Appendix D-6

Biological Resources Technical Report for the Off-Site Utilities Alignments

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Subject: Biological Resources Technical Report for the Hesperia Commerce Center II Off-Site Utilities Alignments Located in the City of Hesperia, San Bernardino County, California

Dear Mr. Gallup,

This biological resources technical report documents the existing biological conditions for the Off-Site Utilities Alignments associated with the Hesperia Commerce Center II Project (Project). The Off-Site Utilities Alignments consists of the construction of the Off-Site Storm Drain Alignment, the Off-Site Sewer Alignment, and the Off-Site Water Alignment which collectively will be constructed within a total of 30,609 linear feet of dirt access roads and right-of-way (ROW) for Yucca Terrace Drive, Los Banos Avenue, Sultana Street, and Phelan Road. Collectively, the Off-Site Storm Drain Alignment, the Off-Site Sewer Alignment, and the Off-Site Utilities Alignment, the Off-Site Sewer Alignment, and the Off-Site Water Alignment will herein be referred to as the Off-Site Utilities Alignments. This report also includes a discussion of the special-status biological resources observed and with a potential to occur along the route, an analysis of potential impacts to biological resources because of Project implementation, and recommendations to avoid or minimize impacts below a level of significance.

1 Project Location and Present Use

The proposed Off-Site Utilities Alignments are located in the eastern part of the City of Hesperia (City), in the Victor Valley/High Desert region of western San Bernardino County. The Off-Site Utilities Alignments are within public land survey system (PLSS) Sections 15 and 16 of Township 4 North, Range 5 West, within *Baldy Mesa*, CA 7.5-minute USGS Quadrangle (Attachment A: Figure 1, Project Location; Figure 2, Local Topographic Map).

The Off-Site Storm Drain Alignment extends along Yucca Terrace Drive (bisected by US Highway 395) extending from the intersection of Yucca Terrace Drive and Merito Road, and terminating at a west-facing bank of the Oro Grande Wash to the east.

The Off-Site Sewer Alignment extends along Yucca Terrace Drive (bisected by US Highway 395) extending from the intersection of Yucca Terrace Drive and Merito Road, crossing under US Highway 395 and continuing approximately 2,200 feet along Yucca Terrace Drive, before turning in a 45-degree angle to the southeast and extending roughly 1,100 feet across Oro Grande Wash. Within the Oro Grande Wash, the sewer line will be located under the existing grade of the wash and installed via jack-and-bore techniques in order to avoid the jurisdictional limits of the ephemeral watercourse.

The Off-Site Water Alignment extends west from U.S. Highway 395, crosses the Oro Grande Wash and continues along Sultana Street, then travels north at Los Banos Avenue, terminating at Phelan Road.

Regional access to the Off-Site Utilities Alignments is provided by U.S. Highway 395 and Interstate (I) 15 (Attachment A: Figure 1, Project Location).

The Off-Site Utilities Alignments are situated along existing dirt access roads surrounded by vacant, undeveloped land, with a few residences along the Off-Site Water Alignment, and has been disturbed as a result of illegal dumping, trespassing, and unpermitted off-road vehicle use. These previously unpermitted activities have led to areas of exposed bare soils (where trails have formed) and several refuse piles sporadically along both the Off-Site Utilities Alignments. Ground surface cover consists of moderate native brush and shrub growth, with occasional Juniper and Joshua trees located throughout the site. The site's surface elevation ranges between approximately 3,522 and 3,602 feet above mean sea level (msl) and the local topographic gradient is approximately two percent towards the northeast with the southwestern corner of the site sloping moderately downward to the west. Land uses generally surrounding the Off-Site Utilities Alignments primarily consist of vacant land, along with some scattered residential, commercial, light industrial, and utility uses. The study area for the Off-Site Utilities Alignments includes the entire proposed Off-Site Utilities Alignments and a 500-foot buffer around the entire route.

2 Project Description

The Project consists of the development of a three industrial/warehouse buildings totaling approximately of 3,745,429 square feet. The Off-Site Utilities Alignments would be constructed to support the Project.

Off-Site Storm Drain Alignment

A new engineered stormwater drainage system would be constructed as part of the three-building industrial/warehouse development to collect and treat on-site stormwater. The Project and its new stormwater drainage system would be required to capture and treat all on-site stormwater generated by design storm events, as defined by both the City of Hesperia and County of San Bernardino. Stormwater from actual storm events that exceed these design storm events would be permitted to flow into the Oro Grande Wash by means of the Off-Site Storm Drain Alignment, which would be 96-inch-diameter storm drain pipe. This new storm drain alignment would exit the Project site in an easterly direction, traversing along Yucca Terrace Drive to the east, crossing under U.S. Highway 395 and continuing approximately 2,200 feet along Yucca Terrace Drive, before turning in a 45° angle to the southeast and extending roughly 175 feet before outletting into the bank of the wash. The Oro Grande Wash is a regional storm drain facility that is part of the City of Hesperia's Master Plan of Drainage, is located in the Project's off-site improvement area. The wash has an earthen bottom and is routinely maintained by the San Bernardino County Flood Control District. This flood control channel flows for approximately 9 miles to the north and northeast of the Project site, recharging the underlying groundwater basin (Upper Mojave River Valley Basin) before eventually draining into the Mojave River.

Off-Site Sewer Alignment

Sanitary sewer service would be provided to the Project via a new connection with a new 12-inch-diameter sewer line located within an easement held by the City of Hesperia to master-planned sewer facilities in the City of Hesperia. Similar to new storm drain line, the new sewer alignment would exit the Project site in an easterly direction, traversing along Yucca Terrace Drive to the east, crossing under U.S. Highway 395 and continuing approximately 2,200 feet along Yucca Terrace Drive, before turning in a 45° angle to the southeast and extending roughly 1,100 feet across the wash. Within the Oro Grande Wash, the sewer line will be located under the existing grade of the wash and installed via jack-and-bore techniques in order to avoid the jurisdictional limits of the ephemeral watercourse.

Off-Site Water Alignment

Domestic, irrigation, and fire protection water services would be made via new connections to existing Hesperia Water District Company facilities located on the north side of the Project site. Existing 6-inch-diameter, 8-inch-diameter, and 12-inch-diameter water lines are located within U.S. Highway 395, Phelan Road, and the portions of Yucca Terrace Road immediately northwest of the Project site. Certain segments of these existing water lines will need to be upsized as a result of the Project. In addition, a new 12-inch-diameter water line will installed within the remaining part of Yucca Terrace Road that is not currently served by water, as well as along the western Project boundary.

A new 16-inch-diameter transmission water pipeline will also be installed to provide adequate water service for the Project. This new 16-inch-diameter transmission water pipeline will begin at the intersection of U.S. Highway 395 and Sultana Street and traverse west along Sultana Street crossing the Oro Grande Wash to Los Banos Avenue. From there it will traverse north and connect to a new 12-inch-diameter water main along Phelan Road.

Because the new 16-inch-diameter transmission water pipeline will travel across the Oro Grande Wash and traditional trenching pipe installations will not be feasible, this new water pipeline be installed using the jack and bore method as not to disturb the wash. This will be similar to the installation method of the proposed 12-inch diameter sewer main that will also be installed across the Oro Grande Wash, as discussed above. A pit will be constructed at each end of the wash and the pipe will be bored through from one pit to the other without disturbing the ground surface.

3 Methods

3.1 Literature Review

To evaluate the natural resources found or potentially occurring within the study area, literature searches and database reviews were conducted by Dudek biologists. The database review included the most recent versions of the California Natural Diversity Database (CNDDB) and special status species lists (CDFW 2020a-2020e), and the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Plants* (CNPS 2020). These databases were reviewed to identify sensitive biological resources present or potentially present for the U.S. Geological Survey (USGS) 7.5-minute quadrangle on which the study area is located (Baldy Mesa) and the eight surrounding quadrangles (Shadow Mountains SE, Adelanto, Victorville, Phelan, Hesperia, Telegraph Peak, Cajon, and Silverwood Lake). Potential and/or historic drainages and aquatic features were investigated based on a review of USGS topographic maps (1:24,000 scale), aerial photographs, the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) database (USFWS 2020), and the Natural Resource Conservation Service's (NRCS) Web Soil Survey (USDA 2019a).

3.2 Soil Survey Review

According to the NRCS Web Soil Survey (USDA 2019a), the study area occurs within the San Bernardino County, Mojave River Area (CA671). The study area is comprised of four types of soil: Cajon sand (0 to 2 percent slopes), Cajon sand (2 to 9 percent slopes), Cajon sand (9 to 15 percent slopes), and Hesperia loamy fine sand (2 to 5 percent slopes). The soil series are described in more detail below. Portions of the surface soils observed in the study area have been significantly compacted due to the construction of dirt roads within the study area (Attachment A: Figure 3, Soils).

- Cajon Series consists of mixed, thermic Typic Torripsamments that formed in sandy alluvium from dominantly granitic rocks. Cajon soils are found on alluvial fans, fan aprons, fan skirts, inset fans, and river terraces at elevations of 200 to 4,300 feet above sea level. These soils drain somewhat excessively with negligible to low runoff and rapid permeability. Cajon soils are extensively distributed throughout southeastern California, southern Nevada, and Arizona. Desert shrubs make up most of the vegetation found within this series.
- Hesperia Series consists of coarse-loamy, mixed, superactive, nonacid, thermic Xeric Torriorthents that formed in alluvium derived primarily from granite and related rocks. Hesperia soils are found on long, smooth, alluvial fans, and valley fill at elevations of 200 to 4,800 feet above sea level. These soils are well drained with negligible to low runoff and moderately rapid permeability. Hesperia soils have a limited distribution, and are found mainly within the lower San Joaquin Valley, and the high dessert of Southern California. Typical vegetation within this series varies from agricultural crops, to sparse annuals in the valley.

3.3 National Wetlands Inventory Review

A review of the National Wetlands Inventory (NWI) dataset revealed a single wetland type is mapped within the study area (USFWS 2019b). A riverine feature, Oro Grande Wash, is mapped within the study area, and classified as R4SBC by NWI, which stands for Riverine Intermittent Streambed Seasonally Flooded.

3.4 Biological Reconnaissance

General biological reconnaissance of the Off-Site Utilities Alignments were conducted during two separate site visits. Dudek biologist Tommy Molioo conducted a general biological reconnaissance of the proposed Off-Site Storm Drain Alignment and the Off-Site Sewer Alignment, along Yucca Terrace Drive, on May 21, 2020. The survey was conducted from 10:30 am to 1:00 pm; weather conditions were favorable with 0% cloud cover, wind speeds of 2 to 4 miles per hour, and a temperature of 72° Fahrenheit (°F). Dudek biologists Tommy Molioo, and Rachel Swick conducted a general biological reconnaissance of the proposed Off-Site Water Alignment, along Los Banos Avenue, on July 14, 2020. The survey was conducted from 11:00 am to 2:00 pm; weather conditions were favorable with 5% cloud cover, wind speeds of 10 to 15 miles per hour, and a temperature of 81°F.

All native and naturalized plant species encountered Off-Site Utilities Alignments were identified and recorded. The potential for special-status plant and wildlife species to occur within the study areas was evaluated based on the vegetation communities and soils present. Dudek used CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2009) and *List of Vegetation Alliances*

and Associations (CDFW 2010), also referred to as the Natural Communities List, to map the entire study area. Vegetation communities and land covers were delineated to the vegetation alliance level, and where appropriate the association level. Some modifications, such as the *Preliminary Descriptions of the Terrestrial natural Communities of California* (Holland 1986, and Oberbauer update 200), were incorporated to accommodate the lack of conformity of the observed communities to those included in these references.

Latin and common names for plant species with a California Rare Plant Rank (CRPR) follow the CNPS *Inventory of Rare and Endangered Plants* (CNPS 2020). For plant species without a CRPR, Latin names follow the *Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California* (Jepson Flora Project 2020) and common names follow the United States Department of Agriculture's Natural Resources Conservation Service Plants Database (USDA 2020b). Latin and common names of animals follow Crother (2008) for reptiles and amphibians, American Ornithologists' Union for birds (AOU 2016), Wilson and Reeder (2005) for mammals, North American Butterfly Association (NABA 2016) or San Diego Natural History Museum for butterflies (SDNHM 2002), and Moyle (2002) for fish.

Dudek also conducted an assessment for the presence of waters or wetlands potentially subject to regulatory agency jurisdiction, including searching for the presence of drainage features and topographic features and soils that could support standing water. A formal wetland delineation was conducted concurrently with the biological reconnaissance and the methodology is included below.

3.5 Jurisdictional Delineation

A review of the NWI dataset revealed that a single wetland type is mapped within the eastern extent of the Off-Site Sewer Alignment and Off-Site Water Alignment (USFWS 2020b). A riverine feature is mapped within the study area, Oro Grande Wash, which is classified by Cowardin as R4SBC (Riverine Intermittent Streambed Seasonally Flooded).

The study area was surveyed on foot where potential jurisdictional features were observed and was surveyed for the following types of features:

- Waters of the United States, including wetlands, under the jurisdiction of the ACOE, pursuant to Section 404 of the federal Clean Water Act
- Waters of the state under the jurisdiction of the RWQCB, pursuant to Section 401 of the federal Clean Water Act and the Porter-Cologne Water Quality Control Act as wetlands or drainages
- Streambeds under the jurisdiction of the CDFW, pursuant to Section 1602 of the California Fish and Game Code

Non-wetland waters of the United States were delineated based on the presence of an OHWM as determined using the methodology in A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (ACOE 2008b). Wetland waters of the United States were delineated based on methodology described in the 1987 Corps of Engineers Wetland Delineation Manual (ACOE 1987) and the ACOE Regional Supplement (ACOE 2008a). Pursuant to the federal Clean Water Act, ACOE and RWQCB jurisdictional areas include those supporting all three wetlands criteria described in the ACOE manual: hydric soils, hydrology, and hydrophytic vegetation. Areas regulated by the RWQCB are generally coincident with the ACOE, but can also include isolated features that have evidence of surface water inundation pursuant to the state Porter-Cologne Water Quality

Control Act. Isolated features are delineated at the OHWM, at the outer limits of hydrophytic vegetation, or at the outer rim of depressional features if relevant.

Streambeds are typically delineated from top of bank to top of bank or the extent of the overhanging canopy of associated riparian vegetation beyond the top of bank. For shallow drainages and washes that do not support riparian vegetation, the top-of-bank measurement may be the same as the OHWM measurement.

To aid in the delineation, data was collected at two data stations. Hydrology, vegetation, and soils were assessed, and data were collected on an approved ACOE Arid West Wetland Determination Data form. The site was evaluated for wetland vegetation, wetland hydrology, and hydric soils. Photos of the jurisdictional features were taken in accordance with ACOE guidelines and are provided in Attachment B, Site Photos.

4 Results

4.1 Study Area Description

The proposed Off-Site Storm Drain Alignment and the Off-Site Sewer Alignment show evidence of previous minor disturbances, mainly the construction of Yucca Terrace Drive, a dirt road. Five Rivers Fleet Services, a truck depot, occurs adjacent to the northern edge of the study area, on the west side of US Route 395. The southeast edge of the Off-Site Storm Drain Alignment and the Off-Site Sewer Alignment includes a small portion of the Desert Willow RV Resort. The proposed Off-Site Water Alignment also shows evidence of previous disturbance, mainly the construction of Los Banos Avenue, a dirt road. A group of residential buildings are adjacent to the east side of Los Banos Avenue. The area to the south of the proposed Off-Site Water Alignment shows evidence of previous ground disturbing activities. The entire Off-Site Utilities Alignment is surrounded by Joshua tree (*Yucca brevifolia*) woodland vegetation, and several developed areas such as Phelan Road. Dominant species observed in this community include scattered shrubs and small trees such as Joshua tree, California buckwheat (*Eriogonum fasciculatum*), and California juniper (*Juniperus californica*). Non-native grasses were observed within the study area including red brome (*Bromus madritensis* ssp. *rubens*), and wild oat (*Avena fatua*), along with other non-native forbs such as short-podded mustard (*Hirschfeldia incana*). The study area is relatively flat with no significant topographic features, and occurs at an elevation of approximately 3,500 feet above mean sea level (AMSL). Representative photographs of the study area are included in Attachment B.

4.2 Vegetation Communities and Land Covers

The study area consists of predominantly Joshua tree woodland vegetation, with scattered native shrubs and forbs. While native shrubs dominate the vegetation cover, non-native grasses and forbs are present within the study area. The Off-Site Storm Drain Alignment and the Off-Site Sewer Alignment also contains a small section of developed land. There are no sensitive vegetation communities within the study area (Attachment A: Figure 4, Vegetation).

4.2.1 Natural Land Covers

Yucca brevifolia Woodland Alliance – The Yucca brevifolia woodland alliance, or Joshua Tree Woodland, mapping unit refers to areas where Joshua trees are evenly distributed at 1 percent or greater cover, and *Juniperus* and/or *Pinus* spp.

account for less than 1 percent of the absolute cover in the tree canopy. Other typical vegetation for this alliance include white bursage (*Ambrosia dumosa*), big sagebrush (*Artemisia tridentata*), buckhorn cholla (*Cylindropuntia acanthocarpa*), California buckwheat (*Eriogonum fasciculatum*), Anderson's boxthorn (*Lycium andersonii*), and banana yucca (*Yucca baccata*). In the study areas, this mapping unit also includes a large covering of non-native grasses, and forbs.

4.2.2 Non-Natural and Unvegetated Land Covers

Developed Land. The developed mapping unit is not recognized by the Natural Communities List (CDFW 2020e) but is described by Oberbauer et al. (2008). Developed land typically includes areas that have been constructed upon and do not contain any naturally occurring vegetation. These areas are generally characterized as graded land with asphalt and concrete placed upon it. Developed areas mapped for the study area include a small northwestern portion of the Desert Willow RV Resort. No vegetation was observed within developed areas on the study area.

Table 1 provides a summary of each land cover's extent within the study area.

Table 1 Vegetation Communities and Land Covers within the Study Area

Vegetation Community/Land Cover	Acreage
Joshua Tree Woodland	80.0 acres
Developed land	0.17 acres
Total	80.17 acres

4.3 Wildlife

The study areas consist predominantly of non-native grasses such as wild oat, and red brome, scattered shrubs and small trees such as California buckwheat, and California juniper, and Joshua trees. The vegetation found within the study area can support a variety of native wildlife. The study areas show evidence of minor previous disturbances, mainly debris dumping and construction of dirt roads, and there is intact, or minorly disturbed Joshua tree woodland vegetation surrounding the study areas.

Wildlife species diversity was limited during the May 21, 2020 biological reconnaissance survey. Bird species observed or detected included the house finch (*Haemorhous mexicanus*), ferruginous hawk (*Buteo regalisi*), American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), and cactus wren (*Campylorhynchus brunneicapillus*). No active bird nests were observed during the field visit; however, the study area could support nesting migratory and resident birds, particularly within the Joshua trees, and scattered shrubs in the study area. Mammal species observed included the black-tailed jackrabbit (*Lepus californicus*), and California ground squirrel (*Spermophilus beecheyi*). One reptile species was observed, western fence lizard (*Sceloporus occidentalis*). No amphibian, or invertebrate species were observed within the study area.

Wildlife species diversity was again limited during the July 14, 2020 biological reconnaissance survey. Bird species observed or detected included the common raven (*Covus corax*), northern mockingbird (*Mimus polyglottos*), California quail (*Callipepla californica*), turkey vulture (*Cathartes aura*), greater roadrunner (*Geococcyx californianus*), and cactus wren. No active bird nests were observed during the field visit; however, the study area could support nesting migratory and resident birds, particularly within the Joshua trees, and scattered shrubs in the

study area. Mammal species observed included the black-tailed jackrabbit (*Lepus californicus*), and white-tailed antelope squirrel (*Ammospermophilus leucurus*). One reptile species was observed, tiger whiptail (*Aspidoscelis tigris*). No amphibian, or invertebrate species were observed within the study area.

The complete list of wildlife species observed within the study areas are included in Attachment C. Details regarding the potential for special-status species to occur within the study areas are discussed further below.

4.4 Special-Status Plant Species

Special-status plants include those listed, or candidates for listing as threatened or endangered by USFWS or CDFW, or species identified as rare by CNPS (particularly California Rare Plant Rank (CRPR) 1A – Presumed extinct in California; CRPR 1B – Rare, threatened, or endangered throughout its range; and CRPR 2 – Rare or Endangered in California, more common elsewhere). A total of 55 special-status plant species were reported in the CNDDB, USFWS, and CNPS databases as occurring in the vicinity of the study area. Attachment D, includes the species lists provided from these database searches that were evaluated as part of this assessment. For each species evaluated, a determination was made regarding the potential for the species to occur on site based on information gathered during the field reconnaissance, including the location of the site, habitats present, current site conditions, and past and present land use.

Of the 55 special-status plant species listed in the CNDDB, CNPS, and USFWS databases as occurring in the vicinity of the study area, 49 species were determined to have no potential to occur within the study areas based on an evaluation of species ranges/elevation and known habitat preferences. Four special-status species were determined to have a low potential to occur due to limited suitable habitat within the study area; however, none of these four species were observed and are not expected to occur within the study area. Therefore, no further discussion regarding these four species will be provided. Two special status species, Mojave paintbrush (*Castilleja plagiotoma*), and crowned muilla (*Muilla coronate*), were determined to have a CNPS ranking of 4.0 or greater. Therefore, no further discussion regarding these two species will be provided. The complete list of species evaluated with a determination of their potential to occur in the study areas is provided in Attachment E.

4.5 Special-Status Wildlife Species

Special-status wildlife include those listed, or candidates for listing, as threatened or endangered by USFWS or CDFW, or designated as a Species of Special Concern by CDFW. A total of 49 special-status wildlife species were reported in the CNDDB and USFWS databases as occurring in the vicinity of the study area. Attachment D summarizes the special-status wildlife species that were included in these databases and evaluated as part of this assessment. For each species evaluated, a determination was made regarding the potential use of the site based on information gathered during the field reconnaissance, known habitat preferences, and knowledge of their relative distributions in the area.

Of the 49 special-status wildlife species listed in the CNDDB and USFWS databases as occurring in the vicinity of the study area, 44 species were determined to have no potential to occur within the study area based on an evaluation of species ranges/elevation and known habitat preferences. Two special-status species were determined to have a low potential to occur due to limited suitable habitat within the study area; however, due to

the distance from other occurrences, and the low quality of the habitat with the study area, the study area lacks suitable habitat to support these species and these species were not observed during the biological reconnaissance. Species with no or low potential to occur are omitted from further discussion in this report. Mohave ground squirrel (*Spermophilus* (*Xerospermophilus*) mohavensis), and Mojave desert tortoise (*Gopherus agassizii*) were determined to have a moderate potential to occur due to suitable habitat. Burrowing owl (*Athene cunicularia*) was determined to have a high potential to occur due to suitable burrowing sites within the study area, and nearby recorded occurrences. These three species will be discussed further in the following sub-sections. The complete list of species evaluated with a determination of their potential to occur on the study area is provided in Attachment E.

4.5.1 Mohave Ground Squirrel

Mohave ground squirrels (*Xerospermophilus mohavensis*; MGS) are state classified as threatened, and are protected under the California Endangered Species Act. Primary threats to MGS include limited distribution, low abundance and habitat loss from by converting suitable habitat to urban, suburban, agricultural and military land uses (Gustafson 1993, Leitner and Leitner 2017). They are medium-sized (210-230mm, 85-130g), diurnal squirrels with a dorsal pelage that is light gray to cinnamon-brown, while their ventral side is creamy. Unlike the round-tailed ground squirrels, which occur sympatrically in the southeast portion of their range, MGS have a short, flat tail that is light-colored on its underside and have brown cheeks instead of white.

MGS inhabit a small geographic area in the western Mojave Desert. This species ranges from Palmdale in the southwest, the Lucerne Valley in the southeast, Olancha in the northwest, and the Avawatz Mountains in the northeast (Gustafson 1993). Although occurrences in the southern portion of their range are rare, occurrences have been documented on the California Natural Diversity Database (CNDDB) as recently as 2011. Vegetation communities (as classified by the California Native Plant Society) typically associated with MGS include Mojave Creosote Scrub, Shadscale Scrub, Desert Saltbush Scrub, Desert Sink Scrub, and Joshua Tree Woodland. MGS feed primarily on the leaves and seeds of forbs and shrubs.

Although there is marginally suitable MGS habitat present on the Project site, no MGS were detected at the camera stations or captured during the trapping surveys conducted by ESA in 2020 (ESA 2020). As such, the survey results indicate that MGS do not inhabit the Project site at this time. Additionally, the high density of California juniper on site is indicative that the area is within the Mohave-transmontane transition zone, an area with low likelihood of use by MGS. Furthermore, the disturbances from human presence and fragmentation from surrounding roadways, including OHV use and illegal waste dumping within the Project site has had a negative effect on habitat quality for MGS. Records from the California Natural Diversity Database (CNDDB) reveal two occurrences of MGS near the Project site that were detected in 2005 and 2011. However, both these records are from sites located across the California Aqueduct making dispersal to the Project site highly unlikely, because the aqueduct creates a considerable barrier to dispersal.

Although suitable MGS habitat is present on site, no MGS were captured during the live-trapping surveys or detected at camera stations. As a result, CDFW survey guidelines indicate that the Department will stipulate that no MGS occur on the Project site and none will be impacted by the Project. This stipulation will expire one year from the last day of trapping, June 20, 2020.

4.5.2 Mojave Desert Tortoise

The Mojave desert tortoise is a state and federally-listed as threatened species that is a large, herbivorous reptile. Mojave desert tortoises are typically active during the day and when annual plants are most abundant during spring and early summer. However, they can also be active following rain events and unseasonably warm periods during fall and winter. If rain events occur at night, tortoises may emerge from their burrows to drink. Female desert tortoises construct nests during the late afternoon and evening, and any desert tortoise may emerge from its burrows at night during extreme heat (see section 7.3). Desert tortoises usually spend the remainder of the year in shelter sites, escaping the extreme weather conditions of the Mojave Desert. Location and type of shelter sites vary greatly in different geographic locations.

Most habitat for the Mojave population of the desert tortoise is below 4,500 feet (1372 meters) elevation in the creosote bush-bursage series of the Mojave desert scrub biome; dominant plants are creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). Desert tortoise habitat may also include various cacti species (*Opuntia* spp.), saltbush (*Atriplex* spp.) scrub, and Joshua tree (*Yucca brevifolia*) woodlands at elevations up to approximately 5,000 feet (1524 meters).

Focused surveys for desert tortoise were conducted by Dudek in April and May 2020 within the entire study area and the surrounding three concentric 200 meter rings to determine the presence/absence of desert tortoise following USFWS 2010 protocol (Dudek 2020). The surrounding buffer encompassed the majority of the Off-Site Utility Alignments and included similar habitat as what was observed on the entire Project site. The focused surveys determined No live desert tortoises, desert tortoise sign, or suitable burrows were observed within the survey area. The survey area is at the edge of desert tortoise known range, and the vegetation present on site is relatively low quality, with a heavy presence of non-native species. The vegetation throughout the site has been impacted by illegal trash dumping and unauthorized off-road vehicle use. In addition, no desert washes or dominance of creosote bush (*Larrea tridentata*) scrub are present within the survey area, which are requirements for the presence of desert tortoises will be impacted by the Project.

4.5.3 Burrowing Owl

Burrowing owl is a California SSC species. It occurs throughout North and Central America west of the eastern edge of the Great Plains south to Panama. The winter range is much the same as the nesting range, except that most burrowing owls apparently vacate the northern areas of the Great Plains and the Great Basin in winter (County of Riverside 2008). The majority of burrowing owls that breed in Canada and the northern United States are believed to migrate south during September and October and north during March and April and into the first week of May. These individuals winter within the nesting habitat of more southern populations. Thus, winter observations may include migratory individuals and the resident population (County of Riverside 2008). The burrowing owls in Northern California are believed to migrate (Coulombe 1971).

In California, burrowing owls are year-round residents of flat, open, dry grassland and desert habitats at lower elevations. They can inhabit annual and perennial grasslands and scrublands characterized by low-growing vegetation. They may be found in areas that include trees and shrubs if the cover is less than 30%; however, they prefer treeless grasslands (Bates 2006). Although burrowing owls prefer large, contiguous areas of treeless grasslands, they have also been known to occupy fallow agriculture fields, golf courses, cemeteries, road

allowances, airports, vacant lots in residential areas and university campuses, and fairgrounds when nest burrows are present (Bates 2006; County of Riverside 2008). They typically require burrows made by fossorial mammals, such as California ground squirrels. This species also prefers sandy soils with higher bulk density and less silt, clay, and gravel (Lenihan 2007).

Burrowing owl has the potential to occur within the understory of the Joshua Tree woodland habitat that occurs on the Off-Site Utilities Alignments. Several small mammal burrows potentially suitable to support nesting burrowing owls were observed on site during general and focused surveys conducted by Dudek in 2020. However, no individual burrowing owls, sign of presence (i.e., whitewash, pellets), or active/inactive burrowing owl burrows were observed on the utility. Due to the delay in Project construction from the time surveys were conducted, and the continued presence of suitable habitat, the potential future presence of burrowing owl cannot be entirely ruled out. Therefore, there is a potential for this species to occupy the Off-Site Utilities Alignments prior to the start of construction, and if found, may be impacted by construction of the Project.

4.6 Jurisdictional Waters and Wetlands

The delineation of potential jurisdictional waters on the study area determined there is one drainage within and immediately adjacent to the study area that could be subject to regulatory agency jurisdiction (Attachment A: Figure 5, Watershed Map; Figure 5, Aquatic Resources Delineation). An ephemeral riverine feature, Oro Grande Wash, occurs within the eastern portion of the study area and the Off-Site Utilities Alignments encroach into jurisdictional limits of the wash. Oro Grande Wash historically drains flows from Baldy Mesa north (downstream) towards the Mojave River located approximately 10 miles to the northeast. Development to the south of the Project site has obstructed flows from the south to the Project site, thereby limiting upstream connectivity. Oro Grande Wash locally drains runoff from the Project site and adjacent roads during rain events, and does not regularly convey water flows. As such there is no observable Ordinary High Water Mark (OHWM). Although the wash demonstrates downstream hydrological connectivity with a Relatively Permanent Water (RPW) the lack of an OHWM within an ephemeral wash eliminates the potential for this feature to be subject to U.S. Army Corps of Engineers (ACOE) jurisdiction as a Water of the U.S. regulated by Section 404 of the Clean Water Act (CWA). On January 23, 2020, the Environmental Protection Agency and ACOE published a final rule (33 CFR, Part 328) defining the scope of waters protected under the CWA in an effort to undo the broad interpretation of federal jurisdiction established in the 2015 "Clean Water Rule" (80 Federal Regulation 37053). The new rule, referred to as the "Navigable Waters Protection Rule," issued new regulations to redefine the types of waterbodies covered by the federal CWA, which removed protections for non-wetland ephemeral waters. Therefore, the portion of Oro Grande Wash within the study area for the Off-Site Utilities Alignments is not protected by the ACOE. Additionally, there are no areas capable of supporting wetlands on the study area, no riparian habitats were observed, and no soils mapped on the study area are considered hydric. Soil pits dug within and in upland areas immediately adjacent to the wash determined that soils have a sandy texture with a color of 10YR ³/₄ and show no signs of redoximorphic features.

However, the Oro Grande Wash is still considered a protected non-wetland water of the State regulated by the Regional Water Quality Control Board under Section 401 of the CWA, as well as a CDFW-regulated unvegetated streambed under Section 1600 et seq. of California Fish and Game Code. As currently designed the proposed Off-Site Utilities Alignments will bore beneath the Oro Grande Wash, thereby reducing potential impacts to a state regulated water. However, if the final Project design results in an above ground encroachment into Oro Grande Wash, the Project Applicant will be required to first obtain the appropriate permits from the regulatory agencies.

4.7 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Wildlife corridors contribute to population viability by assuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires).

Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as steppingstones for dispersal.

No portions of the study area function as a wildlife corridor or linkage that connect to larger habitat areas in the region, such as the San Bernardino National Forest to the south. Interstate-15 is approximately 1 mile to the east of the study area, the California Aqueduct is approximately 0.4 miles north of the study area, and the study area crosses over US Route 395. All three of these road and waterways impose significant hindrances to wildlife corridors and habitat linkages in the area. However, there is a potential for local wildlife movement across the Project site and towards features such as Oro Grande Wash. Species that could use the Project site for local movement would be displaced during the construction phase of the Project. However, the surrounding habitat provides numerous opportunities for local wildlife to continue using adjacent off-site areas for movement throughout the local area. Due to the relatively limited scope of the Project and existing development in the area, construction of the Project would not result in an impact to any regional wildlife corridors or habitat linkages.

4.8 Regional Resource Planning Context

The study area does not occur within any proposed or existing Habitat Conservation Plans (HCP) or Natural Community Conservation Plans (NCCP) for local or regional protection of species. Therefore, construction of the Project will not result in an impact to any HCPs or NCCPs. Section 16.24 of the City of Hesperia Municipal Code requires a permit before any Joshua tree (mature, or immature) may be harvested or removed.

5 Recommendations

This section addresses the anticipated impacts (direct and indirect) to biological resources that would result from implementation of the Project. The following recommendations will reduce any proposed or potential impacts to the thresholds provided in the California Environmental Quality Act Guidelines Section 15064(b) and Appendix G Environmental Checklist to a less than significant level. Recommendations are included for the previous evaluation of the Project's impacts on potentially affected resources including: special-status species, riparian and sensitive vegetation communities, jurisdictional wetlands and waters, wildlife movement, local policies and ordinances, and regional conservation planning.

5.1 Nesting Birds

Avoid construction activities during the bird nesting season (generally February 1 through August 30) to ensure compliance with the federal Migratory Bird Treaty Act and California Fish and Game Code Section 3500 et seq. If avoidance of the nesting season is not feasible, then a pre-construction nesting bird survey should be conducted by a qualified biologist to ensure that birds are not engaged in active nesting within 100 feet of the Project's construction limits. If nesting birds are discovered during pre-construction surveys, then the qualified biologist should identify an appropriate buffer where no ground-breaking activities are allowed to occur until after the birds have fledged from the nest. Construction activities may take place in other areas on the Project site, outside of the nest avoidance buffer, unless authorized by an on-site monitoring biologist.

5.2 Burrowing Owl

One pre-construction burrowing owl clearance survey would be required to be completed no more than 14 days before initiation of grading, and a second survey be completed within 24 hours prior to grading. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction survey, the Project site shall be resurveyed. Surveys for burrowing owl shall be conducted in accordance with protocols established in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012) or current version.

If burrowing owls are detected, disturbance to burrows shall be avoided during the nesting season (February 1 through August 31). Buffers will be established around occupied burrows in accordance with guidance provided in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012) or current version. No Project activities will be allowed to encroach into established buffers without the consent of a monitoring biologist. The buffer shall remain in place until it is determined that occupied burrows have been vacated or the nesting season has completed.

Outside of the nesting season, passive owl relocation techniques approved by CDFW shall be implemented. Owls shall be excluded from burrows in the immediate Project area and within a buffer zone by installing one-way doors in burrow entrances. These doors will be placed at least 48 hours prior to ground-disturbing activities. Compensatory mitigation for permanent loss of owl habitat will be provided following the guidance in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012) or current version. The Project area shall be monitored daily for one week to confirm owl departure from burrows prior to any ground-disturbing activities.

Where possible, burrows will be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe shall be inserted into the tunnels during excavation to maintain an escape route for any wildlife inside the burrow.

5.3 Mohave Ground Squirrel

Although protocol surveys and trapping on the Project site in 2020 concluded that Mohave ground squirrel (MGS) is absent from the Project site, the Off-Site Utilities Alignments – or portions thereof – may provide suitable habitat for the species. Prior to any construction work being conducted for the off-site utilities (domestic water, stormwater drain, sanitary sewer), focused surveys for MGS shall be required to determine its presence or absence and any

potential Project effects to this species. Focused surveys need only to occur along segments of the Off-Site Utilities Alignments that contain suitable or potentially suitable habitat for MGS, as determine by a qualify biologist. The focused MGS surveys shall be conducted either in accordance with the January 1991 CDFW guidelines, as modified in January 2003, or in accordance with any modified survey methodology as approved in writing by CDFW.

In the event that the surveys determine that MGS is present within the areas to be either temporarily or permanently disturbed as a result of construction of the off-site utilities, the Project Applicant shall be required to obtain an Incidental Take Permit (ITP) from CDFW under Section 2081 of CFG Code. The ITP process shall be coordinated with the regional CDFW office. The ITP shall include an analysis of whether Project impacts would jeopardize the continued existence of the species, provide suitable avoidance and minimization measures to reduce potential impacts, and adequate mitigation through conservation or mitigation banking.

5.4 Jurisdictional Waters

If the final Project design results in an above ground encroachment to the Oro Grande Wash, the Project Applicant will be required to first obtain the following regulatory permits prior to Project-related impacts to the wash. A Waste Discharge Requirement (WDR) or waiver from the RWQCB and a Streambed Alteration Agreement (SAA) from CDFW will be required to permit Project impacts. Appropriate compensatory habitat-based mitigation will also be required as part of the permits, with the type and amount of mitigation determined through consultation with the regulatory agencies. Mitigation will either be implemented on site through restoration and conservation of a portion of the wash, or through the purchase of mitigation credits from an agency approved mitigation bank.

If you have any comments or questions regarding the contents of this report, please feel free to call me at 949.373.8321 or email at tmolioo@dudek.com.

Sincerely,

Mistion onm

Tommy Molioo Sr. Biologist

Att.: A – Figures

- 1. Project Location Map
- 2. Topographic Map
- 3. Soils
- 4. Vegetation
- 5. Watershed Map
- 6. Aquatic Resources Delineation
- B Site Photographs
- C Species Compendium
- D Special-Status Species ListsE. Species Potential for Occurrence Tables

References

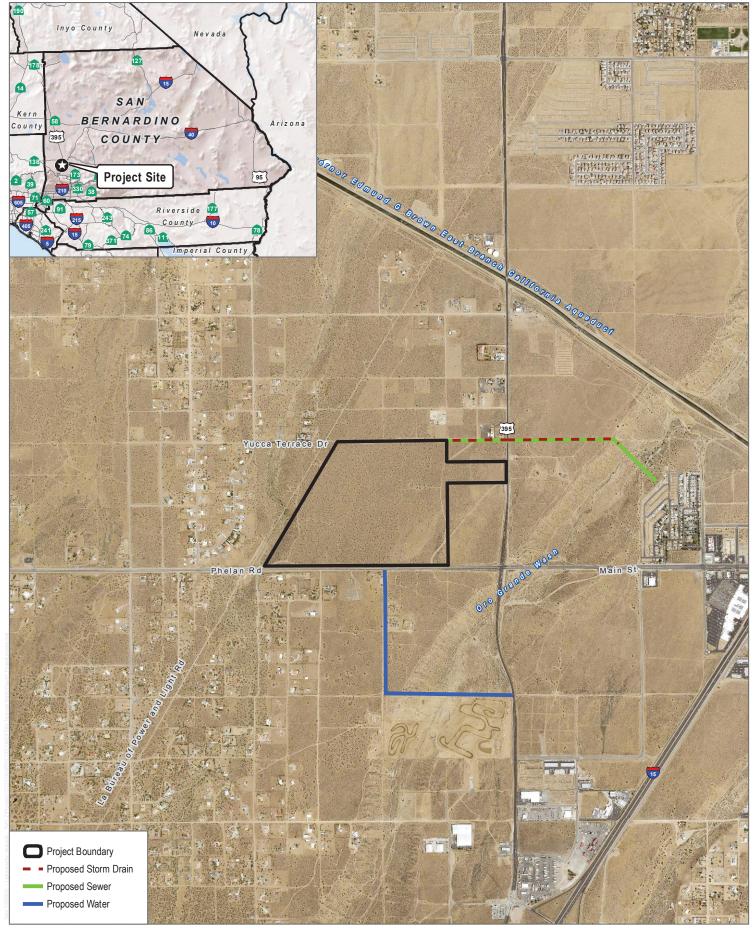
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Attachment A

Figures 1-6

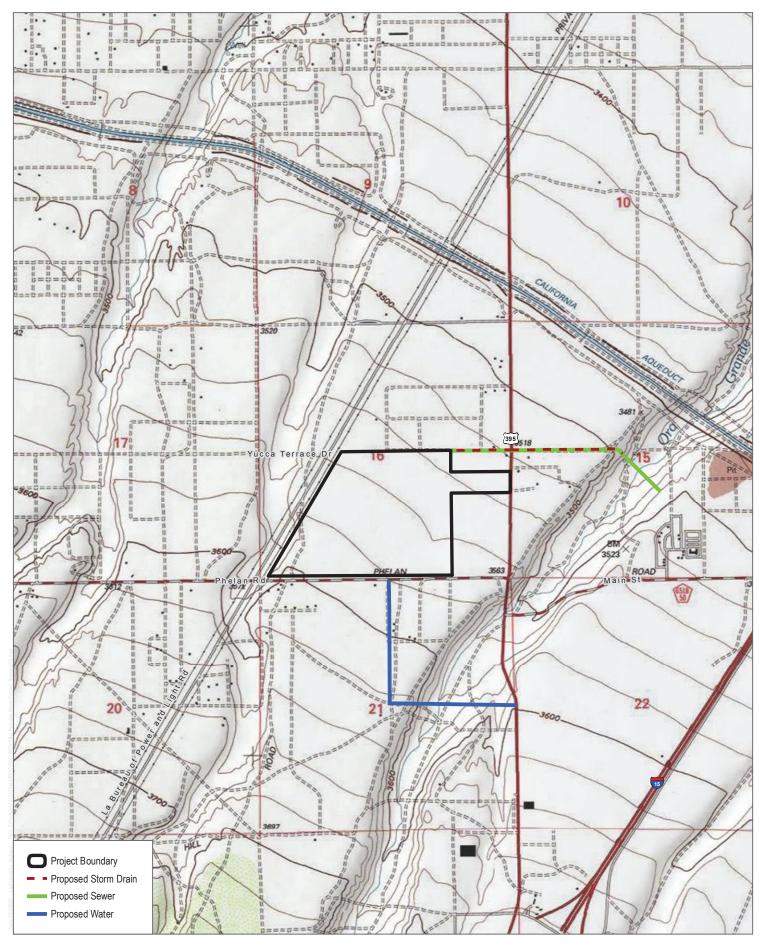


SOURCE: USDA 2016

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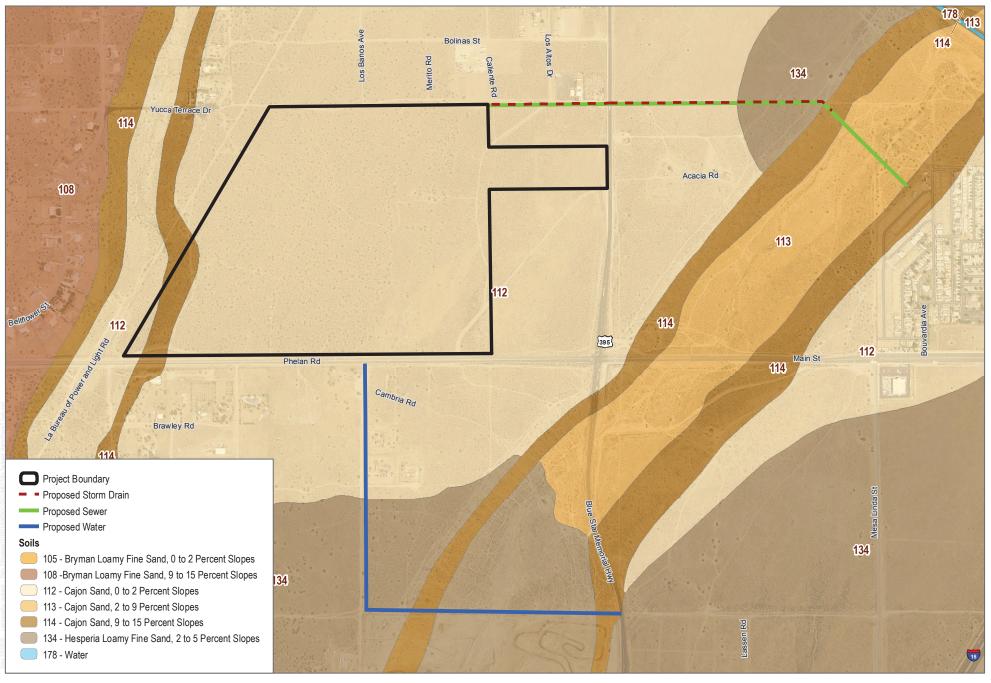
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Figure 1 Project Location Hesperia Commerce Center II



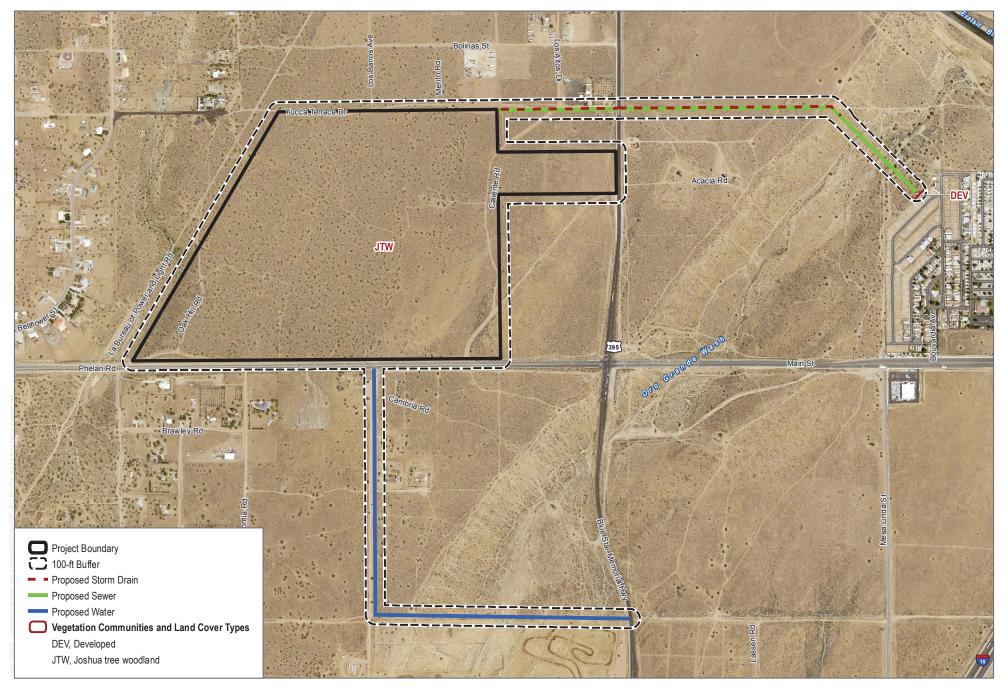
SOURCE: USGS 7.5-Minute Baldy Mesa Quadrangle

Figure 2 Local Topographic Map Hesperia Commerce Center II



SOURCE: USDA 2016, 2020

FIGURE 3 Soils Hesperia Commerce Center II



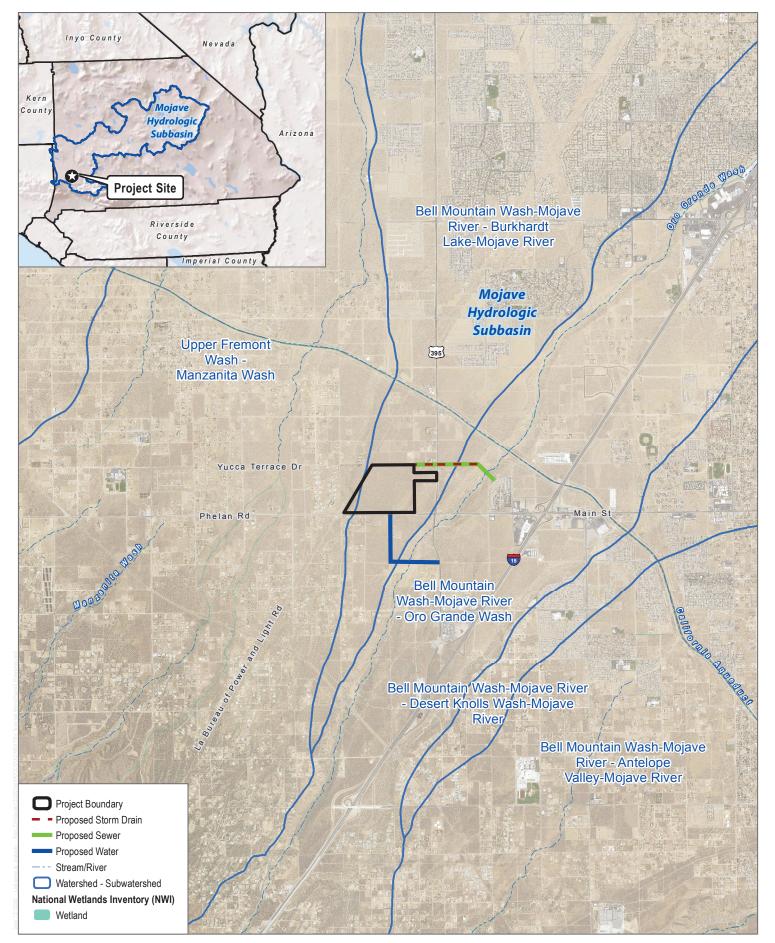
SOURCE: USDA 2016

FIGURE 4 Vegetation Hesperia Commerce Center II



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1,000 **____** Feet 500



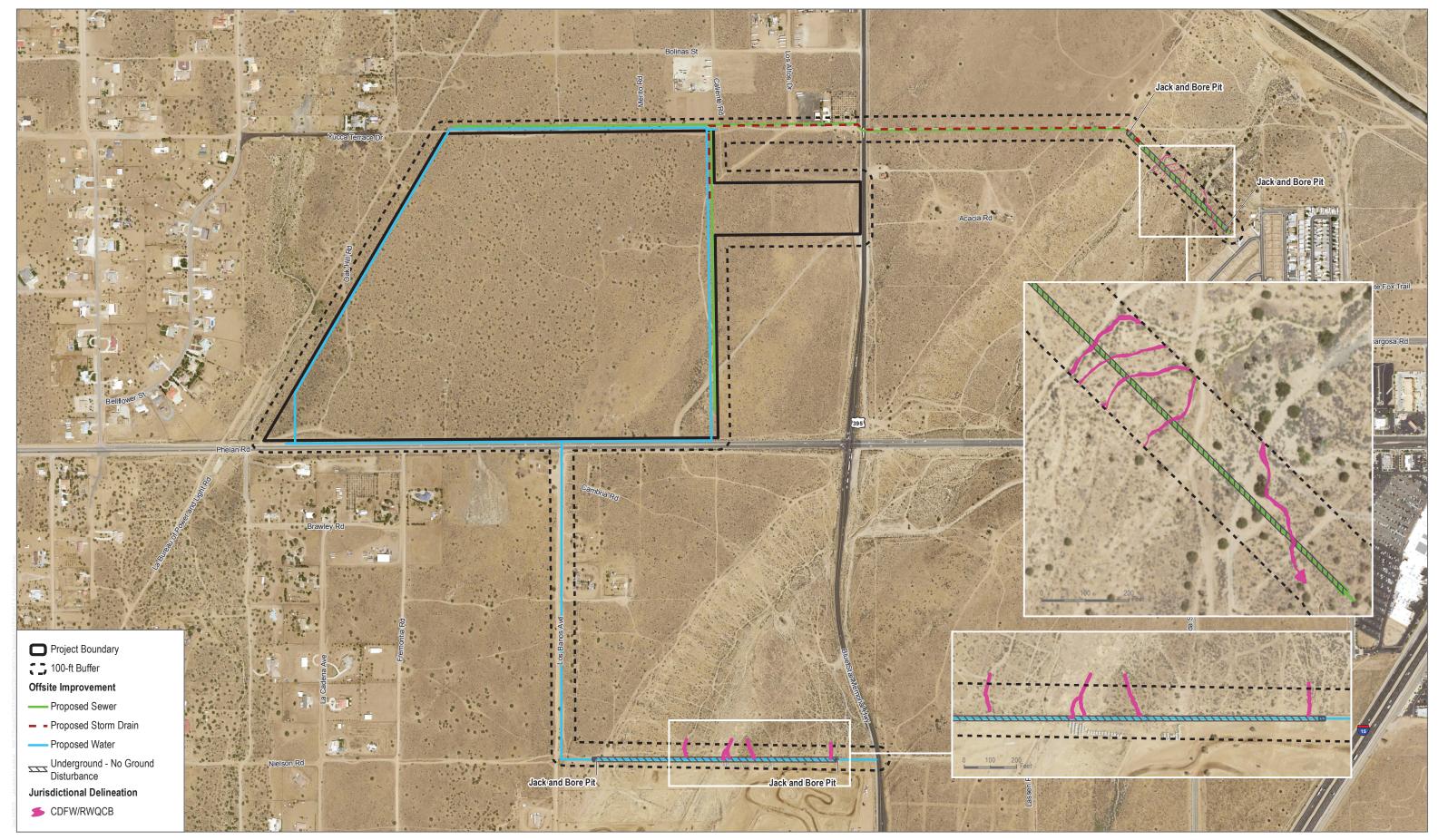
SOURCE: USDA 2016; USFWS 2020; USGS 2020; California Dept. of Water Resrouces 2019

0.5

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Figure 5 Watershed Map Hesperia Commerce Center II

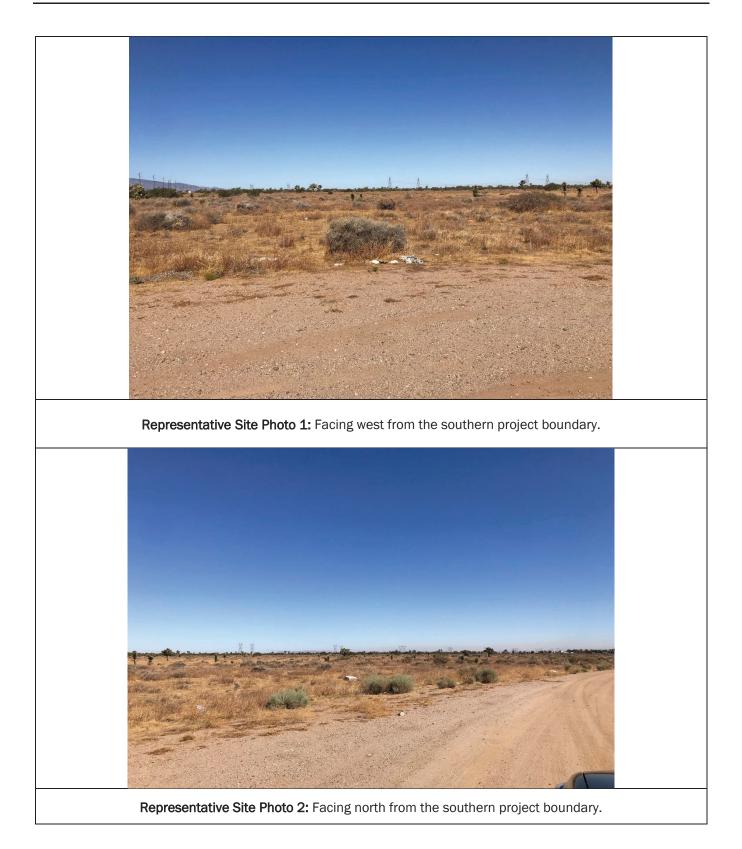


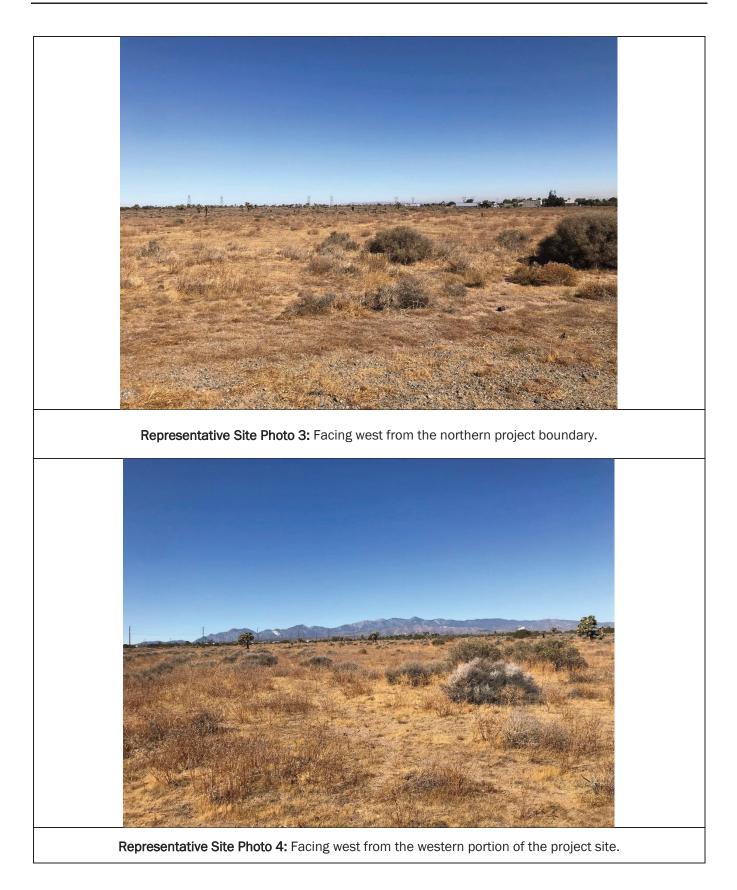
SOURCE: USDA 2016; Westland 2020

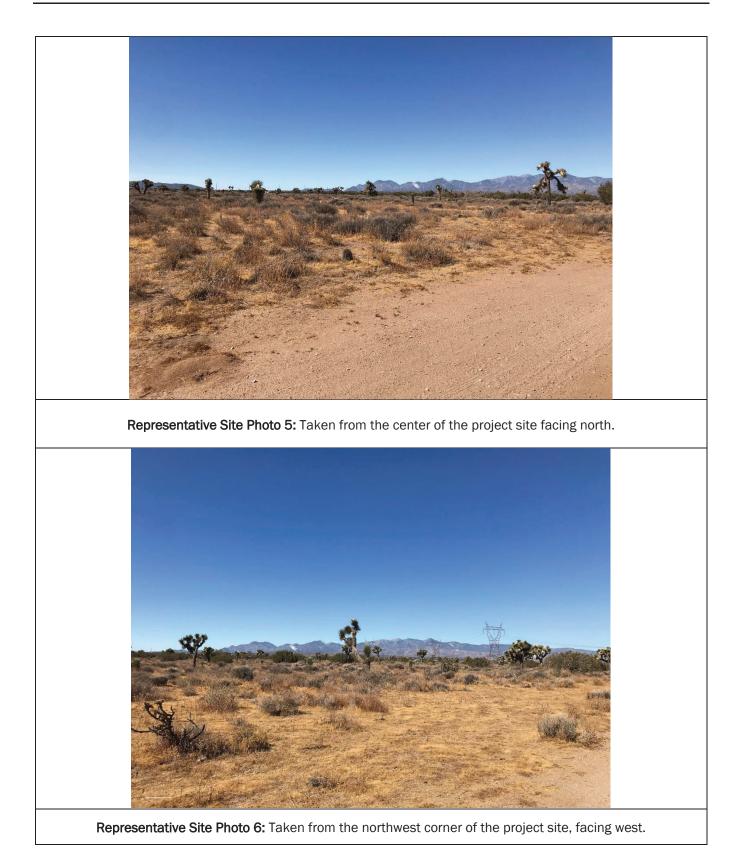
FIGURE 6 Aquatic Resources Delineation Hesperia Commerce Center II

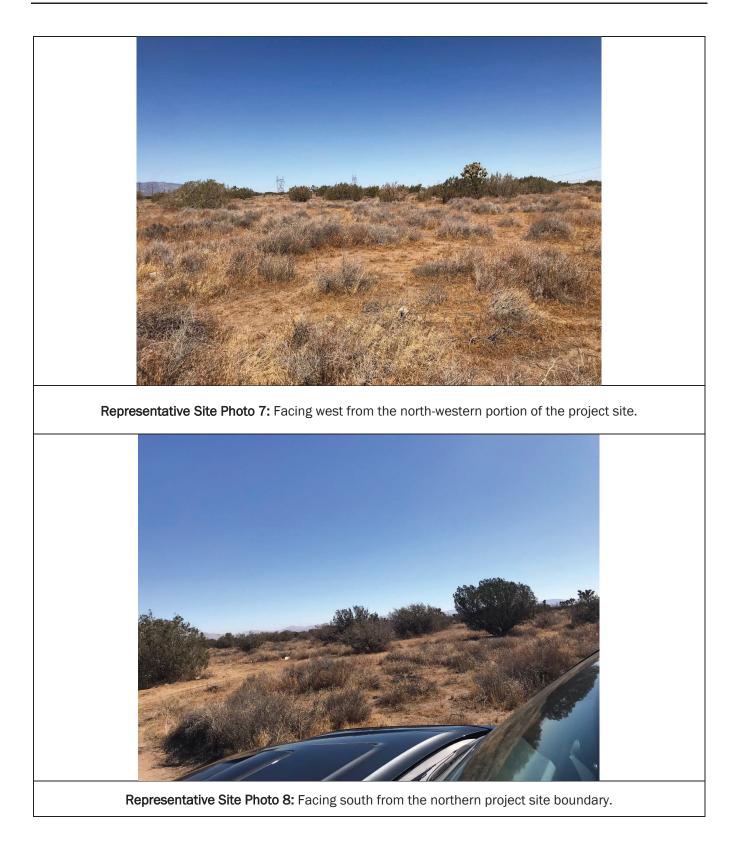
Attachment B

Site Photographs









Attachment C

Species Compendium

Plants Species

Eudicots

Vascular species

ASTERACEAE - SUNFLOWER FAMILY

Ericameria bloomer - rabbitbush

BORAGINACEAE - BORAGE FAMILY

Amsinckia tessellate - bristly fiddleneck

BRASSICACEAE - MUSTARD FAMILY

- * Brassica tournefortii Tournefort's mustard
- * Hirschfeldia incana shortpod mustard

GERANIACEAE – GERANIUM FAMILY

* Erodium cicutarium – redstem stork's bill

NYCTAGINACEAE - FOUR O'CLOCK FAMILY

Mirabilis laevis - desert wishbone-bush

POLYGONACEAE – BUCKWHEAT FAMILY

Eriogonum fasciculatum – California buckwheat

Gymnosperms and Gnetophytes

Vascular species

CUPRESSACEAE – CYPRESS FAMILY

Juniperus californica - California juniper

Monocots

Vascular species

AGAVACEAE - AGAVE FAMILY

Yucca brevifolia – Joshua tree

POACEAE-GRASS FAMILY

- * Avena fatua wild oat
- * Bromus rubens red brome
- * Hordeum vulgare common barley
- * signifies introduced (non-native) species

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Wildlife Species

Birds

Finches

FRINGILLIDAE-FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus - house finch

Hawks

ACCIPITRIDAE – HAWKS, KITES, EAGLES, AND ALLIES

Buteo regalis - ferruginous hawk

Jays, magpies, and crows

CORVIDAE - CROWS AND JAYS

Corvus brachyrhynchos - American crow

Mockingbirds and thrashers

MIMIDAE - MOCKINGBIRDS AND THRASHERS

Mimus polyglottos – northern mockingbird

Wrens

TROGLODYTIDAE - WRENS

Campylorhynchus brunneicapillus - cactus wren

Mammals

Hares and rabbits

LEPORIDAE - HARES AND RABBITS

Lepus californicus - black-tailed jackrabbit

Squirrels

SCIURIDAE - SQUIRRELS

Spermophilus (Otospermophius) beecheyi - California ground squirrel

Reptiles

Lizards

PHRYNOSOMATIDAE – IGUANID LIZARDS

Sceloporus occidentalis - western fence lizard

* signifies introduced (non-native) species

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Attachment D

Special-Status Species Lists





Query Criteria: Quad IS (Shadow Mountains SE (3411755) OR Adelanto (3411754) OR Victorville (3411753) OR Phelan (3411745) OR Baldy Mesa (3411744) OR Hesperia (3411743) OR Telegraph Peak (3411735) OR Cajon (3411734) OR Silverwood Lake (3411733))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii	ABNKC12040	None	None	G5	S4	WL
Cooper's hawk						
Agelaius tricolor	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
tricolored blackbird						
Anaxyrus californicus	AAABB01230	Endangered	None	G2G3	S2S3	SSC
arroyo toad						
Antrozous pallidus	AMACC10010	None	None	G5	S3	SSC
pallid bat						
Aquila chrysaetos	ABNKC22010	None	None	G5	S3	FP
golden eagle						
Artemisiospiza belli belli	ABPBX97021	None	None	G5T2T3	S3	WL
Bell's sage sparrow						
Asclepias nyctaginifolia	PDASC02190	None	None	G4?	S2	2B.1
Mojave milkweed						
Asio otus	ABNSB13010	None	None	G5	S3?	SSC
long-eared owl						
Aspidoscelis tigris stejnegeri	ARACJ02143	None	None	G5T5	S3	SSC
coastal whiptail						
Astragalus lentiginosus var. antonius	PDFAB0FB92	None	None	G5T2	S2	1B.3
San Antonio milk-vetch						
Athene cunicularia	ABNSB10010	None	None	G4	S3	SSC
burrowing owl						
Batrachoseps gabrieli	AAAAD02110	None	None	G2G3	S2S3	
San Gabriel slender salamander			o		0.400	
Bombus crotchii	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
Crotch bumble bee			-	0004	00	0.5.0
Botrychium ascendens	PPOPH010S0	None	None	G3G4	S2	2B.3
upswept moonwort		News	News	04	60	
Botrychium crenulatum	PPOPH010L0	None	None	G4	S3	2B.2
scalloped moonwort		None	Thrastoned	CF.	60	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calochortus palmeri var. palmeri	PMLIL0D122	None	None	G3T2	S2	1B.2
Palmer's mariposa-lily	F WILILVD 122	NUIE		3312	32	10.2
Calochortus plummerae	PMLIL0D150	None	None	G4	S4	4.2
Plummer's mariposa-lily		HONG		57	JT .	7.4
i,						



Selected Elements by Scientific Name California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Canbya candida	PDPAP05020	None	None	G3G4	S3S4	4.2
white pygmy-poppy						
Castilleja lasiorhyncha	PDSCR0D410	None	None	G2?	S2?	1B.2
San Bernardino Mountains owl's-clover						
Chaetodipus fallax pallidus pallid San Diego pocket mouse	AMAFD05032	None	None	G5T34	S3S4	SSC
Chorizanthe xanti var. leucotheca white-bracted spineflower	PDPGN040Z1	None	None	G4T3	S3	1B.2
Claytonia peirsonii ssp. peirsonii Peirson's spring beauty	PDPOR03121	None	None	G2G3T2	S2	1B.2
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Deinandra mohavensis Mojave tarplant	PDAST4R0K0	None	Endangered	G2	S2	1B.3
<i>Diadophis punctatus modestus</i> San Bernardino ringneck snake	ARADB10015	None	None	G5T2T3	S2?	
Diplacus mohavensis Mojave monkeyflower	PDSCR1B1V0	None	None	G2	S2	1B.2
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
Emys marmorata	ARAAD02030	None	None	G3G4	S3	SSC
western pond turtle						
<i>Eremothera boothii ssp. boothii</i> Booth's evening-primrose	PDONA03052	None	None	G5T4	S3	2B.3
<i>Euchloe hyantis andrewsi</i> Andrew's marble butterfly	IILEPA5032	None	None	G3G4T1	S1	
<i>Eumops perotis californicus</i> western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
<i>Euphydryas editha quino</i> quino checkerspot butterfly	IILEPK405L	Endangered	None	G5T1T2	S1S2	
Glaucomys oregonensis californicus San Bernardino flying squirrel	AMAFB09021	None	None	G5T1T2	S1S2	SSC
Gopherus agassizii desert tortoise	ARAAF01012	Threatened	Threatened	G3	S2S3	
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Helianthus nuttallii ssp. parishii Los Angeles sunflower	PDAST4N102	None	None	G5TH	SH	1A
Helminthoglypta mohaveana Victorville shoulderband	IMGASC2340	None	None	G1	S1	



Selected Elements by Scientific Name California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Helminthoglypta taylori	IMGASC2640	None	None	G1	S1	
westfork shoulderband						
Heuchera parishii	PDSAX0E0S0	None	None	G3	S3	1B.3
Parish's alumroot						
Icteria virens	ABPBX24010	None	None	G5	S3	SSC
yellow-breasted chat						
Juniperella mirabilis	IICOLX9010	None	None	G1	S1	
juniper metallic wood-boring beetle						
Lanius Iudovicianus	ABPBR01030	None	None	G4	S4	SSC
loggerhead shrike						
Lasiurus cinereus	AMACC05030	None	None	G5	S4	
hoary bat						
Lilium parryi	PMLIL1A0J0	None	None	G3	S3	1B.2
lemon lily						
Linanthus concinnus	PDPLM090D0	None	None	G2	S2	1B.2
San Gabriel linanthus						
Loeflingia squarrosa var. artemisiarum sagebrush loeflingia	PDCAR0E011	None	None	G5T3	S2	2B.2
Lycium parishii	PDSOL0G0D0	None	None	G4	S1	2B.3
Parish's desert-thorn						
Microtus californicus mohavensis	AMAFF11031	None	None	G5T1	S1	SSC
Mohave river vole						
Monardella australis ssp. jokerstii	PDLAM18112	None	None	G4T1?	S1?	1B.1
Jokerst's monardella						
Muhlenbergia californica	PMPOA480A0	None	None	G4	S4	4.3
California muhly						
Neotamias speciosus speciosus	AMAFB02172	None	None	G4T2T3	S2S3	
lodgepole chipmunk						
Opuntia basilaris var. brachyclada	PDCAC0D053	None	None	G5T3	S3	1B.2
short-joint beavertail						
Oreonana vestita	PDAPI1G030	None	None	G3	S3	1B.3
woolly mountain-parsley						
Orobanche valida ssp. valida	PDORO040G2	None	None	G4T2	S2	1B.2
Rock Creek broomrape						
Ovis canadensis nelsoni	AMALE04013	None	None	G4T4	S3	FP
desert bighorn sheep						
Pandion haliaetus	ABNKC01010	None	None	G5	S4	WL
osprey						
Pediomelum castoreum	PDFAB5L050	None	None	G3	S2	1B.2
Beaver Dam breadroot						
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC



Selected Elements by Scientific Name California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Piranga rubra	ABPBX45030	None	None	G5	S1	SSC
summer tanager						
Plebejus saepiolus aureolus	IILEPG6011	None	None	G5T1	S1	
San Gabriel Mountains blue butterfly						
Plebulina emigdionis	IILEPG7010	None	None	G1G2	S1S2	
San Emigdio blue butterfly						
Rana draytonii	AAABH01022	Threatened	None	G2G3	S2S3	SSC
California red-legged frog						
Rana muscosa	AAABH01330	Endangered	Endangered	G1	S1	WL
southern mountain yellow-legged frog						
Rhinichthys osculus ssp. 3	AFCJB3705K	None	None	G5T1	S1	SSC
Santa Ana speckled dace						
Schoenus nigricans	PMCYP0P010	None	None	G4	S2	2B.2
black bog-rush						
Scutellaria bolanderi ssp. austromontana southern mountains skullcap	PDLAM1U0A1	None	None	G4T3	S3	1B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Siphateles bicolor mohavensis Mohave tui chub	AFCJB1303H	Endangered	Endangered	G4T1	S1	FP
	CTT62400CA	Nono	None	G4	S4	
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	C1102400CA	None	None	64	34	
Symphyotrichum defoliatum San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
Symphyotrichum greatae Greata's aster	PDASTE80U0	None	None	G2	S2	1B.3
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis hammondii two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Toxostoma lecontei	ABPBK06100	None	None	G4	S3	SSC
Le Conte's thrasher						
Vireo bellii pusillus	ABPBW01114	Endangered	Endangered	G5T2	S2	
least Bell's vireo		5	0			
Vireo vicinior	ABPBW01140	None	None	G4	S2	SSC
gray vireo						
Xerospermophilus mohavensis Mohave ground squirrel	AMAFB05150	None	Threatened	G2G3	S2S3	
					Pacard Coun	4. 70

Record Count: 79

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

Calochortus

palmeri var.

Palmer's

mariposa lily

Liliaceae

54 matches found.	Click on scientific n	ame for details					
Search Criteria							
Found in Quads 3411755, 3411754, 3411753, 3411745, 3411744, 3411743, 3411735 3411734 and 3411733;							
©, Modify S	earch Criteria 🛛 💐 Ex	port to Excel 🛛 🎧 Mc	odify Columns	Dodify Sort	Display Photos		
Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
<u>Acanthoscyphus</u> <u>parishii var.</u> parishii	Parish's oxytheca	Polygonaceae	annual herb	Jun-Sep	4.2	S3S4	G4? T3T4
<u>Androsace</u> <u>elongata ssp.</u> <u>acuta</u>	California androsace	Primulaceae	annual herb	Mar-Jun	4.2	S3S4	G5? T3T4
<u>Asclepias</u> nyctaginifolia	Mojave milkweed	Apocynaceae	perennial herb	May-Jun	2B.1	S2	G4?
<u>Astragalus</u> <u>bicristatus</u>	crested milk- vetch	Fabaceae	perennial herb	May-Aug	4.3	S3	G3
<u>Astragalus</u> <u>lentiginosus var.</u> antonius	San Antonio milk- vetch	Fabaceae	perennial herb	Apr-Jul	1B.3	S2	G5T2
<u>Astragalus</u> leucolobus	Big Bear Valley woollypod	Fabaceae	perennial herb	May-Jul	1B.2	S2	G2
Azolla microphylla	Mexican mosquito fern	Azollaceae	annual / perennial herb	Aug	4.2	S4	G5
Botrychium ascendens	upswept moonwort	Ophioglossaceae	perennial rhizomatous herb	(Jun)Jul- Aug	2B.3	S2	G3G4
<u>Botrychium</u> <u>crenulatum</u>	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	2B.2	S3	G4

Apr-Jul

perennial

bulbiferous

1B.2

S2

G3T2

<u>palmeri</u>			herb				
<u>Calochortus</u> <u>plummerae</u>	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4
<u>Canbya candida</u>	white pygmy- poppy	Papaveraceae	annual herb	Mar-Jun	4.2	S3S4	G3G4
<u>Castilleja</u> Iasiorhyncha	San Bernardino Mountains owl's- clover	Orobanchaceae	annual herb (hemiparasitic)	May-Aug	1B.2	S2?	G2?
<u>Castilleja</u> plagiotoma	Mojave paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Apr-Jun	4.3	S4	G4
<u>Chorizanthe</u> <u>spinosa</u>	Mojave spineflower	Polygonaceae	annual herb	Mar-Jul	4.2	S4	G4
<u>Chorizanthe xanti</u> <u>var. leucotheca</u>	white-bracted spineflower	Polygonaceae	annual herb	Apr-Jun	1B.2	S3	G4T3
<u>Claytonia</u> <u>lanceolata var.</u> peirsonii	Peirson's spring beauty	Montiaceae	perennial herb	(Mar)May- Jun	3.1	S1	G5T1Q
<u>Diplacus</u> j <u>ohnstonii</u>	Johnston's monkeyflower	Phrymaceae	annual herb	(Apr)May- Aug	4.3	S4	G4
<u>Diplacus</u> mohavensis	Mojave monkeyflower	Phrymaceae	annual herb	Apr-Jun	1B.2	S2	G2
<u>Dodecahema</u> <u>leptoceras</u>	slender-horned spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S1	G1
<u>Eremothera</u> <u>boothii ssp. boothii</u>	Booth's evening- primrose	Onagraceae	annual herb	Apr-Sep	2B.3	S3	G5T4
<u>Eriogonum</u> <u>umbellatum var.</u> <u>minus</u>	alpine sulfur- flowered buckwheat	Polygonaceae	perennial herb	Jun-Sep	4.3	S4	G5T4
<u>Eriophyllum</u> <u>lanatum var.</u> <u>obovatum</u>	southern Sierra woolly sunflower	Asteraceae	perennial herb	Jun-Jul	4.3	S4	G5T4
<u>Galium</u> angustifolium ssp. gabrielense	San Antonio Canyon bedstraw	Rubiaceae	perennial herb	Apr-Aug	4.3	S3	G5T3
<u>Helianthus nuttallii</u> <u>ssp. parishii</u>	Los Angeles sunflower	Asteraceae	perennial rhizomatous herb	Aug-Oct	1A	SH	G5TH
<u>Heuchera</u> <u>caespitosa</u>	urn-flowered alumroot	Saxifragaceae	perennial rhizomatous herb	May-Aug	4.3	S3	G3
<u>Heuchera parishii</u>	Parish's alumroot	Saxifragaceae	perennial rhizomatous herb	Jun-Aug	1B.3	S3	G3
<u>Johnstonella</u> <u>costata</u>	ribbed cryptantha	Boraginaceae	annual herb	Feb-May	4.3	S4	G4G5

<u>Juglans californica</u>	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	4.2	S4	G4
<u>Juncus duranii</u>	Duran's rush	Juncaceae	perennial rhizomatous herb	Jul-Aug	4.3	S3	G3
<u>Lepechinia</u> fragrans	fragrant pitcher sage	Lamiaceae	perennial shrub	Mar-Oct	4.2	S3	G3
<u>Lilium humboldtii</u> <u>ssp. ocellatum</u>	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	Mar- Jul(Aug)	4.2	S4?	G4T4?
<u>Lilium parryi</u>	lemon lily	Liliaceae	perennial bulbiferous herb	Jul-Aug	1B.2	S3	G3
<u>Linanthus</u> <u>concinnus</u>	San Gabriel linanthus	Polemoniaceae	annual herb	Apr-Jul	1B.2	S2	G2
<u>Loeflingia</u> <u>squarrosa var.</u> artemisiarum	sagebrush loeflingia	Caryophyllaceae	annual herb	Apr-May	2B.2	S2	G5T3
<u>Lycium torreyi</u>	Torrey's box-thorn	Solanaceae	perennial shrub	(Jan- Feb)Mar- Jun(Sep- Nov)	4.2	S3	G4G5
<u>Monardella</u> <u>australis ssp.</u> j <u>okerstii</u>	Jokerst's monardella	Lamiaceae	perennial rhizomatous herb	Jul-Sep	1B.1	S1	G4T1
<u>Muhlenbergia</u> <u>californica</u>	California muhly	Poaceae	perennial rhizomatous herb	Jun-Sep	4.3	S4	G4
<u>Muilla coronata</u>	crowned muilla	Themidaceae	perennial bulbiferous herb	Mar- Apr(May)	4.2	S3	G3
<u>Opuntia basilaris</u> <u>var. brachyclada</u>	short-joint beavertail	Cactaceae	perennial stem succulent	Apr- Jun(Aug)	1B.2	S3	G5T3
<u>Oreonana vestita</u>	woolly mountain- parsley	Apiaceae	perennial herb	Mar-Sep	1B.3	S3	G3
<u>Orobanche valida</u> <u>ssp. valida</u>	Rock Creek broomrape	Orobanchaceae	perennial herb (parasitic)	May-Sep	1B.2	S2	G4T2
Pediomelum castoreum	Beaver Dam breadroot	Fabaceae	perennial herb	Apr-May	1B.2	S2	G3
<u>Phacelia</u> mohavensis	Mojave phacelia	Hydrophyllaceae	annual herb	Apr-Aug	4.3	S4	G4Q
Quercus turbinella	shrub live oak	Fagaceae	perennial evergreen shrub	Apr-Jun	4.3	S4	G5
	black bog-rush	Cyperaceae	perennial herb	Aug-Sep	2B.2	S2	G4

<u>Schoenus</u> <u>nigricans</u>							
<u>Sclerocactus</u> polyancistrus	Mojave fish-hook cactus	Cactaceae	perennial stem succulent	Apr-Jul	4.2	S3	G3
<u>Scutellaria</u> <u>bolanderi ssp.</u> austromontana	southern mountains skullcap	Lamiaceae	perennial rhizomatous herb	Jun-Aug	1B.2	S3	G4T3
<u>Sidotheca</u> <u>caryophylloides</u>	chickweed oxytheca	Polygonaceae	annual herb	Jul- Sep(Oct)	4.3	S4	G4
<u>Streptanthus</u> <u>bernardinus</u>	Laguna Mountains jewelflower	Brassicaceae	perennial herb	May-Aug	4.3	S3S4	G3G4
<u>Symphyotrichum</u> <u>defoliatum</u>	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul- Nov(Dec)	1B.2	S2	G2
<u>Symphyotrichum</u> g <u>reatae</u>	Greata's aster	Asteraceae	perennial rhizomatous herb	Jun-Oct	1B.3	S2	G2
<u>Syntrichopappus</u> <u>lemmonii</u>	Lemmon's syntrichopappus	Asteraceae	annual herb	Apr- May(Jun)	4.3	S4	G4
<u>Viola purpurea</u> <u>ssp. aurea</u>	golden violet	Violaceae	perennial herb	Apr-Jun	2B.2	S2	G5T2

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Questions and Comments

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Attachment E

Species Occurrence Tables

Scientific Name	Common Name	Status Federal/State/ CRPR	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet amsl)	Potential to Occur
Acanthoscyphus parishii var. parishii	Parish's oxytheca	None/None/4.2	Chaparral, Lower montane coniferous forest; sandy or gravelly/annual herb/June– Sep/4,000–8,530	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Androsace elongata ssp. acuta	California androsace	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland/annual herb/Mar–June/490– 4,280	Not expected to occur. No suitable vegetation present.
Asclepias nyctaginifolia	Mojave milkweed	None/None/2B.1	Mojavean desert scrub, Pinyon and juniper woodland/perennial herb/May– June/2,870–5,575	Not expected to occur. The site does not contain suitable habitat for this species.
Astragalus bicristatus	crested milk- vetch	None/None/4.3	Lower montane coniferous forest, Upper montane coniferous forest; sandy or rocky, mostly carbonate/perennial herb/May- Aug/5,575–9,005	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Astragalus lentiginosus var. antonius	San Antonio milk-vetch	None/None/1B.3	Lower montane coniferous forest, Upper montane coniferous forest/perennial herb/Apr-July/4,920-8,530	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Astragalus leucolobus	Big Bear Valley woollypod	None/None/1B.2	Lower montane coniferous forest, Pebble (Pavement) plain, Pinyon and juniper woodland, Upper montane coniferous forest; rocky/perennial herb/May– July/3,605–9,465	Not expected to occur. No suitable vegetation present.
Azolla microphylla	Mexican mosquito fern	None/None/4.2	Marshes and swamps (ponds, slow water)/annual / perennial herb/Aug/95– 330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Botrychium ascendens	upswept moonwort	None/None/2B.3	Lower montane coniferous forest, Meadows and seeps; mesic/perennial rhizomatous herb/(June)July–Aug/3,655–9,990	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status Federal/State/ CRPR	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet amsl)	Potential to Occur
Botrychium crenulatum	scalloped moonwort	None/None/2B.2	Bogs and fens, Lower montane coniferous forest, Meadows and seeps, Marshes and swamps (freshwater), Upper montane coniferous forest/perennial rhizomatous herb/June-Sep/4,160-10,760	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Calochortus palmeri var. palmeri	Palmer's mariposa lily	None/None/1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps; mesic/perennial bulbiferous herb/Apr– July/2,325–7,840	Not expected to occur. No suitable vegetation present.
Calochortus plummerae	Plummer's mariposa lily	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland; granitic, rocky/perennial bulbiferous herb/May– July/325–5,575	Not expected to occur. No suitable vegetation present.
Canbya candida	white pygmy- poppy	None/None/4.2	Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland; gravelly, sandy, granitic/annual herb/Mar- June/1,965-4,790	Low potential to occur. The site contains suitable substrate, and vegetation; however, the nearest occurrence is located 5.8 miles to the SE of the site, and last reported on in 1980 (CDFW 2020).
Castilleja lasiorhyncha	San Bernardino Mountains owl's-clover	None/None/1B.2	Chaparral, Meadows and seeps, Pebble (Pavement) plain, Riparian woodland, Upper montane coniferous forest; mesic/annual herb (hemiparasitic)/May-Aug/4,265- 7,840	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Castilleja plagiotoma	Mojave paintbrush	None/None/4.3	Great Basin scrub (alluvial), Joshua tree woodland, Lower montane coniferous forest, Pinyon and juniper woodland/perennial herb (hemiparasitic)/Apr–June/980–8,200	Low potential to occur. The site contains suitable Joshua tree woodland vegetation. There are several outdated CCH observations mapped within 5 miles of the site; however, the most recent of these observations was mapped in 1960 (Calflora 2020).
Chorizanthe spinosa	Mojave spineflower	None/None/4.2	Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, Playas; Sometimes alkaline/annual herb/Mar–July/15–4,265	Low potential to occur. The site contains suitable Joshua tree woodland vegetation. There are no CCH, CNPS, or CNDDB observations mapped within 5 miles of the site.

Scientific Name	Common Name	Status Federal/State/ CRPR	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet amsl)	Potential to Occur
Claytonia peirsonii ssp. peirsonii	Peirson's spring beauty	None/None/1B.2	subalpine coniferous forest, upper montane coniferous forest; granitic, metamorphic, scree, talus/perennial herb/(Mar) May– June/4,950–9,005	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Deinandra mohavensis	Mojave tarplant	None/SE/1B.3	Chaparral, Coastal scrub, Riparian scrub; mesic/annual herb/(May)June– Oct(Jan)/2,095–5,245	Not expected to occur. No suitable vegetation present.
Diplacus johnstonii	Johnston's monkeyflower	None/None/4.3	Lower montane coniferous forest (scree, disturbed areas, rocky or gravelly, roadside)/annual herb/(Apr)May– Aug/3,195–9,580	Not expected to occur. No suitable vegetation present.
Diplacus mohavensis	Mojave monkeyflower	None/None/1B.2	Joshua tree woodland, Mojavean desert scrub; sandy or gravelly, often in washes/annual herb/Apr–June/1,965– 3,935	Low potential to occur. The site contains suitable habitat for this species; however, there are no recorded nearby occurrences.
Dodecahema leptoceras	slender-horned spineflower	FE/SE/1B.1	Chaparral, Cismontane woodland, Coastal scrub (alluvial fan); sandy/annual herb/Apr–June/655–2,490	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Eremothera boothii ssp. boothii	Booth's evening- primrose	None/None/2B.3	Joshua tree woodland, Pinyon and juniper woodland/annual herb/Apr-Sep/2,670- 7,870	Not expected to occur. The site does not contain suitable habitat for this species. The nearest recorded occurrence is 9.9 miles NE of the site (CDFW 2020).
Eriogonum umbellatum var. minus	alpine sulfur- flowered buckwheat	None/None/4.3	Subalpine coniferous forest, Upper montane coniferous forest; gravelly/perennial herb/June-Sep/5,905- 10,065	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Eriophyllum lanatum var. obovatum	southern Sierra woolly sunflower	None/None/4.3	Lower montane coniferous forest, Upper montane coniferous forest; sandy loam/perennial herb/June-July/3,650- 8,200	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status Federal/State/ CRPR	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet amsl)	Potential to Occur
Galium angustifolium ssp. gabrielense	San Antonio Canyon bedstraw	None/None/4.3	Chaparral, Lower montane coniferous forest; granitic, sandy or rocky/perennial herb/Apr-Aug/3,935–8,690	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Helianthus nuttallii ssp. parishii	Los Angeles sunflower	None/None/1A	Marshes and swamps (coastal salt and freshwater)/perennial rhizomatous herb/Aug–Oct/30–5,000	Not expected to occur. No suitable vegetation present.
Heuchera caespitosa	urn-flowered alumroot	None/None/4.3	Cismontane woodland, Lower montane coniferous forest, Riparian forest (montane), Upper montane coniferous forest; rocky/perennial rhizomatous herb/May-Aug/3,785-8,690	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Heuchera parishii	Parish's alumroot	None/None/1B.3	Alpine boulder and rock field, Lower montane coniferous forest, Subalpine coniferous forest, Upper montane coniferous forest; rocky, sometimes carbonate/perennial rhizomatous herb/June-Aug/4,920-12,465	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Johnstonella costata	ribbed cryptantha	None/None/4.3	Desert dunes, Mojavean desert scrub, Sonoran desert scrub; sandy/annual herb/Feb-May/-,200-1,640	Not expected to occur. The site is outside of the species' known elevation range.
Juglans californica	Southern California black walnut	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland; alluvial/perennial deciduous tree/Mar-Aug/160-2,950	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Juncus duranii	Duran's rush	None/None/4.3	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest; mesic/perennial rhizomatous herb/July-Aug/5,800-9,195	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Lepechinia fragrans	fragrant pitcher sage	None/None/4.2	Chaparral/perennial shrub/Mar-Oct/65- 4,295	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status Federal/State/ CRPR	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet amsl)	Potential to Occur
Lilium humboldtii ssp. ocellatum	ocellated Humboldt lily	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland; openings/perennial bulbiferous herb/Mar–July(Aug)/95–5,905	Not expected to occur. No suitable vegetation present.
Lilium parryi	lemon lily	None/None/1B.2	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest; mesic/perennial bulbiferous herb/July-Aug/4,000-9,005	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Linanthus concinnus	San Gabriel linanthus	None/None/1B.2	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest; rocky, openings/annual herb/Apr– July/4,985–9,185	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Loeflingia squarrosa var. artemisiarum	sagebrush loeflingia	None/None/2B.2	Desert dunes, Great Basin scrub, Sonoran desert scrub; sandy/annual herb/Apr– May/2,295–5,295	Not expected to occur. No suitable vegetation present.
Lycium parishii	Parish's desert- thorn	None/None/2B.3	Coastal scrub, Sonoran desert scrub/perennial shrub/Mar-Apr/440- 3,280	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Lycium torreyi	Torrey's box- thorn	None/None/4.2	Mojavean desert scrub, Sonoran desert scrub; Sandy, rocky, washes, streambanks, desert valleys/perennial shrub/(Jan- Feb)Mar-June(Sep-Nov)/-,165-4,000	Not expected to occur. The site does not contain suitable habitat for this species.
Monardella australis ssp. jokerstii	Jokerst?s monardella	None/None/1B.1	Chaparral, Lower montane coniferous forest; Steep scree or talus slopes between breccia, secondary alluvial benches along drainages and washes./perennial rhizomatous herb/July-Sep/4,425-5,740	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Muhlenbergia californica	California muhly	None/None/4.3	Chaparral, Coastal scrub, Lower montane coniferous forest, Meadows and seeps; mesic, seeps and streambanks/perennial rhizomatous herb/June–Sep/325–6,560	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status Federal/State/ CRPR	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet amsl)	Potential to Occur
Muilla coronata	crowned muilla	None/None/4.2	Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland/perennial bulbiferous herb/Mar– Apr(May)/2,195–6,430	Low potential to occur. There site contains suitable Joshua tree woodland vegetation. There are two outdated CCH observations mapped within 5 miles of the site; however, the most recent observation was mapped in 1996 (Calflora 2020).
Opuntia basilaris var. brachyclada	short-joint beavertail	None/None/1B.2	Chaparral, Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland/perennial stem succulent/Apr- June(Aug)/1,390–5,905	Low potential to occur. The site contains suitable habitat; however, during a Native Desert Plants Survey Dudek conducted in November 2019 at a project site adjacent to this project site, no short-joint beavertail were identified (Dudek 2019). There are 3 recorded occurrences within 3.3 miles of the site (CDFW 2020).
Oreonana vestita	woolly mountain- parsley	None/None/1B.3	Lower montane coniferous forest, Subalpine coniferous forest, Upper montane coniferous forest; gravel or talus/perennial herb/Mar-Sep/5,295- 11,480	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Orobanche valida ssp. valida	Rock Creek broomrape	None/None/1B.2	Chaparral, Pinyon and juniper woodland; granitic/perennial herb (parasitic)/May– Sep/3,375–6,560	Not expected to occur. No suitable vegetation present.
Pediomelum castoreum	Beaver Dam breadroot	None/None/1B.2	Joshua tree woodland, Mojavean desert scrub; Sandy, washes and roadcuts/perennial herb/Apr-May/2,000- 5,000	Not expected to occur. While the site contains suitable vegetation, there is not desert wash on site. The nearest occurrence is 9.8 miles NE of the site (CDFW 2020).
Phacelia mohavensis	Mojave phacelia	None/None/4.3	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Pinyon and juniper woodland; sandy or gravelly/annual herb/Apr-Aug/4,590- 8,200	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

Scientific Name	Common Name	Status Federal/State/ CRPR	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet amsl)	Potential to Occur
Quercus turbinella	shrub live oak	None/None/4.3	Chaparral, Cismontane woodland, Lower montane coniferous forest, Pinyon and juniper woodland/perennial evergreen shrub/Apr–June/3,935–6,560	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Schoenus nigricans	black bog-rush	None/None/2B.2	Marshes and swamps (often alkaline)/perennial herb/Aug-Sep/490- 6,560	Not expected to occur. No suitable vegetation present.
Sclerocactus polyancistrus	Mojave fish- hook cactus	None/None/4.2	Great Basin scrub, Joshua tree woodland, Mojavean desert scrub; usually carbonate/perennial stem succulent/Apr- July/2,095-7,610	Not expected to occur. The site does not contain suitable habitat for this species.
Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; mesic/perennial rhizomatous herb/June-Aug/1,390-6,560	Not expected to occur. No suitable vegetation present.
Sidotheca caryophylloides	chickweed oxytheca	None/None/4.3	Lower montane coniferous forest (sandy)/annual herb/July-Sep(Oct)/3,650- 8,530	Not expected to occur. No suitable vegetation present.
Streptanthus bernardinus	Laguna Mountains jewelflower	None/None/4.3	Chaparral, Lower montane coniferous forest/perennial herb/May–Aug/2,195– 8,200	Not expected to occur. No suitable vegetation present.
Symphyotrichum defoliatum	San Bernardino aster	None/None/1B.2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Meadows and seeps, Marshes and swamps, Valley and foothill grassland (vernally mesic); near ditches, streams, springs/perennial rhizomatous herb/July–Nov(Dec)/5–6,690	Not expected to occur. No suitable vegetation present.
Symphyotrichum greatae	Greata's aster	None/None/1B.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Riparian woodland; mesic/perennial rhizomatous herb/June– Oct/980–6,590	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status Federal/State/ CRPR	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet amsl)	Potential to Occur
Syntrichopappus Iemmonii	Lemmon's syntrichopappus	None/None/4.3	Chaparral, Joshua tree woodland, Pinyon and juniper woodland; sandy or gravelly/annual herb/Apr– May(June)/1,640–6,000	Not expected to occur. The site does not contain suitable habitat for this species.
Viola purpurea ssp. aurea	golden violet	None/None/2B.2	Great Basin scrub, Pinyon and juniper woodland; sandy/perennial herb/Apr– June/3,280–8,200	Not expected to occur. No suitable vegetation present.

Notes: CDFW = California Fish and Wildlife Service,

* Region refers to the USGS 7.5-minute quadrangle in which the project site is located (Baldy Mesa) and the six surrounding quadrangles (Shadow Mountains SE, Adelanto, Victorville, Phelan, Hesperia, Telegraph Peak, Cajon, Silverwood Lake).

Status Legend

Federal

FE: Federally listed as endangered

FT: Federally listed as threatened

FC: Federal candidate for listing as threatened or endangered

<u>State</u>

SE: State listed as endangered

ST: State listed as threatened

SR: State listed as rare

CRPR (California Rare Plant Rank)

CRPR 1A: Plants presumed extinct in California and either rare or extinct elsewhere

CRPR List 1B: Plants rare, threatened, or endangered in California and elsewhere

CRPR List 2A: Plants rare, threatened, or endangered in California but common elsewhere

CRPR List 2B: Plants rare, threatened, or endangered in California but more common elsewhere

Threat Rank

.1 Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)

.2 Fairly endangered in California (20% to 80% of occurrences threatened/moderate degree and immediacy of threat)

.3 Not very endangered in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

References

- Calflora (Information on California plants for education, research and conservation). 2020. Berkeley, California. The Calflora Database. Accessed August 2020. https://www.calflora.org/.
- CDFW (California Department of Fish and Wildlife). 2020. RareFind 5, Version 5.2.14. California Natural Diversity Database. Sacramento, California: CDFW, Biogeographic Data Branch. Accessed July 2020. https://map.dfg.ca.gov/rarefind/view/RareFind.aspx.
- USDA (U.S. Department of Agriculture). 2020. Web Soil Survey: Santa Clara County Area. USDA, Natural Resources Conservation Service, Web Soil Survey Staff. Accessed July 2020. http://websoilsurvey.nrcs.usda.gov/.

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	Common	Status		
Scientific Name	Name	(Federal/State)	Primary Habitat Associations	Potential to Occur
Amphibians				
Anaxyrus californicus	arroyo toad	FE/SSC	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. No suitable vegetation present.
Batrachoseps gabrieli	San Gabriel slender salamander	None/None	Talus slopes in forested areas, often near streams	Not expected to occur. No suitable vegetation present.
Rana draytonii	California red- legged frog	FT/SSC	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	Not expected to occur. No suitable vegetation present.
Rana muscosa	mountain yellow-legged frog	FE/SE, WL	Lakes, ponds, meadow streams, isolated pools, and open riverbanks; rocky canyons in narrow canyons and in chaparral	Not expected to occur. The site does not contain suitable habitat for this species.
Reptiles				
Actinemys marmorata	northwestern pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. No suitable vegetation present.
Aspidoscelis tigris stejnegeri	San Diegan tiger whiptail	None/SSC	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	Not expected to occur. No suitable vegetation present.
Diadophis punctatus modestus	San Bernardino ring-necked snake	None/None	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland	Not expected to occur. No suitable vegetation present.
Gopherus agassizii	Mojave desert tortoise	FT/ST	Arid and semi-arid habitats in Mojave and Sonoran Deserts, including sandy or gravelly locations along riverbanks, washes, sandy dunes, canyon bottoms, desert oases, rocky hillsides, creosote flats, and hillsides	Moderate potential to occur. The site does contain limited suitable habitat, including a desert wash; however, the site does not contain any creosote bush. There is a recorded occurrence 2.3 miles south of the site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State)	Primary Habitat Associations	Potential to Occur
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley-foothill hardwood, conifer, riparian, pine-cypress, juniper, and annual grassland habitats	Not expected to occur. No suitable vegetation present.
Thamnophis hammondii	two-striped gartersnake	None/SSC	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Not expected to occur. No suitable vegetation present.
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/WL	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Not expected to occur. No suitable vegetation present.
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	Not expected to occur. No suitable vegetation present.
Aquila chrysaetos (nesting and wintering)	golden eagle	BCC/FP, WL	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	Not expected to occur. No suitable vegetation present.
Artemisiospiza belli belli	Bell's sage sparrow	BCC/WL	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	Not expected to occur. No suitable vegetation present.
Asio otus (nesting)	long-eared owl	None/SSC	Nests in riparian habitat, live oak thickets, other dense stands of trees, edges of coniferous forest; forages in nearby open habitats	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status (Federal/State)	Primary Habitat Associations	Potential to Occur
Athene cunicularia (burrow sites and some wintering sites)	burrowing owl	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Moderate potential to occur. The site contains suitable sandy soil, and abundant ground squirrel burrows for nesting. The nearest recorded occurrence is 1.5 miles south of the site (CDFW 2020).
Buteo swainsoni (nesting)	Swainson's hawk	BCC/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to occur. No suitable vegetation present.
Coccyzus americanus occidentalis (nesting)	western yellow- billed cuckoo	FT, BCC/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. No suitable vegetation present.
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. No suitable vegetation present.
Haliaeetus leucocephalus (nesting & wintering)	bald eagle	FDL, BCC/FP, SE	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	Not expected to occur. No suitable vegetation present.
Icteria virens (nesting)	yellow-breasted chat	None/SSC	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Not expected to occur. No suitable vegetation present.
Lanius Iudovicianus (nesting)	loggerhead shrike	BCC/SSC	Nests and forages in open habitats with scattered shrubs, trees, or other perches	Low potential to occur. The site contains appropriate vegetation for nesting, and perching habitat for hunting/foraging. In 2007, a nest was recorded in a Joshua tree, 1.7 miles north of the site (CDFW 2020).
Pandion haliaetus (nesting)	osprey	None/WL	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status (Federal/State)	Primary Habitat Associations	Potential to Occur
Piranga rubra (nesting)	summer tanager	None/SSC	Nests and forages in mature desert riparian habitats dominated by cottonwoods and willows	Not expected to occur. No suitable vegetation present.
Setophaga petechia (nesting)	yellow warbler	BCC/SSC	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Not expected to occur. No suitable vegetation present.
Toxostoma lecontei	LeConte's thrasher	BCC/SSC	Nests and forages in desert wash, desert scrub, alkali desert scrub, desert succulent, and Joshua tree habitats; nests in spiny shrubs or cactus	Low potential to occur. The site contains some suitable habitat; however, this species prefers less vegetated areas. The nearest occurrence was recorded 5.4 miles east of the site (CDFW 2020).
Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to occur. No suitable vegetation present.
Vireo vicinior (nesting)	gray vireo	BCC/SSC	Nests and forages in pinyon-juniper woodland, oak, and chamise and redshank chaparral	Not expected to occur. No suitable vegetation present.
Fishes				
Rhinichthys osculus ssp. 3	Santa Ana speckled dace	None/SSC	Headwaters of the Santa Ana and San Gabriel Rivers; may be extirpated from the Los Angeles River system	Not expected to occur. No suitable vegetation, or water resources present.
Siphateles bicolor mohavensis	Mohave tui chub	FE/FP, SE	Lacustrine ponds or pools; 4 feet min water depth; freshwater flow; mineralized and alkaline environment; habitat for aquatic invertebrate prey and egg attachment substrate; Ruppia maritima preferred for egg attachment and thermal refuge in summer months	Not expected to occur. No suitable vegetation, or water resources present.
Mammals				
Antrozous pallidus	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man- made structures and trees	Not expected to occur. The site does not contain suitable habitat for this species to forage or roost.

Scientific Name	Common Name	Status (Federal/State)	Primary Habitat Associations	Potential to Occur
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	None/SSC	Desert wash, desert scrub, desert succulent scrub, and pinyon-juniper woodland	Not expected to occur. There is limited suitable vegetation on site; however, the site is outside of the species' known range.
Corynorhinus townsendii	Townsend's big- eared bat	None/SSC	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Not expected to occur. The site does not contain suitable habitat for this species to forage or roost.
Eumops perotis californicus	western mastiff bat	None/SSC	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Not expected to occur. The site does not contain suitable habitat for this species to forage or roost.
Glaucomys oregonensis californicus	San Bernardino flying squirrel	None/SSC	Coniferous and deciduous forests, including riparian forests	Not expected to occur. No suitable vegetation present.
Lasiurus cinereus	hoary bat	None/None	Forest, woodland riparian, and wetland habitats; also juniper scrub, riparian forest, and desert scrub in arid areas; roosts in tree foliage and sometimes cavities, such as woodpecker holes	Not expected to occur. The site does not contain suitable habitat for this species to forage or roost.
Microtus californicus mohavensis	Mojave river vole	None/SSC	Wet, weedy, herbaceous areas along the Mojave River	Not expected to occur. No suitable vegetation present.
Neotamias speciosus speciosus	lodgepole chipmunk	None/None	Lodgepole pine forests	Not expected to occur. No suitable vegetation present.
Ovis canadensis nelsoni	Nelson's bighorn sheep	None/FP	Steep slopes and cliffs, rough and rocky topography, sparse vegetation; also canyons, washes, and alluvial fans	Not expected to occur. The site does not contain suitable habitat for this species.

Scientific Name	Common Name	Status (Federal/State)	Primary Habitat Associations	Potential to Occur
Spermophilus (Xerospermophilus) mohavensis	Mohave ground squirrel	None/ST	Desert scrub habitats including those dominated by creosote bush and burrobush, desert sink scrub, and desert saltbush scrub	Moderate potential to occur. The site contains suitable vegetation for foraging for this species, and soft sand for digging burrows. The site is also within the known historic range for this species. There is a recorded occurrence 1.3 miles north of the site (CDFW 2020).
Taxidea taxus	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected to occur. The site does not contain suitable habitat for this species.
Invertebrates				
Bombus crotchii	Crotch bumble bee	None/PSE	Open grassland and scrub communities supporting suitable floral resources.	Not expected to occur. No suitable vegetation present.
Euchloe hyantis andrewsi	Andrew's marble butterfly	None/None	Yellow pine forest; host plants are Laguna Mountains jewel-flower (Streptanthus bernardinus) and Holboell's rockcress (Boechera pinetorum (Arabis holboellii var. pinetorum))	Not expected to occur. No suitable vegetation present.
Euphydryas editha quino	quino checkerspot butterfly	FE/None	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include Plantago erecta, Antirrhinum coulterianum, and Plantago patagonica (Silverado Occurrence Complex)	Not expected to occur. No suitable vegetation present.
Helminthoglypta mohaveana	Victorville shoulderband	None/None	Known only from along the Mojave River in San Bernardino County	Not expected to occur. This site does not contain suitable habitat for this species.
Helminthoglypta taylori	westfork shoulderband	None/None	Vicinity of the Mojave River	Not expected to occur. This site does not contain suitable habitat for this species.
Juniperella mirabilis	juniper metallic wood-boring beetle	None/None	Larvae develop in juniper in Santa Rosa Mountains in Southern California	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status (Federal/State)	Primary Habitat Associations	Potential to Occur
Plebejus saepiolus aureolus	San Gabriel Mountains blue butterfly	None/None	Wet meadow seep in yellow pine forest	Not expected to occur. No suitable vegetation present.
Plebulina emigdionis	San Emigdio blue butterfly	None/None	Near streambeds, washes, or alkaline areas; associated with fourwing saltbush and big saltbush (<i>Atriplex canescens</i> and <i>A. lentiformis</i>)	Not expected to occur. No suitable vegetation present.

Notes: CDFW = California Department of Fish and Wildlife

* Region refers to the USGS 7.5-minute quadrangle in which the project site is located (Baldy Mesa) and the six surrounding quadrangles (Shadow Mountains SE, Adelanto, Victorville, Phelan, Hesperia, Telegraph Peak, Cajon, Silverwood Lake).

Status Legend

Federal

BCC: Bird of Conservation Concern

FC: Candidate for federal listing as threatened or endangered

FDL: Federally delisted; monitored for 5 years

FE: Federally listed endangered

FT: Federally listed as threatened

<u>State</u>

PSE: Proposed state listing as endangered

SDL: State delisted

SSC: Species of Special Concern

FP: California Department of Fish and Wildlife Protected and Fully Protected Species

SE: State listed as endangered

ST: State listed as threatened

References

CDFW. 2020. RareFind 5, Version 5.2.14. California Natural Diversity Database. Sacramento, California: CDFW, Biogeographic Data Branch. Accessed July 2020. https://map.dfg.ca.gov/rarefind/view/RareFind.aspx.