

September 14, 2022

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VIA EMAIL
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Subject: Results of a Focused Survey for Burrowing Owl for the 8th Street East Industrial Project,
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 8th Street East Industrial 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 area. 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 18-acres in the southern portion of the Antelope Valley in the City of Palmdale. The Project site is situated east of Sierra Highway, west of 8th Street East, and approximately 800 feet south of East Avenue P in the city of Palmdale (Exhibit 1). The Project site is located on the Palmdale U.S. Geologic Survey 7.5-minute quadrangle map (Exhibit 2). Elevations range from approximately 2,610 feet above mean sea level (msl) to approximately 2,620 feet above msl. The Project site is currently undeveloped but has had some previous disturbance and is directly adjacent (south of) a decommissioned portion of the Pacific Union Railroad. Vegetation on the site is comprised mostly of disturbed rubber rabbitbrush scrub, with a small patch of developed/disturbed rubber rabbitbrush scrub in the eastern portion of the site and big sagebrush - rubber rabbitbrush scrub in the drainage that runs along the southern edge of the site. Most of the site has been disturbed historically (e.g., evidence of heavy machine work such as scraping), and contains many trash piles from illegal dumping.

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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 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 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 December 10, 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 the same day by Psomas Biologists Sarah Thomas 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 Positioning 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.

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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 February 15; May 2 and 30; and June 20, 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 survey area was surveyed by walking in meandering transects to allow 100 percent visual coverage of the study 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 study 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/Burrow Survey	12/10/2022	8:00 AM–12:00 PM	Thomas, Underwood	45/55	0–1/0–1	60/60
Crepuscular Survey 1	2/15/2022	6:05 AM–7:10 AM	Thomas, Underwood	50/58	5/5	Clear/Clear
Crepuscular Survey 2	5/2/2022	6:35 AM–7:30 AM	Thomas	66/73	5/6	Clear/10
Crepuscular Survey 3	5/30/2022	6:50 AM–8:15 AM	Thomas	65/70	0/1	50/30
Crepuscular Survey 4	6/20/2022	7:45 AM–8:40 AM	Thomas	66/74	0–1/0–1	20/Clear
°F: Fahrenheit; mph: miles per hour; %: percent						

SURVEY RESULTS

No burrowing owl individuals or active/inactive burrowing owl burrows were observed during the surveys. Suitable habitat and potentially suitable burrows for burrowing owl occurs in the disturbed rubber rabbitbrush scrub portions of the Project site. One special status species, the loggerhead shrike (*Lanius ludovicianus*), was observed in the southwestern portion of the site. A California Natural Diversity Database form will be submitted to the CDFW for the observation.

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,

P S O M A S



Ann M. Johnston
Vice President, Resource Management



Marc T. Blain
Senior Project Manager

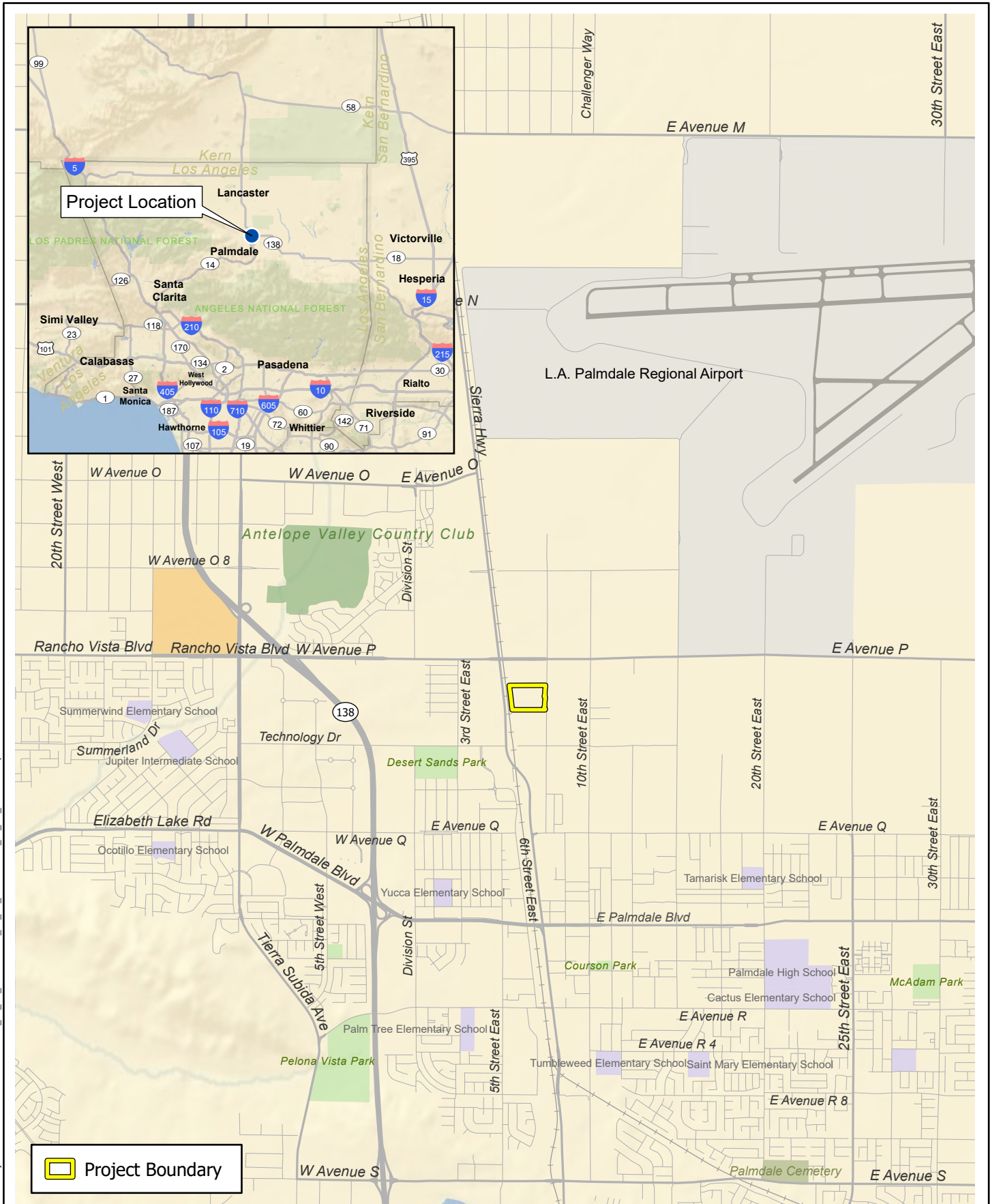
Exhibits: Exhibit 1– Project Location
 Exhibit 2– U.S. Geological Survey 7.5-Minute Quadrangle
 Exhibit 3– Survey Area
 Exhibit 4– Survey Results
Attachments: A – Representative Site Photographs
 B – Wildlife Compendium

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Regional Location and Local Vicinity

8th Street East Industrial Project



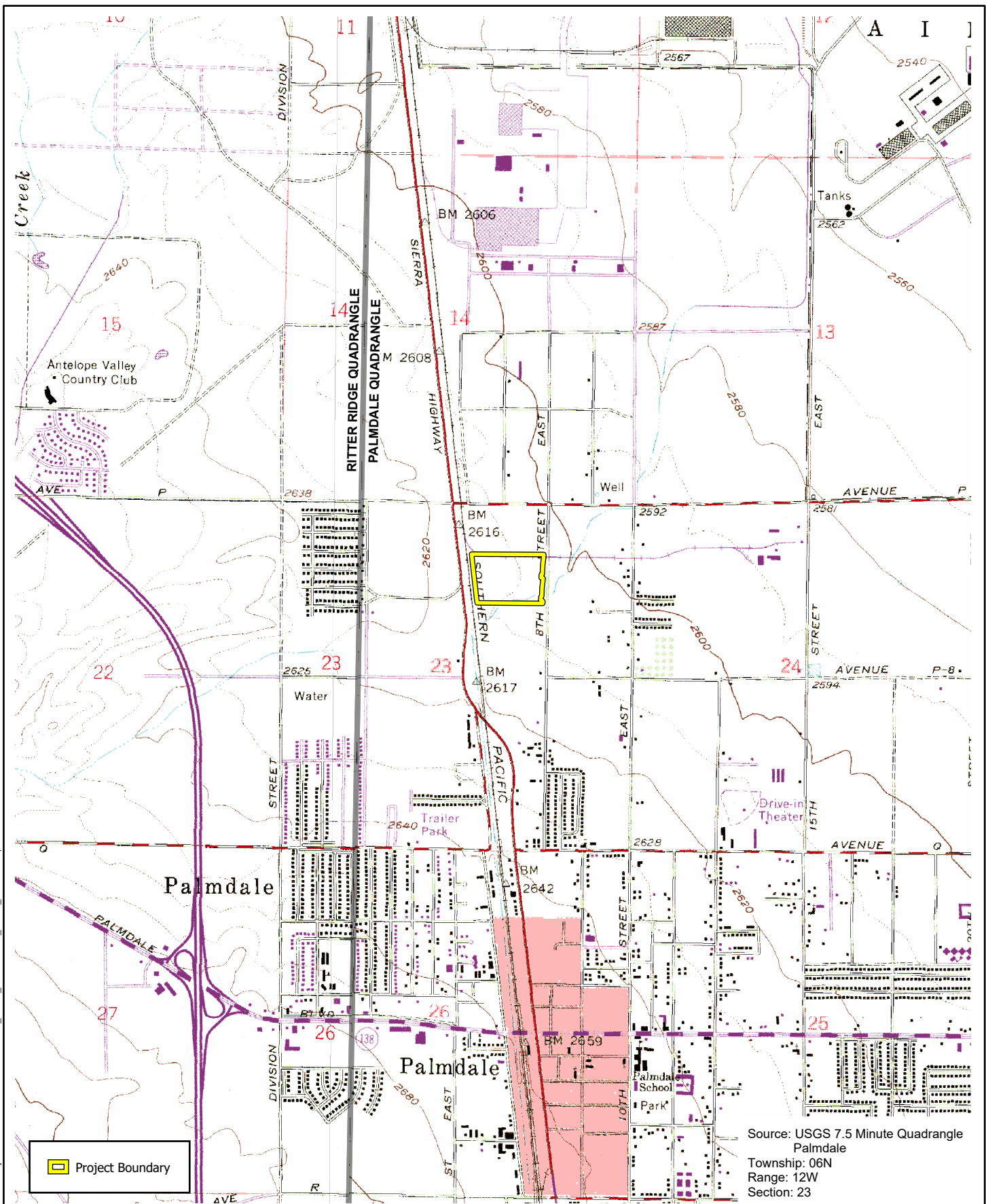
4,000 2,000 0 4,000 Feet

Exhibit 1



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USGS 7.5-Minute Digital Quadrangle

8th Street East Industrial Project

Exhibit 2



2,000 1,000 0 2,000 Feet



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Survey Area

8th Street East Industrial Project



320 160 0 320 Feet

Exhibit 3



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Aerial Source: Esri, Maxar 2021

Survey Results

8th Street East Industrial Project

Exhibit 4



320 160 0 320
Feet



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ATTACHMENT A
REPRESENTATIVE SITE PHOTOGRAPHS



Overview of the site, taken from the southern portion of the site facing north. Showing disturbed rubber rabbitbrush scrub.



Photo of example potential burrowing owl burrow with no sign present, approximately 10 cm round. No active or inactive burrows were documented during the survey.

Representative Site Photos

8th Street East Industrial Project

Attachment A-1



ATTACHMENT B
WILDLIFE COMPENDIUM

WILDLIFE SPECIES OBSERVED DURING THE SURVEYS

Species		Special Status
Scientific Name	Common Name	
BIRDS		
TYRANNIDAE – TYRANT FLYCATCHER FAMILY		
<i>Sayornis saya</i>	Say's phoebe	
LANIIDAE – SHRIKE FAMILY		
<i>Lanius ludovicianus</i>	loggerhead shrike	SSC
CORVIDAE – JAY AND CROW FAMILY		
<i>Corvus corax</i>	common raven	
TROGLODYTIDAE – WREN FAMILY		
<i>Campylorhynchus brunneicapillus</i>	cactus wren	
MIMIDAE – MOCKINGBIRD AND THRASHER FAMILY		
<i>Mimus polyglottos</i>	northern mockingbird	
FRINGILLIDAE – FINCH FAMILY		
<i>Haemorhous mexicanus</i>	house finch	
PASSERELLIDAE – NEW WORLD SPARROW FAMILY		
<i>Zonotrichia leucophrys</i>	white-crowned sparrow	
<i>Artemisospiza belli</i>	Bell's sparrow	
<i>Passerculus sandwichensis</i>	savannah sparrow	
ICTERIDAE – BLACKBIRDS AND ORIOLES		
<i>Sturnella neglecta</i>	western meadowlark	
PARULIDAE – WOOD-WARBLER FAMILY		
<i>Setophaga coronata</i>	yellow-rumped warbler	
CDFW: California Department of Fish and Wildlife		
<u>Species Status:</u>		
State (CDFW)		
SSC Species of Special Concern		