl burrow (old sign)

Survey Results

Palmdale Logistics Park

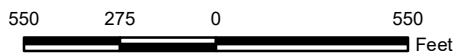


Exhibit 4



ATTACHMENT A
REPRESENTATIVE SITE PHOTOGRAPHS



Photo of the inactive burrowing owl burrow on site. Burrow has old sign (white wash and pellets), no fresh sign was observed during surveys.



Representative photograph of a potential burrowing owl burrow, created by a California ground squirrel.

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Representative Photographs

Palmdale Logistics Park

Attachment A-1





Overview of mormon tea scrub in the western portion of the site where many potential burrows were documented.



Overview of mormon tea/four-wing saltbush scrub near the center portion of the site where many potential burrows were documented.

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Representative Photographs

Palmdale Logistics Park

Attachment A-2



ATTACHMENT B
WILDLIFE COMPENDIUM

WILDLIFE SPECIES OBSERVED DURING THE SURVEYS

Species	
Scientific Name	Common Name
BIRDS	
ODONTOPHORIDAE – NEW WORLD QUAIL FAMILY	
<i>Callipepla californica</i>	California quail
COLUMBIDAE – PIGEON AND DOVE FAMILY	
<i>Zenaida macroura</i>	mourning dove
ACCIPITRIDAE – HAWK FAMILY	
<i>Buteo jamaicensis</i>	red-tailed hawk
TYRANNIDAE – TYRANT FLYCATCHER FAMILY	
<i>Sayornis saya</i>	Say's phoebe
<i>Myiarchus cinerascens</i>	ash-throated flycatcher
<i>Tyrannus vociferans</i>	Cassin's kingbird
CORVIDAE – JAY AND CROW FAMILY	
<i>Corvus corax</i>	common raven
ALAUDIDAE – LARK FAMILY	
<i>Eremophila alpestris</i>	horned lark
HIRUNDINIDAE – SWALLOW FAMILY	
<i>Petrochelidon pyrrhonota</i>	cliff swallow
STURNIDAE – STARLING FAMILY	
<i>Sturnus vulgaris</i> *	European starling*
FRINGILLIDAE – FINCH FAMILY	
<i>Haemorhous mexicanus</i>	house finch
PASSERELLIDAE – NEW WORLD SPARROW FAMILY	
<i>Amphispiza bilineata</i>	black-throated sparrow
<i>Artemisiospiza belli</i>	Bell's sparrow
* Non-native species	