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METACAPITAL MANAGEMENT LLC

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SUBJECT: Biological Resources Assessment for the for Proposed Project Located on the Southwest Corner of the Intersection of Lawson Avenue and Bellflower Street in the City of Adelanto, San Bernardino County, California

Introduction

This report contains the findings of ELMT Consulting’s (ELMT) biological resources assessment for the proposed Project located on the southwest corner of intersection of Lawson Avenue and Bellflower Street in the City of Adelanto, San Bernardino County, California. The biological due diligence field investigation was conducted by ELMT biologists Jacob H. Lloyd Davies and Megan E. Peukert on September 12th, 2023, to document baseline conditions and to assess the probability of occurrence of special-status¹ plant and wildlife species that could pose a constraint to project implementation. Special attention was given to the suitability of the project site to support burrowing owl (*Athene cunicularia*), Mohave ground squirrel (*Xerospemophilus mohavensis*), desert tortoise (*Gopherus agassizii*), western Joshua tree (*Yucca brevifolia*), and other special-status plant and wildlife species identified by the California Department of Fish and Wildlife’s (CDFW) California Natural Diversity Database (CNDDDB), and other electronic databases as potentially occurring in the general vicinity of the project site.

Project Location

The project site is generally located west of U.S. Route 395, north of State Route 18, south of Bartlett Avenue, and east of Verbena Road in the City of Adelanto, San Bernardino County, California. The site is depicted on the Adelanto quadrangle of the United States Geological Survey’s (USGS) 7.5-minute topographic map in Section 29 of Township 6 North, Range 5 West. Specifically, the project site is bounded to the east by Bellflower Street, to the north by Lawson Avenue, to the west by Lilac Road, lies north of Air Expressway, and straddles Larkspur Road which transects the project site from north to south. The project is located within Assessor Parcel Number (APN) 0459-124-36, and -37. Refer to Exhibits 1-3 in Attachment A.

Methodology

A literature review and records search were conducted to determine which special-status biological

¹ As used in this report, “special-status” refers to plant and wildlife species that are federally or State listed, proposed, or candidates; plant species that have been designated a California Native Plant Society (CNPS) Rare Plant Rank; and wildlife species that are designated by the California Department of Fish and Wildlife (CDFW) as fully protected, species of special concern, or watch list species.

resources have the potential to occur on or within the general vicinity of the project site. In addition to the literature review, a general habitat assessment or field investigation of the project site was conducted to document existing conditions and assess the potential for special-status biological resources to occur within the project site.

Literature Review

Prior to conducting the field investigation, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project site were determined through a query of the CDFW's QuickView Tool in the Biogeographic Information and Observation System (BIOS), CNDDDB Rarefind 5, the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the United States Fish and Wildlife Service (USFWS) species listings.

All available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project site were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred within the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources, as well as the following resources:

- Google Earth Pro historic aerial imagery (1985-2023);
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey²;
- USFWS Critical Habitat designations for Threatened and Endangered Species; and
- USFWS Endangered Species Profiles.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the project site. The CNDDDB database was used, in conjunction with ArcGIS software, to locate the nearest recorded occurrences of special-status species and determine the distance from the project site.

Field Investigation

Following the literature review, biologists Jacob H. Lloyd Davies and Megan E. Peukert inventoried and evaluated the condition of the habitat within a 200-foot buffer around the project site, where applicable, on September 12, 2023. Plant communities and land cover types identified on aerial photographs during the literature review were verified by walking meandering transects throughout the project site. In addition, aerial photography was reviewed prior to the site investigation to locate potential natural corridors and linkages that may support the movement of wildlife through the area. These areas identified on aerial photography were then walked during the field investigation.

² A soil series is defined as a group of soils with similar profiles developed from similar parent materials under comparable climatic and vegetation conditions. These profiles include major horizons with similar thickness, arrangement, and other important characteristics, which may promote favorable conditions for certain biological resources.

Soil Series Assessment

on-site and adjoining soils were researched prior to the field investigation using the USDA NRCS Soil Survey for San Bernardino County, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes that the project site has undergone.

Plant Communities

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), delineated on an aerial photograph, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community and/or land cover type in acres.

Plants

Common plant species observed during the field investigation were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less-familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual (Hickman 2012). In this report, scientific names are provided immediately following common names of plant species (first reference only).

Wildlife

Wildlife species detected during the field investigation by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides used to assist with identification of wildlife species during the survey included The Sibley Field Guide to the Birds of Western North America (Sibley 2003), A Field Guide to Western Reptiles and Amphibians (Stebbins 2003), and A Field Guide to Mammals of North America (Reid 2006). Although common names of wildlife species are well standardized, scientific names are provided immediately following common names in this report (first reference only).

Jurisdictional Drainages and Wetlands

Aerial photography was reviewed prior to conducting a field investigation in order to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may fall under the jurisdiction of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory jurisdiction. In addition, ELMT reviewed jurisdictional waters information through examining historical aerial photographs to gain an understanding of the impact of land-use on natural drainage patterns in the area. The USFWS National Wetland Inventory (NWI) and Environmental Protection Agency (EPA) Water Program “My Waters” data layers were also reviewed to determine whether any hydrologic features and wetland areas have been documented on or within the vicinity of the project site.

Existing Site Conditions

The project site occurs in an area that is primarily undeveloped with scattered rural residential, commercial, and institutional developments throughout the general vicinity. The site is bounded to the south by Cortez

Avenue (an unimproved road) with undeveloped, vacant land beyond; to the west by Lilac Road with residential and vacant land beyond; to the east by Bellflower Street with residential land beyond; and to the north by Lawson Avenue with undeveloped land beyond. The site itself supports undeveloped, vacant land which has been subjected to anthropogenic disturbances such as illegal dumping, off-road vehicular use, and surrounding development.

According to historic aerials, the site has supported undeveloped, vacant land since at least 1952. The earliest observable land uses in the vicinity of the site occurred prior to 1985 in association with residential development. The majority of the project site is disturbed and no longer supports a natural plant community. Scattered vegetation occurs throughout the project site.

Topography and Soils

The project site ranges in elevation from 2,897 to 2,885 feet above mean sea level. On-site topography is generally flat with no areas of significant topographic relief. Based on the NRCS USDA Web Soil Survey, the project site is historically underlain entirely by Bryman loamy fine sand (0 to 2 percent slopes). Soils onsite have been compacted from recent disturbances and surrounding land-use.

Vegetation

The project site supports one (1) land cover type that would be classified as disturbed (refer to Exhibit 4, *Vegetation* in Attachment A). Refer to Attachment B, *Site Photographs*, for representative site photographs.

The majority of the project site supports a disturbed land cover type that has been impacted by anthropogenic disturbances such as illegal dumping, off-road vehicular use, and surrounding development. Plant species present within the nonnative grassland include puncturevine (*Tribulus terrestris*), spiny hop sage (*Grayia spinosa*), chinch weed (*Pectis prostrata*), goosefoot (*Chenopodium* sp.), creosote (*Larrea tridentata*), red-stemmed filaree (*Erodium cicutarium*), Russian thistle (*Salsola tragus*), desert ragweed (*Ambrosia dumosa*), cheese weed (*Malva parviflora*), Jimson weed (*Datura stramonium*), western Joshua tree (*Yucca brevifolia*), and Mediterranean grass (*Schismus barbatus*)

Wildlife

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the project site. The discussion is to be used as a general reference and is limited by the season, time of day, and weather conditions in which the field investigation was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation. The project site provides limited habitat for wildlife species except those adapted to a high degree of anthropogenic disturbances and development.

Fish

No fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the project site. Therefore, no fish are expected to occur, and are presumed absent from the project site.

Amphibians

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on or within the vicinity of the project site. Therefore, no amphibians are expected to occur on the project site and are presumed absent.

Reptiles

The project site and surrounding area provide suitable foraging and cover habitat for local reptile species adapted to a high degree of anthropogenic disturbance. No reptile species were observed onsite during the field investigation. Common reptilian species that could be expected to occur onsite include western side-blotched lizard (*Uta stansburiana elegans*), Great Basin fence lizard (*Sceloporus occidentalis*), and southern alligator lizard (*Elgaria multicarinata*).

Birds

The project site and surrounding area provide suitable foraging and nesting habitat for local bird species adapted to anthropogenic disturbance. Bird species detected during the field investigation include common raven (*Corvus corax*), European starling (*Sturnus vulgaris*), house finch (*Haemorrhous mexicanus*), and mourning dove (*Zenaida macroura*).

Mammals

The project site and surrounding area provide suitable foraging and cover habitat for mammalian species adapted to a high degree of anthropogenic disturbance. Mammalian species detected during the field investigation include California ground squirrel (*Otospermophilus beecheyi*), kangaroo rat (*Dipodomys* sp.) and feral cat (*Felis catus*). Other common mammalian species that could be expected to occur onsite include coyote (*Canis latrans*), black-tailed jackrabbit (*Lepus californicus*), raccoon (*Procyon lotor*), and desert cottontail (*Sylvilagus audubonii*).

Nesting Birds

No active nests or birds exhibiting nesting behavior were observed on-site during the field investigation. The project site and surrounding area provide minimal nesting opportunities for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area and are adapted to a high degree of anthropogenic disturbance. No raptors are expected to nest on-site due to lack of suitable nesting opportunities.

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential

for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both anthropogenic disturbance and natural fluctuations in resources.

According to the San Bernardino County General Plan, the project site has not been identified as occurring within a Wildlife Corridor or Linkage. As designated by the San Bernardino County General Plan Open Space Element, the nearest major open space area documented in the vicinity of the project site is the Oro Grande Wash located approximately 3.8 miles east of the site. The site is separated from the Oro Grande Wash by existing development, roadways, and undeveloped land, and there are no riparian corridors or creeks connecting the project site to the wash.

The undeveloped land in the immediate vicinity of the project site provides local wildlife movement opportunities for wildlife species moving through the immediate area; however, the project site does not function as a major wildlife movement corridor or linkage. As such, implementation of the proposed project is not expected to have a significant impact to wildlife movement opportunities or prevent local wildlife movement through the area since there is ample habitat adjacent to the project site to support wildlife movement opportunities.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge or fill materials into “waters of the United States” pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

The USFWS NWI and the USGS National Hydrography Dataset were reviewed to determine if any blueline streams or riverine resources have been documented on the project site. Based on this review, no blueline streams or riverine resources have been identified on or adjacent to the project site. Additionally, no inundated areas or wetland vegetation were observed during the field investigation and soils mapped as occurring onsite by the identified by the USDA NCRS are not listed as hydric. According to the NWI, the nearest mapped resource to the site is an unnamed blueline stream which occurs approximately 378 feet to the west of the project site. This riverine resource is classified as an intermittently flooded streambed and does not connect further downstream to any additional resources. Implementation of the proposed project is not expected to result in impacts to this stream or any additional surrounding riverine resources. Therefore, regulatory approval from the Corps, Regional Board, and/or CDFW will not be required.

Special-Status Biological Resources

The CNDDDB Rarefind 5 and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California were queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Adelanto USGS 7.5-minute quadrangle. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified six (6) special-status plant species and twelve (12) special-status wildlife species as having potential to occur within the Adelanto USGS 7.5-minute quadrangle. No special-status plant communities were identified as having the potential to occur. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on habitat requirements, availability, and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the project site are presented in Attachment C: *Potentially Occurring Special-Status Biological Resources*.

Special-Status Plants

According to the CNDDDB and CNPS, six (6) special-status plant species have been recorded in the Adelanto quadrangle (refer to Attachment C). The only special-status plant species observed during the field investigation was western Joshua tree. Based on the availability and quality of on-site habitats, habitat requirements for specific species, and general isolation of the site from nearby open spaces, it was determined that the project site provides limited suitability habitat for western Joshua tree. It was further determined that the site does not have the potential to support any of the other special-status plant species known to occur in Adelanto USGS 7.5-minute quadrangle, and all are presumed to be absent.

Western Joshua Tree

The California Fish and Game Commission (Commission) designated the western Joshua tree as a candidate for listing under the California Endangered Species Act (CESA) in October 2020. This action afforded the western Joshua tree the same CESA protections as listed species, which means that removal of the desert trees was subject to fines and criminal penalties unless authorized by a “take” permit issued by the CDFW. Such permits were difficult to obtain, and when issued would authorize removal only in limited circumstances. The new law which became effective July 1, 2023, streamlines the western Joshua Tree take permit process and broadens the purposes for which a permit may be issued. A western Joshua tree may now be removed for any purpose, so long as a permit is obtained and the removal is fully mitigated, or alternatively, an in-lieu mitigation fee is paid. The table below summarizes the new rules for the area the project site is located.

Location	Project Type	Requirements
Within the area bounded on the east and west by Interstate 5 and Interstate 15, respectively, and on the north and south by Highway 58 and Highways 138 and 18, respectively.	All project types.	Full mitigation, or in-lieu fee as follows: <ul style="list-style-type: none"> • \$1,000 per tree > 5 meters tall • \$300 per tree 1 to 5 meters tall • \$150 per tree < 1 meter tall

Six (6) live western Joshua trees were observed within the boundaries of the project site measuring between 2 to 3 meters in height. If implementation of the proposed project should result in impacts to, or removal of any of the western Joshua trees occurring onsite, mitigation will be required at \$300 per tree, totaling \$1,800 to be paid into the western Joshua tree mitigation fund.

Special-Status Wildlife

According to the CNDDDB, twelve (12) special-status wildlife species have been reported in the Adelanto (refer to Attachment C). No special-status wildlife species were observed during the field investigation.

Based on habitat requirements for specific species and the availability and quality of on-site habitats, and proximity to known occurrences, it was determined that the proposed project site has a high potential to support California horned lark (*Eremophila alpestris actia*), and a low potential to prairie falcon (*Falco mexicanus*) and loggerhead shrike (*Lanius ludovicianus*). It was further determined that the project site does not have the potential to support any other special-status wildlife species and all are presumed to be absent.

None of the aforementioned species are federally or state listed as threatened or endangered. The surrounding utility poles allow for perching opportunities for prairie falcon while the Joshua trees within the project site allow for nesting and perching opportunities for loggerhead shrike. The area within and surrounding the project site provides foraging opportunities for all the aforementioned species. However, none of the aforementioned species were observed within the boundaries of the project site at the time of the investigation.

Due to regional significance and/or listing status, the potential occurrence of burrowing owl, desert tortoise, and Mohave ground squirrel are discussed in further detail below.

Burrowing Owl

The burrowing owl is currently listed as a California Species of Special Concern. It is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground (Haug and Didiuk 1993; Dechant et al. 1999). Burrowing owls are dependent upon the presence of burrowing mammals (such as ground squirrels) whose burrows are used for roosting and nesting (Haug and Didiuk 1993). The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drainpipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. They also require open vegetation allowing line-of-sight observation of the surrounding habitat to forage as well as watch for predators.

No burrowing owls or recent signs (i.e., pellets, feathers, castings, or whitewash) were observed during the field investigation. The majority of the project site is heavily vegetated with a variety of invasive/weedy species what provide minimal line-of-sight observation favored by burrowing owls. Additionally, no suitable burrows (>4 inches) for roosting and nesting were observed within site boundaries. Further, feral cats were observed during the investigation which likely preclude the establishment of burrowing owl within the project site. Therefore, burrowing owl is presumed to be absent from the project site and no further surveys are recommended.

Desert Tortoise

The Mojave population of the desert tortoise inhabits areas north and west of the Colorado River in the Mojave Desert of California, Nevada, Arizona, and southwestern Utah, and in the Sonoran Desert in California. Throughout the majority of the Mojave Desert, desert tortoises occur most commonly on gentle sloping soils characterized by an even mix of sand and gravel and sparsely vegetated low-growing vegetation where there is abundant inter-shrub space. Typical habitat for the Mojave desert tortoise has been characterized as Mojavean desert scrub below 5,500 feet in elevation with a high diversity of perennial

and ephemeral plants. The dominant shrub commonly associated with desert tortoise habitat is creosote bush; however, other shrubs including burrobush (*Ambrosia dumosa*), Mojave yucca, cheesebush (*Ambrosia salsola*), and Mojave prickly pear (*Opuntia mojavensis*) also provide suitable habitat. The desert tortoise spends 95 percent of its life underground and will opportunistically utilize burrows of various lengths, deep caves, rock and caliche crevices, or overhangs for cover. Therefore, moderately friable soil is required to allow for burrow construction and ensure that burrows do not collapse.

No live desert tortoises, suitable burrows, or other signs were observed during the field investigation. Further, the nonnative grassland present within the project site does not constitute suitable habitat for desert tortoise. Additionally, the project site is isolated from known desert tortoise habitat by existing development, including roadways which support regular traffic. As such, desert tortoise are presumed to be absent from the project site and focused surveys are not recommended.

Mohave Ground Squirrel

The Mohave ground squirrel is endemic to the western Mojave Desert, California. It occupies portions of Inyo, Kern, Los Angeles, and San Bernardino counties in the western Mojave Desert. In general, the species ranges from near Palmdale on the southwest to Lucerne Valley on the southeast, Olancho on the northwest and the Avawatz Mountains on the northeast (Gustafson 1993). The historical range of suitable habitat for this species as decreased by 10 to 16% due to urbanization and range-wide declines in trapping success over the last few decades suggesting that their populations are declining. This species was listed as threatened under the California Endangered Species Act in 1985.

The Mohave ground squirrel is a medium-sized ground squirrel that measures 8.3 to 9.1 inches (in; 21 to 23 centimeters; cm) in total length, 2.2 to 2.8 in (5.7 to 7.2 cm) in tail length, and 1.3 to 1.5 in (3.2 to 3.8 cm) in hind foot length (Hall 1981). The Mohave ground squirrel occupies all major desert scrub habitats in the western Mojave Desert. It has been observed in the following habitats described by Holland (1986) as:

- Mojave creosote scrub, dominated by creosote bush and burrobush,
- Desert saltbush scrub, dominated by various species of saltbush (*Atriplex*),
- Desert sink scrub, which is similar in composition to saltbush scrub, but is sparser and grows on poorly drained soils with high alkalinity,
- Desert greasewood scrub, with very sparse vegetation generally located on valley bottoms and dry lake beds,
- Shadscale scrub, which is dominated by *Atriplex confertifolia* and/or *A. spinescens*, and
- Joshua tree woodland, which includes Joshua trees widely scattered over a variety of shrub species (Gustafson 1993).

Mohave ground squirrel was not observed during the field investigation. Although a focused trapping survey was not performed, the habitat assessment conducted for this report and review of available information provided, allowed ELMT to offer its professional opinion as to the presence or absence of this species within the proposed project footprint.

Three criteria are typically used in assessing potential impacts to the Mohave ground squirrel:

Criteria 1: Is the site within the range of the species?

Per the *Current Status of the Mohave Ground Squirrel: an update covering the period 2013-2020* (Leitner 2021) the project site is within the historic range of Mohave ground squirrel. Although the project site is located within the historic range for Mohave ground squirrel, the site is near the southern boundary of the range. Further, the site is not located within any core areas, nor is it located within or immediately adjacent to any corridors, conservation areas, or other known populations identified by Leitner.

The project does not support a plant community suitable for Mohave ground squirrel habitat. Based on the data provided in *Current Status of the Mohave Ground Squirrel: an update covering the period 2013-2020* MGS have not been detected in the immediate vicinity of the project site during protocol grid and regional surveys (refer to Exhibit 7, *CNDDDB Species Observations*). The closest documented Mohave ground squirrel was captured on the western outskirts of Victorville to the southeast of the project site (CNDDDB 1959). Several areas in the vicinity of the project site have been surveyed to protocol level and regionally on several occasions, yet all of the surveys have been negative for Mohave ground squirrel in the vicinity of the project site. Per the *Current Status of the Mohave Ground Squirrel* Report trapping data, which provides more current data than the CNDDDB, no MGS have been trapped in the areas surrounding the project site.

Criteria 2: Is there native habitat with a relatively diverse shrub component?

There is no native habitat within the project site. The majority of the project site supports a nonnative grassland. Both creosote and spiny hopsage, species that are favored by Mohave ground squirrel for cover and forage respectively, were observed during the field investigation. However, hoary saltbush and winterfat, additional important forage species, were not observed. Dr. Leitner postulated, based on trapping surveys in the southern portion of the Mohave ground squirrel range, that densities of < 24/ha for spiny hopsage and < 100/ha of winterfat on a site was considered poor forage and may be related to the absence of Mohave ground squirrel. Creosote and spiny hopsage occurred in very limited quantities. Further, no wildlife corridors are expected to exist between the closest core MGS population and the project site. The maximum documented movement of MGS is 3.9 miles (Harris and Leitner 2005). Therefore, the project site is not likely to provide the essential habitat necessary to support the occupancy of Mohave ground squirrel.

Criteria 3: Is the site surrounded by development and therefore isolated from potentially occupied habitat?

Based on the results of the field investigation, the project site occurs adjacent to surrounding development including roadways and residential structures. Further, the site has been subject to routine disturbance from adjacent development, illegal dumping, and off-highway recreational vehicle use.

Based on habitat requirements for Mohave ground squirrel, known distributions, site conditions, and regional trapping studies, it was determined this species is presumed absent from the project site. No further focused surveys are recommended.

Critical Habitat

Under the federal Endangered Species Act, “Critical Habitat” is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or

not. All federal agencies are required to consult with the USFWS regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a Clean Water Act Permit from the United States Army Corps of Engineers). If there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is not located with federally designated Critical Habitat. The nearest designated Critical Habitat is located approximately 4.22 miles east of the site for southwestern willow flycatcher (*Empidonax traillii extimus*). Therefore, the loss or adverse modification of Critical Habitat will not occur as a result of the proposed project and consultation with the USFWS will not be required for impacts to Critical Habitat.

Conclusion

Based literature review and field survey, and existing site conditions discussed in this report, if implementation of the proposed project should result in the removal or impacts on western Joshua tree, mitigation fees and tree removal permits will be required. The project is not expected to result in significant impacts to any additional federally or State listed species known to occur in the general vicinity of the project site. Additionally, the project will have no effect on designated Critical Habitat, or regional wildlife corridors/linkage because none exists within the area. No jurisdictional drainage and/or wetland features were observed on the project site during the field investigation. No further surveys are recommended. With completion of the recommendations provided below, no impacts to year-round, seasonal, or special-status avian residents or special-status species will occur from implementation of the proposed project.

Recommendations

Migratory Bird Treaty Act and Fish and Game Code

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird species, a nesting bird clearance survey should be conducted prior to any ground disturbance or vegetation removal activities that may disrupt the birds during the nesting season.

If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer will be determined by the wildlife biologist and will depend on the level of noise and/or surrounding anthropogenic disturbances, line of sight between the nest and the construction activity, type and duration of construction activity, ambient noise, species habituation, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and

construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

Western Joshua Tree

With payment into the western Joshua tree mitigation fund, impacts to western Joshua tree will be less than significant.

Please do not hesitate to contact Tom McGill at (951) 285-6014 or tmcgill@elmtconsulting.com or Travis McGill at (909) 816-1646 or travismcgill@elmtconsulting.com should you have any questions this report.

Sincerely,



Thomas J. McGill, Ph.D.
Managing Director



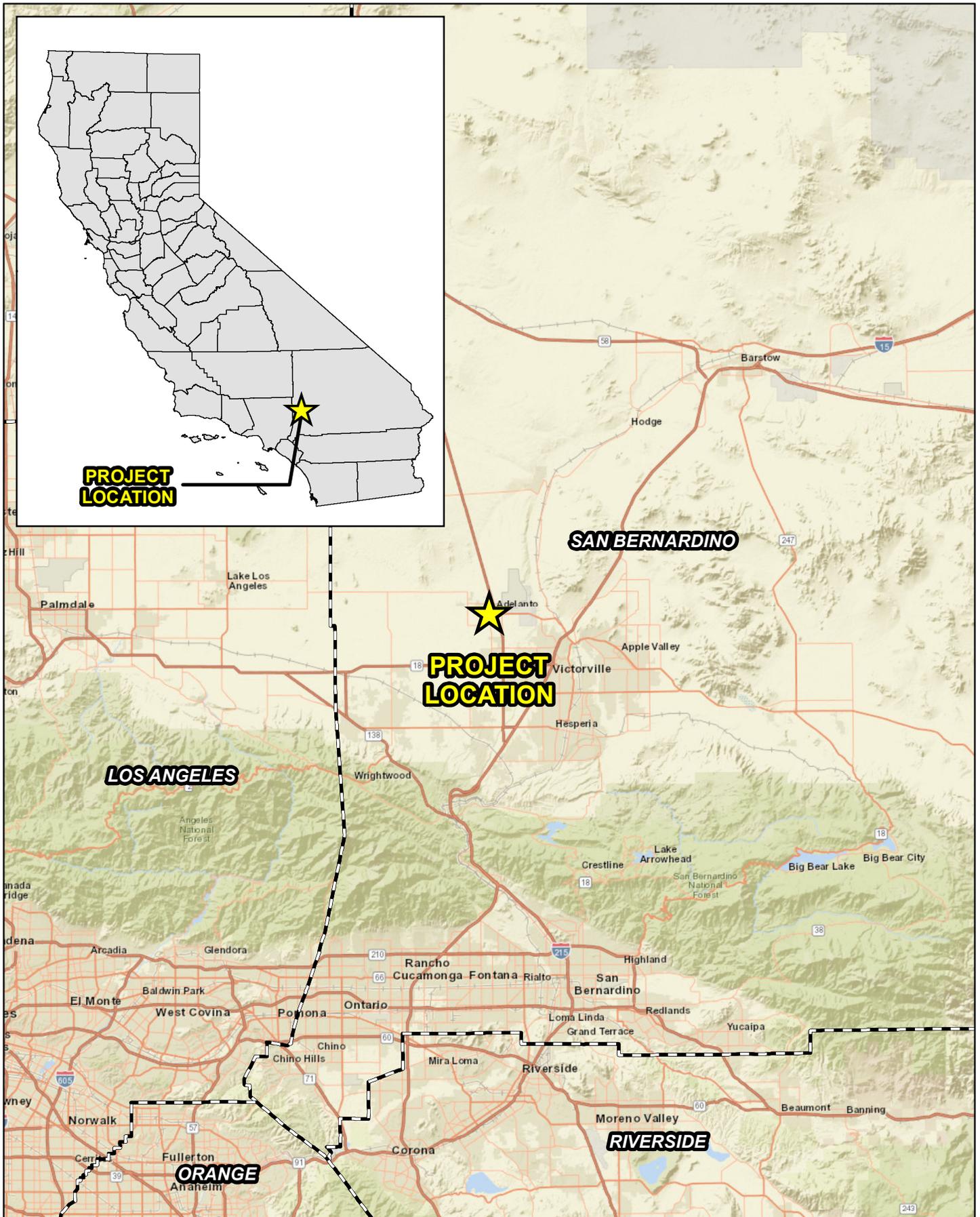
Travis J. McGill
Director

Attachments:

- A. *Project Exhibits*
- B. *Site Photographs*
- C. *Potentially Occurring Special-Status Biological Resources*
- D. *Regulations*

Attachment A

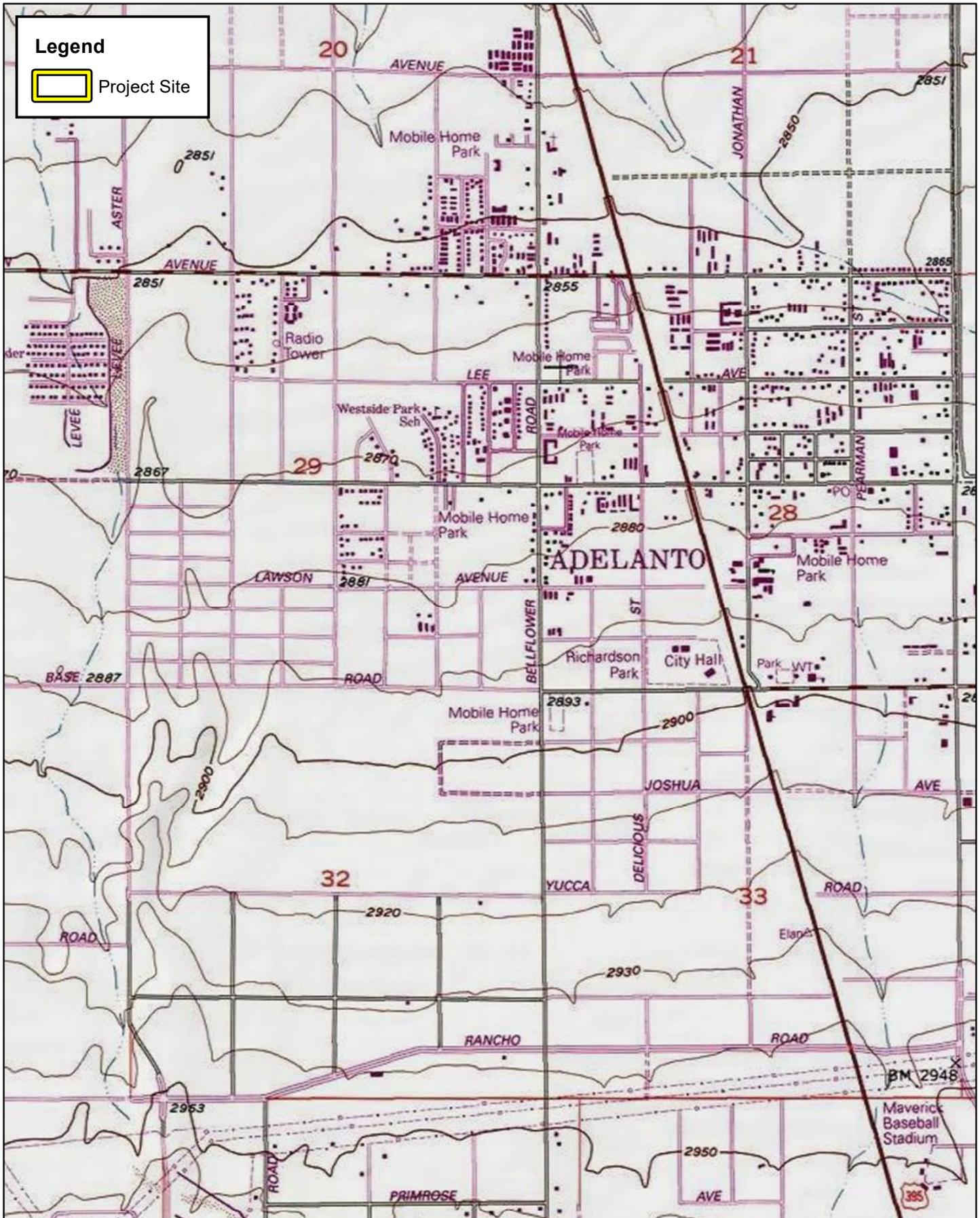
Project Exhibits



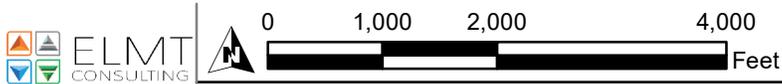
BELFLOWER ST AND LAWSON AVE
 BIOLOGICAL RESOURCES ASSESSMENT
Regional Vicinity



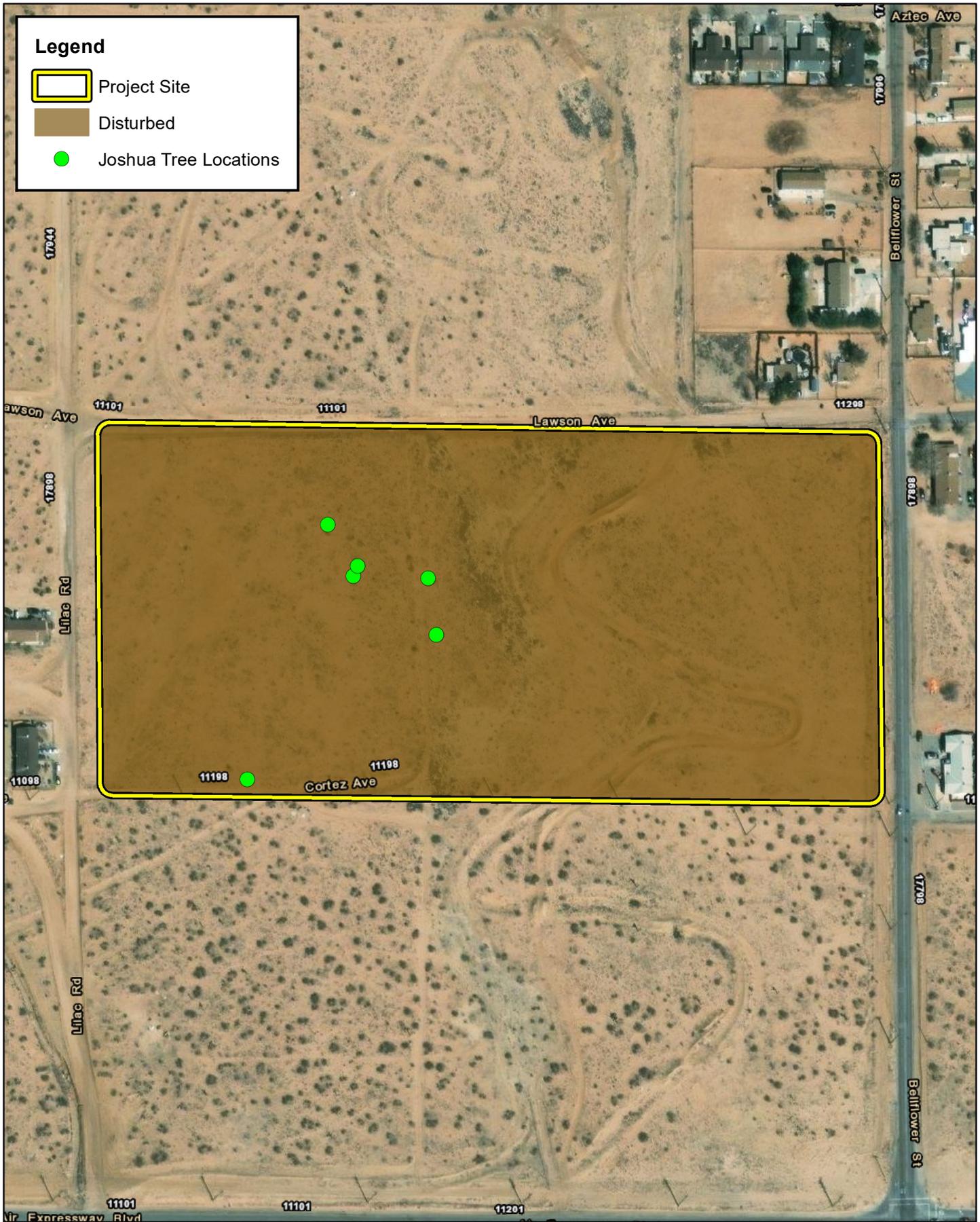
Source: World Street Map, San Bernardino County



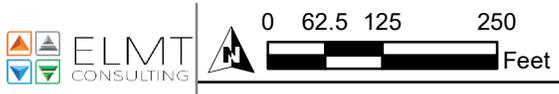
BELLFLOWER ST AND LAWSON AVE
 BIOLOGICAL RESOURCES ASSESSMENT
Site Vicinity



Source: USA Topographic Map, San Bernardino County



BELFLOWER ST AND LAWSON AVE
 BIOLOGICAL RESOURCES ASSESSMENT
Vegetation



Source: ESRI Aerial Imagery, San Bernardino County

Attachment B

Site Photographs



Photograph 1: From the southeast corner of the project site, looking north along the eastern boundary.



Photograph 2: From the southeast corner of the project site, looking west along the southern boundary.



Photograph 3: From the northeast corner of the project site, looking south along the eastern boundary.



Photograph 4: From the northeast corner of the project site, looking west along the northern boundary.



Photograph 5: From the northwest corner of the project site, looking south along the western boundary.



Photograph 6: From the northwest corner of the project site, looking east along the northern boundary.



Photograph 7: From the middle of the southern boundary of the project site, looking west at a western Joshua tree present within the site along Corez Avenue



Photograph 8: From the southwest corner of the project site, looking north along the western boundary.



Photograph 9: From the southwest corner of the project site, looking east along the southern boundary.



Photograph 10: From the middle of the northern boundary, looking south through the project site.

Attachment C

Potentially Occurring Special-Status Biological Resources

Table C-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Status	Habitat Description	Observed On-site	Potential to Occur
SPECIAL-STATUS WILDLIFE SPECIES				
<i>Athene cunicularia</i> burrowing owl	Fed: None CA: SSC	Prefers habitat with short, sparse vegetation with few shrubs and well-drained soils in grassland, shrub steppe, and desert habitats. Primarily a grassland species, but it persists and even thrives in some landscapes highly altered by human activity. Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. The overriding characteristics of suitable habitat appear to be burrows for roosting and nesting and relatively short vegetation with only sparse shrubs and taller vegetation.	No	Presumed Absent Portions of the project site support line-of-sight opportunities favored by burrowing owls; however, no suitable burrows (>4 inches in diameter) are present. In addition, adjacent and surrounding development supports tall structures that provide perching opportunities for predators of burrowing owls.
<i>Buteo swainsoni</i> Swainson's hawk	Fed: None CA: THR	Typical habitat is 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 grassland or suitable grain or alfalfa fields or livestock pastures.	No	Presumed Absent There is no suitable habitat present within or adjacent to the project site.
<i>Circus hudsonius</i> northern harrier	Fed: None CA: SSC	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Mostly found in flat, or hummocky, open areas of tall, dense grasses moist or dry shrubs, and edges for nesting, cover, and feeding.	No	Presumed Absent There is no suitable habitat present within or adjacent to the project site.
<i>Eremophila alpestris actia</i> California horned lark	Fed: None CA: WL	Occurs in meadows, grasslands, open fields, prairie, and alkali flats. This subspecies is typically found in coastal regions.	No	High Suitable foraging and nesting habitat are present within and surrounding the project site. This species is adapted to urban environments and occurs commonly.
<i>Falco mexicanus</i> prairie falcon	Fed: None CA: WL	Commonly occur in arid and semiarid shrubland and grassland community types. Also occasionally found in open parklands within coniferous forests. During the breeding season, they are found commonly in foothills and mountains which provide cliffs and escarpments suitable for nest sites.	No	Low Suitable foraging habitat is present on-site; no suitable nesting habitat is present within or adjacent to the site.

Scientific Name Common Name	Status	Habitat Description	Observed On-site	Potential to Occur
<i>Gopherus agassizii</i> Mojave desert tortoise	Fed: THR CA: THR	Occurs in desert scrub, desert wash, and Joshua tree habitats with friable, sandy, well-drained soils for nest and burrow construction. Highest densities occur in creosote bush scrub with extensive annual wildflower blooms and succulents with little to no non-native plant species.	No	Presumed Absent No desert tortoises, sign, or burrows were observed during the habitat assessment. Marginal habitat is present within the project site; however, the majority of the site is too densely vegetated for this species. In addition, adjacent and surrounding development has fragmented habitats in the vicinity of the site and excluded the site from more suitable areas.
<i>Lanius ludovicianus</i> loggerhead shrike	Fed: None CA: SSC	Prefers open habitats with bare ground, scattered shrubs, and areas with low or sparse herbaceous cover including open-canopied valley foothill hardwood, riparian, pinyon-juniper, desert riparian, creosote bush scrub, and Joshua tree woodland. Requires suitable perches including trees, posts, fences, utility lines, or other perches.	No	Low Limited foraging and nesting habitat is present within and adjacent to the project site.
<i>Phrynosoma blainvillii</i> coast horned lizard	Fed: None CA: SSC	Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (i.e. fire, floods, roads, grazing, fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	No	Presumed Absent No suitable habitat is present within or adjacent to the project site.
<i>Spizella breweri</i> Brewer's sparrow	Fed: None CA: None	Habitats include sagebrush and brushy plains.	No	Presumed Absent No suitable habitat is present within or adjacent to the project site.
<i>Taxidea taxus</i> American badger	Fed: None CA: SSC	Primarily occupy grasslands, parklands, farms, tallgrass and shortgrass prairies, meadows, shrub-steppe communities and other treeless areas with sandy loam soils where it can dig more easily for its prey. Occasionally found in open chaparral (with less than 50% plant cover) and riparian zones.	No	Presumed Absent No suitable habitat is present within or adjacent to the project site.
<i>Toxostoma lecontei</i> Le Conte's thrasher	Fed: None CA: SSC	An uncommon to rare, local resident in southern California deserts from southern Mono Co. south to the Mexican border, and in western and southern San Joaquin Valley. Occurs primarily in open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub habitats; also occurs in Joshua tree habitat with scattered shrubs.	No	Presumed Absent No suitable habitat is present within or adjacent to the project site.

Scientific Name Common Name	Status	Habitat Description	Observed On-site	Potential to Occur
<i>Xerpermophilus mohavensis</i> Mohave ground squirrel	Fed: None CA: THR	Restricted to the Mojave Desert in open desert scrub, alkali desert scrub, annual grassland, and Joshua tree woodland. Prefers sandy to gravelly soils and tends to avoid rocky areas. Occurs sympatrically with the white-tailed antelope squirrel.	No	Presumed Absent Suitable foraging and burrowing habitat are present within the project site. Based on surrounding development and known distributions and occurrences, this species is likely precluded from the site.
SPECIAL-STATUS PLANT SPECIES				
<i>Canbya candida</i> white pygmy-poppy	Fed: None CA: None CNPS: 4.2	Occurs on gravelly, sandy, granitic soils in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland. Found at elevations ranging from 2,297 to 5,249 feet above mean sea level (msl). Blooming period is from March to June.	No	Presumed Absent There is no suitable habitat within or adjacent to the project site.
<i>Chorizanthe spinosa</i> Mojave spineflower	Fed: None CA: None CNPS: 4.2	Grows in alkaline or non-alkaline soils in chenopod scrub, Joshua tree woodland, Mojavean desert scrub, and playas. Found at elevations ranging from 20 to 4,265 feet. Blooming period is from March to July.	No	Presumed Absent There is no suitable habitat within or adjacent to the project site.
<i>Loeflingia squarrosa</i> var. <i>artemisiarum</i> sagebrush loeflingia	Fed: None CA: None CNPS: 2B.2	Grows in sandy soils within desert dunes, Great Basin scrub, and Sonoran desert scrub habitats. Blooming period is from April to May. Grows in elevation from 2,297 to 5,299 feet.	No	Presumed Absent. No suitable habitat is present within the project site.
<i>Muilla coronata</i> crowned muilla	Fed: None CA: None CNPS: 4.2	Found in chenopod scrub, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland habitats. Blooming period is from May to April. Grows in elevation from 2,198 to 6,430 feet.	No	Presumed Absent There is no suitable habitat within or adjacent to the project site.
<i>Pediomelum castoreum</i> Beaver dam breadroot	Fed: None CA: None CNPS: 1B.2	Occurs in sandy soils, washes, and roadcuts within Joshua tree woodland and Mojavean desert scrub. Found at elevations ranging from 2,000 to 5,000 feet. Blooming period is from April to May.	No	Presumed Absent There is no suitable habitat present within or adjacent to the project site.
<i>Yucca brevifolia</i> western Joshua tree	Fed: None CA: CE CNPS: N/A	Occurs in a variety of arid habitats within the Mojave Desert. Found at elevations ranging from 1,600 to 6,600 feet. Blooming period is from March to June.	No	Presumed Absent Remnant stumps were observed onsite, that were dead at the time of the survey

U.S. Fish and Wildlife Service (Fed) - Federal
 END – Federal Endangered
 THR – Federal Threatened
 DL - Delisted

California Department of Fish and Wildlife (CA) - California
 END – California Endangered
 THR – California Threatened
 CTHR – California Candidate Threatened
 DL - Delisted
 FP – California Fully Protected
 SSC – California Species of Special Concern
 WL – California Watch List
 CE – Candidate Endangered

California Native Plant Society (CNPS) - California Rare Plant Rank
 1B Plants Rare, Threatened, or Endangered in California and Elsewhere
 2B Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
 4 Plants of Limited Distribution – A Watch List

Threat Ranks
 0.2- Moderately threatened in California
 0.3- Not very threatened in California

Attachment D

Regulations

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

Federal Regulations

Endangered Species Act of 1973

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act (ESA). Section 9 of the ESA prohibits “take” of threatened or endangered species. “Take” under the ESA is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct.” The presence of any federally threatened or endangered species that are in a project area generally imposes severe constraints on development, particularly if development would result in “take” of the species or its habitat. Under the regulations of the ESA, the United States Fish and Wildlife Service (USFWS) may authorize “take” when it is incidental to, but not the purpose of, an otherwise lawful act.

Critical Habitat is designated for the survival and recovery of species listed as threatened or endangered under the ESA. Critical Habitat includes those areas occupied by the species, in which are found physical and biological features that are essential to the conservation of an ESA listed species and which may require special management considerations or protection. Critical Habitat may also include unoccupied habitat if it is determined that the unoccupied habitat is essential for the conservation of the species.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the ESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highway Administration or a permit from the U.S. Army Corps of Engineers (Corps)).

If USFWS determines that Critical Habitat will be adversely modified or destroyed from a proposed action, the USFWS will develop reasonable and prudent alternatives in cooperation with the federal institution to ensure the purpose of the proposed action can be achieved without loss of Critical Habitat. If the action is not likely to adversely modify or destroy Critical Habitat, USFWS will include a statement in its biological opinion concerning any incidental take that may be authorized and specify terms and conditions to ensure the agency is in compliance with the opinion.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) makes it unlawful to pursue, capture, kill, possess, or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered “take.” This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

State Regulations

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines “endangered” and “rare” species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, “endangered” species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while “rare” species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the state of California implements the CESA which is enforced by CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in “take” of individuals (defined in CESA as; “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) are regulated by CDFW. Habitat degradation or modification is not included in the definition of “take” under CESA. Nonetheless, CDFW has interpreted “take” to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the

absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

The CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, as an informal term that refers to species which might be in need of concentrated conservation actions. As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

Fish and Game Code

Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Fish and Game Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a project site. Section 3511 of the Fish and Game Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected by the State include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). Section 3513 of the Fish and Game Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the state of California. The act requires all state agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under FESA or CESA are defined as follows:

California Rare Plant Rank

- 1A- Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere
- 1B- Plants Rare, Threatened, or Endangered in California and Elsewhere

- 2A- Plants Presumed Extirpated in California, But More Common Elsewhere
- 2B- Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
- 3- Plants about Which More Information is Needed - A Review List
- 4- Plants of Limited Distribution - A Watch List

Threat Ranks

- .1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- .3- Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known).

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFG regulates activities under the Fish and Game Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

Federal Regulations

Section 404 of the Clean Water Act

In accordance with the Revised Definition of “Waters of the United States”; Conforming (September 8, 2023), “waters of the United States” are defined as follows:

(a) *Waters of the United States* means:

(1) Waters which are:

- (i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (ii) The territorial seas; or
- (iii) Interstate waters;

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under [paragraph \(a\)\(5\)](#) of this section;

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:

- (i) Waters identified in [paragraph \(a\)\(1\)](#) of this section; or
- (ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section

(b) The following are not “waters of the United States” even where they otherwise meet the terms of [paragraphs \(a\)\(2\)](#) through [\(5\)](#) of this section:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted

cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;

(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;

(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;

(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;

(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

(8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

(c) In this section, the following definitions apply:

(1) *Wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(2) *Adjacent* means having a continuous surface connection

(3) *High tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

(4) *Ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(5) *Tidal waters* means those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects.

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps ensure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Water Quality Control Boards (Regional Board) that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

State Regulations

Fish and Game Code

Fish and Game Code Sections 1600 et. seq. establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, state, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

- (1) substantially obstruct or divert the natural flow of a river, stream, or lake;
- (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake;
or
- (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. A Section 1602 Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

Porter Cologne Act

The California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state’s authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although “waste” is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.