

September 16, 2022

Connie Anderson
T&B Planning, Inc
Director of New Business Services/Project Manager
3200 El Camino Real, Suite 100
Irvine, California 92602

VIA EMAIL
canderson@tbplanning.com

Subject: Results of the Focused Special Status Plant/Desert Native Plant Survey Conducted for the Palmdale Logistics Park Project in the City of Palmdale, Los Angeles County, California

Dear Ms. Anderson:

This Letter Report presents the findings of special status plant/desert native plant surveys conducted for the Palmdale Logistics Park Project located in the City of Palmdale, Los Angeles County, California (Exhibit 1).

PROJECT LOCATION

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).

METHODS

Botanical surveys were floristic in nature and consistent with the protocols created by the California Department of Fish and Wildlife (CDFW) (CDFG 2009). In addition, the survey was intended to document the plants regulated by the City of Palmdale and the California Desert Native Plants Act and Native Desert Vegetation Preservation Ordinance (Sections 14.04.010-14.04.120). Prior to the field surveys, a literature search was conducted to identify special status plant species reported from the vicinity of the proposed Project site. Sources reviewed include the USGS for Palmdale, Lancaster East, Lancaster West, Alpine Butte, Littlerock, and Ritter Ridge 7.5-minute quadrangles in the California Native Plant Society's (CNPS) Locational Inventory of Rare and Endangered Vascular Plants of California (CNPS 2022) and the CDFW's California Natural Diversity Database (CNDDB) (CDFW 2022).

Plants regulated by the City of Palmdale and the California Desert Native Plants Act include:

- All species of Burseraceae family (elephant tree)
- *Carnegiea gigantea* (sahuaro cactus)
- *Ferocactus acanthodes* (barrel cactus)
- *Castela emoryi* (crucifixion thorn)

225 South Lake Avenue
Suite 1000
Pasadena, CA 91101

Tel 626.351.2000
Fax 626.351.2030
www.Psomas.com

Connie Anderson
September 16, 2022
Page 2

- *Dudleya saxosa* (Panamint dudleya)
- *Pinus longaeva* (bristlecone pine)
- *Washingtonia filifera* (fan palm)
- All species of the family Agavaceae (century plants, nolinias, yuccas)
- All species of the family Cactaceae (cacti), except for the plants listed in subdivisions (b) and (c) of Section 80072 which may be harvested under a permit obtained pursuant to that section
- All species of the family Fouquieriaceae (ocotillo, candlewood)
- All species of the genus *Prosopis* (mesquites)
- All species of the genus *Cercidium* (palos verdes)
- *Acacia greggii* (catclaw)
- *Atriplex hymenelytra* (desert-holly)
- *Dalea spinosa* (smoke tree)
- *Olneya tesota* (desert ironwood), including both dead and live desert ironwood

According to the National Weather Service, Palmdale received 3.88 inches of precipitation for Water Year 2022 to date (October 1, 2021, through August 31, 2022), which is about 67 percent of the normal average (National Weather Service 2022). Where available, reference populations were monitored for annual and difficult-to-detect target species to ensure that the scheduled surveys were comprehensive. This is especially relevant during periods of unusual rainfall patterns or below-average rainfall. If conditions at a nearby reference population are suitable for germination and growth, then it can be inferred that conditions would also be suitable in the survey area. Reference populations were not monitored for species with a California Rare Plant Rank (CRPR) of 4; perennials (e.g., *Atriplex* species) which would be identifiable throughout the year; or for species with no extant, publicly accessible reference population in the Project region.

Psomas Senior Biologist Allison Rudalevige, and Biologists Sarah Thomas and Jack Underwood conducted special status plant surveys on April 14; May 11 and 12, 2022. The surveys comprised 33.5 total person-hours. The potentially suitable habitats for special status plants within the survey area were systematically surveyed to the extent possible during the site visits. A 50-foot buffer from the Project boundary was surveyed by walking 10 to 20 meter transects depending on shrub cover (Exhibit 3). All plant species observed were recorded in field notes. Plant species were identified in the field or collected for subsequent identification using keys in Hickman (1993) and Munz (1974). Taxonomy follows Hickman (1993) and/or current scientific data (e.g., scientific journals) for scientific and common names.

SITE DESCRIPTION

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 disturbed Nevada joint fir scrub, disturbed Nevada joint fir tea – Mojave cottonthorn, disturbed great basin sagebrush – rubber rabbitbrush scrub, red-stem filaree fields, and sandy dry wash, occurring throughout the rest of the site (Exhibit 4).

Connie Anderson
September 16, 2022
Page 3

The majority of the survey area has been previously disturbed by human activities. Multiple unauthorized encampments occurred in the eastern and northern portions of the survey area just prior to the start of plant surveys. The areas surrounding these abandoned encampments showed various disturbances such as fire, soil disturbances from off-road vehicles, large amounts of trash and various household items. In addition, mechanical disturbance to vegetation is visible in patches throughout the site. Dirt access roads run around the perimeter of the site and through the center of the site from north to south.

Soil types in the survey area include Cajon loamy sand, 0 to 2 percent slopes; Hesperia fine sandy loam, 0 to 2 percent slopes; and Rosamond loam (USDA NRCS 2007). Exhibit 5 shows a map of soil types throughout the survey area.

SURVEY RESULTS

One regulated species, the western Joshua tree (*Yucca brevifolia*), a California State Candidate Threatened species, was observed during the surveys. A full detailed description of the location of Joshua trees in the survey area can be found under separate cover in the Joshua Tree Focused Survey Report prepared by Psomas.

A list of all plants observed within the survey area during the focused plant surveys can be found in Attachment. Table 1 below lists the special status plant species known to occur in the vicinity of the Project site along with habitat suitability within the survey area and survey results.

**TABLE 1
SPECIAL STATUS PLANT SPECIES KNOWN TO OCCUR
IN THE SURVEY AREA VICINITY**

Scientific Name	Common Name	CDFW	CRPR	Species Background	Potential
<i>Astragalus hornii</i> var. <i>hornii</i>	Horn's milk-vetch		1B.1	Annual herb. Lake margins and alkaline soils in meadows, seeps, and playas; 196–2,788 ft. Southern California County Distribution: Kern, San Bernardino (Presumed extirpated). Blooming period: May–October	No suitable habitat present. Not observed during focused surveys.
<i>Astragalus preussii</i> var. <i>laxiflorus</i>	Lancaster milk-vetch		1B.1	Perennial herb. Chenopod scrub; elevation range unknown due to lack of records. Southern California County Distribution: Kern, Los Angeles, Riverside, San Bernardino. Blooming period: March–May	No suitable habitat present. Not observed during focused surveys.
<i>Calochortus striatus</i>	alkali mariposa lily		1B.2	Perennial bulbiferous herb. Alkaline and mesic soils in chaparral, chenopod scrub, Mojavean desert scrub, meadows, seeps, desert grasslands; 230–5,232 ft. Southern California County Distribution: Kern, Los Angeles, San Bernardino. Blooming period: April–June	No suitable soils. Not observed during focused surveys.
<i>Calystegia peirsonii</i>	Peirson's morning-glory		4.2	Perennial rhizomatous herb. Chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, grassland; 98–4,920 ft. Southern California County Distribution: Los Angeles. Blooming period: April–June	No suitable habitat present. Not observed during focused surveys.
<i>Canbya candida</i>	white pygmy-poppy		4.2	Annual herb. Gravelly, sandy, or granitic soils in Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland; 1,968–4,789 ft. Southern California County Distribution: Imperial, Kern, Los Angeles, San Bernardino. Blooming period: March–June	Potentially suitable habitat present. Not observed during focused surveys.
<i>Chorizanthe spinosa</i>	Mojave spineflower		4.2	Annual herb. Sometimes alkaline soils in chenopod scrub, Joshua tree woodland, Mojavean desert scrub, and playas; 20–4,264 ft. Southern California County Distribution: Kern, Los Angeles, San Bernardino. Blooming period: March–July	Potentially suitable habitat present. Not observed during focused surveys.
<i>Cymopterus deserticola</i>	desert cymopterus		1B.2	Perennial herb. Sandy soil in Joshua tree woodland and Mojavean desert scrub; 2,066–4,920 ft. Southern California County Distribution: Kern, Los Angeles, San Bernardino. Blooming period: March–May.	Marginally suitable habitat present. Not observed during focused surveys.
<i>Eriastrum rosamondense</i>	Rosamond eriastrum		1B.1	Annual herb. Alkaline hummocks in often sandy soil in openings of chenopod scrub and the edges of vernal pools; 2,296–2,345 ft. Southern California County Distribution: Kern, Los Angeles. Blooming period: April–July	No suitable soils. Not observed during focused surveys.
<i>Eriophyllum mohavense</i>	Barstow woolly sunflower		1B.2	Annual herb. Chenopod scrub, Mojavean desert scrub, and playas; 1,640–3,149 ft. Southern California County Distribution: Kern, Los Angeles, San Bernardino. Blooming period: March–May	No suitable habitat present. Not observed during focused surveys.
<i>Gilia latiflora</i> ssp. <i>cuyamensis</i>	Cuyama gilia		4.3	Annual herb. Sandy soil in Pinyon and juniper woodland; 1,952–6,560 ft. Southern California County Distribution: Kern, Los Angeles, Ventura. Blooming period: April–June	No suitable habitat present. Not observed during focused surveys.
<i>Goodmania luteola</i>	golden goodmania		4.2	Annual herb. Alkaline or clay soils in Mojavean desert scrub, meadows, seeps, playas, and grassland; 66–7,216 ft. Southern California County Distribution: Kern, Los Angeles. Blooming period: April–August	No suitable soils. Not observed during focused surveys.
<i>Loeflingia squarrosa</i> var. <i>artemisiarum</i>	sagebrush loeflingia		2B.2	Annual herb. Sandy soil in desert dunes, great basin scrub, and Sonoran desert scrub; 2,296–5,297 ft. Southern California County Distribution: Kern, Los Angeles, San Bernardino. Blooming period: April–May	Potentially suitable habitat present. Not observed during focused surveys.
<i>Lycium torreyi</i>	Torrey's box-thorn		4.2	Perennial shrub. Coastal scrub and Sonoran desert scrub; -10–3,660 ft. Southern California County Distribution: Imperial, Riverside, San Bernardino, San Diego. Blooming period: January–November	Potentially suitable habitat present. Not observed during focused surveys.
<i>Muilla coronata</i>	crowned muilla		4.2	Perennial cormous herb. Chenopod scrub, Mojavean desert scrub, Joshua tree and Pinyon and juniper woodland; 2,509–6,429 ft. Southern California County Distribution: Kern, Los Angeles, San Bernardino. Blooming period: March–May	Potentially suitable habitat present. Not observed during focused surveys.
<i>Opuntia basilaris</i> var. <i>brachyclada</i>	short-joint beavertail		1B.2	Stem succulent shrub. Chaparral, Mojavean desert scrub, Joshua tree, Pinyon and juniper woodland; 1,394–5,904 ft. Southern California County Distribution: Los Angeles, San Bernardino. Blooming period: April–August	Marginally suitable habitat present. Limited records in the region. Not observed during focused surveys.
<i>Perideridia pringlei</i>	adobe yampah		4.3	Perennial herb. Serpentine or often clay soils in chaparral, cismontane woodland, coastal scrub, Pinyon and juniper woodland; 984–5,904 ft. Southern California County Distribution: Kern, Los Angeles, Ventura. Blooming period: April–July	No suitable soils. Not observed during focused surveys.
<i>Puccinellia simplex</i>	California alkali grass		1B.2	Annual herb. Saline flats, mineral springs; <2,953 ft. Southern California County Distribution: Kern, Los Angeles, San Bernardino. Blooming period: March–May	No suitable habitat present. Not observed during focused surveys.
<i>Yucca brevifolia</i>	western Joshua tree	CST		Perennial herb. Desert flats, slopes; 1,312–7,546 ft. Southern California County Distribution: Kern, Los Angeles, San Bernardino, Riverside. Blooming period: March–June	Suitable habitat. Observed.

CDFW: California Department of Fish and Wildlife; CRPR: California Rare Plant Rank

Species Status:

State (CDFW)

CST Candidate State Threatened

CRPR

- 1B Plants Rare, Threatened, or Endangered in California and elsewhere
- 2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere
- 4 Plants of limited distribution - watch list
- .1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
- .2 Moderately threatened in California (20–80% of occurrences threatened; moderate degree and immediacy of threat)
- .3 Not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known)

Connie Anderson
September 16, 2022
Page 5

Psomomas 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



Marc T. Blain
Senior Project Manager



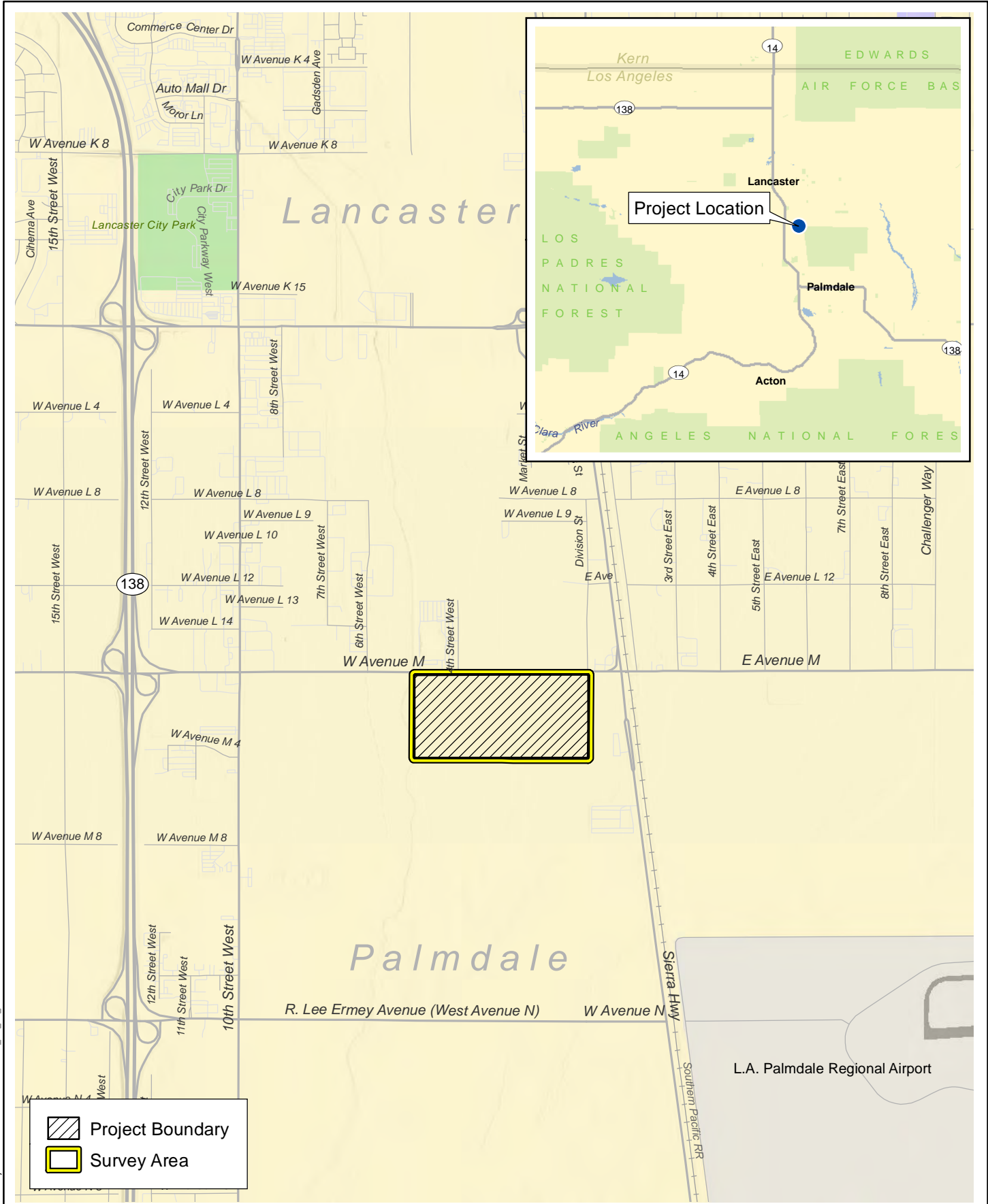
Sarah Thomas
Biologist

Enclosures: Exhibit 1 – Regional Location and Local Vicinity
 Exhibit 2 – USGS Quadrangle Map
 Exhibit 3 – Survey Area
 Exhibit 4 – Vegetation Types and Other Areas
 Exhibit 5 – Soils Map
 Attachment A – Plant Compendium



Connie Anderson
September 16, 2022
Page 6

REFERENCES

- California Department of Fish and Game (CDFG). 2009 (November 24). *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. Sacramento, CA: CDFG.
- California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Database. Records of Occurrence for the USGS Palmdale, Lancaster East, Lancaster West, Alpine Butte, Littlerock, and Ritter Ridge 7.5-minute quadrangle maps. Sacramento, CA: CDFG, Natural Heritage Division.
- California Native Plant Society (CNPS). 2022. Electronic Inventory of Rare and Endangered Vascular Plants of California. Records of Occurrence for the USGS Palmdale, Lancaster East, Lancaster West, Alpine Butte, Littlerock, and Ritter Ridge 7.5-minute quadrangle maps. Sacramento, CA: CNPS. <https://rareplants.cnps.org/>.
- Hickman, J.C., Ed. 1993. *The Jepson Manual of Higher Plants of California*. Berkeley, CA: University of California Press.
- Jepson Flora Project. 2022. Jepson Online Interchange for California Floristics (Consortium of California Herbaria). Oakland, CA: Regents of the University of California. <http://ucjeps.berkeley.edu/interchange.html>.
- National Weather Service. 2022. Monthly Precipitation Summary Water Year 2022. Sacramento, CA: National Weather Service, California-Nevada River Forecast Center. <https://www.weather.gov/wrh/TextProduct?product=clipmd>.
- Sawyer, J., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation, 2nd Edition*. Sacramento, CA: California Native Plant Society Press.
- U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). 2007 (January 4). Soil Survey Geographic (SSURGO) Database for Los Angeles County, California, West San Fernando Valley Area and Angeles National Forest Area. Fort Worth, TX: USDA, NRCS.



D:\Projects\3TBP\010500\MXD\Plant\ex_RL_LV_20220914.mxd

	Project Boundary
	Survey Area

Regional Location and Local Vicinity

Palmdale Logistics Park

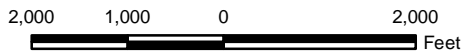
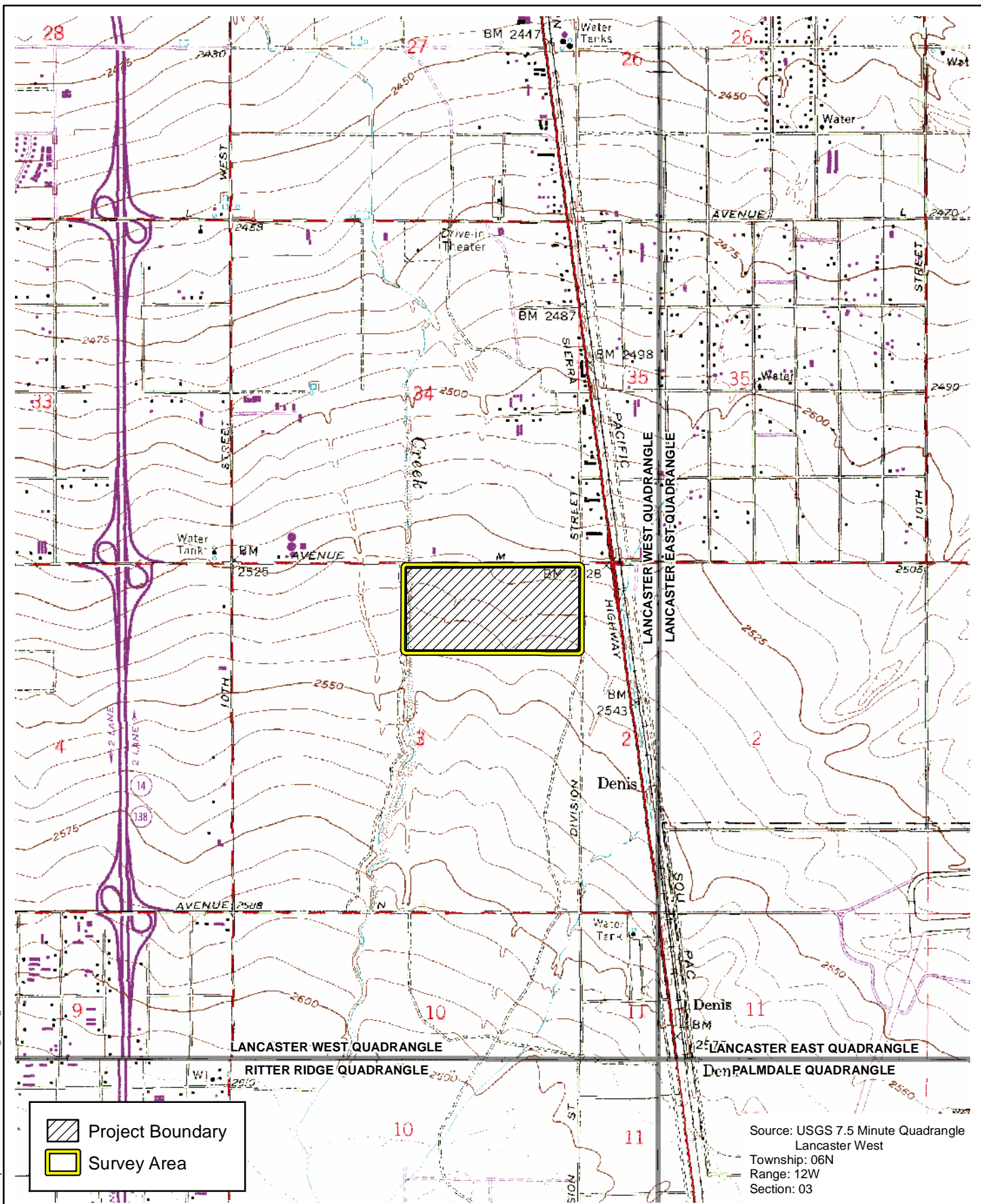




Exhibit 1



D:\Projects\3TBP\010500\MXD\Plant\ex_USGS_20220914.mxd



 Project Boundary
 Survey Area

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

USGS Quadrangle Map

Palmdale Logistics Park

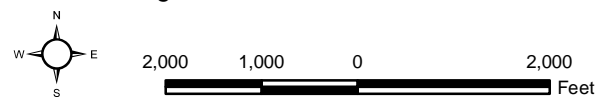


Exhibit 2



D:\Projects\3TBP\010500\MXD\Plan\Tex_Survey_Area_20220914.mxd



Project Boundary
 Survey Area

Aerial Source: Esri, Maxar 2021

Survey Area

Palmdale Logistics Park

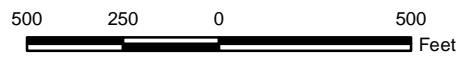
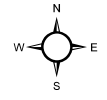







Exhibit 3





	Project Boundary		disturbed rubber rabbitbrush - big sagebrush scrub
Vegetation Types and Other Areas			
	disturbed Joshua tree woodland		red-stem filaree field
	disturbed Nevada joint fir scrub		sandy dry wash
	disturbed Nevada joint fir - Mojave cottonthorn		bare ground

Aerial Source: LAR-IAC 2014

Vegetation Types and Other Areas

Palmdale Logistics Park

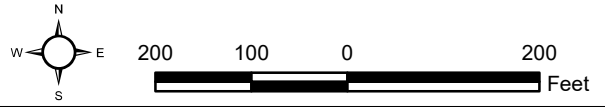
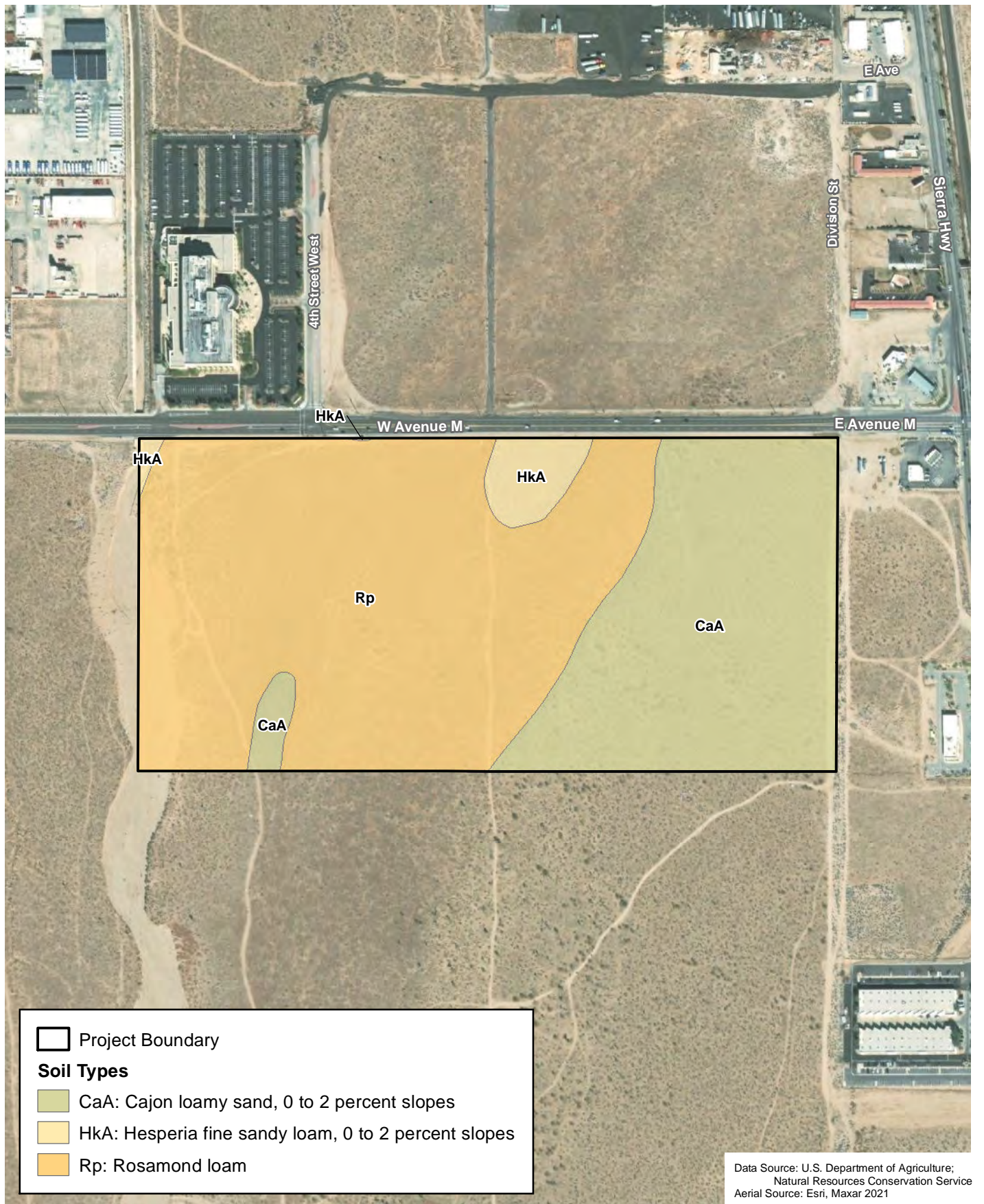


Exhibit 4



D:\Projects\3TBP\010500\MXD\Plant\ex_Vegetation_20220914.mxd



D:\Projects\3TBP\010500\MXD\Plan\lex_Soils_20220916.mxd

Project Boundary

Soil Types

- CaA: Cajon loamy sand, 0 to 2 percent slopes
- HkA: Hesperia fine sandy loam, 0 to 2 percent slopes
- Rp: Rosamond loam

Data Source: U.S. Department of Agriculture;
 Natural Resources Conservation Service
 Aerial Source: Esri, Maxar 2021

Soils Map
Palmdale Logistics Park

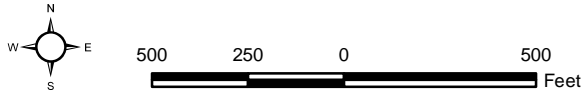


Exhibit 5



ATTACHMENT A
PLANT COMPENDIUM

**PLANTS OBSERVED WITHIN THE SURVEY AREA
DURING FOCUSED PLANT SURVEYS**

Species		Special Status
Scientific Name	Common Name	
GYMNOSPERMS		
EPHEDRACEAE – EPHEDRA FAMILY		
<i>Ephedra nevadensis</i>	Nevada ephedra	
EUDICOTS		
ASTERACEAE – SUNFLOWER FAMILY		
<i>Ambrosia acanthicarpa</i>	annual bur-sage	
<i>Ambrosia salsola</i>	common burrobrush	
<i>Artemisia tridentata</i>	big sagebrush	
<i>Dicoria canescens</i>	hoary dicoria	
<i>Ericameria nauseosa</i>	rubber rabbitbrush	
<i>Lasthenia sp.</i>	goldfields	
<i>Stylocline gnaphaloides</i>	everlasting neststraw	
<i>Tetradymia stenolepis</i>	narrow-scaled cottonthorn	
BORAGINACEAE – BORAGE FAMILY		
<i>Amsinckia tessellata</i>	tessellated fiddleneck	
<i>Greeneocharis circumscissa var. circumscissa</i>	cushion cryptantha	
<i>Heliotropium curassavicum var. oculatum</i>	seaside heliotrope	
<i>Pectocarya linearis ssp. ferocula</i>	narrow-toothed pectocarya	
BRASSICACEAE – MUSTARD FAMILY		
<i>Sisymbrium altissimum*</i>	tumble mustard	
CHENOPODIACEAE – GOOSEFOOT FAMILY		
<i>Atriplex canescens</i>	four-wing saltbush	
<i>Grayia spinosa</i>	thorny hop-sage	
<i>Krascheninnikovia lanata</i>	winter fat	
FABACEAE – LEGUME FAMILY		
<i>Lupinus sp.</i>	lupine	
GERANIACEAE – GERANIUM FAMILY		
<i>Erodium cicutarium*</i>	redstem filaree	
LAMIACEAE – MINT FAMILY		
<i>Scutellaria mexicana</i>	bladder-sage	
LOASACEAE – BLAZING STAR FAMILY		
<i>Petalonyx thurberi ssp. thurberi</i>	Thurber's sandpaper-plant	
POLEMONIACEAE – PHLOX FAMILY		
<i>Gilia brecciarum ssp. brecciarum</i>	break gilia	
POLYGONACEAE – BUCKWHEAT FAMILY		
<i>Chorizanthe brevicornu</i>	brittle spineflower	
<i>Eriogonum baileyi var. baileyi</i>	Bailey's wild buckwheat	
<i>Eriogonum brachyanthum</i>	short-flower wild buckwheat	
<i>Eriogonum gracile</i>	slender woolly wild buckwheat	
SOLANACEAE – NIGHTSHADE FAMILY		
<i>Lycium andersonii</i>	Anderson's box-thorn	
<i>Lycium cooperi</i>	Cooper's box-thorn	

**PLANTS OBSERVED WITHIN THE SURVEY AREA
DURING FOCUSED PLANT SURVEYS**

Species		Special Status
Scientific Name	Common Name	
ZYGOPHYLLACEAE – CALTROP FAMILY		
<i>Larrea tridentata</i>	creosote bush	
MONOCOTS		
AGAVACEAE – AGAVE FAMILY		
<i>Yucca brevifolia</i>	Joshua tree	CST
POACEAE – GRASS FAMILY		
<i>Bromus rubens</i> *	red brome	
<i>Bromus tectorum</i> *	cheat grass	
<i>Polypogon monspeliensis</i> *	annual beard grass	
CDFW: California Department of Fish and Wildlife; Cal-IPC: California Invasive Plant Council		
* Non-native or invasive species		
<u>Species Status:</u>		
State (CDFW)		
CST Candidate State Threatened		