March 3, 2023
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Connie Anderson
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VIA EMAIL
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Subject: Results of the Swainson's Hawk Survey for the Antelope Valley Commerce Center and Palmdale Logistics Park Projects in the City of Palmdale, Los Angeles County, California

Dear Ms. Anderson:

This Letter Report presents the findings of focused surveys for the Swainson's hawk (*Buteo swainsoni*) conducted for the Palmdale Logistics Park Project (hereinafter referred to as "the proposed Project") in the City of Palmdale, Los Angeles County, California. Due to the proximity of the Antelope Valley Commerce Center Project site immediately adjacent to the east, the survey methods, results, and conclusions are applicable to that project site as well as Palmdale Logistics Park. The purpose of the surveys was to determine the presence or absence of the Swainson's hawk in the survey area (which included both the Antelope Valley Commerce Center and Palmdale Logistics Park Project sites) in accordance with accepted protocols.

PROJECT LOCATION

The proposed Project is located on approximately 76.97-acres in the southern portion of the Antelope Valley in the City of Palmdale. The Project site is located at the southwest corner of Columbia Way/Avenue M and Division Street(Exhibit 1). The Project site is located on the Lancaster West U.S. Geologic Survey 7.5-minute quadrangle map. 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. Unsheltered encampments were present on site along the eastern Project boundary just prior to the the surveys.

SPECIES BACKGROUND

The Swainson's hawk is a neotropical migrant that breeds in grassland and savannah habitats of western North America east to the Great Plains and from southwest Alaska and southern Canada south to northern Mexico (AOU 1998). It winters in the pampas grass regions of South America, primarily in Argentina and Uruguay (England et al. 1997). The main route during spring and fall migration is over land through Central America between North and South America (AOU 1998). This is a highly gregarious species that often migrates in flocks, sometimes numbering in the thousands (England et al. 1997). Although the total population has been conservatively estimated at 40,000 to 55,000 breeding pairs, the Swainson's hawk has experienced serious local declines in its breeding range (i.e., Oregon and California) (del Hoyo et al. 1994).

In California, the Swainson's hawk is considered to be a locally common to rare breeder with the majority of breeding territories located in the Central Valley and Great Basin regions (Woodbridge 1998). Most breeding pairs are located in the northern San Joaquin Valley and in the middle of the Central Valley between Sacramento and Modesto (Woodbridge 1998). Swainson's hawks are now absent from most of their historic range in the central and southern parts of California (Woodbridge 1998). In 1980, Bloom estimated the California breeding population to be 375 pairs and found this to represent a 91 percent decline from historical population estimates. However, a recent publication that studied breeding Swainson's from 2005 to 2018 found that the population grew rapidly during that period, and estimates there were 18,810 breeding pairs in California in 2018, a rate of 13.9 percent increase per year (Furnas et al. 2022). The causes for the increase are yet unknown.

Although not considered to be an obligate riparian species, nest sites in California's Central Valley are strongly associated with riparian forest vegetation (Woodbridge 1998). Nests are typically located in a solitary tree, shrub, small grove of trees, or in a line of trees along a stream course; however, they can also be on human-built structures such as power poles (England et al. 1997). Swainson's hawk nests are open platform structures typical of the genus (*Buteo*) but are less dense and less sturdy than red-tailed hawk (*Buteo jamaicensis*) nests and typically do not persist through the winter (Woodbridge 1998). Suitable foraging habitats consist of open grasslands, sparse shrublands, open woodlands, and agricultural areas such as wheat and alfalfa fields (England et al. 1997).

When breeding, Swainson's hawks feed on rodents, rabbits, and reptiles but, unlike other North American raptors, its diet when not breeding consists almost entirely of insects (England et al. 1997). Foraging habitats consist of open grasslands, sparse shrublands, open woodlands, and agricultural areas such as wheat and alfalfa fields (England et al. 1997). In the Central Valley, breeding territories include riparian forest or remnant riparian trees in combination with high-quality foraging habitats such as fallow fields and alfalfa fields (Woodbridge 1998).

REGIONAL BACKGROUND

Swainson's hawks were historically more numerous and widespread breeders in Southern California, even nesting on the coast as far south as San Diego County (Bloom 1980; Unitt 2004). Previously a scarce summer resident in the Mojave and Colorado deserts (Grinnell and Miller 1986), Bloom (1980) found this species to still be rather scarce in this region and restricted to desert woodland habitats of Joshua tree (*Yucca brevifolia*), Mojave yucca (*Yucca schidigera*), and possibly desert riparian habitats. Garrett and Dunn (1981) considered it a very rare summer resident in the region and listed known nesting sites such as the Lanfair Valley in San Bernardino County, Owens Valley in Inyo County, and the Antelope Valley in Los Angeles County.

Unpublished data (P. Bloom in Woodbridge 1998) indicates that there has been recolonization of historic habitats in the Antelope Valley and population increases in the Owens Valley. The Bureau of Land Management's *West Mojave Plan* (BLM 2005) states that all recent nest sites for the West Mojave Planning Area (WMPA) are in the Antelope, Victor, and Apple Valleys from near Palmdale and Lancaster, Los Angeles County, east to Adelanto and Victorville in San Bernardino County. In the WMPA, breeding habitat is provided by Joshua tree woodland, riparian woodland, and ornamental vegetation in the vicinity of suitable foraging habitats that include native as well as agricultural habitats (BLM 2005). Primary trees selected for nest sites in the WMPA are Joshua trees, Fremont cottonwoods (*Populus fremontii*), and other large trees used in agricultural windbreaks (BLM 2005).

A search of the California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB) shows historic nesting localities for Swainson's hawk in the vicinity of the Project site (CDFW 2022). Multiple breeding locations have been documented in CNDDB in the Antelope Valley, including Palmdale, between 2018 and 2020 (CDFW 2022).

SURVEY METHODS

The surveys followed the recommendations provided by the California Energy Commission (CEC) and CDFW (CEC and CDFW 2010) for green energy projects in the Antelope Valley that generally follow the Swainson's Hawk Technical Advisory Committee (SHTAC) survey guidelines developed for projects in the Central Valley of California (SHTAC 2000). The extent of the survey area is the primary difference between the two sets of guidelines, as the SHTAC (2000) recommends surveys of up to a half mile away from the proposed Project while the CEC and CDFW (2010) guidelines use a buffer of five miles to determine potential impacts. Survey timing also differs between the two sets of guidelines. These surveys were conducted using the survey buffer recommended in the SHTAC survey guidelines because the proposed Project is not a green energy project and survey timing from the CEC and CDFW (2010) survey guidelines was used due to the Project's location in the Antelope Valley.

As recommended by both sets of survey guidelines, these surveys were conducted by car while driving at reduced speeds (approximately 5 miles per hour) when feasible. The surveys along busy roads were conducted by periodic stops to scan for raptor activity by use of binoculars and a spotting scope. Field notes were taken on each survey date and included recording of all bird species encountered during the survey. In addition to Swainson's hawk observations, nests of potentially competitive species (e.g., other raptor species or common ravens) were noted. The western and approximate one third of the survey area extended into developed areas that do not provide suitable Swainson's hawk breeding habitat and, as a result, were largely excluded from the survey area. The majority of the survey time was spent in the eastern portion of the Project area. It should also be noted that the survey area was extended by approximately 1.25 miles (beyond the half-mile buffer) in the eastern portion of the survey area to include suitable breeding habitat in the tall clonal Joshua trees within the undeveloped land east of the United Pacific railroad tracks, south of Columbia Way and north of Ave. M-12 (Exhibit 3). In addition, periodic visits were made to two known recent nesting locations far outside the survey area (four miles east) in order to confirm regional breeding status. One of those recent nesting locations was active during the surveys. The surveys generally focused on mature trees (e.g., Joshua tree, non-native wind row trees) and power poles, particularly those with adjacent open space, which provided potentially suitable nesting and foraging habitat. Vegetation types and other areas that occur in the survey area include Joshua tree woodland, disturbed Joshua tree woodland, Mormon tea scrub, rubber rabbitbrush scrub, disturbed rubber rabbitbrush scrub, ruderal, tamarisk thicket, dry wash, disturbed, and developed.

The CEC and CDFW guidelines outline the following sequence and number of surveys, with the first survey period being optional and the third and fourth intended for nest monitoring:

1. January 1–March 31: one survey;
2. April 1–April 30: three surveys;
3. May 1–May 30: three surveys; and
4. June 1–July 15: three surveys.

Swainson's hawks are migratory and are not expected to be present during the first survey period, thus this 1st survey is optional. Surveys in the second survey period focus on arrival of Swainson's hawks and nest building activities. Egg laying and incubation occurs during the third survey period, so the hawks are less visible and can be difficult to observe during this time period. The fourth and last survey period is when the young fledge so there are relatively high levels of activity at the nest site.

The surveys were conducted by Psomas Senior Biologist Marc Blain and Psomas Biologists Sarah Thomas and Jack Underwood. A total of three focused surveys were conducted in the second survey period (April 1–April 30). During this time period, adults are arriving on breeding grounds and engaged in territorial and courtship displays, and circling the nest territory. Both males and females are actively nest building and visiting selected nest sites frequently (CEC and CDFW 2010). Since no Swainson's were observed in the survey area during the surveys, surveys during periods three and four were not conducted. Surveys were conducted on April 5, 22, and 29, 2022.

TABLE 1
SUMMARY OF SURVEY DATA AND CONDITIONS
FOR SWAINSON'S HAWK SURVEYS

Survey Dates (2022)	Surveyor(s)	Time	Air Temperature (°F)		Cloud Cover	Wind (mph)
			Start	End		
April 5	SAT/JDU	6:30 AM–1:00 PM	59	74	0%	1–3
April 22	SAT/MTB	8:30AM–2:30PM	49	68	50% → 50%	8–10
April 29	SAT/MTB	6:50AM–2:00PM	48	73	0%	0–2

°F: degrees Fahrenheit; mph: miles per hour; SAT: Sarah Thomas; JDU: Jack Underwood; MTB: Marc Blain

SURVEY RESULTS

No Swainson's hawks were observed in the survey area during the surveys.

One Swainson's hawk pair was observed nesting in a non-native elm tree in the yard of a residence on 50th Street E and E Avenue L, four miles east of the Project site; and six migrating Swainson's were observed foraging in the agricultural fields along 50th Street E between Avenue L-8 and E Avenue L on April 5. Since the nest location was outside the survey area, detailed monitoring observations were not conducted. One additional raptor species, red-tailed hawk (*Buteo jamaicensis*), was observed during the surveys. No red-tailed hawk territories were documented within the survey area.

A list of the bird species that were observed during the surveys can be found in Attachment A.

If you have any questions regarding this Letter Report, please call Marc Blain at 626.351.2000.

Sincerely,
PSOMAS

Ann M. Johnston
Vice President, Resource Management

Marc T. Blain
Senior Project Manager

Enclosures: Exhibit 1 – Project Location
Exhibit 2 – U.S. Geological Survey 7.5-minute Quadrangle
Exhibit 3 – Survey Area
Attachment A – Avian Compendium

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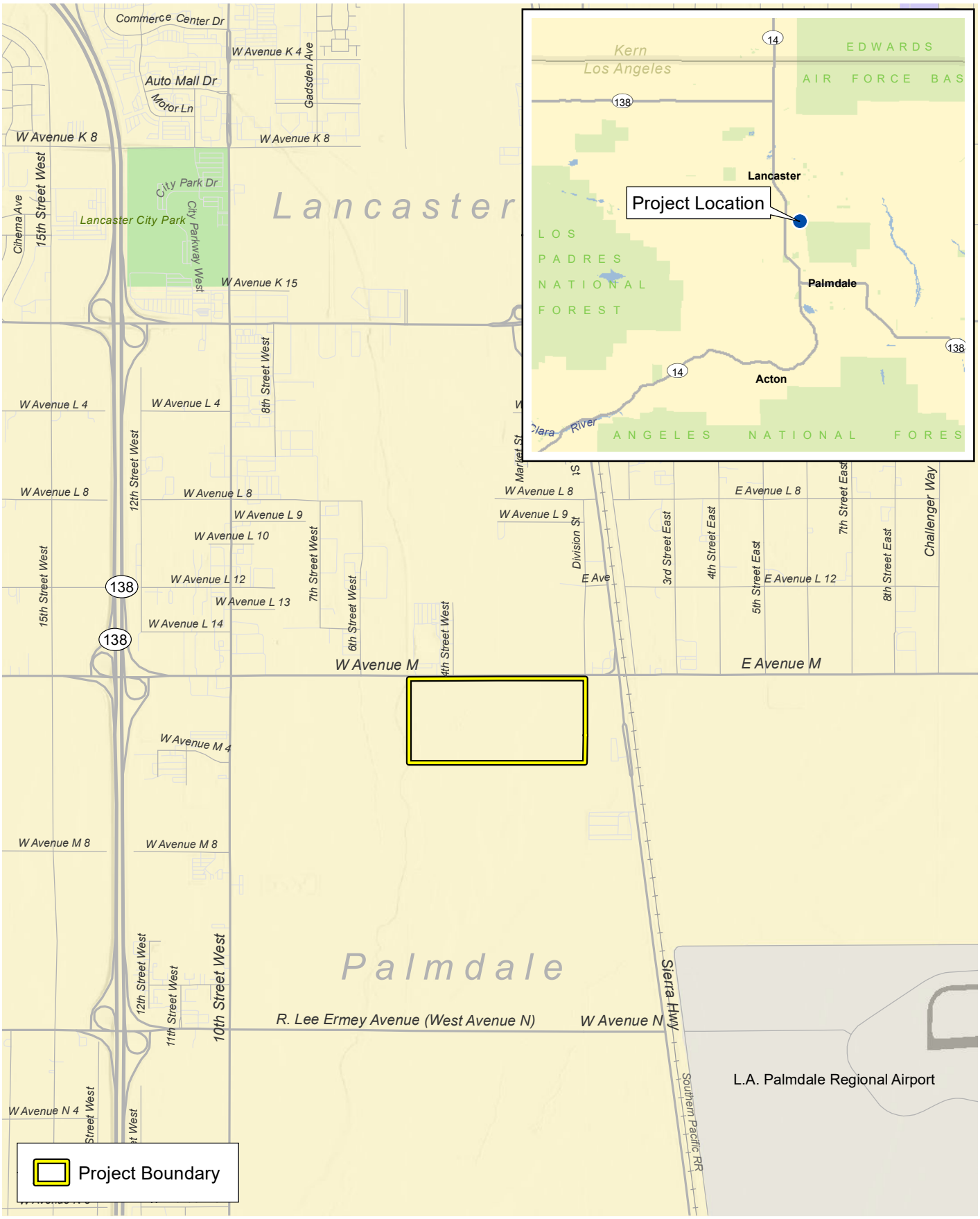

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Project Location

Exhibit 1

Palmdale Logistics Park

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2,000 1,000 0 2,000 Feet

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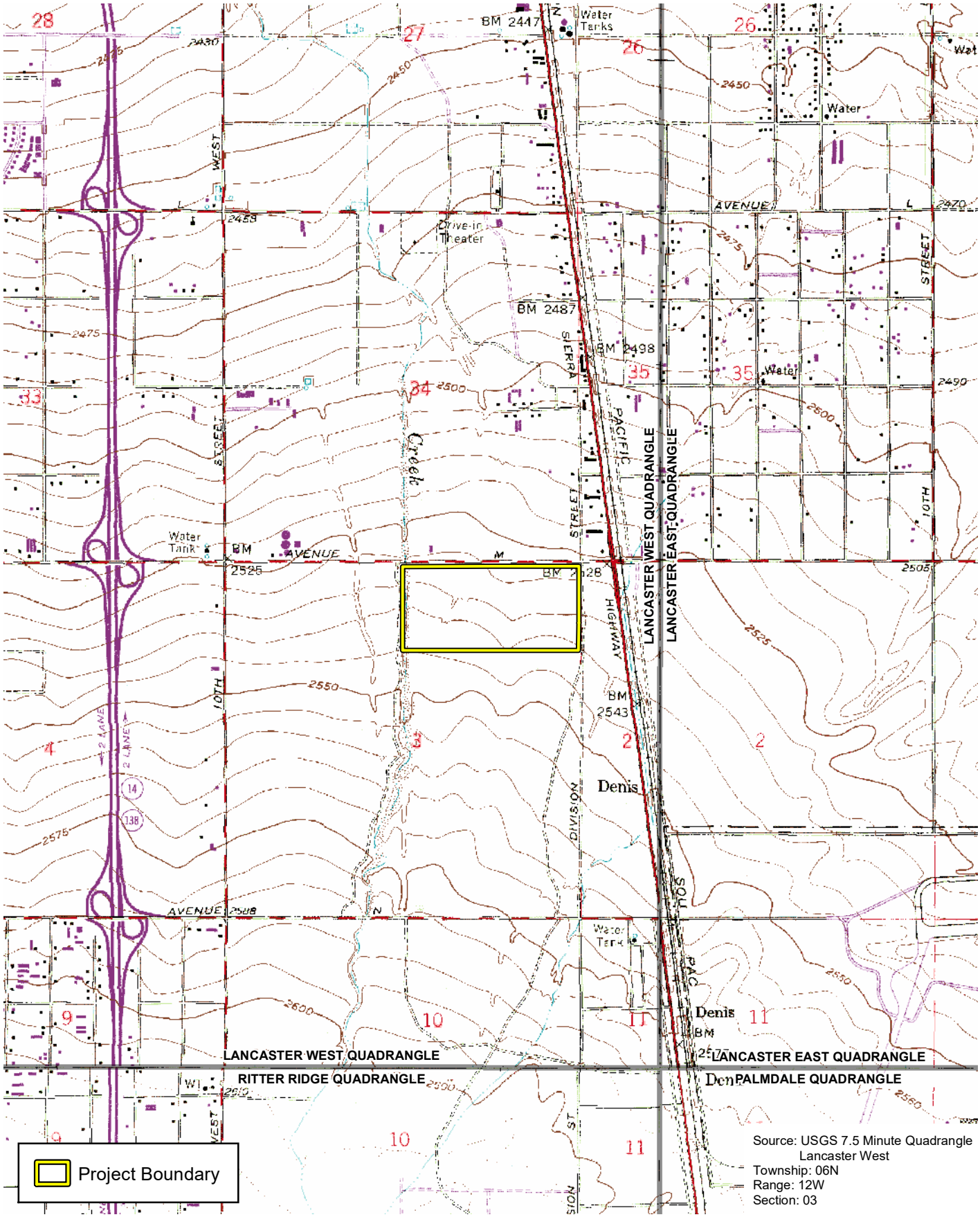

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USGS 7.5-Minute Digital Quadrangle

Exhibit 2

Palmdale Logistics Park

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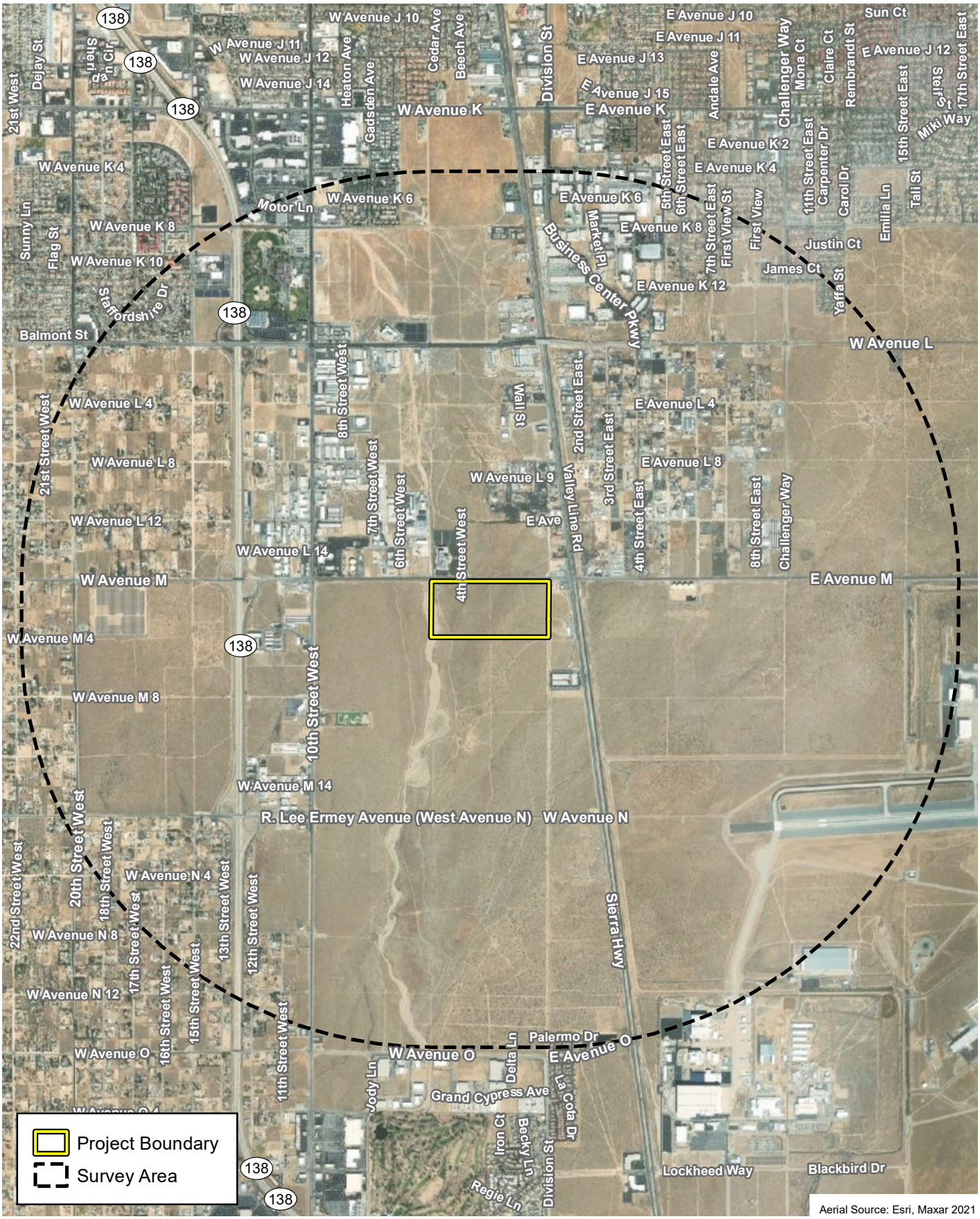

Survey Area

Exhibit 3

Palmdale Logistics Park

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3,000 1,500 0 3,000
Feet

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ATTACHMENT A

AVIAN COMPENDIUM

BIRD SPECIES OBSERVED DURING SURVEYS

Species		Special Status
Scientific Name	**Common Name**	
BIRDS		
COLUMBIDAE – PIGEON AND DOVE FAMILY		
Zenaida macroura	mourning dove	
ACCIPITRIDAE – HAWK FAMILY		
Buteo swainsoni	Swainson's hawk	ST
Buteo jamaicensis	red-tailed hawk	
TYRANNIDAE – TYRANT FLYCATCHER FAMILY		
Sayornis saya	Say's phoebe	
Myiarchus cinerascens	ash-throated flycatcher	
Tyrannus vociferans	Cassin's kingbird	
CORVIDAE – JAY AND CROW FAMILY		
Corvus corax	common raven	
TROGLODYTIDAE – WREN FAMILY		
Campylorhynchus brunneicapillus	cactus wren	
MIMIDAE – MOCKINGBIRD AND THRASHER FAMILY		
Mimus polyglottos	northern mockingbird	
STURNIDAE – STARLING FAMILY		
*Sturnus vulgaris**	European starling*	
FRINGILLIDAE – FINCH FAMILY		
Haemorhous mexicanus	house finch	
Spinus psaltria	lesser goldfinch	
PASSERELLIDAE – NEW WORLD SPARROW FAMILY		
Amphispiza bilineata	black-throated sparrow	
Artemisiospiza belli	Bell's sparrow	
ICTERIDAE – BLACKBIRDS AND ORIOLES		
Agelaius phoeniceus	red-winged blackbird	
Euphagus cyanocephalus	Brewer's blackbird	
PARULIDAE – WOOD-WARBLER FAMILY		
Setophaga townsendi	Townsend's warbler	

* Non-native

Species Status:

State (CDFW)

ST Threatened