

Table A: Mapped Soils Classification

Soil	Drainage Class	Frequency of Flooding	Frequency of Ponding	Hydric Soil Rating
Cieneba-Rock outcrop complex, 30 to 50 percent slopes	Somewhat excessively drained	None	None	No
Greenfield fine sandy loam, 9 to 15 percent slopes	Well drained	None	None	No
Hanford coarse sandy loam, 2 to 9 percent slopes	Well drained	Rare	None	No
Psamments, Fluvents and Frequently flooded soils, Fluvents and Frequently flooded soils	Somewhat excessively drained	Frequent	None	No
Ramona sandy loam, 15 to 30 percent slopes, eroded	Well drained	None	None	No
Soboba gravelly loamy sand, 0 to 9 percent slopes	Excessively drained	Rare	None	No
Tujunga loamy sand, 0 to 5 percent slopes	Somewhat excessively drained	Rare	None	No
Tujunga gravelly loamy sand, 0 to 9 percent slopes	Somewhat excessively drained	Rare	None	No
Vista-Rock outcrop complex	Well drained	None	None	No

Source: Web Soil Survey (NRCS n.d.).

Soils observed within undeveloped portions of the project site appeared consistent with this designation. Although soils listed in Table A have been historically mapped by the USDA, the existing County Regional Park has been subject to ongoing disturbances in the form of paving, importation of gravel, grading, and development of structures, and lacks native soils. Additionally, the existing Glen Helen Regional Park currently consists of a high percentage of paved surfaces, buildings, or imported materials.

Vegetation and Land Cover

The project site is dominated by ornamental nonnative species within the developed portions of the park, with surrounding cover of native vegetation within the surrounding foothills and Cajon Wash. Figure 4 shows a map of vegetation and land cover types existing on the project site, and site photographs are provided in Appendix D. The acreages of each vegetation/land cover category occurring on the project are shown in Table B.

A total of 218 vascular plant species were identified within the project site during the April 10, 2024, field survey, with 122 of these plant species representing nonnative taxa. See Attachment B for a list of plant species identified. The vegetation and land cover types occurring within the project site are discussed below.

Table B: Mapped Vegetation/Land Cover Classifications

Vegetation/Land Cover	Project Acreage
Cattail Marsh	0.79
Chaparral	2.46
Developed	114.98
Elderberry Scrub	3.77
Mixed Scrub	16.65
Open Water	9.81
Ornamental	111.52
Ruderal/Disturbed	21.37
Scalebroom Alluvial Scrub	30.28
Scrub Oak Chaparral	69.07
Southwest Riparian Woodland	10.83
Total	391.53

Source: Compiled by LSA (2024).

Note: Data collected on April 10, 2024.

Scalebroom Alluvial Scrub (Lepidospartum squamatum Alliance), 30.28 Acres

Scalebroom Alluvial Scrub, also called alluvial fan sage scrub or Riversidean alluvial fan sage scrub (RAFSS), is a vegetation community characterized by evergreen deep-rooted shrubs within intermittently or rarely flooded, low-gradient alluvial deposits along streams, washes, and fans. Scalebroom Alluvial Scrub is a special-status community with a state rank of S3. Populations occur along washes that flow from the coast ranges westward and along washes that flow from inland mountains northward and eastward into the Mojave Desert, below 5,000 feet (~1,500 meters). Within the Scalebroom Alluvial Scrub community, scalebroom (*Lepidospartum squamatum*) is dominant, codominant, or conspicuous in the shrub canopy (at greater than 1 percent cover). Other plant species within this community include California buckwheat (*Eriogonum fasciculatum*) as the most common codominant species. Other common species that occur in this vegetation community include: hairy leaf yerba santa (*Eriodictyon trichocalyx*), chamise (*Adenostoma fasciculatum*), California croton (*Croton californicus*), and deerweed (*Acmispon glaber*). California sagebrush (*Artemisia californica*), California cholla (*Cylindropuntia californica*), brittlebush (*Encelia farinosa*), cheesebush (*Ambrosia salsola*), and chaparral yucca (*Hesperoyucca whipplei*). Shrubs are typically under 6.5 feet (2 meters) tall, and the canopy of this vegetation type is usually open to continuous. The habitat was not dense and allowed for nonnative grass and other low-growing annual growth in the understory and areas between.

Scattered larger woody shrubs are present, such as laurel sumac (*Malosma laurina*), lemonade berry (*Rhus integrifolia*), sugar bush (*Rhus ovata*), and poison oak may occur with scalebroom. Emergent trees may also be present at low cover, including mountain mahogany (*Cercocarpus betuloides*), California black walnut (*Juglans californica*), California juniper (*Juniperus californica*), western sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), or blue elderberry (*Sambucus mexicana*). The large, suffrutescent perennials hairy leaf yerba santa or thickleaf yerba santa (*Eriodictyon crassifolium*) and many ephemeral annuals can also occur with scalebroom, depending on geographic location and frequency of flooding.

Within this vegetation community, stands of scalebroom are established after fluvial events and are highly variable in species composition. Some areas flood every few years, while others average more than 100 years between major events. Variations in soil moisture retention among older stands may explain the presence or absence of the large shrubs and trees (Barbour and Wirka 1997). Unlike sage scrub, scalebroom scrub is primarily associated with stream courses.

In the project site, Scalebroom Alluvial Scrub occurs in the northern and eastern portions of the site, within Cajon Wash. Although the habitat appears to qualify as Scalebroom Alluvial Scrub with the presence of ≥ 1 percent scalebroom, very few scalebroom plants were observed in the survey area. The lack of periodic flooding and scouring appears to be resulting in a transition from scalebroom alluvial scrub to California buckwheat scrub (*Eriogonum fasciculatum* Alliance).

Scrub Oak Chaparral, 69.07 Acres

California scrub oak (*Quercus berberidifolia*), a native species, is a common member of the Chaparral ecosystem. Scrub oaks are a smaller, shrubbier version of the larger coast live oak that is also present within the project site. Chaparral vegetation communities are generally composed of evergreen or drought-deciduous hard-stemmed, leathery-leaved shrubs that are fire prone. Chaparral habitat occurs where more than 50 percent of the shrub cover is composed of characteristic chaparral shrub species. Scrub Oak Chaparral is dominated by California scrub oak, with chamise, ceanothus (*Ceanothus* spp.), and manzanita (*Arctostaphylos* spp.) commonly codominant. Except for maritime chaparral, these types are usually on north-facing slopes below 5,000 feet (~1,524 meters) elevation (Halsey 2005). Scrub Oak Chaparral favors gravelly or rocky dry upland slopes throughout much of its distribution and is most common in loams and clay loams although it grows in all soil textures. The canopy cover of this vegetation type is usually closed to partly closed, with minimal interstitial space present between the oaks and large woody arborescent shrubs, and as such does not support a robust understory layer.

Cattail Marsh, 0.79 Acre

This vegetation type occurs in semi-permanently flooded freshwater or brackish marshes, with clayey or silty soils. Dominant species include cattail species such as narrowleaf cattail (*Typha angustifolia*), southern cattail (*Typha domingensis*), and broadleaf cattail (*Typha latifolia*), with other native aquatic rushes, sedges, forbs, and grasses occurring in the herbaceous layer as subdominants, such as saltgrass (*Distichlis spicata*), great horsetail (*Equisetum telmateia*), least duckweed (*Lemna minuta*), tall whitetop (*Lepidium latifolium*), and California bulrush (*Schoenoplectus californicus*). Within the project site, the dominant species of this vegetation community is broadleaf cattail, with a continuous stand present within a pond.

Chaparral, 2.46 Acres

Characterized by drought-tolerant woody shrubs, high-intensity infrequent fire, and shaped by a Mediterranean climate, chaparral covers most of California's coastal foothills and interior mountain slopes. Due to the drought- and fire-prone conditions this community favors, water loss is reduced mostly through structural adaptations such as small waxy leaves with a thick cuticle, the reduced size of which allows for less sun exposure, and the waxy layer over a thick cuticle ensures little water escapes through transpiration. Leaves of these plants typically possess few stomata, which helps

further reduce the amount of moisture lost by the plant. The leaves also tend to be fascicled, in that they grow small and bundled closely together, to reduce transpiration. The plants will also often have a trunk covered in hard rough bark, which protects the shrub and minimizes its water loss. Chaparral habitat occurs where more than 50 percent of the shrub cover is composed of characteristic chaparral shrub species. Dominant species within this type include chamise, ceanothus, manzanita, sugar bush, laurel sumac, and lemonade berry. This vegetation type is found within the northernmost eastern corner of the project site, on a terrace above the Cajon Wash floodplain. Chaparral vegetation classification differs from Scrub Oak Chaparral in that it occurs lower downslope and lacks a tall contiguous arborescent shrub layer.

Chaparral vegetation provides excellent habitat for local year-round resident bird species such as wrenit (*Chamaea fasciata*), western scrub-jay (*Aphelocoma californica*), California towhee (*Melospiza crissalis*), spotted towhee (*Pipilo maculatus*), and California thrasher (*Toxostoma redivivum*), as well as for a wide variety of mammal and insect species.

Developed, 114.98 Acres

Areas classified as Developed consist of paved areas, all buildings, and road rights-of-way and other areas that are cleared or graded for anthropogenic purposes.

Elderberry Scrub, 3.77 Acres

Elderberry Scrub consists of clusters of elderberry trees (*Sambucus mexicana*) situated within a matrix of scrub species. It is found in foothill areas and on the upper benches of stream courses throughout San Bernardino County and is often associated with riparian woodland. Scattered laurel sumac, toyon (*Heteromeles arbutifolia*), and lemonade berry (*Rhus integrifolia*) may also be found on these benches. Elderberry Scrub intergrades with many other habitat types, including Mixed Scrub, Chaparral, Scrub Oak Chaparral, Southwest Riparian Woodland, Annual Grasslands, and Ruderal Grassland.

Mixed Scrub, 16.65 Acres

Mixed Scrub vegetation consists of drought-deciduous, low-growing, soft-leaved shrubs and herbs that occupy gentle to steep slopes and occur most often in shallow or heavy soils at elevations below 3,000 feet (914 meters). Scrub habitat is characterized by 80 percent or greater relative shrub cover by scrub species. Mixed Scrub is dominated by an even mix of each of four or more sage scrub species. Species that make up the Mixed Scrub vegetation type on the project site include California buckwheat, hairy leaf yerba santa, deerweed, black sage (*Salvia mellifera*), white sage (*Salvia apiana*), California encelia (*Encelia californica*), and bush monkey flower (*Diplacus auranticus*). California sagebrush can occur but is not an important species in this community.

Open Water, 9.81 Acres

The Open Water habitat includes main river channels and portions of lakes, ponds, and backwaters that remain permanently flooded all year and appear to be less than 10 percent vegetated. These bodies of water often contain several phytoplankton species and filamentous blue-green and green algae. In shallow water, vascular species may be found floating on the water surface. It also includes areas that are more than 10 percent vegetated with aquatic species such as duckweeds (*Lemna* spp.,

Spirodela spp., and *Wolffia* spp.) and other nonrooted floating aquatics. Because duckweed is free floating, it can relocate day to day depending on current and wind direction. Therefore, any area of otherwise open water containing dense duckweed is classified as Open Water (rather than being placed into any of the vegetation-specific habitat classes). Scattered duckweed was observed within the Open Water community within the project site, but not enough to be classified as another community type.

Ornamental, 111.52 Acres

The vegetation of this community is comprised of installed ornamental plant species within developed areas. The Ornamental vegetation community occurring within the project site consists of nonnative ornamental trees, native trees planted as ornamentals, lawns, and many nonnative shrubs. The dominant trees present on site are eucalyptus (*Eucalyptus* spp. and *Corymbia* spp.), Chinese elm (*Ulmus parvifolia*), pines (*Pinus* spp.), and holly oak (*Quercus ilex*). The only native tree observed within this vegetation type was coast live oak. 100 coast live oaks were mapped and observed and are discussed in further detail below. The hundreds of installed trees within the project site provide excellent habitat for a variety of wildlife species, including local and migratory birds, urban mammals, bats, and insects.

Ruderal/Disturbed, 21.37 Acres

Areas classified as Ruderal/Disturbed consist of early successional nonnative grasslands with scattered pioneering herbaceous plants that readily colonize disturbed ground, such as black mustard (*Brassica nigra*) and tocalote (*Centaurea melitensis*). Ruderal/Disturbed areas are dominated by many nonnative grassland species (*Bromus* spp., *Hordeum* spp., *Festuca* spp.).

Southwest Riparian Woodland, 10.83 Acre

Habitats are mapped as woodlands where the tree cover is 20 to 80 percent. Southwest Riparian Woodland is a multilayered woodland community dominated by cottonwoods (*Populus* spp.) and willows (*Salix lasiolepis*, *S. goodingii*, and *S. laevigata*) with other tree species at low numbers and percent cover. It is typically lower on the floodplain than other woodland types. Within the project site, the greatest concentration of this vegetation type occurs within the central portion of the park, directly adjacent to the ponds. Southwest Riparian Woodland is rich in wildlife species, providing foraging, migration, roosting, and nesting/breeding habitat. Many migratory birds and raptors inhabit riparian woodlands, as well as small carnivores and amphibians.

Native Trees

A total of 100 coast live oak trees were observed within the project site. All oaks with a DBH of 5 inches and greater were surveyed and mapped as shown on Figure 5. The average DBH was 11 inches, but ranged from 5 inches to 35 inches DBH. The average coast live oak height in the project site was 33 feet, with a 15 to 55-foot range.

Per San Bernardino County Chapter 88.01: Plant Protection and Management Tree Ordinance, an oak woodland must be comprised of naturally occurring trees with stems greater than 5 inches in diameter. The coast live oaks currently present within the project site are not clustered tightly enough to be considered oak woodland, and the majority were grown as nursery stock and

ornamentally installed. Because most of the coast live oaks present within the project site are not naturally occurring, not tightly clustered, and do not have a natural understory layer, the site's coast live oaks present do not constitute a protected oak woodland.

All the coast live oaks surveyed within the project site are in good to excellent health because most of them were ornamentally planted and are regularly maintained. The naturally occurring coast live oaks occur within the Southwest Riparian Woodland, portions of the campsite, and scattered remotely throughout the Scrub Oak Chaparral community.

In addition to the coast live oaks that were recorded within the project site, there are also several other species of native trees present, including California black walnut, Fremont cottonwood, western sycamore, elderberry, Gooding's black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), red willow (*Salix laevigata*), and white alder (*Alnus rhombifolia*). The cottonwood and willow trees were only observed within the Southwest Riparian Woodland habitat type, whereas Southern California black walnut (*Juglans californica*) was observed scattered within Southwest Riparian Woodland as well as Scrub Oak Chaparral. Western sycamore and white alder were observed within the Ornamental vegetation type as well as within Southwest Riparian Woodland and Scrub Oak Chaparral. Elderberry was observed within Scrub Oak Chaparral, Southwest Riparian Woodland, Elderberry Scrub, and Mixed Scrub vegetation types. Coast live oak appears to be the only native tree species that was ornamentally installed within the project site.

Wetlands and Other Jurisdictional Waters

The United States Army Corps of Engineers (USACE), under Section 404 of the federal Clean Water Act (CWA), regulates discharges of dredged or fill material into "waters of the United States." These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a connection to interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or it may be indirect (through a connection identified in USACE regulations). The USACE typically regulates as non-wetland waters of the United States any body of water displaying an "ordinary high water mark". To be considered a "jurisdictional wetland" under Section 404, an area must possess hydrophytic vegetation, hydric soils, and wetland hydrology. The CDFW, under Sections 1600 et seq. of the California Fish and Game Code, regulates alterations to lakes, rivers, and streams. A stream is defined by the presence of a channel bed and banks and at least an occasional flow of water. The Regional Water Quality Control Board (RWQCB) is responsible for the administration of Section 401 of the CWA through water quality certification of any activity that may result in a discharge to jurisdictional waters of the United States. The RWQCB may also regulate discharges to "waters of the State," including wetlands, under the California Porter-Cologne Water Quality Control Act.

There are two drainage features observed within the project site (see Figure 8), and they are identified as Drainages A and B for purposes of this analysis. Additionally, two ponds were observed within the project site. Although an official jurisdictional delineation was not conducted as part of the BRA for this project, the preliminary results of these drainage features are discussed below.

Drainage A is a natural drainage feature known as Cajon Wash. Cajon Wash is tributary to Lytle Creek, a tributary of the Santa Ana River. Vegetation within Cajon Wash consists of 30.28 acres of

sparse scalebroom alluvial scrub. The wash flows in a general north to south direction running parallel to I-215.

Drainage B is a natural drainage feature that is located south of Glen Helen Parkway. This feature is ephemeral, earthen bottom, and appears to flow in a northwest-to-southeast direction before connecting to Cajon Wash. Vegetation within Drainage B is dominated by Southwest Riparian Woodland.

Pond 1 and Pond 2 are man-made ponds that were completed prior to 1980 and are currently used for recreational fishing. The ponds are regularly stocked during fishing season with trout and catfish. Pond 2 supports 0.69 acre of Cattail Marsh.

There is an area to the south of Pond 2 that consists of Southwest Riparian Woodland. Given that the scope of the project does not envision impacts to the Pond 2 area, this area was not surveyed; however, this area would likely be considered jurisdictional by CDFW, RWQCB, and/or USACE. Additional jurisdictional areas may occur within the project site, and a formal jurisdictional delineation is recommended.

Wildlife

The abundant ornamental trees within the park and the dense native vegetation of the surrounding foothills are considered high-quality habitat for most native wildlife species, especially birds. There are many trees on the project site that could significantly contribute to nesting; therefore, measures should be considered to assure that direct and indirect project impacts are minimized. A total of 67 wildlife species were observed in (or foraging over) the project parcel during the April 2024 field survey. Appendix C lists the complete list of wildlife species observed or otherwise detected to be present. Wildlife species frequently observed during the field survey included: red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), black phoebe (*Sayornis nigricans*), bushtit (*Psaltirparus minimus*), California ground squirrel (*Otospermophilus beecheyi*), and western fence lizard (*Sceloporus occidentalis*). Each of these species commonly occurs in and around developed areas throughout Southern California.

No federally listed, State-listed, or other special-status species or sign were observed during the field survey.

Based on field observations and the location of the project parcel, the project site functions as a wildlife movement corridor. This is further discussed below within the Wildlife Movement section in the Impact Findings chapter.

Special-Status Species

This section discusses special-status species observed or potentially occurring within the project site. Legal protection for special-status species varies widely, from the comprehensive protection extended to listed threatened/endangered species to no legal status at present. The CDFW, USFWS, local agencies, and special-status groups publish watchlists of declining species.

Previously reported occurrences of special-status animals within 5 miles of the project site are displayed on Figure 6. Previously reported occurrences of special-status plants within 5 miles of the project site are shown on Figure 7.

Two species previously listed as CDFW Special Species of Concern with potential to occur on the project site (i.e., the pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*) and the northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) were removed from the special animal list by CDFW in April 2024 (CDFW 2024b).

Species on watch lists can be included as part of the special-status species assessment. Species that are candidates for State and/or federal listing and species on watchlists are included in the special-status species list. Inclusion of species described in the special-status species analysis is based on the following criteria:

- Direct observation of the species or its sign during previous biological studies;
- Sighting by other qualified observers;
- Records reported by the CNDDDB, published by the CDFW;
- Presence or location information for specific species provided by private groups; and/or
- Project site lies within the known distribution of a given species and contains appropriate habitat.

Appendix E identifies those special-status plant and animal species known to occur in the region and includes detailed information about each species' habitat, distribution, State and federal status designations, and probability of occurrence within the project site in a tabular format that includes a total of 65 species (19 plants, 3 invertebrates, 3 amphibian, 10 reptiles, 20 birds, and 10 mammals).

As stated in the Methodology section above, the background research included occurrence records from nine USGS topographic quadrangles surrounding the project site and the review of known occurrence records of special-status species within 5 miles of the project parcel. A search of nine USGS quadrangles covers a large, variable geographic and topographic area containing numerous habitat types not found within or around the project site. As such, many of the species identified in the literature review are not anticipated to occur in the project site due to the lack of suitable habitats. Due to the project site's proximity to the San Bernardino Mountains, species with narrow high-elevation requirements were excluded from further analysis because the project site elevation is below 2,220 feet (670 meters).

Of the 65 species found within the nine-quadrangle analysis, 17 have a special designation of either federally listed under the USFWS or State listed under the California Fish and Game Code. Fifteen (15) of the species identified in the literature review are not expected to occur on the project site due to historic and ongoing anthropogenic disturbances and the lack of suitable habitats for these species. The discussion below provides the background information on those species that have moderate to high probability to occur within the project site or those that were observed during the field survey. Additionally, a discussion for bald eagle and golden eagle are included due to the protections they are afforded under the 1940 Bald and Golden Eagle Protection Act.

As identified in Appendix E, the following federally or State-listed species are present in the survey area or have the potential to occur in the survey area: Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), slender-horned spineflower (*Dodecahema leptoceras*), arroyo toad (*Anaxyrus [Bufo] californicus*), southwestern willow flycatcher (*Empidonax traillii extimus*), California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), and State candidate species Crotch's bumble bee (*Bombus crotchii*).

Special-Status Plant Species

Santa Ana River Woollystar. Santa Ana River woollystar (SARW) is a federally and State listed endangered species and has a CRPR of 1B.1. This ranking indicates that this species is rare throughout its range and is seriously endangered in California, primarily due to habitat destruction for development on river floodplains and terraced fluvial deposits. Its habitat also includes coastal sage scrub and chaparral ecotones. It has a flowering period between May and September, and flowers most heavily in June. SARW can grow to up to 3 feet (1 meter) tall and has grey-green stems with clusters of large bright purple flowers.

Based on a review of the CNDDDB, the closest occurrence of this species is approximately 0.5 mile east of the project site (Occurrence No. 15). Occurrence No. 15 is noted as being extirpated due to the entire population being disked in 1985. The next closest occurrence is 1.25 miles south of the project site within Cajon Wash and was recorded in 2020 (Occurrence No. 4). This population of SARW seems to fluctuate in numbers and is known to have between 100 to 9,000 individuals at a time. Approximately 9,000 individuals were recorded within this population in 2013, and in 2020 the population had decreased to 100 individuals.

Habitat within the Cajon Wash is episodically impacted by large flood events that scour the sediment and remove the plants. This species is most abundant on benches subject to recent sheet flow and is most often associated with Scalebroom Alluvial Scrub vegetation communities.

Due to the project site occurring within the vicinity of an extant population also occurring within alluvial fan scrub habitat within Cajon Wash, there is moderate potential for SARW to occur within portions of the project site that fall within Cajon Wash. This species is not expected to occur in any other vegetation types present within the project site.

Parry's Spineflower. Parry's spineflower is an annual herb that is found on sandy or gravelly soils in coastal scrub, RAFSS, Mojavean desert scrub, and pinyon juniper woodland at elevations from 980 to 3,900 feet (298 to 1,188 meters), and flowers from April to June. It is endemic to southern California and occurs in San Bernardino, Riverside, and San Diego Counties. It has a CRPR of 1B.1, indicating that it is rare throughout its range in California and seriously endangered in California, primarily due to habitat destruction for development.

There are several known records in the Cajon Wash and Lytle Creek area. Based on a review of the CNDDDB, the closest occurrence of this species is directly adjacent to the east of Cajon Wash (Occurrence No. 1). Occurrence No. 1 is from 2011 and outlines two polygons, but the population

sizes are not noted. The project site encompasses Cajon Wash, which contains suitable alluvial fan sage scrub habitat for the species to occur.

Per CNDDDB records, there was an occurrence of this species in 2018, 0.5 mile south of the project site in the floodplain of Lytle Creek. This population was recorded within a matrix of chaparral/alluvial species that are very similar to species composition found on the project site, such as California buckwheat, chamise, and California sagebrush. Additionally, there was another known occurrence recorded in 1994 that was 0.25 mile downstream from the project site within Cajon Wash in which 10,000 individuals of this species were observed. While most of the project site lacks suitable open sandy/rocky soils within the densely vegetated chaparral and scrub communities of the surrounding foothills and the County Regional Park, the alluvial fan scrub community present within Cajon Wash is appropriate habitat for Parry's spineflower. There is a moderate probability for this species to occur within the Cajon Wash portion of the project site.

Slender-Horned Spineflower. Slender-horned spineflower is federally and State listed as endangered with a CRPR of 1B.1, indicating that it is rare throughout its range in California and seriously endangered in California. It is an annual herb that occurs in sandy cobbly riverbed alluvium fan sage scrub communities in a late seral stage of development. Its usual habitat is in shallow silty depressions on floodplain terraces and benches that receive infrequent overbank deposits (Wood and Wells 1996). This low-growing annual typically blooms between April and May, and its numbers vary greatly according to rainfall. The slender-horned spineflower prefers alluvial benches and terraces away from active channels in areas that receive little surface disturbance other than sheet or overland flows.

Within San Bernardino County, there are currently only eight occurrences of this species known to be extant within three drainages: the upper Santa Ana River, Lytle Creek, and Cajon Canyon. Based on a review of the CNDDDB, there is a known occurrence of slender-horned spineflower within the project site boundaries that was recorded in 1979 in Cajon Wash (Occurrence No. 3). Another occurrence record within the vicinity is from 2005, less than 2 miles north (upstream) of the project site, within Cajon Wash, in which a population of 5,000 individuals was observed. The most recent occurrence is within that same 2005 population area, and the number of slender-horned spineflower observed decreased to only 40 plants.

No slender-horned spineflower were observed within the project site during the survey. However, within the portions of the project site that fall within Cajon Wash, there is suitable sparsely vegetated sandy cobbly substrate. Due to the presence of suitable alluvial fan scrub habitat and substrate, as well as a recorded occurrence within the project site boundary, there is a high probability of this special-status species to occur.

Even so, slender-horned spineflower does not have a high probability to occur because the species prefers late-stage alluvial fan communities, and the habitat within the project site is categorized as pioneer to intermediate stage. Additionally, there are only 120 recorded CNDDDB observations throughout the State. While the recorded 2020 population was only 2 miles upstream, the habitat of that site and of the project site are in different stages of disturbance, either through anthropogenic or hydrological impacts.

Special-Status Animal Species

Arroyo Toad. The arroyo toad was listed as federally endangered by USFWS in 1994 and is considered a California Species of Special Concern by the CDFW. Generally, arroyo toads frequent washes, streams, and arroyos in semi-arid parts of the Southwest. Stream substrates range from sands to small cobble, with sandy banks supporting mulefat (*Baccharis salicifolia*) willow, white alder, and western sycamore. The arroyo toad breeds both within streams and in small backwater pools that form along the stream margins, usually in relatively shallow water. Low-gradient stream segments and alluvial streamside terraces with sandy or fine gravel substrates that support the formation of shallow pools and sparsely vegetated sand and gravel bars for breeding and rearing of tadpoles and juveniles are preferred. The species is short lived, with few toads living beyond 5 years of age (Thomson et al. 2016).

The project site is less than 1 mile south of critical arroyo habitat within Cajon Wash as designated by the USFWS in 2011 (Figure 9). This designated critical habitat for arroyo toad includes areas with hydrologic regimes that supply water to provide space, food, and cover needed to sustain eggs, tadpoles, metamorphosing juveniles, and adult breeding arroyo toads. For successful reproduction, toads must have breeding pools that are less than 6 inches deep and retain surface water for a minimum of 2 months for completion of development. One occurrence of the species was recorded 4.5 miles north of the project site in 2000 (CNDDDB) within Cajon Wash.

Overall, the project site provides the proper hydrologic regime, necessary soil substrate, channel topography, and sparse vegetation within Cajon Wash to support arroyo toad breeding. Critical habitat for this species is about 0.5 mile north of the project site within Cajon Wash. Additionally, while one species occurrence was documented 4.5 miles north of the project site, it was recorded in 2000 (CNDDDB) within Cajon Wash, with no occurrences recorded since. Therefore, arroyo toad has a moderate potential to occur within or in the immediate vicinity of the project site.

Southwestern Willow Flycatcher. The southwestern willow flycatcher (SWFL) is federally and State listed as endangered. A subspecies of the willow flycatcher family, it is threatened by reduced availability of riparian areas and water uses that alter flows in the rivers or streams. Although all three subspecies occur in California, only the SWFL breed in Southern California in the dense willow understory of riparian systems in summer. SWFL require shallow and/or standing water to maintain a microclimate with high humidity. The SWFL spends its winters in Central and South America. They are a small plain flycatcher that is like other *Empidonax* species in appearance, making it difficult to identify. Best identified by the vocalizations, SWFL has a diagnostic sneezy fitz-bew song. Reproduction is known to occur at Lake Isabella, Kern River, and Colorado River, generally below 3,000 feet (900 meters).

Suitable foraging and nesting habitat in the form of Southwest Riparian Woodland with dense understory of willow and poison oak is known to occur in the project site. Three CNDDDB occurrences were 4.7 miles north of the project site in the upper reach of the Cajon Wash. While this species was not detected during the field survey, it has a moderate potential to occur.

Coastal California Gnatcatcher. The coastal California gnatcatcher (CAGN) was listed as threatened by the USFWS and is a CDFW Species of Special Concern. This species is a nonmigratory songbird

that typically nests and forages in moderately dense stands of coastal sage scrub, especially when dominated by California sagebrush. Moderately and sparsely vegetated habitats and edges are more often occupied than dense scrub. CAGN is rarely found above 2,500 feet (762 meters) in elevation or in chaparral habitats. Mulefat scrub and ruderal habitats near coastal sage scrub are often occupied. Use of alternative habitats such as these and other scrub, riparian, and wooded habitats increases following the nesting season.

Suitable foraging and nesting habitat in the form of Mixed Scrub occurs within the project site. CAGN is known to occur in the area. A CNDDDB occurrence (Occurrence No. 822) from 2000 documents this species within the southern portion of the project site. While this species was not detected during the field survey, it has a high potential to occur.

Least Bell's Vireo. The least Bell's vireo (LBVI) is a small, gray, long-tailed insectivorous songbird, and is federally and State listed as endangered. The species breeds in riparian woodland and scrub habitats in southern and central California and is particularly dependent on mulefat as a nesting and foraging substrate. The LBVI primarily winter in southern Baja California. LBVI numbers in California precipitously declined during the 20th century because of the destruction and degradation of riparian corridors for agriculture and later urban development, as well as brood parasitism by the brown-headed cowbird (*Molothrus ater*). Conservation and restoration of riparian habitats, along with concerted cowbird trapping efforts, have led to a steady increase in vireo numbers over the last several decades.

While LBVI were not detected during the field survey, suitable foraging and nesting habitat is present within Southwest Riparian Woodland habitats. The closest occurrence (Occurrence No. 329) is about 0.5 mile west of the project site. Occurrence No. 329 confirmed a breeding pair in 2007. Another occurrence 1.25 miles east of the project site (Occurrence No. 330) documents an LBVI in 2007. The species has a high probability to occur within the project site.

San Bernardino Kangaroo Rat. San Bernardino kangaroo rat (SBKR) is a federally and State-listed endangered species that occurs on alluvial floodplains of the Santa Ana River and its tributaries and adjacent upland habitats in the San Bernardino and San Jacinto Valleys in San Bernardino and Riverside Counties. The Santa Ana River supports suitable habitat and one of the largest extant populations of the species, and as such, critical habitat was designated in the Santa Ana River Wash by the USFWS (McKernan 1997). SBKR prefers early and intermediate successional stages of alluvial fan scrub vegetation, which is a plant community that occurs on alluvial terraces and braided river channels in Southern California that supports intermixed coastal sage scrub and chaparral species. SBKR excavates burrows in friable sandy soils and are in greatest abundance in areas of sandy soils with 30 to 50 percent cover of perennial plant species and minimal density of nonnative annual grass cover (McKernan 1997; MEC 2000). SBKR occur in these alluvial sandy soils with this sparse vegetation cover, and favor areas within washes that have cover of alluvial fan scrub habitat.

There are 24 known records of SBKR from 1982 through 2017 within 5 miles of the project site, and most were in alluvial fan scrub habitat. Two occurrences (Occurrence Nos. 42 and 65) are mapped within the project site. Occurrence No. 42 details individuals captured between 1908 and 2002 (1 to 37 individuals per year). Occurrence No. 65 details individuals captured between 1987 through 2015

(1 to 7 individuals per year). A population of SBKR is known to occur within the Cajon Wash, directly adjacent to the northern and eastern boundary of the project site.

Critical habitat for this species is present within the project site (Cajon Wash), as noted on Figure 9. Outside of Cajon Wash, conditions within the County Regional Park are not conducive to SBKR because the presence of dense, evergreen vegetation with closed canopies does not facilitate usage. As such, SBKR is not expected to occur within any landscaped, developed, scrub oak, or chaparral area within the project site, but has a high probability of occurrence within the Cajon Wash portions of the project site.

Small mammal trapping is recommended to ascertain the presence or absence of SBKR within the portions of the project site that include or abut the adjacent Cajon Wash.

Crotch's Bumble Bee. Crotch's bumble bee (CBB) was designated a candidate species for listing under CESA on June 18, 2019, following a petition from the Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety filed in October 2018. However, in the Sacramento Superior Court for Case No. 34-2019-80003216 (*Almond Alliance of California v. California Department of Fish and Wildlife*, Sacramento Superior Court, November 13, 2020), the Candidate listing was not deemed valid as it was noted that insects are not eligible for listing under CESA. Later in 2022, the Third Appellate Court District in California ruled that the bumble bee could be listed under the definition of fish, as the term fish was already broadly applied, inclusive of invertebrates. This reversed the 2020 ruling and, as such, CBB is now considered a candidate species for listing as threatened under CESA.

CBB is a large, social bee that can be distinguished by its square-shaped face and rounded ankle on the midleg. Females have a black head and face and display black color on their mid and bottom thorax. Males display yellow hair on their face, a black stripe mid-thorax, and the abdomen should have a yellow coloring. CBB occurs primarily in California, including the Mediterranean region, the Pacific Coast, the Western Desert, and adjacent foothills throughout most of the State's southwestern region. This species inhabits grasslands and shrublands and requires a hotter and drier environment than other bumble bee species. Typical food sources include milkweed, lupines, sages, phacelias, clarkias, poppies, and wild buckwheat. Nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees. Only mated queens overwinter and conduct all the foraging and care for the colony in early spring until the first workers emerge and assist with these duties. CBB has declined severely in range and abundance due to the loss of grasslands and other foraging and nesting habitat to urbanization and intensive agriculture, aridification caused by climate change, and the increased use of insecticides.

During the April 10, 2024, field survey, bumble bees (*Bombus* sp.) were observed within mixed scrub just south of the Glen Helen Amphitheater. Additional bumble bees were noted foraging on California buckwheat in the Cajon Wash. The project site provides suitable foraging and nesting habitat for this species because it hosts a variety of wildflowers such as California encelia, arroyo lupine (*Lupinus succulentus*), and black sage. Based on a review of the CNDDB, the closest occurrence of this species is approximately 1.7 miles southeast of the project site (Occurrence No. 182), and was documented in 1945. However, recent observations for this species were reported in

Bumble Bee Watch data in 2021 south of the I-10 freeway (Xerces Society n.d.). While this species does not have a more recent CNDDDB occurrence record in the vicinity of the project site, the probability of CBB occurring within the project site is moderate.

Fully Protected Under the Bald and Golden Eagle Protection Act of 1940

Bald Eagle (Nesting and Wintering)

The bald eagle (*Haliaeetus leucocephalus*) is State listed as endangered and a CDFW Fully Protected Species. Delisted in 2007 from the FESA, this species is also afforded additional protections under the Bald and Golden Eagle Protection Act. Adults of both sexes show white heads and tails, and both adults and immature birds show large yellow bills and dark bodies. This large raptor is most often found near water bodies such as rivers, lakes, and estuaries. Its diet is comprised primarily of fish, supplemented by birds and small mammals; individuals may frequently commandeer prey from other raptors such as ospreys (*Pandion haliaetus*). This species suffered steep declines in the 20th century, largely because of chemical bioaccumulation, particularly the insecticide dichloro-diphenyl-trichloroethane (DDT); it was one of the first species listed under the FESA. However, conservation measures, including the banning of DDT and the establishment of a captive breeding program, have resulted in sustained population increases, including in urban areas, and the bald eagle was federally delisted in 2007.

Marginal habitat in the form of small man-made ponds stocked with nonnative fish (trout [*Oncorhynchus* sp.] and catfish [*Siluriformes* sp.]) occur within the project site. This species is known to inhabit areas within the San Bernardino Mountains near large bodies of water and breed annually at Silverwood Lake, Lake Arrowhead, and Big Bear Lake. Although there are no CNDDDB occurrences within 5 miles of the project site, three verified records of a single adult were documented in 2016, 2018, and 2019 with photographs (Cornell Lab of Ornithology 2024). Bald eagle was not observed during the field survey and has not been recorded nesting within the project site. However, the project site does contain suitable habitat in the form of large mature trees and stocked ponds, which could support migrating individuals. Bald eagle has a low potential of occurring in the project site but is not expected to breed.

Golden Eagle (Nesting and Wintering)

The golden eagle (*Aquila chrysaetos*) is a CDFW Fully Protected Species and is also afforded additional protections under the Bald and Golden Eagle Protection Act. This species forages over rolling foothills, mountain areas, sage-juniper flats, and desert. It needs open terrain for hunting, grasslands, deserts, savannas, and early successional stages of forest and shrub habitats. It nests on cliffs of all heights and in large trees in open areas.

Suitable foraging habitat for golden eagle exists in the form of open habitats in the general vicinity. Although this species is known to occur within the San Bernardino Mountains, there were no records of golden eagle produced by the nine-quadrangle CNDDDB search. Golden eagle was not observed during the field survey nor does the project site contain suitable nesting habitat. The site is within the migratory flight path of golden eagles. One to three individuals have been recorded flying over the site in 1991, 2003, 2007, 2009, 2010, 2011, 2016, 2018, and 2020 (Cornell Lab of Ornithology 2024). However, project activities will not impact the flight space above the project site;

therefore, there is no impact to migration or dispersal of this species. Due to this, golden eagle has a low potential of occurrence.

Non-Listed Special-Status Species

Western Burrowing Owl

The western burrowing owl (*Athene cunicularia hypugaea*; BUOW) is a CDFW Species of Special Concern. This owl is a mottled, brownish, sand-colored, dove-sized raptor with large yellow eyes, a rounded head lacking ear tufts, white eyebrows, and long legs compared to other owl species. It is a ground-dwelling owl typically found in arid prairies, fields, and open areas where vegetation is sparse and low to the ground. The BUOW is heavily dependent upon the presence of mammal burrows, with California ground squirrel burrows being a common choice, in its habitat to provide shelter from predators and inclement weather, and to provide a nesting place (Coulombe 1971). They are also known to make use of man-made structures for burrows such as concrete culverts and pipes.

The BUOW is often found standing on dirt mounds at the entrance to a burrow or perched on fence posts or other low-to-the-ground perch from which they hunt for prey. BUOW frequently hunt by hovering in place above the ground and dropping on their prey from above. They feed primarily on insects, but will also take small rodents, birds, and reptiles. They are active during the day and night but are considered a crepuscular owl, generally observed in the early morning hours or at twilight.

The breeding season for BUOW is February 1 through August 31. Up to 11, but typically 7 to 9, eggs are laid in a burrow, abandoned pipe, or other subterranean hollows where incubation is complete in 28 to 30 days (Remsen 1978). Young BUOW fledge in 44 days. The BUOW is considered a migratory species in portions of its range, which includes western North America from Canada to Mexico, and east to Texas and Louisiana. BUOW populations in California are locally resident and regionally migratory.

Throughout its range, the BUOW is vulnerable to habitat loss, predation, vehicular collisions, and destruction of burrow sites and the poisoning of ground squirrels (Grinnell and Miller 1944; Remsen 1978). BUOW has disappeared from significant portions of their range in the last 15 years. Overall, nearly 60 percent of the breeding groups of owls known to have existed in California during the 1980s had disappeared by the early 1990s (California Burrowing Owl Consortium 1993). The BUOW was petitioned under the CESA to be listed as threatened or endangered and is in review by the California Fish and Game Commission as of March 2024. The BUOW is a migratory bird protected by international treaty under the Migratory Bird Treaty Act of 1918 (MBTA) and by State law under the California Fish and Game Code (California Department of Fish and Game Code Nos. 3513 and 3503.5).

Suitable habitat for burrowing owls exists in sections of the project site, particularly in the open ruderal habitat within the campground area in the northeastern portion of the project site and along the terraces of Cajon Wash. These areas are generally flat, with sparse tree coverage, and sandy soils covered in low nonnative annual species. Several ground squirrel burrows were observed throughout these areas as well.

There are no known BUOW occurrences within 5 miles of the project site, and BUOW was not observed during the field survey. California ground squirrel burrows were noted within the project site, and these burrows could potentially become inhabited by BUOW. Given the apparent suitable habitat found on and adjacent to the site, this species has a moderate potential to occur on site.

California Glossy Snake

California glossy snake (*Arizona elegans occidentalis*) is a CDFW Species of Special Concern. Range for this species reaches from California's central San Joaquin Valley south to the border of Mexico and east to the Mojave and Sonoran Desert region. California glossy snake prefers open arid scrub, rocky washes, grasslands, and chaparral with loose soils below 6,000 feet (1,828 meters) elevation. This species is nocturnal and has a specialized nose to make its own burrow in which to hide during the daytime. California glossy snake is a medium-sized snake with smooth, small glossy scales and a faded appearance. Coloration is pale tan with a soft pattern of olive-brown blotches on the dorsal side and pale belly. Reproduction and egg laying occur in June and July with a clutch of 3 to 23 eggs hatching between September and October.

CNDDDB Occurrence No. 86 details one yearling found under artificial cover in 2016 about 0.6 mile east of the project site. Occurrence No. 90 details one adult California glossy snake in 2013 about 2.2 miles southwest of the project site. Occurrence No. 87 details one yearling about 0.8 mile to the east in 2007. In 2003, Occurrence No. 88 details one yearling about 2.7 miles to the southeast. Additionally, the earliest record of occurrence (Occurrence No. 85) details one collected in 1968 and another in 1973 within the project site. Due to this, the California glossy snake has a moderate potential to occur.

Coast Horned Lizard

Coast horned lizard (*Phrynosoma blainvillii (coronatum)*) is a CDFW Species of Special Concern. Coast horned lizard prefers sandy soil in open areas such as washes or floodplains in coastal California and Baja California below 8,000 feet (2,438 meters) elevation. The coast horned lizard is a wide, flat-bodied lizard with a short tail and large horns on the head. Coloration is reddish, brown, yellow, or gray, with alternating light and dark blotches on the back and large dark spots on the sides of the neck. The belly is a uniform cream, beige, or yellow, with smooth scales. Coast horned lizard is distinguished from other horned lizard species by two rows of pointed fringe scales on the lower part of each side of the body. This species relies on cryptic coloring to avoid predators and is known to partially bury itself in loose soil. Coast horned lizard feeds on invertebrates but is dependent on native California harvester ants (*Pogonomyrmex californicus*) as their main food source. Horned lizards avoid introduced ant species from landscaping, resulting in a reduction of food availability which is a limiting factor in habitat adjacent to development. Reproduction and egg laying occurs from May to June. Some coast horned lizard females may lay two clutches of eggs in a year. A clutch of 6 to 21 eggs hatch from August to September.

There are multiple CNDDDB occurrences less than 2 miles from the project site with the most recent (Occurrence No. 696) of one lizard observed behind a fire station in 2009. Occurrence 324 details one juvenile in Cajon Wash near the Glen Helen Rehabilitation Facility in 2008, just north of Institution Road. Historical records (Occurrence Nos. 324, 323, and 292) detail one adult in 1964, two adults and one juvenile observed in 1990, and one individual observed in 1988. Occurrence No.

770 details an individual 1.5 miles northwest of the project site in 1903 at Lytle Creek. There is suitable habitat to support this species within sandy soils in Mixed Scrub and Scalebroom Alluvial Scrub; therefore, the coast horned lizard has a moderate potential to occur.

Red Diamond Rattlesnake

Red diamond rattlesnake (*Crotalus ruber*) is a CDFW Species of Special Concern. The range for this species is restricted to Southern California, and it is found from coastal Orange and San Diego to western San Bernardino, Riverside, and Imperial Counties. This species prefers arid rocky scrub, chaparral, and oak woodlands, but will use grassland and cultivated areas. Red diamond rattlesnakes are a heavy-bodied pit viper with a triangular head and long body reaching 2 to 4 feet in length. Known for its reddish-tan coloration, this snake can vary in color from pink, reddish-brown, or brick red on the dorsal side, with a plain belly. Strong diamond-shaped blotches outlined with light edges mark the back and end with a black-and-white-striped tail with a rattle. Primarily nocturnal, this snake hunts small mammals by ambush and injects a strong venom via long folding fangs into its prey. Reproduction occurs in spring with males actively searching for females. Female rattlesnakes are ovoviviparous, brooding their fertilized eggs inside the body; they give birth to 3 to 20 live young. Young rattlesnakes are born July through September.

There are no CNDDDB occurrences for this species; however, there is suitable habitat to support this species within Mixed Scrub, Scalebroom Alluvial Scrub, and Chaparral. Therefore, the red diamond rattlesnake has a moderate potential to occur.

Coastal Whiptail

Coastal whiptail (*Aspidoscelis tigris stejnegeri*) is a CDFW Species of Special Concern. The coastal whiptail is one of three subspecies of whiptail that occur in California. Found in coastal Southern California, this lizard occurs from Ventura County to San Diego County, reaching into western Riverside and San Bernardino Counties, and down into Baja California. The coastal whiptail lives in a variety of semiarid, open habitats with sparse vegetation such as desert shrubland, chaparral, open dry forest, and riparian woodland edges from sea level to 7,000 feet. This species is a medium-sized, slim-bodied lizard with a pointed snout and long tail. Overall coloration is gray brown blending into tan to orange along the back into the tail. Strongly patterned, irregularly-lined markings occur on the dorsal side, with a pale splotched belly and pale to orange throat. It is an active diurnal lizard, often seen darting between cover foraging for insects, arachnids, and smaller lizards. Reproduction requires both sexes and occurs in May with females laying one clutch of eggs shortly thereafter. Young hatch between May to August and are distinguished by their blue tails.

There are three CNDDDB records about 2 miles south of the project site. Suitable habitat to support this species occurs within Mixed Scrub, Scalebroom Alluvial Scrub, and Southwest Riparian Woodland. Due to this, coastal whiptail has a moderate potential to occur.

Orange-Throated Whiptail

Orange-throated whiptail (*Aspidoscelis hyperythra*) is a CDFW Species of Special Concern. The orange-throated whiptail is limited to Southern California and Baja California. This lizard is found from Orange to San Diego County and partly into western Riverside and San Bernardino Counties.

The orange-throated whiptail lives in semi-arid scrub with loose sandy or rocky soils, including washes, streambeds, rocky hillsides, and chaparral from sea level to 2,000 feet (600 meters). This species is a medium-sized, slim-bodied lizard with a pointed snout and long tail. The back is dark brown to grayish with a plain cream belly and pale yellow or whitish stripes along the length of the body and a mid-dorsal stripe merging onto the tail. This active diurnal lizard forages for insects, arachnids, and smaller lizards. Males are territorial, defending against other males with threat displays. Reproduction occurs in June with females laying one clutch of eggs. Young hatch between June to July and are distinguished by their blue tails.

There is one CNNDDB occurrence record (Occurrence No. 355) of an adult approximately 4 miles south of the project site in 2004. Suitable habitat to support this species occurs within Mixed Scrub and Scalebroom Alluvial Scrub. The orange-throated whiptail has a moderate potential to occur.

Mountain Lion

Mountain lion (*Puma concolor*) is currently a State Listed Candidate for listing as threatened. Mountain lion is discussed further below within the Wildlife Movement section in the Impact Findings chapter.

Cooper's Hawk (Nesting)

Cooper's hawk (*Accipiter cooperii*) is a CDFW Special Animal when breeding. This species can be found year-round across much of the United States. In California, it is present throughout the entirety of the State apart from some of the driest and easternmost deserts. It is a versatile and adaptive species, nesting and foraging in oak, coniferous, and riparian woodlands, coastal sage scrub and chaparral, grasslands, wetlands, and agricultural areas, and it is a common resident in suburban and even many urban areas. This is a small, long-tailed, narrow-winged raptor that primarily hunts smaller birds and occasional mammals, which it captures by ambush. Adults have gray backs and black caps with fine chestnut barring on the underbelly. Immature birds have dark brown backs and heavily streaked underparts. They primarily nest in large trees with dense foliage that they use to conceal their nests from potential predators.

Suitable nesting and foraging habitat for this species is present throughout the project site. This species was observed within large trees located between the Glen Helen Amphitheater and the Cajon Wash. There are no CNDDDB occurrences within 5 miles of the project site.

Southern California Rufous-Crowned Sparrow

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) is a CDFW Special Animal. This species prefers hot, dry, rocky hillside with shrub cover that is not too dense in the southwest. It is a year-round resident in Southern California. These bulky, long-tailed sparrows forage on the ground beneath sparse shrubs and grasses. An attractive sparrow with reddish upper parts, brown backs, and neat gray underparts, accentuated by a white eye ring and a white malar or whisker stripe on the face.

Southern California rufous-crowned sparrow was not observed during the field survey nor are there any CNDDDB occurrences within 5 miles of the project site. Despite this, suitable foraging and nesting

habitat are available for this species in the form of Mixed Scrub and steep hillsides. Due to the amount of suitable habitat within and adjacent to the project site, this species has a moderate potential of occurring.

Bell's (Sage) Sparrow

Bell's (Sage) sparrow (*Artemisospiza belli belli*) is a CDFW Special Animal. This medium-sized sparrow with a clean gray head is emblematic of California's coastal sage and chaparral. They also occur in Baja California, the Mojave Desert, and on San Clemente Island, California (a federally threatened subspecies). Like the very similar sagebrush sparrow (*Artemisospiza nevadensis*), these birds spend much of their time foraging for insects and seeds on the ground underneath shrubs. This species is distinguished by the long tail, white breast with a dark central spot, white eye ring, and black and white mustache stripe. Bell's Sparrows breed in coastal sagebrush, chaparral, and other open, scrubby habitats. This species nests mainly within shrubs, but also in bunchgrasses and occasionally on the ground under shrubs.

The project site contains suitable foraging and nesting habitat in the form of Chaparral and Mixed Scrub. The closest CNDDDB occurrence record (Occurrence No. 3) is from 1997, when 17 individuals were observed approximately 1 mile west of the project site. In addition to CNDDDB, two verified records were within the project site in 2010, one in 2021, and multiple individuals about 1 mile east near California State University, San Bernadino in 2013, 2015, 2019, 2023, and 2024 (Cornell Lab of Ornithology 2024). Due to the amount of suitable habitat within and adjacent to the project site, this species has a high potential of occurring.

Ferruginous Hawk (Wintering)

Ferruginous hawk (*Buteo regalis*) is a CDFW Special Animal. Ferruginous hawks are a large pale Buteo with long pointed wings and large heads. They are distinguished by reddish legs, chestnut back, white belly, and tail. Ferruginous hawks prefer open country in arid habitat, including grasslands, prairie, sagebrush steppe, and scrubland. This species is known to hunt small mammals such as jackrabbit, ground squirrel, and pocket gopher. Ferruginous hawk is a common migrant and winter resident in Southern California where they will occasionally hunt or roost in small groups. This species is frequently seen perched on power poles along roads. There are no breeding records in California; the ferruginous hawk breeds from Oregon to Canada.

Ferruginous hawk was not observed during the field survey. However, suitable roosting and foraging habitat for this species is present throughout the project site in the form of open scrub, nonnative grassland, chaparral, and hundreds of trees, both ornamental and native. Given the suitable habitat found on and adjacent to the site, this species has a moderate potential to occur.

Merlin (Wintering)

The merlin (*Falco columbarius*) is a CDFW Special Animal and an uncommon fall migrant and winter visitor to southwestern California. Merlin is found in open country. The species is known to breed in forested openings, edges, and along rivers across northern North America. During migration and winter, this species is found in open forests, grasslands, and especially coastal areas. Merlins are energetic predators who hunt in open areas looking for their prey of small birds and insects. Merlins

are a small falcon with dark upper parts, underwings, and a tail with narrow white bands. The breast is heavily streaked. Adult males are slaty gray to dark gray; females and immatures are browner. The face often lacks a prominent malar or “mustache” stripe common in other falcon species.

Merlin was not observed during the field survey. However, suitable roosting and foraging habitat for this species is present throughout the project site in the form of riparian woodlands, coastal sage scrub, chaparral, and hundreds of trees, both ornamental and native. There is one CNDDDB occurrence record (Occurrence No. 37) southeast of the project site that documents two merlins in 2013. Given that suitable habitat is on and adjacent to the site, this species has a moderate potential to occur.

Yellow-Breasted Chat (Nesting)

Yellow-breasted chat (*Icteria virens*) is a CDFW Species of Special Concern. Chats are the largest species of wood-warbler and are distinguished by olive green above with a white belly, bright yellow breast, and bold face markings. The face is gray, with a white eye ring that connects to the bill, forming “spectacles.” It occurs in riparian thickets of willow and brushy tangles near watercourses. Yellow-breasted chat nests in riparian woodland throughout much of western North America. During migration, the chat usually stays in low, dense vegetation but may sometimes use suburban habitats. It is known to winter in Central America.

Yellow-breasted chat was not observed during the field survey. However, it is known to breed in riparian thickets regionally. In addition, suitable foraging and nesting habitat occurs throughout the project site in the form of southwest riparian woodland. There are no CNDDDB occurrences within 5 miles of the project site. Given the suitable habitat found on and adjacent to the site, yellow-breasted chat has a high potential to occur.

Loggerhead Shrike

Loggerhead shrike (*Lanius ludovicianus*) is a CDFW Species of Special Concern. It is a resident and winter visitor in lowlands and foothills throughout California and prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Highest density occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Additionally, loggerhead shrikes rarely occur in heavily urbanized areas, but can often be found in open cropland and on the edges of denser habitats. A thick-bodied songbird, shrikes have a large, blocky head and a thick bill with a small hook. The black mask, wing tips and long tail contrast strongly with the light gray body.

Loggerhead shrike was not observed during the field survey nor are there any CNDDDB occurrences within 5 miles of the project site. Despite this, suitable foraging and nesting habitat occurs throughout the project site in the form of open scrub, chaparral, utility lines, and other perches. Given the suitable habitat found on and adjacent to the site, this species has moderate potential to occur on site.

Vermilion Flycatcher (Nesting)

Vermilion flycatcher (*Pyrocephalus rubinus*) is a CDFW Species of Special Concern. A medium-sized, stocky flycatcher found in open desert scrub, on the edges of lightly cultivated fields or parks, in riverine woodlands, and in shrubby tropical lowlands. They are especially reliant on stream corridors within the scrub ecosystem, in areas where willow, sycamore (*Platanus* spp.), cottonwood, and mesquite (*Prosopis* sp.) grow. Vermilion flycatcher spends long periods sitting on exposed perches such as the tops of shrubs or fence lines to catch flying insects. Adult males are brilliant red with a dark brown mask through the eyes and brown back, wings, and tail. Females and immatures are gray-brown with faint streaks on the breast and a salmon-red blush on the underparts. Vermilion flycatchers are sensitive to impacts from human water use and development, which have contributed to local declines in the lower Colorado River Valley. Multiple vermilion flycatchers were visually observed in the ornamental trees in the turf-covered areas of the park during the field survey and are therefore present.

Yellow Warbler (Nesting)

Yellow warbler (*Setophagia petechia*) is a CDFW Special Species of Concern. This small yellow songbird has a chestnut or red-brown streak on their head going from their beak to their back with streaks on their breast. The yellow warbler is a resident in riparian woodlands in the western United States and northwestern Baja California. It is more widespread in brushy areas and woodlands during migration. During the winter, it occurs from western Mexico to northern South America. Migrants are widespread and common.

Suitable foraging and nesting habitat in the form of Southwest Riparian Woodland occurs within the project site. Despite the lack of CNDDDB occurrences within 5 miles of the site, this species was observed within the Southwest Riparian Woodland adjacent to Pond 2 and is therefore present.

Los Angeles Pocket Mouse

Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) is a CDFW Special Species of Concern. Restricted to Southern California, this species prefers grasslands, alluvial sage scrub, and coastal sage scrub. Highest densities of Los Angeles pocket mouse are found in rocky or gravelly areas with a yucca overstory in desert scrub or pine-juniper habitats. A small nocturnal rodent, these mice prefer loose sandy or gravelly soils that they can dig burrows. Their main food source is forb and grass seeds, which this species gathers in distinctive fur-lined cheek pouches. Los Angeles pocket mouse is known to store seeds in underground caches.

There are two CNDDDB occurrence records (Occurrence Nos. 43 and 25). Occurrence No. 43 details three adults recorded in 2003 just 1.5 miles east of the project site. Occurrence No. 25 details three adults that were captured during 900 trap-nights of effort south of the project site in 1990. Suitable alluvial sage scrub habitat occurs for Los Angeles pocket mouse within the project site, and this species has a high potential of occurring. Small mammal trapping would be necessary to determine the presence of the Los Angeles pocket mouse on the project site within and adjacent to Cajon Wash.

Western Yellow Bat and Other Bat Species

Western yellow bat (*Lasiurus xanthinus*) is a CDFW Special Species of Concern. It is found mostly in desert, desert riparian areas, and riparian woodland habitat of the southwest United States, but it is also expanding its range with the increased usage of native and nonnative ornamental palms in landscaping. Individuals typically roost amid dead fronds of palms in desert oases but have also been documented roosting in cottonwood trees. Western yellow bat forages over many habitats.

Western yellow bat was not observed during biological surveys conducted for the project; however, no focused bat surveys were conducted. Additionally, there may be potentially suitable foraging in the riparian habitat for this species within the project site. One CNDDDB occurrence record from 1992 documents two individuals approximately 3.5 miles south of the project site. Suitable foraging and roosting habitat occur for this species within the project site, and this species has a moderate potential of occurring.

Section 4150 of the California Fish and Game Code protects nongame mammals, which are defined as any naturally occurring mammal in California that is not a game mammal, fully protected mammal, or fur-bearing mammal. Nongame mammals, which include bats, bat roosts, and maternity colonies, may not be taken or possessed except as provided by the California Fish and Game Code or in accordance with applicable regulations.

There are large native trees including coast live oak, Mexican fan palm (*Washingtonia robusta*), and Fremont cottonwood on the project site that could provide habitat to native bats in the form of roosts, foraging, or maternity sites (in the case of foliage-dwelling bat species). Bats breed in late spring/early summer (April–August), with foliage-dwelling species utilizing peeling bark, thick clumps of leaves, or cavities in trees often alone or in small maternity colonies. Foliage-dwelling bat species with the potential to occur within the project site include pallid bat (*Antrozous pallidus*) and western yellow bat. No known bat maternity sites have been documented within or in proximity to the project site. However, due to their migratory nature, their small colony size, and general difficulties in assessing foliage-dwelling bat species, gaps in local bat data are anticipated.

Bats attempting to roost or breed in trees can be subject to impacts from tree removal or trimming activities (e.g., the trimming of palm fronds). Because bats have low reproductive turnover (i.e., most species have only one young per year) and high juvenile mortality, it can take many years for a colony or population of bats to recover from any impacts that result in mortality or even a decrease in reproductive ability.

IMPACT FINDINGS

VEGETATION AND HABITAT IMPACTS

Permanent direct impacts to ornamental or ruderal vegetation are expected to occur during project grading and construction activities. Project construction may also contribute to the incremental loss of native vegetation communities in the vicinity of the project site and region overall. At the time of this report submittal, the project plans have not been finalized, and as such, while the project may result in direct impacts to native habitats or sensitive natural communities, exact impacts and specific mitigation cannot yet be determined.

Under provisions of Section 7(a)(2) of the FESA, a federal agency that permits, licenses, funds, or otherwise authorizes a project activity must consult with the USFWS to ensure that its actions would not jeopardize the continued existence of any listed threatened or endangered species or destroy or adversely modify critical habitat. The USFWS designates threatened or endangered species that are at risk of extinction and may also adopt recovery plans that identify specific areas that are essential to the conservation of a listed species. Critical habitat areas that may require special management considerations or protections can also be designated.

CESA is administered by the CDFW and prohibits the “take” of plant and animal species identified as either threatened or endangered in the State of California by the Fish and Game Commission (Fish and Game Code Sections 2050 to 2097). “Take” is defined as to hunt, pursue, catch, capture, or kill. Sections 2091 and 2081 of CESA allow the CDFW to authorize exceptions to the prohibition of “take” of State-listed threatened or endangered plant and animal species for purposes such as public and private development. The CDFW is empowered to issue Incidental Take Permits where the potential for *take* exists, but it is not the purpose of the activity and can be mitigated or minimized to a satisfactory extent.

As described in Appendix E, three federal or State-listed endangered plant species have a moderate probability of occurrence within the project site due to suitable habitat and soils occurring within the Cajon Wash portion of the site. However, because the project plans have yet to be finalized, it is uncertain whether the proposed project activities would have direct impacts on federally listed endangered plant species.

There is USFWS-designated critical habitat present on the project site for SBKR. As with the special-status plants, it is uncertain whether the project activities would have any impact on designated critical habitat within the project site. The USFWS requires formal consultation to ensure that a proposed project’s actions would not jeopardize the continued existence of any listed species or destroy or adversely affect listed species’ habitats.

NON-LISTED SPECIAL-STATUS SPECIES

The following non-listed special-status species identified in Appendix E were observed on the project site during the April 10, 2024, field survey: Cooper’s hawk, yellow warbler, and vermilion flycatcher.

The following non-listed special-status species identified in Appendix E have a moderate or high probability to occur on the project site in areas of suitable habitat: Parry's spineflower, coast horned lizard, California glossy snake, red diamond rattlesnake, coastal whiptail, orange-throated whiptail, ferruginous hawk, merlin, yellow-breasted chat, Bell's (sage) sparrow, loggerhead shrike, San Diego desert woodrat (*Neotoma lepida intermedia*), Los Angeles pocket mouse, and western yellow bat.

The following non-listed special-status species identified in Appendix E have a low probability to occur or are not expected to occur on the project site because of the lack of suitable habitat: singlewhorl burrobrush (*Ambrosia monogyra*), horn's milk-vetch (*Astragalus hornii* var. *hornii*), Nevin's barberry (*Berberis nevinii*), Palmer's mariposa-lily (*Calochortus palmeri* var. *palmeri*), intermediate mariposa-lily (*Calochortus weedii* var. *intermedius*), white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*), Mojave tarplant (*Deinandra mohavensis*), mesa horkelia (*Horkelia cuneata* var. *puberula*), California satintail (*Imperata brevifolia*), short-joint beavertail (*Opuntia basilaris* var. *brachyclada*), beaver dam breadroot (*Pediomelum castoreum*), southern jewelflower (*Streptanthus campestris*), San Bernardino aster (*Symphyotrichum defoliatum*), Greta's aster (*Symphyotrichum greatae*), western bumble bee (*Bombus occidentalis*), Southern California legless lizard (*Anniella stebbinsi*), two-striped garter snake (*Thamnophis hammondi*), San Bernardino ringneck snake (*Diadophis punctatus modestus*), San Diego banded gecko (*Coleonyx variegatus abbotti*), long-eared owl (*Asio otus*), California horned lark (*Eremophila alpestris actia*), American badger (*Taxidea taxus*), southern grasshopper mouse (*Onychomys torridus ramona*), western mastiff bat (*Eumops perotis californicus*), and pocketed free-tailed bat (*Nyctinomops femorosaccus*).

These species all have a limited population distribution in Southern California, and development is further reducing their ranges and numbers. These animals have no official State or federal protection status but require consideration under CEQA.

Burrowing owl has a moderate probability of occurrence within the project site. Burrowing owls occur in open country in much of North America, and usually occupy former ground squirrel burrows in open dry grasslands, agricultural and range lands, and other developed/ornamental areas. They often utilize man-made structures (e.g., culverts, irrigation ditches) and avoid tall, thick vegetation and brush. While the project site does have disturbed soils and areas with minimal vegetation cover conducive to burrowing owl usage, no burrows or signs of burrowing owls were observed during the field survey. Given the probability of occurrence is "Moderate", LSA recommends the following impact avoidance measure:

- **Pre-Construction Presence/Absence Survey:** 14 days prior to commencement of the proposed project activities, a qualified biologist will conduct a Presence/Absence survey of suitable habitat on the project site as well as survey for signs of scat/burrow usage. If burrowing owls/active burrows are directly observed within the project site during the pre-construction survey, a suitable buffer will be placed around the active burrow as determined by a qualified biologist and avoided until the owl(s) leave on their own accord. Additionally, if burrowing owl is found during the pre-construction survey, the project proponent will need to inform the CDFW and USFWS and prepare a Burrowing Owl Protection and Relocation Plan for approval by these agencies prior to initiating ground disturbance.

NESTING BIRDS

There are hundreds of trees on the project site that provide suitable nesting habitat for a variety of native and migratory bird species that are protected while nesting. To ensure compliance with the federal MBTA and California Fish and Game Code Sections 3500–3516, a pre-construction nesting bird survey is recommended prior to any project activities planned during the nesting bird season (February 15 through August 31). With successful implementation of the recommended impact avoidance measures listed below, impacts to nesting birds would be avoided.

- **Construction Activity:** If possible, vegetation removal should be avoided during the nesting bird season (February 1–August 31). If nesting bird season is unavoidable, prior to construction activities, including vegetation removal, a pre-construction nesting bird survey will be conducted by a qualified biologist no more than 3 days (72 hours) prior to any construction activities and vegetation removal. Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist. The buffer will be clearly marked in the field by construction personnel under guidance of the qualified biologist. No construction activities will be allowed within this exclusionary buffer until the qualified biologist determines that the young have fledged, or the nest is no longer active.
- **Tree Trimming and Removal:** To the greatest extent feasible, tree trimming/removal activities will be performed outside of the nesting season for birds (February 1–August 31). If trimming or removal of trees during the nesting bird season cannot be avoided, a qualified biologist will monitor tree trimming and removal activities.
- **Night Work Lighting:** If possible, night work should be avoided during the nesting bird season (February 1–August 31). If night work (i.e., between dusk and dawn) is anticipated within 100 feet of an active bird nest and/or nest exclusionary buffer, night lighting will be used only in the areas of active work and will be focused on the direct area(s) of work and away from nesting locations to the greatest extent practicable. The qualified biologist may adjust the exclusionary buffer size to decrease the possibility of disturbance by night work, if warranted. This measure would minimize disturbance and prevent nest failure. If birds are showing signs of distress, such as flushing from their nests, work activities shall be modified to prevent the nest from being abandoned.

WILDLIFE MOVEMENT

Wildlife movement includes seasonal migration along corridors, as well as daily movements for foraging. Migration corridors may include areas of unobstructed movement of deer, riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and between roosting and feeding areas for birds. A diverse variety of birds, mammals, and other wildlife are anticipated to pass through the project site. For example, the project site serves as a breeding ground, wintering ground, or migratory stopover site for a wide variety of migratory bird species such as ferruginous hawk and merlin. Furthermore, the project site may provide a corridor for mammals such as coyote (*Canis latrans*) and bobcat (*Lynx rufus*), particularly habitats associated with Cajon Wash and the several drainage systems.

According to the CDFW's California Essential Habitat Connectivity Project, the project site is mapped within a small natural area and an essential connectivity area (Spencer et al. 2010). Small natural areas are those that are smaller than 2,000 acres and otherwise function as natural landscape blocks. Natural landscape blocks depict large, relatively natural habitat blocks that support native biodiversity. While it is not within a natural landscape block, the project site is directly adjacent to one (i.e., the San Bernardino Mountains). The project site does not correspond with any interstate connections or potential riparian connections.

Areas mapped as Southwest Riparian Woodland, Scalebroom Alluvial Scrub, open water, and drainage systems such as Cajon Wash are the primary areas within the project site that contain resources commonly used as corridors for wildlife movement. Although there are some structural barriers within the project site itself, they do not largely hinder wildlife movement within the project site.

Based on wildlife movement observed during the 2024 field survey, the presence of high-quality riparian habitat throughout the project site and the project site's location within the Cajon Pass, the existing ponds, and the associated riparian habitats, the project site is considered a corridor for wildlife movement. However, while wildlife movement occurs within and around Glen Helen Regional Park, freeways are known to be a significant barrier to wildlife movement. With the I-15 and I-215 currently disrupting movement, the project site's ability to function as a wildlife corridor is diminished.

The project vicinity could also be considered a major flyway for migratory birds due to the variety of habitats found within the project site.

Wildlife species that occur in the project vicinity are adapted to the urban-wildland interface. The noise, vibration, light, dust, or human disturbance within construction areas would only temporarily deter wildlife from using areas in the immediate vicinity of construction activities. These indirect effects could temporarily alter migration behaviors, territories, or foraging habitats in select areas. However, because these are temporary effects, it is likely that wildlife already living and moving near urban development would alter their normal functions for the duration of the project construction and then re-establish these functions once all temporary construction effects have been removed. The proposed project would expand the existing County Regional Park and would still allow for wildlife movement and habitat connectivity if the project is implemented.

Mountain Lion

Mountain lion is a large cat that is widespread but uncommon within Southern California. Home range sizes vary depending on season, sex, reproductive status, prey density, and geographic area. Males generally have much larger ranges than females, and females with cubs tend to have even smaller ranges. Zeller et al. (2017) found that mountain lion home ranges in southern California range from 15–192 square miles, with mean home range sizes of 73 square miles for females and 122 square miles for males (Zeller et al. 2017). Mountain lions inhabit nearly all habitats in the State except for xeric regions of the Mojave and Colorado Deserts that do not support mule deer (*Odocoileus hemionus*). It requires extensive areas of riparian vegetation and brushy stages of various habitats, with interspersions of irregular terrain, rocky outcrops, and tree/bush edges.

Mountain lions are carnivores, and large ungulates (especially deer) are the preferred prey, although they are opportunistic predators that have been documented eating a variety of other large and small prey, including but not limited to rabbits and hares, rodents, porcupines, skunks, bobcats, coyotes, and livestock.

In July 2019, the Center for Biological Diversity petitioned the California Fish and Game Commission (Commission) to list mountain lions as threatened under CESA within a proposed evolutionarily significant unit (ESU) located in Southern California and along the central coast of California. In April 2020, the Commission designated mountain lions within the ESU as a candidate species under CESA. The ESU generally occurs south of Interstate 80 (I-80), west of Interstate 5 (I-5), and south of State Route 58/Interstate 15 (SR-58/I-15). The biological study area (BSA) is located entirely within the Southern California ESU.

Although the field survey did not report mountain lion observations, they are known to be present in the region and general vicinity. The San Gabriel/San Bernardino Mountains' mountain lion population is just one of nine genetically distinct mountain lion populations within California. While studies on the San Gabriel/San Bernardino Mountains' population are scarce, Gustafson et al. (2018) concludes that this population exhibits low effective population size and low genetic diversity. Exact abundance and population trends of this population appear to be undetermined. Of the nine distinct populations, the San Gabriel/San Bernardino Mountains' mountain lion population is among those most at risk of maintaining a stable population. Additionally, one mountain lion was discovered injured and was later euthanized in the Cajon Pass due to a vehicle strike in August of 2019.

Within the project site, marginal foraging habitat and very low numbers of mule deer are present; however, mule deer are known to utilize the adjacent undeveloped areas. The project site lacks suitable denning habitat for mountain lion due to the presence of extensive, existing anthropogenic disturbances.

SENSITIVE NATURAL COMMUNITIES OF CONCERN

The CDFW maintains a list of natural communities occurring in the State and identifies those that are sensitive as having ranks of S1–S3. Riparian habitats, oak woodlands, and vernal pools are among some of the natural communities of interest to the CDFW.

The CNDDDB search identified occurrences of three special-status natural (i.e., plant) communities within 5 miles of the project site: Riversidean Alluvial Fan Sage Scrub, Southern Riparian Forest, and Southern Sycamore Alder Riparian Woodland. Southern Riparian Forest and Southern Sycamore Alder Riparian Woodland are not present within the project site.

The CDFW's CNDDDB lists RAFSS as occurring within the project site and was verified by the April 10, 2024, field survey. RAFSS is a rare sensitive natural community occurring in California that has a rank of S1 (S ranks 1–3 are considered sensitive). It grows on sandy, rocky alluvium deposited by floodplains that experience infrequent flooding episodes. Scalebroom is the indicator species in this sensitive habitat type, in which it is dominant, codominant, or conspicuous (>1 percent) in the shrub canopy layer. However, RAFSS is highly variable in species composition, and there are many other

woody shrubs common to this habitat community, namely California buckwheat. It acts as an intermediate between sage scrub and chaparral habitats, in that the three communities share similar floral components (Burk et al. 2007). What distinguishes alluvial fan sage scrub from other scrub habitat types is the occurrence of periodic scouring from flooding events. The episodic flood events create a sequence of the habitat community: pioneer, intermediate, and mature. The RAFSS habitat observed within the project site is in the pioneer to intermediate stage.

At the time of this report submittal, project impact limits have yet to be established. Therefore, exact impacts to this sensitive natural community are not yet known.

LOCAL POLICIES AND ORDINANCES PROTECTING BIOLOGICAL RESOURCES

San Bernardino County Chapter 88.01: Plant Protection and Management

The County of San Bernardino provides an ordinance that protects native trees and other plants within the county (Chapter 88.01). Under this ordinance, three different types of plants are protected: desert native plants (Section 88.01.060: Desert Native Plant Protection), mountain forest and valley trees (Section 88.01.070: Mountain Forest and Valley Tree Conservation), and riparian plants (Section 88.01.080: Riparian Plant Conservation). According to Section 88.01.060(b), desert native plant protections are applicable only in the desert region and in the mountain regions transitional to the desert, whereas the project site is in the valley region or mountain edge transitional to the valley region.

Under Section 88.01.070, native trees with stems 6 inches or greater in diameter and rows of palm trees are afforded protections. Several regulated trees (coast live oak trees) and native trees (California incense-cedar [*Calocedrus decurrens*], coast redwood [*Sequoia sempervirens*], white alder, western sycamore, coast live oak, Fremont cottonwood, blue elderberry) occur within the project site and may be impacted by project activities. Under Section 88.01.080, the vegetation within 200 feet (60 meters) of a stream is subject to environmental review with mitigations imposed.

As part of this ordinance, oak woodlands are also protected (Section 88.01.050: Native Tree or Plant Removal Permits). For this regulation, oak trees forming oak woodlands must be native and 5 inches or greater in stem diameter. A total of 100 coast live oak trees were noted during the field survey, although many of these trees were planted as landscaping trees and no aggregations of trees are sufficiently dense to constitute an oak woodland (see Figure 5).

Section 88.01.080, concerning riparian habitat, would apply to this project since it is concerned with riparian habitat delineated in an overlay or Specific Plan or along a blue-line or brown-line stream shown on a USGS quadrangle topographic map. Impacts to riparian habitat on the site will require mitigation under Section 1600 et seq of the California Fish and Game Code.

Through project implementation, the project may conflict with local policies or policies related to biological resources. With implementation of the mitigation measures listed below the project would not conflict with local policies or policies related to biological resources. The project is not subject to any other local policies or ordinances.

Habitat Conservation Plan and Natural Community Conservation Plans

The project site is not located within the boundary of any adopted Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) identified by State, regional, or local plans. Thus, project implementation would not conflict with any regional conservation plan related to biological resources.

MITIGATION MEASURES

- MM BIO-1 Rare Plant Survey.** The survey shall be conducted at the appropriate peak flowering season of the target special-status species. If special-status species are identified within the project limits and project impacts to the species would be significant, coordination with the United States Fish and Wildlife Service (USFWS) and/or the California Department of Fish and Wildlife (CDFW) (depending on the listing status of the species) will be required to determine appropriate mitigation measures.
- MM BIO-2 Focused Crotch's Bumble Bee Survey.** Prior to commencing construction activities, a qualified biologist with expertise in surveying for native bumble bees shall conduct a focused survey for Crotch's bumble bee (*Bombus crotchii* [CBB]). The qualified biologist authorized to survey for CBB by the CDFW will conduct the surveys when colonies of this species are active (typically April through August) in accordance with the most recent CDFW guidelines (*Survey Considerations for California Endangered Species Act [CESA] Candidate Bumble Bee Species*, dated June 6, 2023). At least 14 days prior to the anticipated start date of the surveys, the qualified biologist shall submit a notification of intent to survey to the CDFW. The bumble bee nest survey involves systematically walking through suitable habitat areas while looking for potential nests and for high levels of bee activity that may signal a nest site. If a CBB nest is found, CDFW will be notified within 3 days in accordance with CDFW survey guidelines. The foraging bee survey will consist of three site visits at 2 to 4 weeks apart. Visits must be conducted on sunny days with temperatures between 65°F and 90°F and sustained winds of less than 8 miles per hour. Visits must begin at least 1 hour after sunrise and end at least 2 hours before sunset. The surveys are conducted by walking throughout areas of suitable foraging habitat at a rate of no more than 3 acres of suitable habitat per hour to look for bumble bees. Bumble bees encountered during the survey will be captured with a net, photographed, and released on site. If CBB is detected, the project proponent shall submit an avoidance and minimization plan to CDFW. Construction activities may not commence prior to CDFW's approval of the plan.
- MM BIO-3 Focused Protocol Coastal California Gnatcatcher Survey.** Prior to commencing construction activities, a qualified biologist with a Section 10(a)(1)(A) Recovery Permit for the coastal California gnatcatcher (CAGN) shall conduct focused protocol surveys for the species. The survey shall be conducted in accordance with the latest USFWS survey protocol for this species (August 1997). The USFWS focused survey protocol for CAGN requires six survey visits at 1-week intervals if the focused survey is conducted during the breeding season (March 15 to June 30), or nine survey visits

at 2-week intervals if the focused surveys are conducted outside of the breeding season. If CAGN is found in or adjacent to the project site, further coordination with the USFWS will be required. If this species is found nesting in the vicinity, a buffer with a radius not less than 500 feet (152 meters) shall be established around the nest. No project activity shall take place within the buffer area until the nest is no longer active, as determined by a qualified biologist. If impacts to occupied CAGN habitat occur due to project implementation, the habitat shall be restored to its original condition.

MM BIO-4 Focused Riparian Bird Survey. Riparian habitat on site is suitable for least Bell's vireo (LBVI) and southwestern willow flycatcher (SWFL). SWFL is federally listed as endangered, and State listed as endangered. To determine potential effects to these species, focused surveys are required regardless of when construction activities take place. Surveys will be conducted in accordance with the latest USFWS survey protocols for these species. The USFWS focused survey protocol from 2010 for SWFL requires one survey between May 15 and May 31, two surveys between June 1 and June 24, and two surveys between June 25 and July 17, for a total of five surveys. Surveys must be at least 5 days apart. The USFWS focused survey protocol for LBVI requires eight surveys, at least 10 days apart, between April 10 and July 31. Surveys for the two species may be combined for a total of eight site visits. If special-status riparian birds are found to be present, consultation with the wildlife agencies (USFWS and CDFW) would be required to acquire take authorization.

MM BIO-5 Preconstruction Nesting Bird Survey. To ensure compliance with California Fish and Game Code and the Migratory Bird Treaty Act (MBTA) and to avoid potential impacts to nesting raptors and songbirds, vegetation removal activities shall be conducted outside the general bird nesting season January 1 through July 31 for raptors and March 1 through September 15 for other birds. Any vegetation removal and/or construction activities that occur during the nesting season will require that all suitable habitats be thoroughly surveyed for the presence of nesting birds by a qualified biologist. Prior to commencement of clearing, a qualified biologist shall conduct a preconstruction survey within 3 days prior to ground-disturbing activities. Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist. The buffer may be up to 500 feet (150 meters) in diameter, depending on the species of nesting bird found. This buffer will be clearly marked in the field by construction personnel under guidance of the qualified biologist, and construction or clearing will not be conducted within this zone until the qualified biologist determines that the young have fledged, or the nest is no longer active. The buffer may be modified and/or other recommendations proposed as determined appropriate by the biologist to minimize impacts. Nesting bird habitat within the project site will be resurveyed during bird breeding season if there is a lapse in construction activities longer than 7 days. Additionally, prior to the removal of any stand of trees, a biologist will survey the trees to determine if raptor nests have been constructed. If nests are observed, a biologist will identify nesting areas and must be on site at the time of tree removal.

- MM BIO-6** **Burrowing Owl Focus Survey.** To avoid impacts to any burrowing owls that may colonize the development impact footprint prior to commencement of construction activities, a Phase III protocol survey shall be conducted within 30 days prior to commencement of any ground disturbance activities (California Burrowing Owl Consortium 1993). This preconstruction survey would entail 4 separate days between 2 hours before sunset to 1 hour after or 1 hour before sunrise to 2 hours after. This survey applies during both the breeding season (February 1 through August 31) as well as the non-breeding season when wintering owls are most likely detected if present (December 1 through January 31). If burrowing owls are detected within the development impact footprint or within approximately 150 feet (45 meters) of the impact area, on-site passive relocation would be conducted during the non-breeding season in accordance with the established protocol (California Burrowing Owl Consortium 1993).
- MM BIO-7** **Jurisdictional Delineation and Permitting.** A jurisdictional delineation shall be conducted if impacts to any aquatic resources, drainages, or associated riparian habitats within the project site are expected. A three-parameter delineation shall be conducted according to the USACE's *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Regional Supplement) and the 1987 Corps Wetland Delineation Manual, and to delineate the jurisdictional limit of non-wetland waters of the United States following the procedures set forth in 33 Code of Federal Regulations (CFR) 328.3(e). If impacts to identified aquatic resources or associated riparian habitats are expected to occur, appropriate permits will need to be acquired from the appropriate agencies. Impacts to waters of the United States (i.e., United States Army Corps of Engineers [USACE] jurisdiction) would require a Section 404 Clean Water Act permit from the USACE and a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB). Impacts to riparian habitat under CDFW jurisdiction would require a Section 1602 Streambed Alteration Agreement from the CDFW. These permits shall be obtained prior to issuance of grading permits and implementation of the proposed project.
- MM BIO-8** **Tree or Plant Removal Permit.** Prior to construction, the project proponent shall acquire a Tree or Plant Removal Permit for the removal and possible replacement of oak woodlands, native trees, palm trees, associated riparian vegetation within 200 feet (60 meters) of a stream, or other protected plant species and habitat communities (San Bernardino County Development Ordinance 88.01). The applicable review authority may require expert certification that the proposed tree or plant removal, replacement, or revegetation activities shall follow County Development Code and any other permit conditions.
- MM BIO-9** **Bat Clearance Survey.** If it is not feasible to avoid tree removal during the recognized bat maternity season (April 1–August 31), roost tree clearance surveys will need to be performed by a bat biologist at trees (including palms) and snags where there is a high potential for roosting bats.

- MM BIO-10** **Bat Hibernation Season Avoidance.** No tree removal should occur during the hibernation season, which typically begins in November or December (depending on weather conditions) and continues through mid-February, due to the high potential for mortality of hibernating bats. Clearance surveys are not appropriate during the winter months because bats infrequently emerge from their roosts at this time of year; consequently, absence of bat activity on a given night cannot be construed as absence of roosting bats.
- MM BIO-11** **Two-Step Tree Removal.** Unless the absence of bats is confirmed within 7 days of removal, snags and trees with a high potential for roosting bats should be removed using a two-step removal process to ensure that no roosting bats are killed during this activity. This two-step removal shall occur over 2 consecutive days as follows: Day 1, branches and limbs not containing cavities, as identified by a qualified bat biologist, will be removed; and Day 2, the remainder of the tree may be removed without supervision by a bat biologist. The disturbance caused by limb removal, followed by an interval of one evening, will allow bats to safely abandon the roost.
- MM BIO-12** **Bat Impact Avoidance.** Impacts from increases in ambient noise, vibration, high levels of localized noise, and nighttime lighting will occur during project-related construction activities. Ongoing night lighting can be disruptive to roosting and foraging behaviors. If night work is anticipated for the project, the potential impacts to foraging and night-roosting bats can be minimized by focusing the night lighting on the direct area(s) of work, and general Best Management Practices (BMPs) related to noise and dust control will reduce other potential adverse effects to bats.
- MM BIO-13** **Arroyo Toad Surveys and Avoidance.** To minimize direct effects to breeding arroyo toads, all project activities within designated critical habitat and occupied habitat will occur outside the breeding season (i.e., the breeding season is March 15–July 15 for arroyo toad) to the maximum extent practicable. If the breeding season cannot be avoided, an approved biologist will conduct focused surveys in accordance with the latest USFWS survey protocol for this species (May 1999). If arroyo toad is found to be present, the project proponent must consult with the USFWS.
- MM BIO-14** **Biological Monitoring During Construction.** To protect special-status wildlife species, a biological monitor shall be present any ground disturbance or vegetation removal activities that may disrupt the species. The Approved Project biologist shall ensure that impacts to any special-status wildlife observed during construction are reduced or avoided such that impacts are less than significant (e.g., avoidance buffers, relocation from harm's way).

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APPENDIX A

FIGURES 1–9

Figure 1: Regional and Project Location

Figure 2: Project Plans

Figure 3: Soils

Figure 4: Land Cover Types and Photo Locations

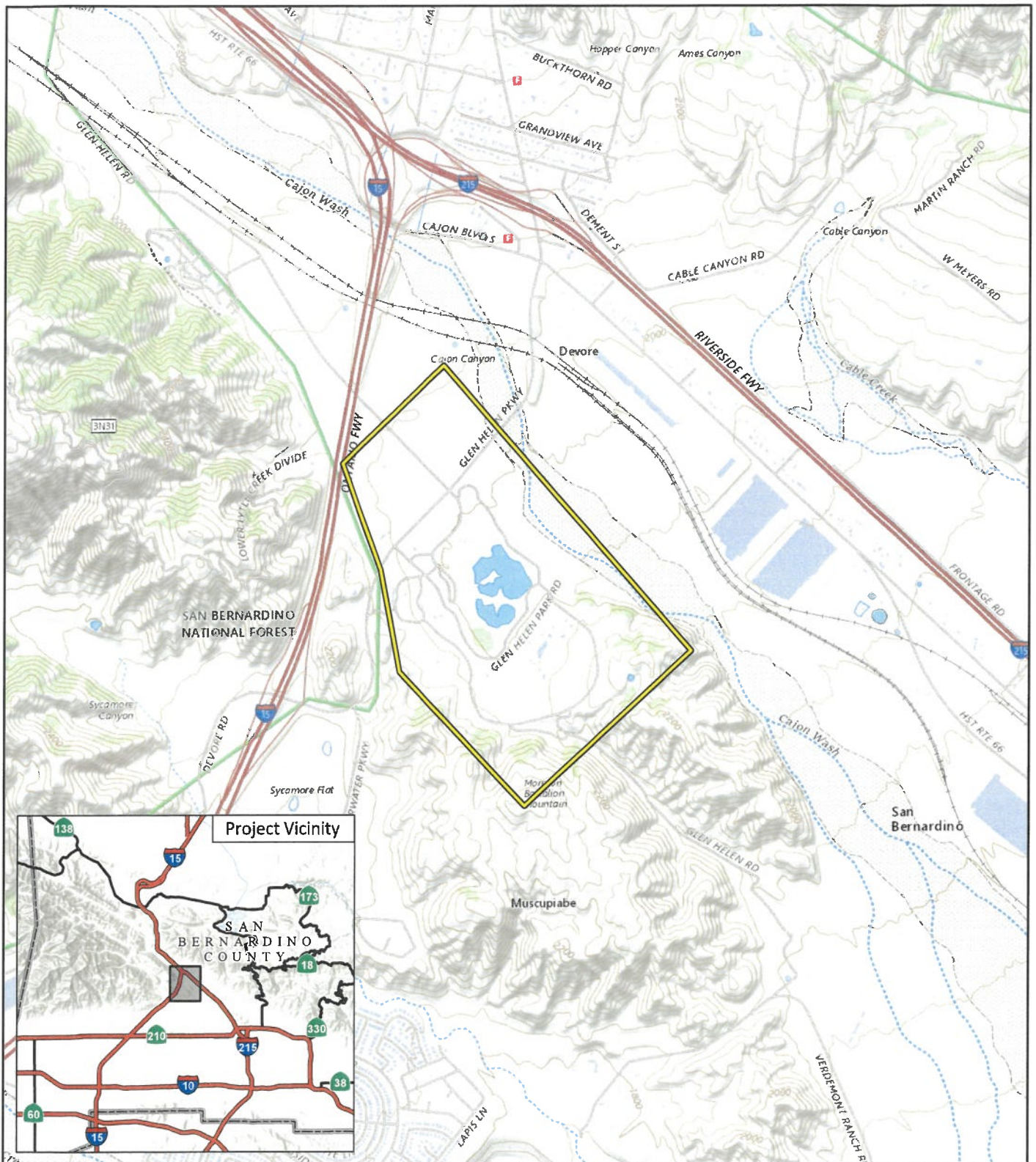
Figure 5: Oak Trees

Figure 6: Occurrences of Previously Recorded Sensitive Biological Resources in the Project Vicinity,
Animals

Figure 7: Occurrences of Previously Recorded Sensitive Biological Resources in the Project Vicinity,
Plants

Figure 8: Potential Jurisdictional Features

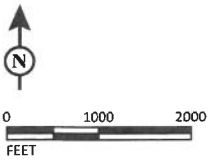
Figure 9: Critical Habitat



LSA

 Study Area - 391.57 acres

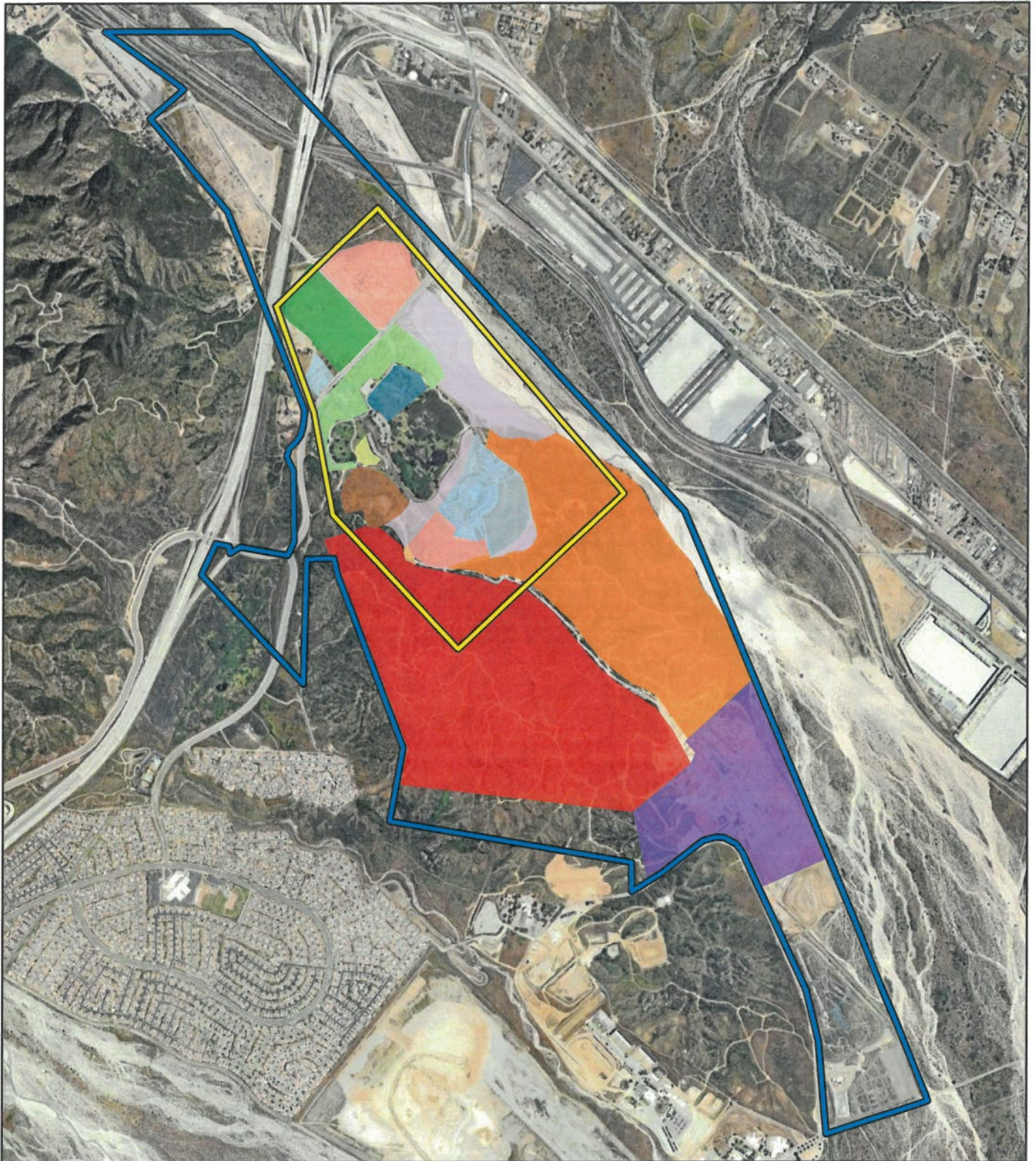
FIGURE 1



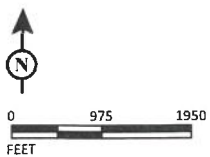
SOURCE: USGS The National Map (2018)

J:\20231447\GIS\Pro\Glen Helen Regional Park Project\Glen Helen Regional Park Project.aprx (4/29/2024)

Glen Helen Regional Park
Market Study and Master Plan
Regional and Project Location



LSA



SOURCE: Google Maps

Boundary	Equestrian	Water Park
Study Area	Flex Space	Yard
Glen Helen Regional Park Boundary	Hiking Area	
Space Plan	Meeting Tree Walking Museum	
Amphitheater	Mountain Biking	
Camping	Parking	
Disc Golf	Race Track	
	Ropes Course	

FIGURE 2

*Glen Helen Regional Park
Market Study and Master Plan
Project Plans*

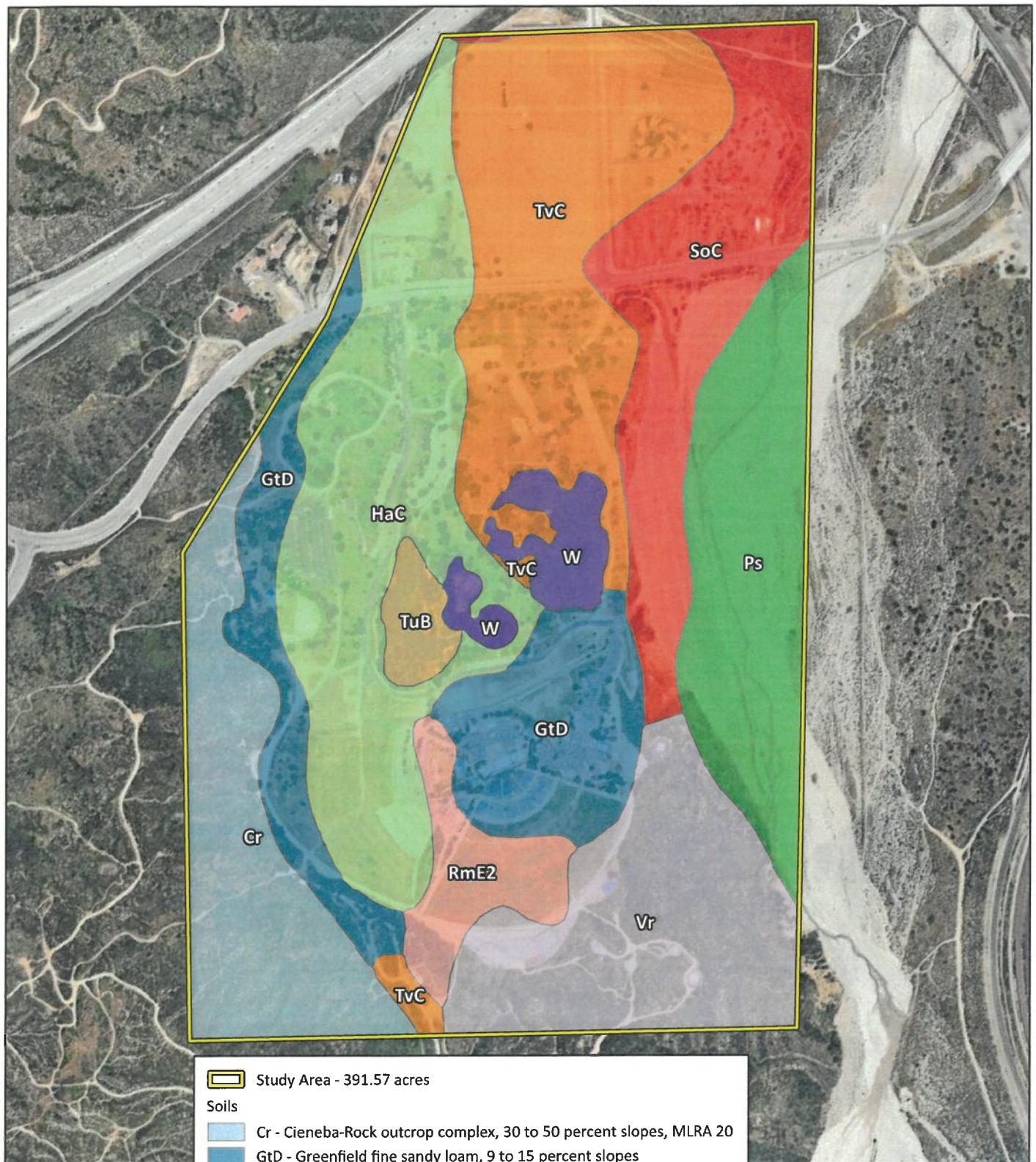


FIGURE 3

LSA

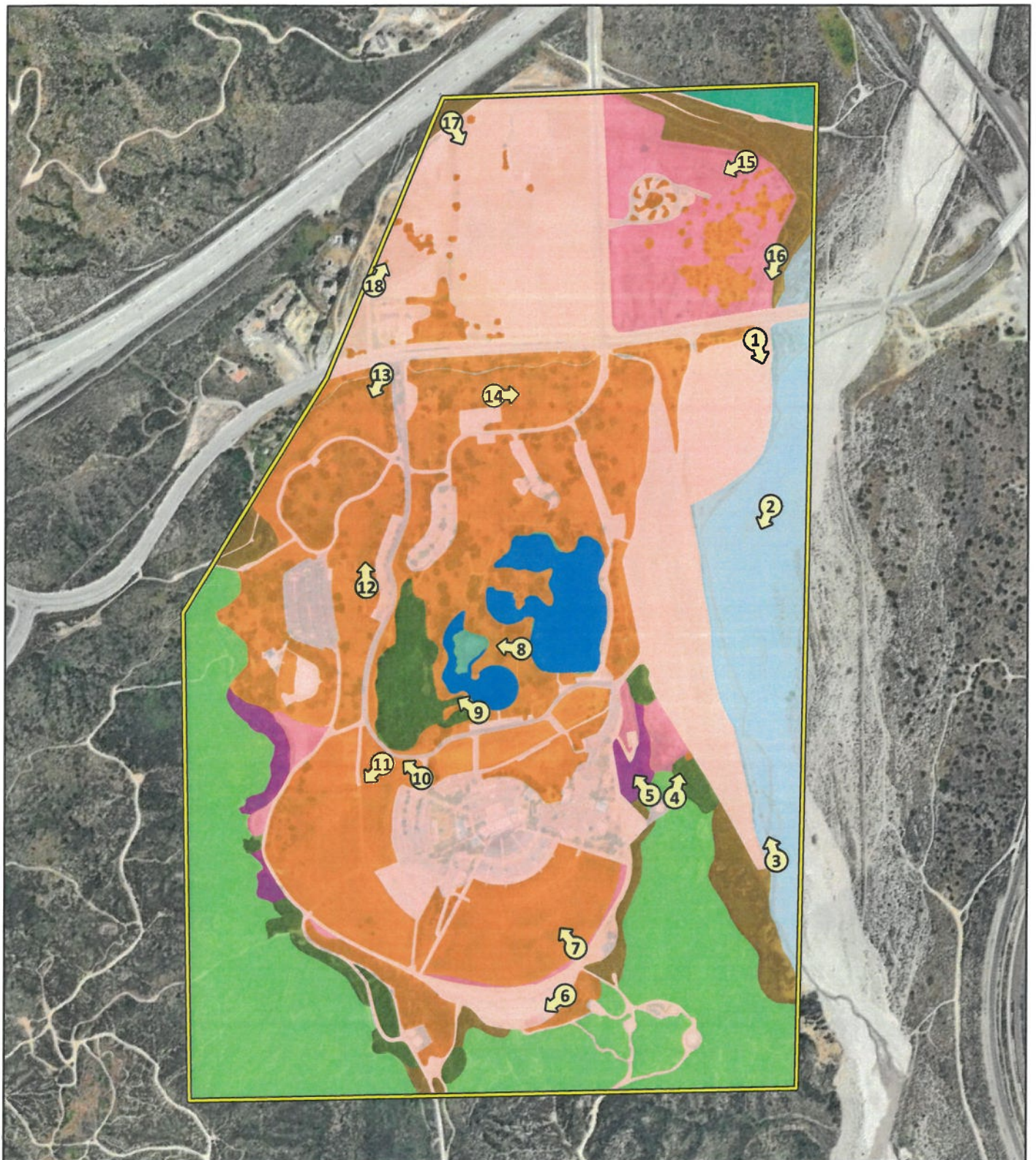


0 375 750
FEET

SOURCE: Google Maps

J:\20231447\GIS\Pro\Glen Helen Regional Park Project\Glen Helen Regional Park Project.aprx (4/29/2024)

Glen Helen Regional Park
Market Study and Master Plan
Soils



LSA



0 375 750
FEET

SOURCE: Google Maps

Study Area - 391.57 acres

Photo Locations

Vegetation and Land Cover

Developed - 114.98 acres

Ruderal/Disturbed - 21.37 acres

Ornamental - 111.52 acres

Mixed Scrub - 16.65 acres

Scrub Oak Chaparral - 69.07 acres

Scalebroom Alluvial Scrub - 30.28 acres

Southwestern Riparian Woodland - 10.83 acres

Elderberry Scrub - 3.77 acres

Chaparral - 2.46 acres

Cattail Marsh - 0.79 acres

Open Water - 9.81 acres

FIGURE 4

*Glen Helen Regional Park
Market Study and Master Plan*
Land Cover Types and Photo Locations



LSA

- Study Area - 391.57 acres
- Coast Live Oak (100)

FIGURE 5



0 370 740
FEET

SOURCE: Google Maps

J:\20231447\GIS\Pro\Glen Helen Regional Park Project\Glen Helen Regional Park Project.aprx (5/2/2024)

*Glen Helen Regional Park
Market Study and Master Plan
Oak Trees*

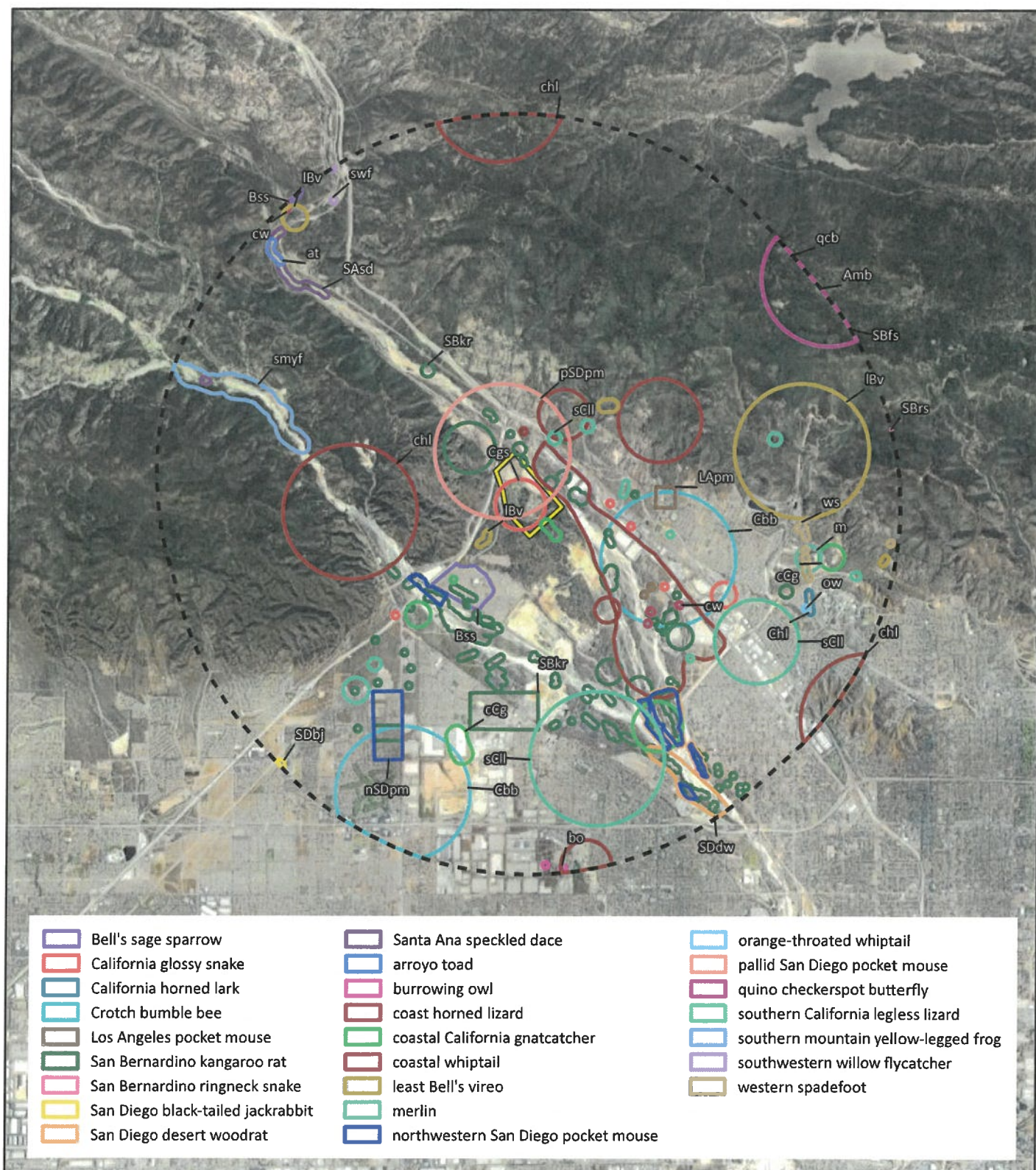
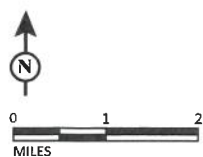


FIGURE 6

LSA

Study Area - 391.57 acres
5-mile Radius



SOURCE: Google Maps

J:\20231447\GIS\Pro\Glen Helen Regional Park Project\Glen Helen Regional Park Project.aprx (4/29/2024)

Glen Helen Regional Park
Market Study and Master Plan
Occurrences of Previously Recorded Sensitive
Biological Resources in the Project Vicinity, Animals

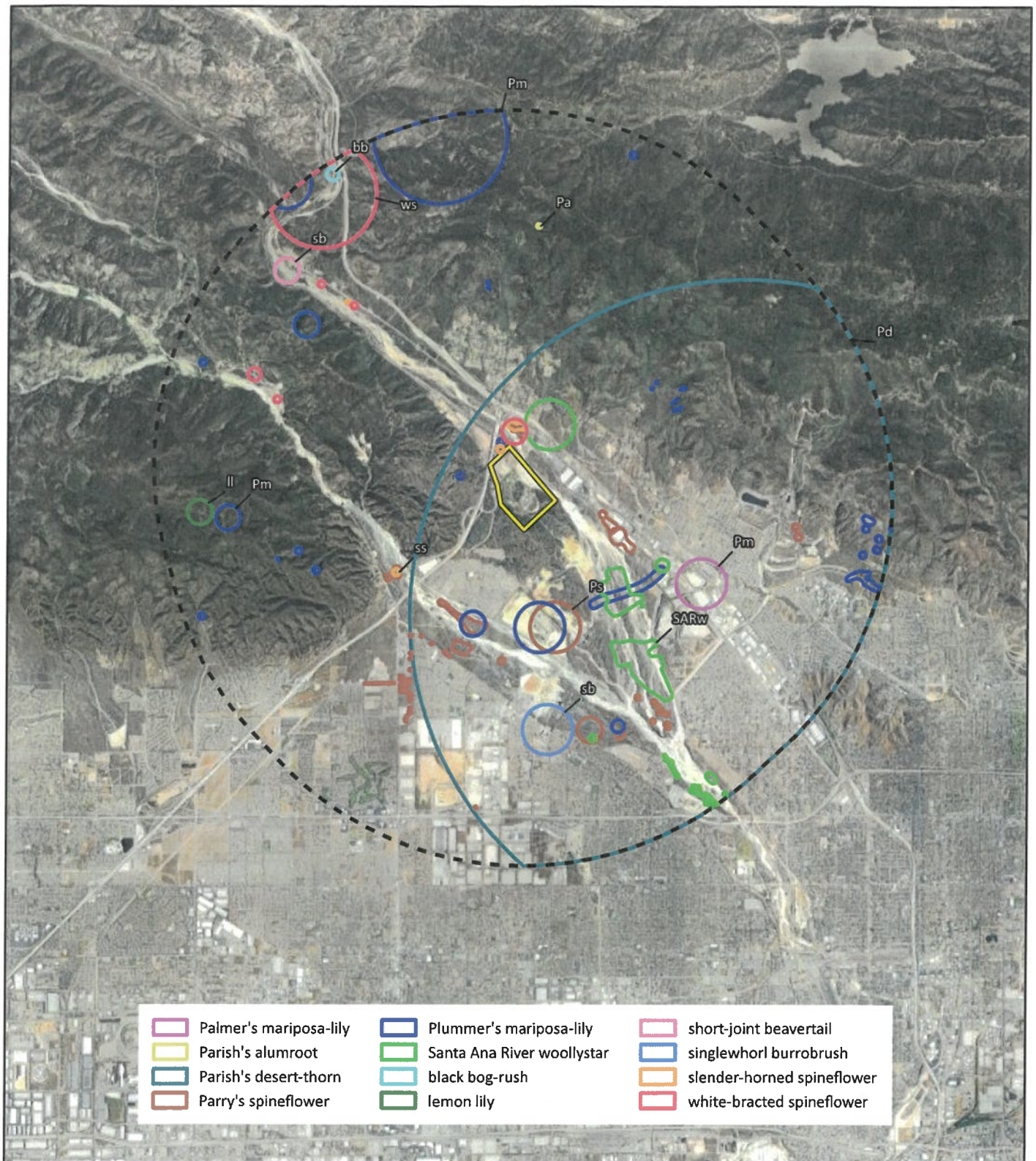
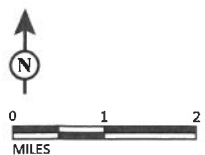


FIGURE 7

LSA

Study Area - 391.57 acres
5-mile Radius



SOURCE: Google Maps

J:\20231447\GIS\Pro\Glen Helen Regional Park Project\Glen Helen Regional Park Project.aprx (4/29/2024)

Glen Helen Regional Park
Market Study and Master Plan
Occurrences of Previously Recorded Sensitive
Biological Resources in the Project Vicinity, Plants



LSA



0 375 750
FEET

SOURCE: Google Maps

J:\20231447\GIS\Pro\Glen Helen Regional Park Project\Glen Helen Regional Park Project.aprx (4/29/2024)

- Study Area - 391.57 acres
- Potential Jurisdictional Features
- Ponds

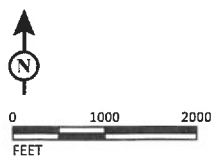
FIGURE 8

*Glen Helen Regional Park
Market Study and Master Plan
Potential Jurisdictional Features*



FIGURE 9

LSA



- Boundary**
- Study Area
 - Glen Helen Regional Park Boundary
- Critical Habitat**
- Arroyo toad - 3.52 acres in Park Boundary
 - San Bernardino Merriam's kangaroo rat - 441.33 acres in Park Boundary, 101.46 acres in Study Area

SOURCE: Google Maps

J:\20231447\GIS\Pro\Glen Helen Regional Park Project\Glen Helen Regional Park Project.aprx (5/1/2024)

*Glen Helen Regional Park
Market Study and Master Plan
Critical Habitat*

APPENDIX B

VASCULAR PLANT SPECIES OBSERVED

The following vascular plant species were observed in the specified project site by LSA biologists on April 10, 2024.

- * Introduced species not native to California

GYMNOSPERMS

Cupressaceae

- Calocedrus decurrens*
- * *Cupressus sempervirens*
- Sequoia sempervirens*

Pinaceae

- * *Pinus* spp.

Cypress Family

- California incense-cedar
- Italian cypress
- Coast redwood

Pine Family

- Pine

MAGNOLIIDS

Saururaceae

- Anemopsis californica*

Lizard's-tail Family

- Yerba mansa

EUDICOTS

Aizoaceae

- * *Mesembryanthemum crystallinum*

Amaranthaceae

- * *Amaranthus albus*

Anacardiaceae

- Malosma laurina*
- Rhus integrifolia*
- Rhus ovata*
- * *Schinus molle*
- * *Schinus terebinthifolius*
- Toxicodendron diversilobum*

Apiaceae

- * *Apium graveolens*
- * *Conium maculatum*
- * *Foeniculum vulgare*

Apocynaceae

- * *Nerium oleander*
- * *Vinca major*

Araliaceae

- * *Hedera helix*

Iceplant Family

- Crystal iceplant

Amaranth Family

- Tumbling pigweed

Sumac Family

- Laurel sumac
- Lemonade berry
- Sugar bush
- Peruvian pepper tree
- Brazilian pepper tree
- Poison oak

Carrot Family

- Common celery
- Poison hemlock
- Sweet fennel

Dogbane Family

- Oleander
- Blue periwinkle

Ginseng Family

- English ivy

Asteraceae

- Ambrosia psilostachya*
- Artemisia californica*
- Artemisia douglasiana*
- Artemisia dracunculus*
- Baccharis pilularis* ssp. *consaguinea*
- Baccharis salicifolia* ssp. *salicifolia*
- Baccharis sarothroides*
- * *Carduus pycnocephalus*
- * *Centaurea melitensis*
- Chaenactis glabriuscula* var. *glabriuscula*
- * *Cirsium vulgare*
- Encelia actoni*
- Encelia californica*
- Encelia farinosa*
- Ericameria nauseosa*
- * *Erigeron bonariensis*
- Eriophyllum confertiflorum* var. *confertiflorum*
- * *Gazania linearis*
- Hazardia squarrosa*
- * *Hedypnois rhagadioloides*
- Helianthus annuus*
- * *Helminthotheca echiodes*
- Heterotheca grandiflora*
- * *Hypochaeris glabra*
- Isocoma menziesii* var. *menziesii*
- * *Lactuca serriola*
- Lasthenia californica*
- Lepidospartum squamatum*
- * *Oncosiphon pilulifer*
- Pseudognaphalium biolettii*
- Pseudognaphalium californicum*
- * *Pseudognaphalium luteoalbum*
- * *Pulicaria paludosa*
- * *Senecio vulgaris*
- * *Sonchus oleraceus*
- * *Taraxacum officinale*
- Tetradymia comosa*
- Xanthium strumarium*

Berberidaceae

- * *Nandina domestica*

Betulaceae

- Alnus rhombifolia*

Bignoniaceae

- * *Jacaranda mimosifolia*

Sunflower Family

- Western ragweed
- California sagebrush
- Mugwort
- Tarragon
- Coyote brush
- Mule fat
- Broom baccharis
- Italian thistle
- Tocalote
- Yellow pincushion
- Bull thistle
- Mountain bush sunflower
- California encelia
- Brittlebush
- Rabbitbrush
- Flax-leaved horseweed
- Golden yarrow
- Gazania
- Saw-toothed goldenbush
- Crete weed
- Western sunflower
- Bristly ox-tongue
- Telegraph weed
- Smooth cat's-ear
- Menzies' goldenbush
- Prickly lettuce
- Coastal goldfields
- Scale-broom
- stinknet
- Bicolored cudweed
- California everlasting
- Weedy cudweed
- Spanish sunflower
- Common groundsel
- Common sow-thistle
- Common dandelion
- Cotton-thorn
- Common cocklebur

Barberry Family

- Heavenly bamboo

Birch Family

- White alder

Trumpet-Creeper Family

- Jacaranda

Boraginaceae

Amsinckia menziesii var. *intermedia*
Cryptantha intermedia
* *Echium candicans*
Eriodictyon crassifolium
Eriodictyon trichocalyx
Nemophila menziesii
Phacelia cicutaria var. *hispida*
Phacelia distans

Brassicaceae

* *Brassica nigra*
* *Capsella bursa-pastoris*
* *Hirschfeldia incana*
* *Lepidium didymum*
* *Lobularia maritima*
* *Sisymbrium irio*

Cactaceae

Cylindropuntia bernardina
Opuntia basilaris var. *basilaris*
Opuntia phaeacantha

Caryophyllaceae

* *Polycarpon tetraphyllum*

Chenopodiaceae

* *Chenopodium album*
* *Chenopodium murale*
* *Salsola tragus*

Convolvulaceae

* *Convolvulus arvensis*

Cucurbitaceae

Cucurbita foetidissima
Marah macrocarpa

Ericaceae

* *Arbutus unedo*

Euphorbiaceae

Chamaesyce albomarginata
* *Chamaesyce maculata*
Croton californicus
Croton setigerus
* *Euphorbia maculata*
* *Euphorbia peplus*
* *Ricinus communis*

Fabaceae

* *Acacia longifolia*
* *Acacia redolens*
Acmispon glaber

Borage Family

Common fiddleneck
Common cryptantha
Pride of Madeira
Thick-leaved yerba santa
Hairy yerba santa
Baby blue eyes
Caterpillar phacelia
Common phacelia

Mustard Family

Black mustard
Shepherd's purse
Shortpod mustard
Lesser swine cress
Sweet-alyssum
London rocket

Cactus Family

Cane cholla
Common beavertail cactus
Brown spined prickly pear

Pink Family

Four leaved allseed

Goosefoot Family

Lamb's quarters
Nettle-leaved goosefoot
Russian-thistle

Morning-glory Family

Field bindweed

Gourd Family

Calabazilla
Wild cucumber

Heath Family

Strawberry tree

Spurge Family

Rattlesnake spurge
Spotted spurge
California croton
Doveweed
Spotted spurge
Petty spurge
Castor bean

Legume Family

Sydney golden wattle
Bank catclaw
Coastal deerweed

<i>Acmispon strigosus</i>	Strigose lotus
* <i>Ceratonia siliqua</i>	Carob
* <i>Cercis occidentalis</i>	Western redbud
<i>Lupinus hirsutissimus</i>	Stinging lupine
<i>Lupinus sparsiflorus</i>	Coulter's lupine
<i>Lupinus succulentus</i>	Arroyo lupine
* <i>Medicago polymorpha</i>	Common burclover
* <i>Melilotus albus</i>	White sweetclover
* <i>Melilotus indicus</i>	Sourclover
* <i>Vicia villosa</i>	Winter vetch
Fagaceae	Oak Family
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast live oak
<i>Quercus berberidifolia</i>	Scrub oak
* <i>Quercus ilex</i>	Holly oak
Geraniaceae	Geranium Family
* <i>Erodium botrys</i>	Long-beaked filaree
* <i>Erodium cicutarium</i>	Redstem filaree
Hamamelidaceae	Witch-hazel Family
* <i>Liquidambar styraciflua</i>	Sweetgum
Juglandaceae	Walnut Family
<i>Juglans californica</i>	Southern black walnut
Lamiaceae	Mint Family
* <i>Lamium amplexicaule</i>	Henbit deadnettle
* <i>Marrubium vulgare</i>	Horehound
<i>Salvia apiana</i>	White sage
<i>Salvia columbariae</i>	Chia
<i>Salvia mellifera</i>	Black sage
Lauraceae	Laurel Family
* <i>Cinnamomum camphora</i>	Camphor tree
Lythraceae	Loosestrife Family
* <i>Lagerstroemia indica</i>	Crape myrtle
Malvaceae	Mallow Family
* <i>Brachychiton populneus</i>	Kurrajong
* <i>Malva parviflora</i>	Cheeseweed
Moraceae	Mulberry Family
* <i>Ficus benjamina</i>	Weeping Chinese banyan
Myrsinaceae	Myrsine Family
* <i>Lysimachia arvensis</i>	Scarlet pimpernel
Myrtaceae	Myrtle Family
* <i>Callistemon</i> sp.	Bottlebrush
* <i>Corymbia citriodora</i>	Lemon scented gum
* <i>Eucalyptus</i> sp.	Eucalyptus
* <i>Feijoa sellowiana</i>	Pineapple guava
* <i>Lophostemon confertus</i>	Brisbane box

Oleaceae

- * *Fraxinus uhdei*
- * *Olea europaea*

Onagraceae

- Camissoniopsis bistorta*
- Camissoniopsis pallida*
- Eulobus californicus*
- Oenothera biennis*
- Oenothera elata*

Oxalidaceae

- * *Oxalis pes-caprae*

Papaveraceae

- Dendromecon rigida*
- Eschscholzia californica*

Phrymaceae

- Diplacus aurantiacus*

Pittosporaceae

- * *Pittosporum tobira*

Plantaginaceae

- * *Bacopa monnieri*
- Keckiella cordifolia*
- * *Plantago lanceolata*
- * *Plantago major*
- * *Veronica persica*

Platanaceae

- Platanus racemosa*

Polygonaceae

- Eriogonum fasciculatum*
- * *Polygonum aviculare* ssp. *depressum*
- * *Rumex crispus*

Portulacaceae

- * *Portulaca oleracea*

Proteaceae

- * *Grevillea robusta*

Rhamnaceae

- Ceanothus leucodermis*
- Ceanothus perplexans*
- Ceanothus spinosus*
- Rhamnus crocea*

Rosaceae

- Adenostoma fasciculatum*
- Cercocarpus betuloides*
- Heteromeles arbutifolia*
- * *Prunus cerasifera*
- * *Pyracantha coccinea*

Olive Family

- Shamel ash
- European olive

Evening-primrose Family

- Southern sun cup
- Pale yellow sun cup
- California sun cup
- Small flowered evening primrose
- Hooker's evening primrose

Oxalis Family

- Bermuda buttercup

Poppy Family

- Bush poppy
- California poppy

Lopseed Family

- Bush monkey flower

Pittosporum Family

- Mock orange

Plantain Family

- Waterhyssop/herb of grace
- Heart-leaved bush-penstemon
- Narrow leaved plantain
- Common plantain
- Bird's eye speedwell

Sycamore Family

- Western sycamore

Buckwheat Family

- California buckwheat
- Prostrate knotweed
- Curly dock

Purslane Family

- Common purslane

Protea Family

- Silk oak

Buckthorn Family

- Chaparral whitethorn
- Cupped leaf ceanothus
- Greenbark ceanothus
- Spiny redberry

Rose Family

- Chamise
- Mountain mahogany
- Toyon
- Flowering plum
- Scarlet firethorn

- * *Pyrus calleryana*
- * *Rhaphiolepis indica*
- * *Rosa* sp.
- * *Rosa* 'Korbin'
- Rubus ursinus*

Salicaceae

- Populus fremontii* ssp. *fremontii*
- Salix gooddingii*
- Salix laevigata*
- Salix lasiolepis*
- * *Xylosma congesta*

Sapindaceae

- * *Acer palmatum*

Scrophulariaceae

- * *Leucophyllum frutescens*
- * *Myoporum laetum*
- Scrophularia californica*

Simaroubaceae

- * *Ailanthus altissima*

Solanaceae

- * *Datura stramonium*
- Datura wrightii*
- * *Nicotiana glauca*
- Solanum douglasii*
- Solanum xanti*

Tamaricaceae

- * *Tamarix ramosissima*
- * *Tamarix* sp.

Tropaeolaceae

- * *Tropaeolum majus*

Ulmaceae

- * *Ulmus parvifolia*

Urticaceae

- * *Urtica urens*

Verbenaceae

- * *Lantana camara*

Viburnaceae

- Sambucus mexicana*

Vitaceae

- Vitis girdiana*

Zygophyllaceae

- * *Tribulus terrestris*

- Callery pear
- Indian Hawthorn
- Ornamental rose
- Iceberg rose
- California blackberry

Willow Family

- Fremont cottonwood
- Goodding's black willow
- Red willow
- Arroyo willow
- Shiny xylosma

Soapberry Family

- Japanese maple

Figwort Family

- Texas ranger
- Myoporum
- California bee plant

Simarouba Family

- Tree of heaven

Nightshade Family

- Thorn-apple
- Jimsonweed
- Tree tobacco
- Douglas' nightshade
- Chaparral nightshade

Tamarisk Family

- Saltcedar
- Tamarisk

Nasturtium Family

- Garden nasturtium

Elm Family

- Chinese elm

Nettle Family

- Dwarf nettle

Vervain Family

- Lantana

Muskroot Family

- Blue elderberry

Grape Family

- Desert wild grape

Caltrop Family

- Puncture vine

MONOCOTS

Agavaceae

- * *Agave attenuata*
- Hesperoyucca whipplei*

Amaryllidaceae

- * *Agapanthus africanus*

Araceae

- Lemna* sp.

Areceaceae

- * *Phoenix roebelenii*
- * *Washingtonia robusta*

Cyperaceae

- Cyperus eragrostis*

Iridaceae

- * *Dietes iridioides*

Poaceae

- * *Arundo donax*
- * *Avena barbata*
- * *Avena fatua*
- * *Bromus diandrus*
- * *Bromus rubens*
- * *Cynodon dactylon*
- Distichlis spicata*
- Elymus condensatus*
- * *Festuca myuros* var. *myuros*
- * *Hordeum murinum* ssp. *leporinum*
- * *Lamarckia aurea*
- * *Phalaris aquatica*
- * *Poa annua*
- * *Schismus barbatus*

Themidaceae

- Dipterostemon capitatus*

Typhaceae

- Typha latifolia*

Century Plant Family

- Foxtail agave
- Our Lord's candle

Amaryllis Family

- African lily

Arum Family

- Duckweed

Palm Family

- Pygmy date palm
- Mexican fan palm

Sedge Family

- Tall umbrella-sedge

Iris Family

- African iris

Grass Family

- Giant reed
- Slender wild oat
- Wild oat
- Ripgut grass
- Red brome
- Bermuda grass
- Salt grass
- Giant wild-rye
- Rattail fescue
- Hare barley
- Goldentop
- Harding grass
- Annual blue grass
- Mediterranean grass

Brodiaea Family

- Blue dicks

Cattail Family

- Broad-leaved cattail

Taxonomy and scientific nomenclature generally conform to Baldwin, B.G., D.H. Goldman et al., eds. (2012; *The Jepson Manual: Vascular Plants of California*, 2nd edition; University of California Press, Berkeley and Los Angeles, California).

Common names for each taxa generally conform to Jepson, as well as to Roberts, F.M., Jr. (2008; *The Vascular Plants of Orange County, California: An Annotated Checklist*; F.M. Roberts Publications, San Luis Rey, California) except where Abrams, L. (1923, 1944, and 1951; *Illustrated Flora of the Pacific States: Washington, Oregon, and California*, vols. I–III; Stanford University Press, Stanford, California) and Abrams, L. and Ferris, R.S. (1960; *Illustrated Flora of the Pacific States: Washington*,

Oregon, and California, vol. IV; Stanford University Press, Stanford, California) were used, particularly when species-specific common names were not identified in Roberts, F.M., Jr. (2008).

APPENDIX C

ANIMAL SPECIES OBSERVED

This is a list of the conspicuous aerial insects (i.e., damselflies, dragonflies, and butterflies), bony fishes, amphibians, reptiles, birds, and mammals noted in the project site by LSA biologists. Presence may be noted if a species is seen or heard, or identified by the presence of tracks, scat, or other signs. Please note that most species are listed in phylogenetic order of relation.

* Species not native to the project site

LEPIDOPTERA

Papilionidae

Papilio rutulus

Pieridae

* *Pieris rapae*

Pontia protodice

Anthocharis sara

Colias eurydice

Nymphalidae

Vanessa cardui

Polyommatainae

Glaucopsyche lygdamus

Theclinae

Callophrys affinis

BUTTERFLIES

Swallowtails

Western tiger swallowtail

Whites and Sulphurs

Cabbage white

Checkered white

Sara orangetip

California dogface

Brush-Footed Butterflies

Painted lady

Blues

Silvery Blue

Hairstreaks

Western green hairstreak

HYMENOPTERA

Apidae

* *Apis mellifera*

Bombus spp.

WASPS/BEES/ANTS

Bees

Western honeybee

Bumblebee

AMPHIBIA

Hylidae

Pseudacris cadaverina

AMPHIBIANS

Chorus Frogs

California chorus frog

REPTILIA

Phrynosomatidae

Sceloporus occidentalis

REPTILES

Phrynosomatid Lizards

Western fence lizard

AVES

Anatidae

Branta canadensis

Anas platyrhynchos

BIRDS

Ducks, Geese, and Swans

Canada goose

Mallard

<i>Mareca americana</i>	American wigeon
Columbidae	Pigeons and Doves
<i>Zenaida macroura</i>	Mourning dove
* <i>Streptopelia decaocto</i>	Eurasian collared-dove
Trochilidae	Hummingbirds
<i>Calypte anna</i>	Anna's hummingbird
<i>Selasphorus sasin</i>	Allen's hummingbird
Rallidae	Rails, Gallinules, and Coots
<i>Fulica americana</i>	American coot
Charadriidae	Plovers and Lapwings
<i>Charadrius vociferus</i>	Killdeer
Laridae	Skuas, Gulls, Terns, Skimmers
<i>Larus californicus</i>	California gull
Ardeidae	Hérons, Bitterns, and Allies
<i>Egretta thula</i>	Snowy egret
<i>Butorides striatus</i>	Green heron
Cathartidae	New World Vultures
<i>Cathartes aura</i>	Turkey vulture
Accipitridae	Hawks, Kites, Eagles, and Allies
<i>Accipiter cooperii</i>	Cooper's hawk
<i>Buteo jamaicensis</i>	Red-tailed hawk
Picidae	Woodpeckers and Allies
<i>Melanerpes formicivorus</i>	Acorn woodpecker
<i>Picoides nuttallii</i>	Nuttall's woodpecker
<i>Colaptes auratus</i>	Northern flicker
Tyrannidae	Tyrant Flycatchers
<i>Sayornis nigricans</i>	Black phoebe
<i>Sayornis saya</i>	Say's phoebe
<i>Pyrocephalus rubinus</i>	Vermilion flycatcher
Corvidae	Crows and Jays
<i>Aphelocoma californica</i>	California scrub-jay
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	Common raven
Hirundinidae	Swallows
<i>Stelgidopteryx serripennis</i>	Northern rough-winged swallow
<i>Petrochelidon pyrrhonota</i>	Cliff swallow
<i>Tachycineta thalassina</i>	Violet-green swallow
Paridae	Chickadees and Titmice
<i>Baeolophus inornatus</i>	Oak titmouse
Aegithalidae	Long-Tailed Tits and Bushtits
<i>Psaltiriparus minimus</i>	Bushtit
Troglodytidae	Wrens
<i>Troglodytes aedon</i>	House wren
<i>Thryomanes bewickii</i>	Bewick's wren

Poliopitidae

Poliopitila caerulea

Sylviidae

Chamaea fasciata

Turdidae

Catharus guttatus

Sialia mexicana

Turdus migratorius

Mimidae

Toxostoma redivivum

Mimus polyglottos

Sturnidae

* *Sturnus vulgaris*

Fringillidae

Haemorhous mexicanus

Spinus psaltria

Passerellidae

Melospiza crissalis

Pipilo maculatus

Melospiza melodia

Zonotrichia leucophrys

Icteridae

Agelaius phoeniceus

Quiscalus mexicanus

Parulidae

Setophaga petechia

Geothlypis trichas

Leiostyris celata

MAMMALIA

Sciuridae

Otospermophilus beecheyi

Geomyidae

Thomomys bottae

Cricetidae

Peromyscus spp.

Canidae

Canis latrans

Leporidae

Sylvilagus audubonii

Procyonidae

Procyon lotor

Gnatcatchers

Blue-gray gnatcatcher

Sylviid Warblers

Wrentit

Thrushes

Hermit thrush

Western bluebird

American robin

Mockingbirds and Thrashers

California thrasher

Northern mockingbird

Starlings

European starling

Fringilline and Cardueline Finches and Allies

House finch

Lesser goldfinch

New World Sparrows

California towhee

Spotted towhee

Song sparrow

White-crowned sparrow

Blackbirds

Red-winged blackbird

Great-tailed grackle

Wood Warblers

Yellow warbler

Common yellowthroat

Orange-crowned warbler

MAMMALS

Squirrels, Chipmunks, and Marmots

California ground squirrel

Pocket Gophers

Botta's pocket gopher

Hamsters, Voles, Lemmings, and New World Rats and Mice

Deermouse

Dogs

Coyote

Rabbits and Hares

Desert cottontail

Raccoons and Allies

Raccoon

APPENDIX D

REPRESENTATIVE SITE PHOTOGRAPHS



Photo 1: View looking southeast at parking lot and Cajon Wash.



Photo 2: View looking south within Cajon Wash. This alluvial scrub vegetation type is the preferred habitat of the San Bernardino kangaroo rat.



Photo 3: View looking northeast at Cajon Wash and its steeply channelized western bank.



Photo 4: View looking north over Cajon Wash and the unused parking lot.



Photo 5: View looking east at parking lot and eastern edge of the landscaped park. Cajon Wash sits at a lower grade than the park itself, and there is minimal intermixing of alluvial scrub vegetation between the ornamentals of the park, the dense native scrub, and scattered clusters of Southwest Riparian Woodland.



Photo 6: View looking south at the distinct edge between the maintained park boundary line and the unbroken cover of scrub oak chaparral and mixed scrub species.



Photo 7: View looking west at sprawling lawns and an amphitheater within the park.



Photo 8: View looking southwest at Open Water, Southwest Riparian Woodland, and Cattail Marsh vegetation types within the park. Other than scattered clusters around the perimeter of the park's landscaped boundary line, this large central area of Southwest Riparian Woodland is the only portion of the project site in which this vegetation type occurs.



Photo 9: View looking west at maintained walking trails bordering the ponds and Southwest Riparian Woodland area. This riparian portion of the project site offers excellent habitat for Least Bell's vireo and other riparian birds.



Photo 10: View looking west at southern edge of Southwest Riparian Woodland area. Paved roads, sprawling lawns, and installed ornamental trees inhibit this type of habitat from spreading.



Photo 11: View looking south at sprawling lawns and installed trees abutting with the dense, unbroken scrub oak chaparral cover of the foothills surrounding the park.



Photo 12: View looking northwest at a representative view of the park. There are currently many paved walking paths, shade structures, sitting areas, parking lots, and other structures such as amphitheaters and jungle gyms within the park.



Photo 13: View looking south at installed coast live oaks and other ornamental trees adjacent to the main park entrance.



Photo 14: View looking northeast at a representative view of installed ornamental trees within the park. Minimal understory species are present due to continuous cover of turf grass.



Photo 15: View looking south at an existing campground at the northern portion of the project site.



Photo 16: View looking south at an existing drainage that flows underneath Glen Helen Parkway, and spills out onto floodplain of Cajon Wash.



Photo 17: View looking east at eucalyptus trees and recently cleared ground in the northern portion of the project site.



Photo 18: View looking north at existing equestrian facility and open lot in the northern portion of the project site.

APPENDIX E

PROBABILITY OF OCCURRENCE TABLE

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
Plants				
<i>Ambrosia monogyra</i> Singewhorl burrobush	US: CA: CRPR: 2B.2	Perennial shrub that occurs in sandy soils in washes and ravines in chaparral and desert scrub below 1,640 feet (500 meters) elevation. In California, known from Riverside, San Bernardino, and San Diego Counties. Also occurs in Arizona, New Mexico, Texas, and Mexico.	August through November	Low: While there is a known occurrence record of this species 2 miles south of the project site.
<i>Astragalus hornii</i> var. <i>hornii</i> Horn's milk-vetch	US: - CA: - CRPR: 1B.1	Annual herb that occurs in alkaline playas and lake margins from 200 to 2,800 feet (60 to 850 meters) elevation. In California, known only from Inyo and Kern Counties. Believed extirpated from San Bernardino County. Also occurs in Nevada.	May through October	Not Expected: Species has been extirpated from San Bernardino County. Additionally, suitable habitat is absent from the project site.
<i>Berberis nevadensis</i> Nevin's barberry	US: - CA: - CRPR: 1B.1	Evergreen shrub that occurs in gravelly wash margins in alluvial scrub or coarse soils and rocky slopes in chaparral at 220 to 2,700 feet (70 to 825 meters) elevation. Known occurrences at higher elevations are planted (not natural). Known only from Los Angeles, San Bernardino, Riverside, and San Diego Counties, California.	March through June (but can survey year-round)	Low: While there is alluvial scrub habitat present on site, there are no known occurrence records within a 5-mile radius, which includes a large portion of Cajon Wash and associated alluvial scrub habitat. Additionally, Nevin's barberry currently only has 21 CNDDB occurrence records at the time of this report submittal.
<i>Brodiaea filifolia</i> Thread-leaved brodiaea	US: FT CA: SE CRPR: 1B.1	Perennial herb that usually occurs on clay or associated with vernal pools or alkaline flats; occasionally in vernal moist sites in fine soils (clay loam, silt loam, fine sandy loam, loam, loamy fine sand). Typically associated with needlegrass or alkali grassland or vernal pools. Occurs from 80 to 3,700 feet (25 to 1,120 meters) elevation. Known only from Los Angeles, Orange, Riverside, San Bernardino, San Diego, and San Luis Obispo Counties, California.	March through June	Not Expected: This species is not expected to occur due to the overall lack of suitable vernal pool, alkaline flat, or needlegrass habitat on site. Additionally, there are no known local occurrence records for thread-leaved brodiaea.
<i>Calochortus palmeri</i> var. <i>palmeri</i> Palmer's mariposa-lily	US: - CA: - CRPR: 1B.2	Perennial herb that occurs in mesic sites in chaparral and lower montane coniferous forest at 2,000 to 7,900 feet (600 to 2,400 meters) elevation. Known from Riverside, San Bernardino, Santa Barbara, Los Angeles, Ventura, Kern, and San Luis Obispo Counties, California.	April through July	Low: This species prefers higher elevations than exists on the project site, and there are no known occurrence records in the vicinity of the site.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Calochortus weedii</i> var. <i>intermedius</i> Intermediate mariposa-lily	US: – CA: – CRPR: 1B.2	Perennial herb that occurs in dry, open rocky slopes and rock outcrops in chaparral, coastal sage scrub, and grassland, at 340 to 2,800 feet (105 to 855 meters) elevation. Known only from Los Angeles, Orange, Riverside, and San Bernardino Counties, California.	Blooms May through July	Low: Project lacks rocky outcrops and other suitable habitat qualities. No local occurrence records are known.
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i> Salt marsh bird's-beak	US: FE CA: SE CRPR: 1B.2	Annual herb that occurs in coastal dunes and salt marshes. In California, known from Los Angeles, Orange, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, and Ventura Counties. Historical collections referred to this taxon from alkaline meadow in vicinity of San Bernardino Valley.	May through October	Not Expected: The project site lacks suitable alkali meadow habitat or soil substrate to support this species.
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	US: – CA: – CRPR: 1B.1	Annual herb that occurs in sandy or rocky soils in chaparral, coastal scrub, oak woodlands, and grassland at 100 to 5,600 feet (40 to 1,705 meters) elevation. Known only from Los Angeles, Riverside, and San Bernardino Counties, California.	Blooms April through June	Moderate: The majority of the site lacks suitable open sandy/rocky soils within the densely vegetated chaparral and scrub communities. However, Parry's spineflower has a moderate probability of occurrence because there was an occurrence recorded in 2018 at 0.5 mile south of the project in the floodplain of Lytle Creek within a matrix of chaparral/alluvial species that are very similar to species on site (chamise, California sagebrush, etc.). Additionally, there was another known occurrence recorded in 1994 at 0.25 mile southeast down Cajon Wash from the project site.
<i>Chorizanthe xanti</i> var. <i>leucotheca</i> White-bracted spineflower	US: – CA: – CRPR: 1B.2	Annual herb that occurs in sandy to gravelly places in Mojave desert scrub, pinyon and juniper woodland, or coastal scrub (alluvial) in the Transverse and Peninsular Ranges and desert edge foothills at 980 to 3,900 feet (300 to 1,200 meters) elevation in coastal southern California and adjacent desert areas. Known only from Los Angeles, Riverside, San Bernardino, and San Diego Counties, California.	April through June	Low: While there was an occurrence of white bracted spineflower recorded within the northernmost portion of Cajon Wash on the project site in 1979, the most recent occurrence within the vicinity of the project site was recorded 2 miles upstream in 2010. However, even with the two local occurrences and alluvial habitat occurring within the project site, there is still a low probability of the plant occurring on site due to the lack of gravelly soils.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Deinandra mohavensis</i> Mojave tarplant	US: - CA: - CRPR: 1B.3	Annual herb that occurs in seeps, drainages (including low areas along roads), ponds, and similar mesic areas, generally in sandy alluvial soil, in openings in riparian scrub, coastal scrub, and chaparral at 2,100 to 5,300 feet (640 to 1,600 meters) elevation. Known only from California from the San Jacinto Mountains in Riverside County, the Sierra Nevadas in Kern County, the north edge of the San Bernardino Mountains in San Bernardino County (believed extirpated), and around Palomar Mountain in San Diego County.		Not Expected: Seeps and other mesic wet areas are absent from the project site. Even though there is sandy alluvial habitat down in Cajon Wash, this species is considered broadly extirpated from San Bernardino County, and as such, is not expected to occur on site.
<i>Dodecahema leptoceras</i> Slender-horned spineflower	US: FE CA: SE CRPR: 1B.1	Annual herb that occurs in sandy cobbly riverbed alluvium in alluvial fan sage scrub (usually late seral stage), on floodplain terraces and benches that receive infrequent overbank deposits from generally large washes or rivers, where it is most often found in shallow silty depressions dominated by leather spineflower (<i>Lastarridea coriacea</i>) and other native annual species and is often associated with cryptogamic soil crusts composed of bryophytes, algae and/or lichens. Occurs at 600 to 2,500 feet (200 to 760 meters) elevation. Known only from Los Angeles, Riverside, and San Bernardino Counties, California.	Blooms April through June (annual herb)	Moderate: The project site has areas within Cajon Wash with suitable soils, floodplain benches, and is within range of receiving infrequent overbank deposits from generally large washes or rivers. No cryptogamic soil crusts were observed. An occurrence record from 2005 is known 2 miles north of the project site on an alluvial bench within Cajon Wash with similar habitat (scalebroom and sagebrush). As such, this species has a moderate probability of occurring within the Cajon Wash portion of the project site.
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i> Santa Ana River woollystar	US: FE CA: SE CRPR: 1B.1	Occurs in Riversidean alluvial fan sage scrub and chaparral in sandy or gravelly soils of floodplains and terraced fluvial deposits of the Santa Ana River and larger tributaries (Lytle Creek and Cajon Wash, lower portions of City and Mill Creeks) at 300 to 2,100 feet (90 to 625 meters) elevation in San Bernardino and Riverside Counties, California.	May through September	Moderate: While there is suitable alluvial scrub habitat within Cajon Wash, there have been no local occurrence records known since 1985 approximately 500 feet east of the northeastern boundary of the project site. This entire population was disked and removed, and no other records within the vicinity have been recorded since then. However, because it was once observed in direct vicinity of the project site, it still has a moderate probability of occurrence due to the presence of high-quality habitat on the project site.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Horkelia cuneata</i> var. <i>puberula</i> Mesa horkelia	US: - CA: - CRPR: 1B.1	Sandy or gravelly soils in chaparral, or rarely in cismontane woodland or coastal scrub at 200 to 2,700 feet (70 to 825 meters) elevation. Known only from San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, and San Bernardino Counties, California. Believed extirpated from Riverside and San Diego Counties.	Blooms February through July (sometimes to September) (perennial herb)	Not Expected: While chaparral vegetation occurs on the project site, there are no suitable breaks in the contiguous scrub cover for mesa horkelia to germinate. As such, this species is not expected to occur on site.
<i>Imperata brevifolia</i> California satintail	US: - CA: - CRPR: 2B.1	Perennial grass that occurs in springs, meadows, streambanks, moist canyons, canals, alkaline sinks, and similar wet areas below 4,000 feet (1,220 meters) elevation. Known from Butte, Fresno, Imperial, Inyo, Kern, Lake, Los Angeles, Orange, Riverside, San Bernardino, Tehama, Tulare, and Ventura Counties, California, though many collections are old and the populations likely extirpated. Also occurs in other areas of the western U.S. and Mexico.	Blooms September through May	Not Expected: Moist soils are absent from the project site, and the species is likely extirpated from San Bernardino County so it is not expected to occur on site.
<i>Opuntia basilaris</i> var. <i>brachyclada</i> Short-joint beavertail	US: - CA: - CRPR: 1B.2	Perennial stem succulent that occurs in sandy soil or coarse, granitic loam in chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon-juniper woodland at 1,400 to 5,900 feet (425 to 1,800 meters) elevation in the Providence Mountains and desert slopes of the San Gabriel and San Bernardino Mountains. Known only from Los Angeles and San Bernardino Counties, California.	Blooms April through June; identifiable year round	Not Expected: While chaparral vegetation occurs on the project site, there are no suitable breaks in the contiguous scrub cover for this species to grow. The slopes of the project site are occupied by an unbroken woody scrub layer with little to no understory layer.
<i>Pediomelum castoreum</i> Beaver dam breadroot	US: - CA: - CRPR: 1B.2	Perennial herb that occurs in sandy soils, washes, and roadcuts in Joshua tree woodland and Mojave Desert scrub at 2,000 to 5,000 feet (610 to 1,525 meters) elevation. In California, known only from San Bernardino County. Also occurs in Arizona and Nevada.	Blooms April through May	Not expected: The project site does not have Joshua tree woodland to support this species. However, even though there are sandy soils within the alluvial scrub vegetation communities down in Cajon Wash, there are no known occurrence records within the project vicinity.
<i>Streptanthus campestris</i> Southern jewelflower	US: - CA: - CRPR: 1B.3	Perennial herb that occurs in open rocky areas in chaparral, lower montane coniferous forest, and pinyon-juniper woodland at 2,000 to 7,800 feet (600 to 2,400 meters) elevation. In California,	Blooms May through July	Not Expected: While there is chaparral vegetation on site, this species typically favors higher elevations that support coniferous forest. As such, this species is not expected to occur.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Symphytotrichum defoliatum</i> San Bernardino aster	US: - CA: - CRPR: 1B.3	Perennial herb that occurs in vernal wet sites (e.g., ditches, streams, and springs) in many plant communities below 6,700 feet (2,040 meters) elevation. In California, known from Ventura, Kern, San Bernardino, Los Angeles, Orange, Riverside, and San Diego Counties.	Blooms July through November	Not Expected: The project site lacks suitable habitat for this species because there are no wet areas other than standing water and infrequently flooded alluvial wash.
<i>Symphytotrichum greatae</i> Greata's aster	US: - CA: - CRPR: 1B.3	Perennial herb that occurs in mesic places in canyons in chaparral and woodland habitats at 1,000 to 6,600 feet (300 to 2,010 meters) elevation. Known only from Los Angeles, San Bernardino, and Ventura Counties, California.	Blooms June through October	Not Expected: The project site lacks adequately mesic soils and canyons to support this species.
Invertebrates				
<i>Bombus crotchii</i> Crotch's bumble bee	US: - CA: SCE	Restricted to California in the United States. Inhabits open scrub (including chaparral) and grassland from coastal California to crest of Sierra-Cascade and in desert edge areas, south into Mexico. Primarily nests underground. Suitable bumble bee habitat requires the continuous availability of flowers on which to forage throughout the duration of the colony (spring through fall), colony nest sites, and overwintering sites for the queens.	Spring and summer	Moderate: Suitable open chaparral and scrub habitat for foraging and nesting is present within the project site. CNDDDB records from 1945 show occurrences within 5 miles of the project site
<i>Bombus occidentalis</i> Western bumble bee	US: - CA: SA	Western bumblebee was historically known throughout much of the mountain area and northern coast of California but is now largely confined to high elevation sites and a small handful of records on the northern California coast. Since 1998, this bumble bee has undergone a drastic decline of its former range. It is known from as far south as the southern Sierra Nevada and south to San Luis Obispo County in coastal areas. It does not occur in the Tehachapi Mountains or adjacent valley or desert areas.	Spring and summer	Low: Suitable open chaparral and scrub habitat for foraging and nesting is present within the project site. However, the last recorded CNDDDB occurrence within 5 miles of the project was in 1929.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Euphydryas editha quino</i> Quino checkerspot butterfly	US: FE CA: SA	Meadows or openings within coastal sage scrub or chaparral below about 5,000 feet (1,524 meters) elevation where food plants (<i>Plantago erecta</i> and/or <i>Orthocarpus purpurascens</i>) are present. Historically known from Santa Monica Mountains to northwest Baja California; currently known only from southwestern Riverside County, southern San Diego County, and northern Baja California.	January through late April	Low: Coastal sage scrub and chaparral habitat occur within the project site; however, Plantago species not recorded during initial biological survey. CNDDB records within 5 miles of project site, but is outside of species recovery unit.
Amphibians				
<i>Anaxyrus (Bufo) californicus</i> Arroyo toad	US: FE CA: SSC	Washes and arroyos with open water; sand or gravel beds; for breeding, pools with sparse overstory vegetation. Coastal and a few desert streams from Santa Barbara County to Baja California. The arroyo toad habitat consists of narrow and shallow aquatic and riparian areas with slow moving water.	March through July	Moderate: Suitable habitat is present in Cajon Wash on eastern side of project with limited ephemeral water. CNDDB records within 5 miles upstream of project site have potential for connectivity to Cajon Wash. Known to occur north of project site in San Bernardino National Forest.
<i>Spea hammondi</i> Western spadefoot	US: PT CA: SSC	Grasslands and occasionally hardwood woodlands; largely terrestrial but requires rain pools or other ponded water persisting at least 3 weeks for breeding; burrows in loose soils during dry season. Road pools/ruts, stock ponds and other man-made water sources have been documented as breeding resources. Occurs in the Central Valley and adjacent foothills, the non-desert areas of southern California, and Baja California.	October through April (following onset of winter rains)	Low: No vernal pools on site for breeding. This species may forage in alkali grassland on project site. Potential to use road ruts if prolonged ponding occurs.
<i>Rana boylei</i> Foothill yellow-legged frog	US: FE/FT CA: SE/ST/SSC	Partly-shaded, shallow streams and riffles with a rocky (at least some cobble-sized) substrate for egg-laying, and with water for at least 15 weeks until metamorphosis. Historically occurred in much of northern and central California, south along the western foothills of the Sierra Nevada to the edge of the Tehachapi Mountains, and south along the coast ranges to the San Gabriel Mountains (south to the San Gabriel River) in Los Angeles County.	March through June	Not Expected: Site lacks shallow stream habitat, no connectivity to a known population. CNDDB record within 5 miles is listed as possibly extirpated.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
Reptiles				
<i>Anniella stebbinsi</i> Southern California legless lizard	US: – CA: SSC	Inhabits sandy or loose loamy soils with high moisture content under sparse vegetation in Southern California.	Nearly year round, at least in southern areas	Low: While there is a CNDDB occurrence within 1 mile of the project from 2005. The site has limited sandy areas within Cajon Wash, and there are little to no soils on site that have a high moisture content.
<i>Arizona elegans occidentalis</i> California glossy snake	US: – CA: SSC	Scrub and grassland habitats, often with loose or sandy soils. Patchily distributed from the eastern portion of San Francisco Bay to southern San Joaquin Valley and in non-desert areas of southern California. Also occurs in Baja California, Mexico.	Most active March through June (nocturnal)	Moderate: Site has limited sandy areas within Cajon Wash with scrub; nonnative grasslands are also present in the northeast area of the wash. There is a known CNDDB occurrence within the project site.
<i>Phrynosoma blainvillii</i> (coronatum) Coast horned lizard	US: – CA: SSC	Primarily in sandy soil in open areas, especially washes and floodplains, in many plant communities. Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and an abundant supply of ants or other insects. Occurs west of the deserts from northern Baja California north to Shasta County below 8,000 feet (2,400 meters) elevation.	April through July with reduced activity August through October	Moderate: Site has limited sandy areas within Cajon Wash with scrub; nonnative grasslands are present. There is a known CNDDB occurrence within 1 mile east of the project.
<i>Thamnophis hammondi</i> Two-striped garter snake	US: – CA: SSC	Highly aquatic. Only in or near permanent sources of water. Streams with rocky beds supporting willows or other riparian vegetation. From Monterey County to northwest Baja California.	Diurnal Year-round	Not Expected: Site has riparian habitat, but it lacks a permanent water source required by this species.
<i>Diadophis punctatus modestus</i> San Bernardino ringneck snake	US: – CA: SA	Under surface objects along drainage courses, preferring mesic chaparral and oak and walnut woodland communities. Moist habitats of southwestern California from about Ventura to Orange Counties.	Diurnal. Crepuscular and nocturnal during warmer periods.	Low: Site has limited chaparral and oak woodlands. Known CNDDB occurrence within 5 miles of the project in the San Bernardino foothills.
<i>Charina umbratica</i> Southern rubber boa	US: – CA: ST	Montane oak or conifer forest near rock outcrops and woody debris, from about 5,000 to 8,000 feet (1,500 to 2,400 meters) elevation. Occurs in the San Bernardino and San Jacinto Mountains, with an intergrading population (with northern rubber boa) in the Mount Pinos and Tehachapi Mountain areas.	April through October (nocturnal)	Not Expected: No suitable habitat. Site is outside of elevational range.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Crotalus ruber</i> Red diamond rattlesnake	US: – CA: SSC	Desert scrub, thornscrub, open chaparral and woodland; occasional in grassland and cultivated areas. Prefers rocky areas and dense vegetation. Morongo Valley in San Bernardino and Riverside Counties to the west and south into Mexico.	Mid-spring through mid-fall	Moderate: Suitable chaparral and scrub habitat with rocky outcrops.
<i>Aspidoscelis tigris stejnegeri</i> Coastal whiptail	US: – CA: SSC	Woodlands, riparian areas, and sparsely vegetated areas in a wide variety of habitats including coastal sage scrub and sparse grassland. Occurs in valleys and foothills from Ventura County to Baja California.	April through August	Moderate: Site has coastal sage scrub, and limited riparian habitat. Known CNDDB occurrence within 5 miles of the project.
<i>Coleonyx variegatus abbotti</i> San Diego banded gecko	US: – CA: SSC	Often associated with rocks. Coastal sage scrub and chaparral, most often on granite or rocky outcrops in these habitats. Interior Ventura County south.	Nocturnal April through October	Low: Limited area of rocky outcrops in coastal sage scrub, and chaparral.
<i>Aspidoscelis hyperythra</i> Orange-throated whiptail	US: – CA: SA	Prefers washes and other sandy areas with patches of brush and rocks. In chaparral, coastal sage scrub, juniper woodland, and oak woodland from sea level to 3,000 feet (915 meters) elevation. Perennial plants required. Occurs in Riverside, Orange, San Diego Counties west of the crest of the Peninsular Ranges, in extreme southern San Bernardino County near Colton, and in Baja California.	March through July with reduced activity August through October	Moderate: Site has sandy areas within Cajon Wash with scrub. Chaparral and oak woodlands also occur within the site but have limited sandy areas. Known CNDDB occurrence within 5 miles of the project.
Birds				
<i>Aquila chrysaetos</i> (nesting & wintering)	US: – CA: CFP	Generally open country of the Temperate Zone worldwide. Nesting primarily in rugged mountainous country. Uncommon resident in Southern California.	Year-round diurnal	Low: Site provides foraging habitat. Species occurs in the San Bernardino Mountains. However, no known nesting occurrences within 5 miles of project site.
Golden eagle <i>Haliaeetus leucacephalus</i> (nesting & wintering)	US: – CA: SE/CFP	Winters locally at deep lakes and reservoirs feeding on fish and waterfowl. Locally rare throughout North America.	November through February	Low: Site provides limited foraging habitat in the form of a small managed pond. Potential for wintering; however, no known nesting occurrences within 5 miles of the project site. Species occurs in the San Bernardino Mountains; closest known breeding is at Silverwood Lake.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Buteo swainsoni</i> (nesting) Swainson's hawk	US: – CA: ST	Open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures. Breeds and nests in western North America; winters in South America. Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. Very limited breeding reported from Lanfair Valley, Owens Valley, Fish Lake Valley, and Antelope Valley. In Southern California, now mostly limited to spring and fall transient. Formerly abundant in California with wider breeding range.	Spring and fall (in migration)	Low: Migrant only, not known to breed regionally in San Bernardino County. Closest breeding population is Antelope Valley. Expected regionally during fall migrant.
<i>Athene cunicularia hypugaea</i> (burrow sites) Western burrowing owl	US: – CA: SCE/SCT, SSC	Open, treeless areas with low, sparse vegetation, usually on flat or gently sloping terrain, including grasslands, sparse scrub (cover less than 30 percent), farmland, airfields, airports, road embankments, cemeteries, urban vacant lots, desert areas, and other open habitat. They usually occupy ground squirrel burrows but may also utilize man-made structures such as culverts or debris piles, usually temporarily.	Year-round locally, regional migrant	Moderate: Certain portions of the site have potential suitable habitat for burrowing owl, namely the campground area in the northern portion of the project site. There are CNDDB occurrences within 5 miles of the project site, and the species is common in the region. However, during the survey, most of the project site was seen to have much denser vegetation than this species usually prefers. Presence of California ground squirrel burrows was limited within the site as well, which are used by the owls.
<i>Asio otus</i> (nesting) Long-eared owl	US: – CA: SSC (breeding)	Scarce and local in forests and woodlands throughout much of the Northern Hemisphere. Rare resident in coastal southern California. Nests and roosts in dense willow-riparian woodland and oak woodland, but forages over wider areas. Breeds from valley foothill hardwood up to ponderosa pine habitat. The most frequently used nesting habitat is young stands of closed canopy Coast Live Oak woodland, but all oak and riparian habitats had adjacent grasslands for foraging.	Nocturnal Year-round	Low: Project site has suitable oak woodland and riparian habitat for nesting and hunting. Species breeds in low densities regionally.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Buteo regalis</i> (wintering)	US: – CA: SA	Forages in open fields, grasslands and agricultural areas, sagebrush flats, desert scrub, fringes of pinyon-juniper habitats, and other open country in western North America. Not known to breed in California.	Mid-September through mid-April	Moderate: Migrant only, does not breed in California. Suitable foraging habitat.
Ferruginous hawk				
<i>Accipiter cooperii</i> (nesting)	US: – CA: SA	Forages in a wide range of habitats, but primarily in forests and woodlands. These include natural areas as well as human-created habitats such as plantations and ornamental trees in urban landscapes. Usually nests in tall trees 20 to 60 feet (6 to 18 meters) in extensive forested areas (generally woodlots of 4 to 8 hectares with canopy closure of greater than 60 percent). Occasionally nests in isolated trees in more open areas.	Year-round	Present: Suitable riparian habitat is present for nesting and foraging within the project site and this species was observed in close proximity to the Glen Helen Amphitheater and Cajon Wash.
Cooper's hawk				
<i>Falco columbarius</i> (wintering)	US: – CA: SA	Open country; breeds in the Holarctic Region and winters south to the tropics. Rare fall migrant and winter visitor to southwestern California.	September through April	Moderate: Migrant only, not known to breed locally. CNDDB occurrence within 5 miles of the project site.
Merlin				
<i>Coccyzus americanus</i> <i>occidentalis</i> (nesting)	US: FT CA: SE	Breeds and nests in extensive stands of dense cottonwood/willow riparian forest along broad, lower flood bottoms of larger river systems at scattered locales in western North America; winters in South America.	June through September	Low: Potential for migrants. Although riparian habitat with dense willow understory is within the project site, lacks large arthropods such as cicadas. Unlikely breeder due to closest breeding populations occurring on the Kern River and Colorado River.
Western yellow-billed cuckoo				
<i>Empidonax traillii extimus</i>	US: FE CA: SE	Rare and local breeder in extensive riparian areas of dense willows or (rarely) tamarisk, usually with standing water, in the southwestern U.S. and possibly extreme northwestern Mexico. Winters in Central and South America. Below 6,000 feet (1,828 meters) elevation. Reproduction and habitat at Lake Isabella and Kern River Generally considered south of Kernville and below 3,000 feet.	May through September	Moderate: Potential for migrants. Although riparian habitat with dense willow understory is within project site. Unlikely breeder due to closest breeding populations occurring on the Kern River and Colorado River. CNDDB occurrence within 5 miles of project site.
Southwestern willow flycatcher				

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Vireo bellii pusillus</i> Least Bell's vireo	US: FE CA: SE	Riparian forests and willow thickets. The most critical structural component of least Bell's vireo habitat in California is a dense shrub layer 2 to 10 feet (0.6 to 3.0 meters) above ground. Willows usually dominant. Nests from central California to northern Baja California. Winters in southern Baja California.	April through September	Moderate: Suitable riparian habitat. CNDDB occurrence just outside the project site.
<i>Poliophtila californica</i> Coastal California gnatcatcher	US: FT CA: SSC	Inhabits coastal sage scrub in low-lying foothills and valleys up to about 1,640 feet (500 meters) elevation in cismontane southwestern California and Baja California.	Year-round	High: Site has suitable coastal sage scrub habitat. CNDDB occurrence within the project site. Focus surveys conducted in 2023 by Ryan Ecological Consulting reported species occurrence within the project site.
<i>Setophagia petechia (nesting)</i> Yellow warbler	US: – CA: SSC (breeding)	Riparian woodland while nesting in the western U.S. and northwestern Baja California; more widespread in brushy areas and woodlands during migration. Occurs from western Mexico to northern South America in winter. Migrants are widespread and common. Three subspecies breed in California: <i>marcomi</i> , <i>brewsteri</i> , and <i>sonorana</i> . (Sonoran yellow warbler nests along the Colorado River).	Summer, winter, or year-round, depending on locale	Present: Species observed during biological survey, suitable breeding habitat (cottonwood/willow riparian). Known to breed locally. CNDDB occurrence within 5 miles of the project site.
<i>Agelaius tricolor (nesting colony)</i> Tricolored blackbird	US: – CA: ST/SSC (breeding)	Open country. Forages in grassland and cropland habitats. Nests in large groups near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, or tall herbs. Seeks cover for roosting in emergent wetland vegetation, especially cattails and tules, and also in trees and shrubs. Occurs in western Oregon, California, and northwestern Baja California.	Year-round	Low: Suitable foraging habitat, potential for breeding in cattail habitat in limited to small area.
<i>Icteria virens (nesting)</i> Yellow-breasted chat	US: – CA: SSC (breeding)	Riparian thickets of willow, brushy tangles near watercourses. Nests in riparian woodland throughout much of western North America. Winters in Central America.	April through September	High: Suitable riparian habitat with dense understory present.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Pyrocephalus rubinus</i> (nesting) Vermilion flycatcher	US: – CA: SSC (breeding)	A rare, local, year-long resident along the Colorado River, especially in vicinity of Blythe, Riverside County. Sporadic breeder in desert oases west and north to Morongo Valley and the Mojave Narrows, San Bernardino County. Formerly bred in coastal San Diego County. Nesters inhabit cottonwood, willow, mesquite, and other vegetation in desert riparian habitat adjacent to irrigated fields, irrigation ditches, pastures, and other open, mesic areas. Rare fall and winter visitor throughout the lowlands of Southern California from Santa Barbara and Inyo Counties south. Formerly much more common and widespread, but has disappeared entirely from Imperial and Coachella Valleys.	Fall or winter visitor or rare and local breeder	Present: Species observed during biological survey, suitable breeding habitat (open irrigated fields, cottonwood/willow riparian). Known to breed locally.
<i>Artemisiospiza belli belli</i> Bell's (Sage) sparrow	US: – CA: SA	Occupies chaparral and coastal sage scrub from west central California to northwestern Baja California.	Year-round, diurnal activity	High: Site has suitable chaparral and coastal sage scrub nesting habitat. CNDDDB occurrence within 5 miles of project site.
<i>Aimophila ruficeps canescens</i> Southern California rufous-crowned sparrow	US: – CA: SA	Steep, rocky coastal sage scrub and open chaparral habitats, particularly scrubby areas mixed with grasslands. From Santa Barbara County to northwestern Baja California.	Year-round	High: Suitable rocky scrub with mixed grasses and chaparral.
<i>Eremophila alpestris actia</i> California horned lark	US: – CA: SA	Open grasslands and fields, agricultural area, open montane grasslands. This subspecies is resident from northern Baja California northward throughout non-desert areas to Humboldt County, including the San Joaquin Valley and the western foothills of the Sierra Nevada (north to Calaveras County). Prefers bare ground such as plowed or fall-planted fields for nesting, but may also nest in marshy soil. During the breeding season, this is the only subspecies of horned lark in non-desert southern California; however, from September through April or early May, other subspecies visit the area.	Year-round interior (inland areas)	Low: Site has open fields and nonnative grasses. However, most of the suitable open space is frequently managed by mowing, reducing the potential for nesting. Species has potential to use site as foraging habitat. CNDDDB occurrence within 5 miles of the project site.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Lanius ludovicianus</i> (nesting) Loggerhead shrike	US: – CA: SSC (breeding)	Prefers open habitats with scattered small trees and fences, utility lines, or other perches. Inhabits open country with short vegetation, pastures, old orchards, cemeteries, golf courses, riparian areas, and open woodlands. Highest density occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Occurs only rarely in heavily urbanized areas, but often found in open cropland. Found in open country in much of North America.	Year-round	Moderate: Suitable open scrub habitat and food resources. No CNDDDB occurrence within 5 miles of the project site.
Mammals				
<i>Taxidea taxus</i> American badger	US: – CA: SSC	Primary habitat requirements seem to be sufficient food and friable soils in relatively open uncultivated ground in grasslands, woodlands, and desert. Widely distributed in North America.	Year-round	Low: Site has scrub, chaparral, and limited nonnative grassland habitat. However, frequent presence of domestic dogs and habitat fragmentation surrounding the site may limit this species.
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	US: – CA: SSC	Found in desert scrub and coastal sage scrub habitat, especially in association with cactus patches. Builds stick nests around cacti or on rocky crevices. Occurs along the Pacific slope from San Luis Obispo County to northwest Baja California.	Year-round, mainly nocturnal, occasionally crepuscular and diurnal	High: Site has coastal sage scrub habitat. However, site lacks large cactus patches and is limited in rocky outcrops. CNDDDB occurrences 5 miles south of the project site.
<i>Onychomys torridus ramona</i> Southern grasshopper mouse	US: – CA: SSC	Believed to inhabit sandy or gravelly valley floor habitats with friable soils in open and semi-open scrub, including coastal sage scrub, mixed chaparral, low sagebrush, riparian scrub, and annual grassland with scattered shrubs, preferring low to moderate shrub cover. More susceptible to small- and large-scale habitat loss and fragmentation than most other rodents due to its low fecundity, low population density, and large home range size. Arid portions of southwestern California and northwestern Baja California.	Nocturnal, active year-round	Low: Site has suitable sandy soils in Cajon Wash with scrub. CNDDDB occurrences not reported within 5 miles of the project site.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Perognathus longimembris brevinasus</i>	US: – CA: SSC MSHCP: S	Prefers sandy soil for burrowing, but has been found on gravel washes and stony soils. Found in coastal sage scrub in Los Angeles, Riverside, and San Bernardino Counties.	Nocturnal. Active late spring to early fall.	High: Site has appropriate sandy soils and coastal sage scrub. CNDDDB occurrence adjacent to the project site.
Los Angeles pocket mouse <i>Dipodomys merriami parvus</i>	US: FE CA: SE	Gravelly and sandy soils of alluvial fans, braided river channels, active channels and terraces; San Bernardino Valley (San Bernardino County) and San Jacinto Valley (Riverside County). In San Bernardino County, this species occurs primarily in the Santa Ana River and its tributaries north of I-10, with small remnant populations in the Etiwanda alluvial fan, the northern portion of the Jurupa Mountains in the south Bloomington area, and in Reche Canyon. In Riverside County, this species occurs along the San Jacinto River east of approximately Sanderson Avenue, and along Bautista Creek. Remnant populations may also occur within Riverside County in Reche Canyon, San Timoteo Canyon, Laborde Canyon, the Jurupa Mountains, and the Santa Ana River Wash north of SR-60.	Nocturnal, active year-round	High: Site has suitable sandy alluvial sage scrub habitat in Cajon Wash. CNDDDB occurrence adjacent to the project site.
San Bernardino kangaroo rat				
<i>Ovis canadensis nelsoni</i> (excluding peninsular Distinct Population Segment)	US: – CA: CFP (except rams when hunting is authorized)	Occurs in open, rocky, steep areas with available water and herbaceous forage; widely distributed from the White Mountains in Mono County to the Chocolate Mountains in Imperial County.	Year-round	Not Expected: No suitable habitat (open, rocky, steep areas) exists within the project site.
Desert bighorn sheep <i>Puma concolor</i>	US: – CA: CT (decision due Apr 21, 2021)	Mountain lions have the greatest geographical distribution of any extant mammal in the Americas. They are adapted to diverse habitats from the Yukon in Canada down to the southern Andes in South America. Mountain lions inhabit a wide range of ecosystems, including mountains, forests, deserts, and wetlands. They are primarily seen in the western U.S. An endangered subspecies of mountain lion also remains in Florida.	Year-round	Moderate: There is connectivity between the San Bernardino Mountains and the site via Cajon Wash, artificial and natural water sources, and native plant communities could be utilized. Site could be used as part of a larger home range.

Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Bloom Period	Occurrence Probability
<i>Losiurus xanthinus</i> Western yellow bat	US: – CA: SSC	Found mostly in desert and desert riparian areas of the southwest U.S., but also expanding its range with the increased usage of native and nonnative ornamental palms in landscaping. Individuals typically roost amid dead fronds of palms, but have also been documented roosting in cottonwood trees. Forage over many habitats.	Year-round; nocturnal	Moderate: Site has potential for roosting in cottonwoods and ornamental trees. Site provides foraging habitat (ponded water, riparian areas).
<i>Eumops perotis californicus</i> Western mastiff bat	US: – CA: SSC	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in vertical cliff faces, high buildings, and tunnels, and in palm fronds. Travels widely when foraging.	Year-round; nocturnal	Low: Site provides foraging habitat (ponded water, riparian areas). Species could roost in buildings within the project.
<i>Nyctinomops femorosaccus</i> Pocketed free-tailed bat	US: – CA: SSC	Usually associated with cliffs, rock outcrops, or slopes. May roost in buildings (including roof tiles) or caves. Rare in California, where it is found in Riverside, San Diego, Imperial and possibly Los Angeles Counties. More common in Mexico.	Year-round; nocturnal	Low: Site lacks cliffs or caves. However, species could roost in buildings within the project. Site provides foraging habitat (ponded water, riparian areas).

Source: Compiled by LSA (2024).

US: Federal Classifications

- FE Listed as Endangered.
- FT Listed as Threatened.
- FPE Proposed for listing as Endangered.
- FPT Proposed for listing as Threatened.
- FPD Proposed for delisting.
- FC Candidate for listing as Threatened or Endangered.

CA: State Classifications

- 1A California Rare Plant Rank 1A – presumed extinct in California.
- 1B California Rare Plant Rank 1B – rare, threatened or endangered in California and elsewhere.
- 2B California Rare Plant Rank 2B – rare, threatened or endangered in California, but more common elsewhere.
- 3 California Rare Plant Rank 3 – a review list of plants about which more information is needed.
- 4 California Rare Plant Rank 4 – a watch list of plants of limited distribution.
- CFP California Fully Protected. Refers to animals protected from take under Fish and Game Code sections 3511, 4700, 5050, and 5515.
- SA Special Animal. Refers to any other animal monitored by the Natural Diversity Data Base, regardless of its legal or rarity status.
- SC Candidate for State-listing as Threatened or Endangered.
- SCE Candidate for State-listing as Endangered.
- SCT Candidate for State-listing as Threatened.
- SE State-listed as Endangered.
- SR State-listed as Rare.
- SSC Species of Special Concern. Refers to animals with vulnerable or seriously declining populations.
- ST State-listed as Threatened.

Abbreviations and Acronyms:

- CNDDDB = California Natural Diversity Database
- CRPR = California Rare Plant Ranking
- ESU = evolutionarily significant unit
- I-10 = Interstate 10
- SR-60 = State Route 60

APPENDIX F

OAK TREE INVENTORY

Inventory of Oak Trees

Tree No.	Species	Latitude	Longitude	Height (feet)	Canopy Spread (feet)	Diameter at Breast Height (inches)	Notes
1	<i>Quercus agrifolia</i>	34.20201167	-117.4052879	35	30	17	Balanced crown, one dominant trunk
2	<i>Quercus agrifolia</i>	34.20472026	-117.4042782	55	45	30	Balanced crown, one dominant trunk
3	<i>Quercus agrifolia</i>	34.20433187	-117.4038866	30	20	12	Codominant trunks, included bark
4	<i>Quercus agrifolia</i>	34.20430043	-117.4038969	40	30	6, 20	Codominance low on trunk
5	<i>Quercus agrifolia</i>	34.20426443	-117.4039476	30	25	9	Unbalanced crown, leaning, codominant trunks
6	<i>Quercus agrifolia</i>	34.20425221	-117.4039639	45	20	9	Balanced crown, one dominant trunk
7	<i>Quercus agrifolia</i>	34.2042366	-117.4039776	20	25	6, 9	Unbalanced crown, slight codominance
8	<i>Quercus agrifolia</i>	34.20488504	-117.4043123	35	30	21	Balanced crown, one dominant trunk
9	<i>Quercus agrifolia</i>	34.20427517	-117.4039873	20	7	5	Balanced crown, one dominant trunk
10	<i>Quercus agrifolia</i>	34.20425424	-117.4040125	35	20	8	Balanced crown, one dominant trunk
11	<i>Quercus agrifolia</i>	34.20426784	-117.4040245	35	25	5, 14	Slight codominant trunk
12	<i>Quercus agrifolia</i>	34.20496629	-117.4043135	35	35	16	Balanced crown, one dominant trunk
13	<i>Quercus agrifolia</i>	34.20436459	-117.40412	35	20	15	Balanced crown, one dominant trunk
14	<i>Quercus agrifolia</i>	34.2044112	-117.4041022	30	20	8	Leaning
15	<i>Quercus agrifolia</i>	34.20526431	-117.4044096	50	20	15	Balanced crown, one dominant trunk
16	<i>Quercus agrifolia</i>	34.20531316	-117.4043801	30	25	10	Balanced crown, one dominant trunk
17	<i>Quercus agrifolia</i>	34.20484362	-117.4045825	40	20	9	Poison oak at base
18	<i>Quercus agrifolia</i>	34.20446355	-117.4045528	30	15	6	Slight lean
19	<i>Quercus agrifolia</i>	34.2044183	-117.4046006	30	10	6	Balanced crown, covered in poison oak
20	<i>Quercus agrifolia</i>	34.20427459	-117.4039804	20	6	5	Balanced crown, one dominant trunk
21	<i>Quercus agrifolia</i>	34.20433004	-117.4049339	50	25	15	Balanced crown, covered in poison oak
22	<i>Quercus agrifolia</i>	34.20424793	-117.4050464	25	15	6	Balanced crown, one dominant trunk
23	<i>Quercus agrifolia</i>	34.20424504	-117.405084	30	15	8	Balanced crown, one dominant trunk, base in poison oak
24	<i>Quercus agrifolia</i>	34.2042661	-117.4051228	25	15	7	Balanced crown, one dominant trunk
25	<i>Quercus agrifolia</i>	34.20433227	-117.4052516	55	40	28	Balanced crown, one dominant trunk, base in poison oak
26	<i>Quercus agrifolia</i>	34.20442262	-117.4052561	45	20	15	Multiple dominant trunks 10 feet up, included bark
27	<i>Quercus agrifolia</i>	34.2043819	-117.405331	40	35	17	Balanced crown, one dominant trunk
28	<i>Quercus agrifolia</i>	34.2044564	-117.4053913	35	40	9, 13	Codominant trunks, included bark
29	<i>Quercus agrifolia</i>	34.20453907	-117.405477	40	40	16	Slight lean
30	<i>Quercus agrifolia</i>	34.20456776	-117.4054409	40	25	12	Slight lean
31	<i>Quercus agrifolia</i>	34.20460076	-117.4054731	40	30	26	Slightly unbalanced crown, slight lean
32	<i>Quercus agrifolia</i>	34.2046115	-117.4055027	40	25	13	Balanced crown, one dominant trunk
33	<i>Quercus agrifolia</i>	34.20468434	-117.4056278	25	15	5	Codominant trunks
34	<i>Quercus agrifolia</i>	34.2048325	-117.4058533	40	20	16	Balanced crown, one dominant trunk
35	<i>Quercus agrifolia</i>	34.20504348	-117.4060088	55	45	28	Codominant trunk at 6 feet

Inventory of Oak Trees

Tree No.	Species	Latitude	Longitude	Height (feet)	Canopy Spread (feet)	Diameter at Breast Height (inches)	Notes
36	<i>Quercus agrifolia</i>	34.20525366	-117.4060541	55	35	16	Balanced crown, one dominant trunk
37	<i>Quercus agrifolia</i>	34.20580402	-117.4063803	45	20	12	Slight lean
38	<i>Quercus agrifolia</i>	34.20772332	-117.408694	20	15	9	Balanced crown, one dominant trunk
39	<i>Quercus agrifolia</i>	34.20774087	-117.4086217	20	15	8	Balanced crown, one dominant trunk
40	<i>Quercus agrifolia</i>	34.20776984	-117.408663	22	15	10	Balanced crown, one dominant trunk
41	<i>Quercus agrifolia</i>	34.20777858	-117.4087505	30	20	11	Balanced crown, one dominant trunk
42	<i>Quercus agrifolia</i>	34.20781463	-117.4088356	35	20	10	Balanced crown, one dominant trunk
43	<i>Quercus agrifolia</i>	34.20786572	-117.4088074	35	20	10	Balanced crown, one dominant trunk
44	<i>Quercus agrifolia</i>	34.20796235	-117.4089218	35	20	11	Balanced crown, one dominant trunk
45	<i>Quercus agrifolia</i>	34.20797574	-117.4090137	25	15	10	Balanced crown, one dominant trunk
46	<i>Quercus agrifolia</i>	34.20802563	-117.4090618	30	20	8	Balanced crown, one dominant trunk
47	<i>Quercus agrifolia</i>	34.20805572	-117.4091259	30	25	5	Balanced crown, one dominant trunk
48	<i>Quercus agrifolia</i>	34.20810397	-117.4091123	25	10	6	Slight butt sweep
49	<i>Quercus agrifolia</i>	34.20808601	-117.409183	35	25	10	Balanced crown, one dominant trunk
50	<i>Quercus agrifolia</i>	34.20816684	-117.4091849	35	20	12	Balanced crown, one dominant trunk
51	<i>Quercus agrifolia</i>	34.20823097	-117.4092864	40	25	13	Balanced crown, one dominant trunk
52	<i>Quercus agrifolia</i>	34.20805535	-117.4095862	25	15	5	Balanced crown, one dominant trunk
53	<i>Quercus agrifolia</i>	34.20816279	-117.4096778	40	25	12	Balanced crown, one dominant trunk
54	<i>Quercus agrifolia</i>	34.20805135	-117.4096732	35	20	12	Balanced crown, one dominant trunk
55	<i>Quercus agrifolia</i>	34.20804316	-117.4097716	30	20	10	Balanced crown, one dominant trunk
56	<i>Quercus agrifolia</i>	34.20800966	-117.4098637	40	25	14	Unbalanced crown
57	<i>Quercus agrifolia</i>	34.20785721	-117.4097633	25	20	9	Balanced crown, one dominant trunk
58	<i>Quercus agrifolia</i>	34.20782035	-117.4096971	35	25	11	Slightly unbalanced crown
59	<i>Quercus agrifolia</i>	34.20778302	-117.4098027	40	20	9	Balanced crown, one dominant trunk
60	<i>Quercus agrifolia</i>	34.2077578	-117.4099236	40	30	14	Balanced crown, one dominant trunk
61	<i>Quercus agrifolia</i>	34.20771963	-117.4099546	15	10	5	Balanced crown, one dominant trunk
62	<i>Quercus agrifolia</i>	34.20758758	-117.4099294	35	20	11	Balanced crown
63	<i>Quercus agrifolia</i>	34.20752055	-117.4098992	30	20	9	Balanced crown, one dominant trunk
64	<i>Quercus agrifolia</i>	34.20744099	-117.410032	30	25	5, 6, 6	Codominant trunks
65	<i>Quercus agrifolia</i>	34.20735381	-117.4100626	35	20	7	Balanced crown, one dominant trunk
66	<i>Quercus agrifolia</i>	34.20728907	-117.409902	30	15	6	Balanced crown, one dominant trunk
67	<i>Quercus agrifolia</i>	34.2072945	-117.4100859	40	20	12	Balanced crown, one dominant trunk
68	<i>Quercus agrifolia</i>	34.20691285	-117.4100477	25	20	6	Unbalanced crown
69	<i>Quercus agrifolia</i>	34.20680496	-117.4100363	20	20	5	Severe lean
70	<i>Quercus agrifolia</i>	34.20678193	-117.4089103	35	20	11	Balanced crown, one dominant trunk

Inventory of Oak Trees

Tree No.	Species	Latitude	Longitude	Height (feet)	Canopy Spread (feet)	Diameter at Breast Height (inches)	Notes
71	<i>Quercus agrifolia</i>	34.20739762	-117.408032	30	20	8	Balanced crown, one dominant trunk
72	<i>Quercus agrifolia</i>	34.20739483	-117.4079836	30	15	11	Balanced crown, one dominant trunk
73	<i>Quercus agrifolia</i>	34.2073466	-117.4079425	20	10	5	Slight lean
74	<i>Quercus agrifolia</i>	34.20726257	-117.4078279	25	15	6	Balanced crown, one dominant trunk
75	<i>Quercus agrifolia</i>	34.20724345	-117.4077912	30	10	6	Balanced crown, one dominant trunk
76	<i>Quercus agrifolia</i>	34.20718224	-117.407818	30	15	5	Balanced crown, one dominant trunk
77	<i>Quercus agrifolia</i>	34.20719335	-117.4077526	40	10	6	Balanced crown, one dominant trunk
78	<i>Quercus agrifolia</i>	34.20716182	-117.4077041	30	20	8	Balanced crown, one dominant trunk
79	<i>Quercus agrifolia</i>	34.20714096	-117.4076878	35	20	8	Balanced crown, one dominant trunk
80	<i>Quercus agrifolia</i>	34.20708503	-117.4076584	30	20	9	Balanced crown, one dominant trunk
81	<i>Quercus agrifolia</i>	34.20703111	-117.40774	40	20	7	Balanced crown, one dominant trunk
82	<i>Quercus agrifolia</i>	34.20698998	-117.407617	35	15	7	Balanced crown, one dominant trunk
83	<i>Quercus agrifolia</i>	34.20683141	-117.4076869	15	15	5	Unbalanced crown
84	<i>Quercus agrifolia</i>	34.20674199	-117.4078035	40	20	10	Balanced crown, one dominant trunk
85	<i>Quercus agrifolia</i>	34.20652075	-117.4076391	20	10	6	Balanced crown, one dominant trunk
86	<i>Quercus agrifolia</i>	34.20659899	-117.40758	20	15	6	Balanced crown, one dominant trunk
87	<i>Quercus agrifolia</i>	34.20649416	-117.4075422	30	15	5	Unbalanced, patchy crown
88	<i>Quercus agrifolia</i>	34.20627545	-117.4074186	30	20	7	Balanced crown, one dominant trunk
89	<i>Quercus agrifolia</i>	34.20603128	-117.4074474	25	25	7	Unbalanced crown
90	<i>Quercus agrifolia</i>	34.20605682	-117.4072541	25	10	6	Multi-trunk above 6 feet
91	<i>Quercus agrifolia</i>	34.20601357	-117.4072252	20	10	7	Balanced crown, one dominant trunk
92	<i>Quercus agrifolia</i>	34.20776782	-117.4077846	30	15	5	Balanced crown, one dominant trunk
93	<i>Quercus agrifolia</i>	34.20893792	-117.4049722	30	15	5	Balanced crown, one dominant trunk
94	<i>Quercus agrifolia</i>	34.20918737	-117.40573	50	30	14	Slightly unbalanced crown
95	<i>Quercus agrifolia</i>	34.20925596	-117.4058154	55	40	26	Balanced crown, one dominant trunk
96	<i>Quercus agrifolia</i>	34.21321728	-117.407828	35	35	30	Balanced crown, one dominant trunk
97	<i>Quercus agrifolia</i>	34.21307464	-117.4079388	40	45	35	Balanced crown, one dominant trunk
98	<i>Quercus agrifolia</i>	34.21319891	-117.4080037	35	30	25	Slight lean
99	<i>Quercus agrifolia</i>	34.21274542	-117.4079702	35	30	25	Balanced crown, one dominant trunk
100	<i>Quercus agrifolia</i>	34.21137915	-117.410928	30	35	10, 12, 16	Three codominant trunks

Source: Compiled by LSA (2024).

Exhibit D

Consultant: raSmith

A.L.T.A. / N.S.P.S. Land Title Survey

COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

(C) EXAMINERS FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THEREOF AS SET FORTH IN A DOCUMENT:

IN NAME OF JOHN BARD
RECORDING NO. BOOK 26A, PAGE 132 OF OFFICIAL RECORDS
DESCRIBING DATE MAY 1987
ARTISTS SAID LAND MORE PARTICULARLY DESCRIBED THEREIN

(C) EXAMINERS FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THEREOF AS SET FORTH IN A DOCUMENT:

IN NAME OF RICHARD E. FLEISHER AND FRANCES L. FLEISHER
RECORDING NO. BOOK 26B, PAGE 109 OF OFFICIAL RECORDS
DESCRIBING DATE MAY 1987
ARTISTS SAID LAND MORE PARTICULARLY DESCRIBED THEREIN

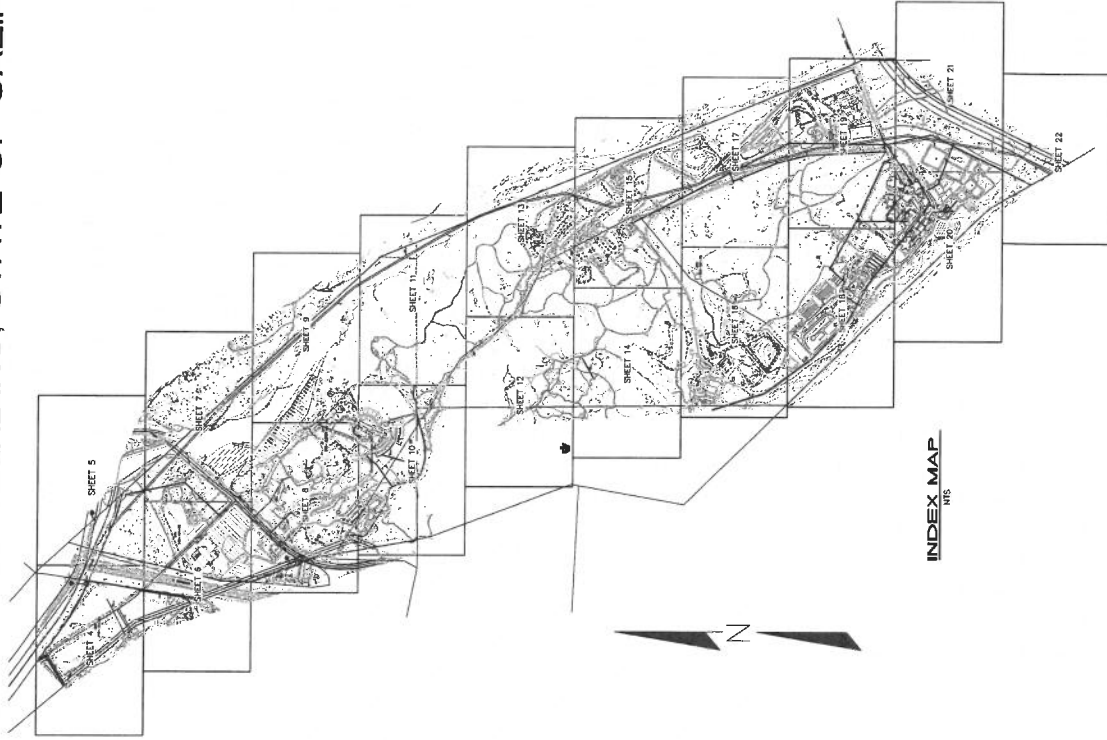
(C) EXAMINERS FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THEREOF AS SET FORTH IN A DOCUMENT:

IN NAME OF JAMES W. HARRIS
RECORDING NO. BOOK 26A, PAGE 132 OF OFFICIAL RECORDS
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COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA



LEGEND

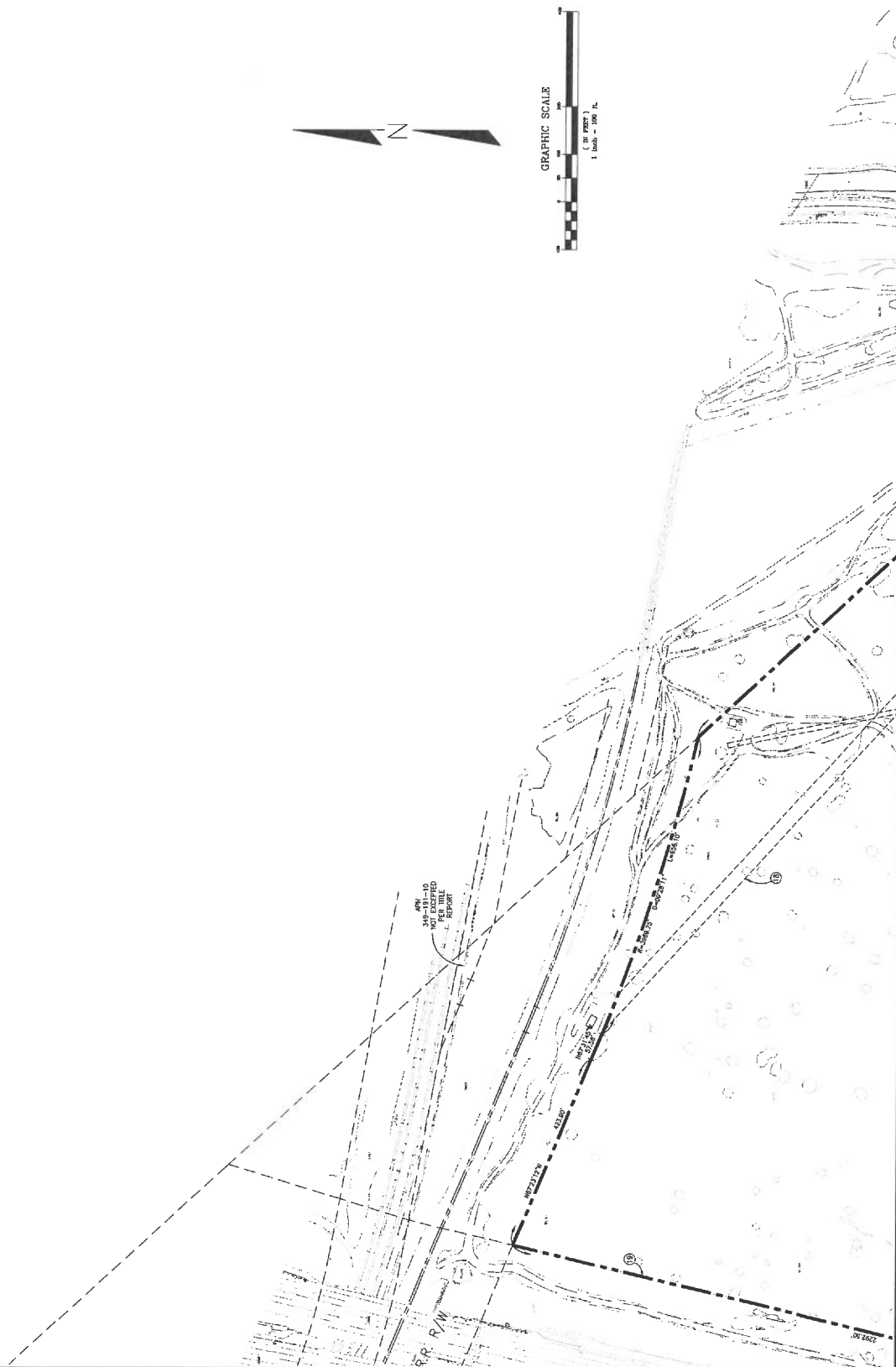
- BOUNDARY LINE
- EASEMENT LINE
- EXISTING PROPERTY LINE
- RIGHT OF WAY
- CENTERLINE

INDEX MAP
N.T.S.

VACANT LAND COUNTY OF SAN BERNARDINO, CALIFORNIA LAWYERS TITLE COMPANY AMENDED PRELIMINARY REPORT 1-6-2021 NO. 620675105		CREATIVITY BAYTON & ENGINEERING rasmithh.com 8911 Research Drive Irvine, CA 92618 4237 (949) 872-2378	COPYRIGHT 2024 R.A. Smith, Inc. DATE: 2/29/24 SCALE: NONE JOB NO. 2220022 PROJECT MANAGER: CHRIS BRATTY DESIGNED BY: KEC CHECKED BY: KEC SHEET NUMBER 3
DESCRIPTION	DATE		

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COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

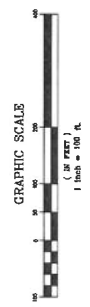
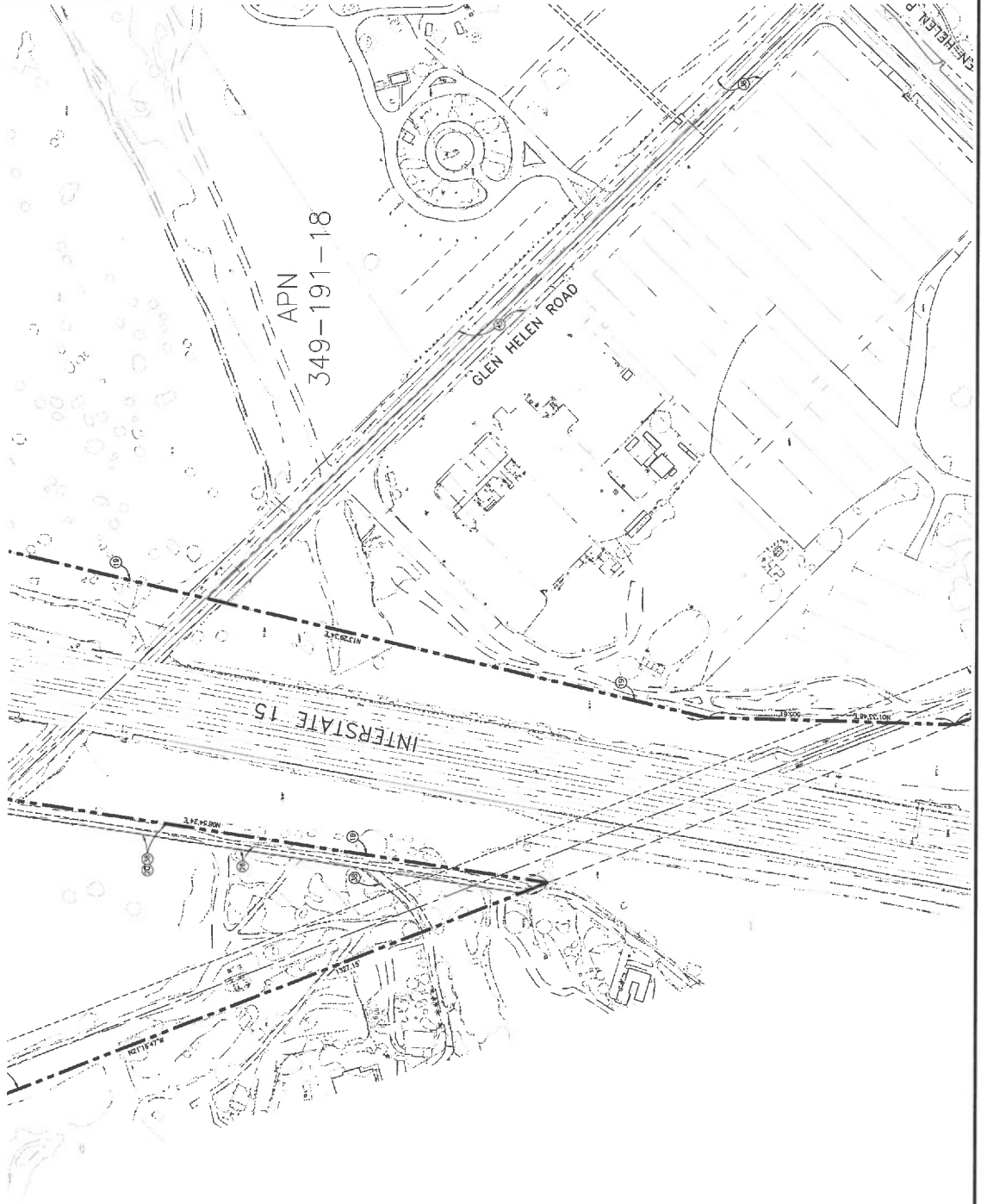


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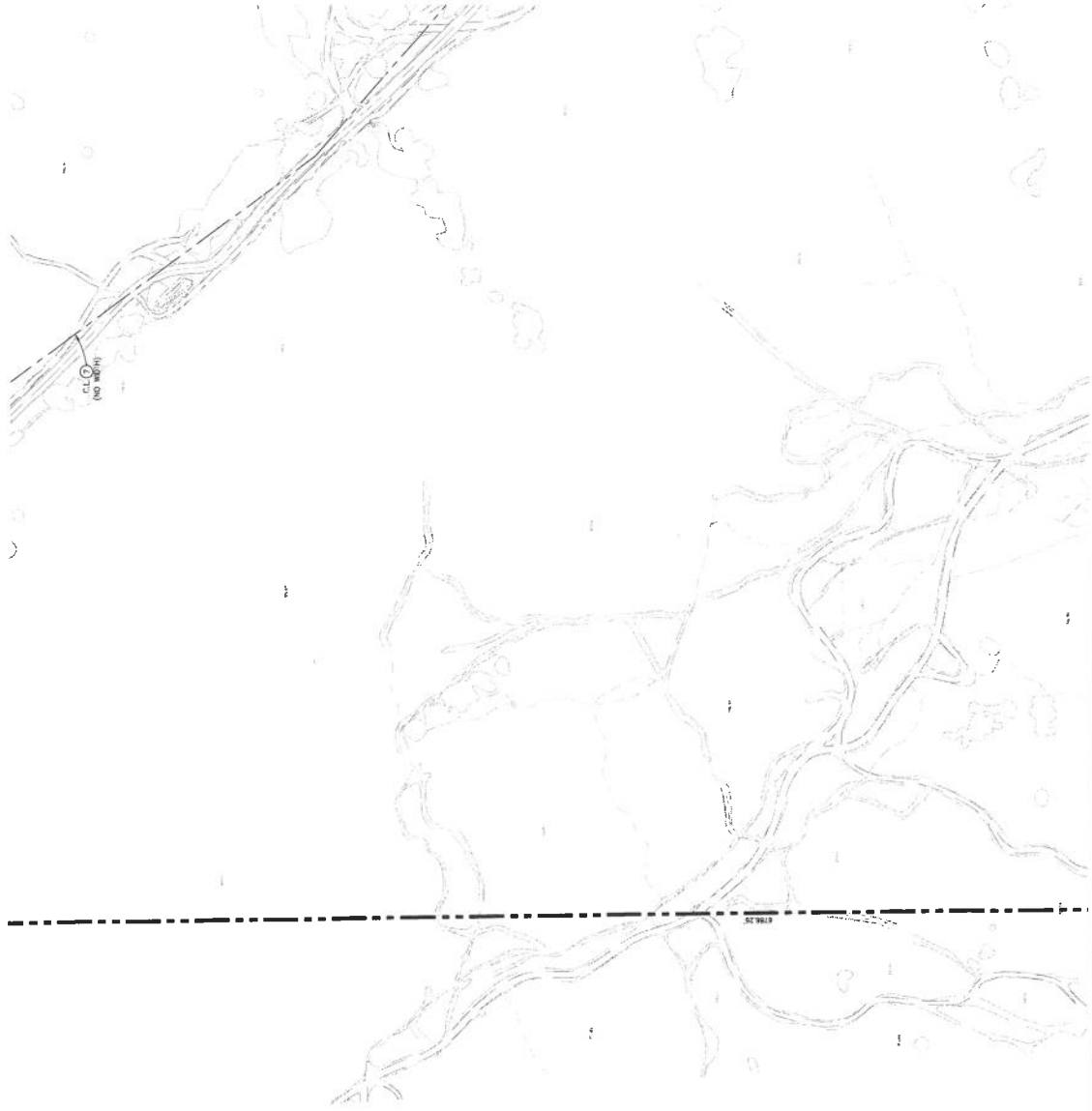
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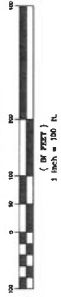
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COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA



GRAPHIC SCALE



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COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA



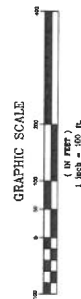
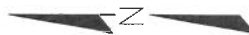
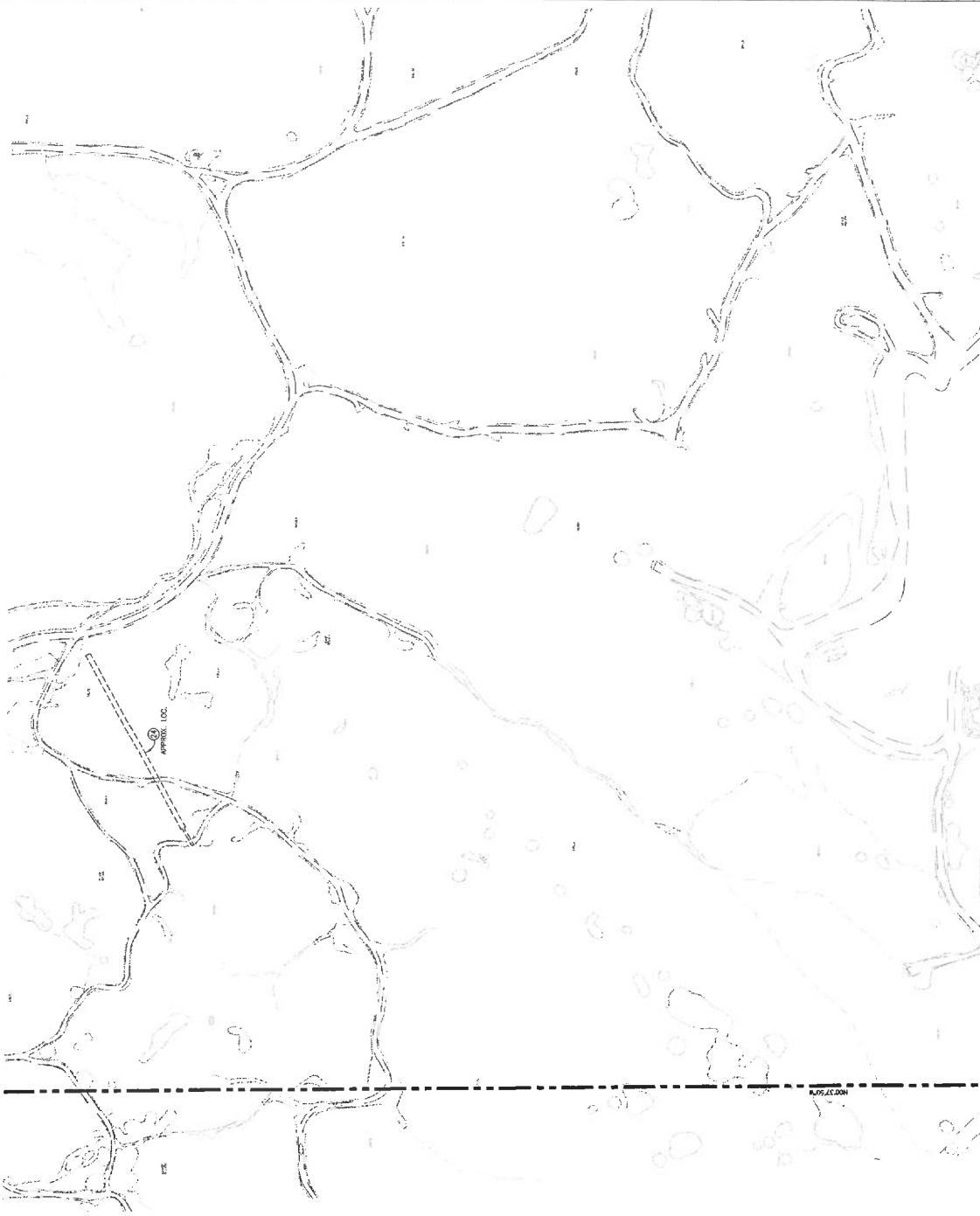
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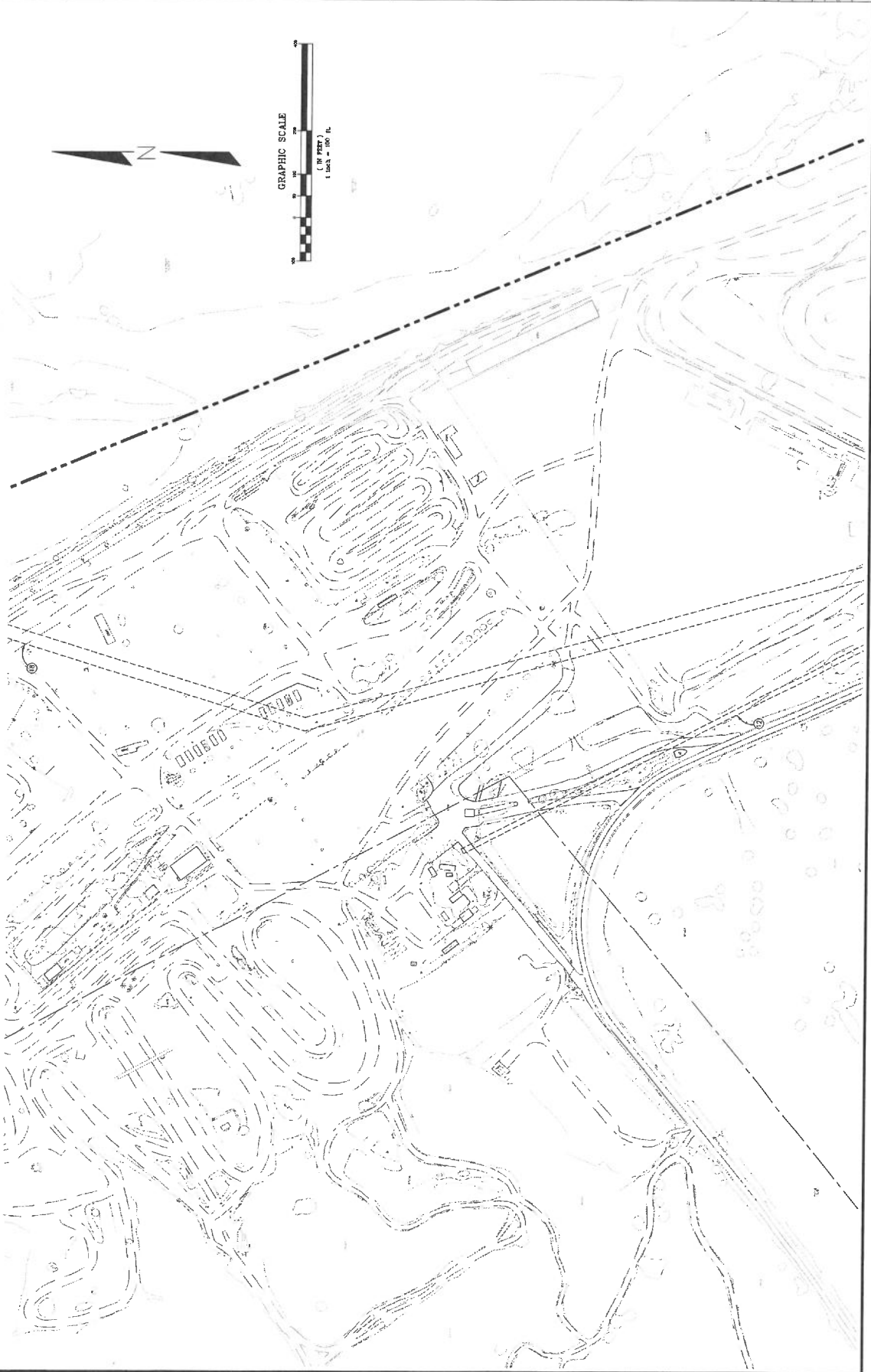
COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA



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COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA



GRAPHIC SCALE
(IN FEET)
1 inch = 100 ft.

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