January 26, 2024

TRANSWESTERN
Attention: John Privett
3501 Jamboree Road, Suite 4400
Newport Beach, California 92660

SUBJECT: **Biological Resources Assessment for the Proposed Project Located at 3347 East Avenue M within Assessor Parcel Number (APN) 3170-018-081 in the City of Palmdale, Los Angeles County, California**

Introduction

This report contains the findings of ELMT Consulting's (ELMT) biological resources assessment for the proposed project located at 3347 East Avenue M within Assessor Parcel Number (APN) 3170-018-081 (project or project site) and offsite improvement areas located in the City of Palmdale, Los Angeles County, California. A field investigation was conducted to document baseline conditions and assess the potential for special-status[1] plant and wildlife species to occur within the project site that could pose a constraint to implementation of the proposed project. Special attention was given to the suitability of the project to support burrowing owl (*Athene cunicularia*), mountain plover (*Charadrius montanus*), Mohave ground squirrel (*Xerospermophilus mohavensis*), and other special-status plant and wildlife species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), and other electronic databases as potentially occurring in the general vicinity of the project.

The site was also evaluated for its potential to support natural drainage features, ponded areas, and/or water bodies that have the potential to fall under the regulatory authority of the of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or California Department of Fish and Wildlife (CDFW) pursuant to Sections 401 and 404 of the Federal Clean Water Act (CWA), the California Porter-Cologne Water Quality Control Act, and Section 1600 *et seq.* of the Fish and Game Code.

Project Location

The project site generally located east of State Route 14, north of State Route 138, south of East Avenue K, and west of 50th Street East in the City of Palmdale, Los Angeles County, California. The site is depicted on the Lancaster East quadrangle of the United States Geological Survey's (USGS) 7.5-minute map series within Section 32 of Township 7 North, Range 11 West. Specifically, the project site is located on the northeast corner of 30th Street East and East Avenue M, within Assessor Parcel Number (APN) 3170-018-081. Improvements will also occur along Avenue L-8, which borders the northern boundary of the project

1 As used in this report, "special-status" refers to plant and wildlife species that are federally and State listed, proposed, or candidates; plant species that have been designated with a California Native Plant Society Rare Plant Rank; wildlife species that are designated by the CDFW as fully protected, species of special concern, or watch list species; and specially protected natural vegetation communities as designated by the CDFW.

site, 35th Street East which borders the eastern boundary of the project site, 30th Street East which borders the western boundary of the project site and E. Avenue M (or Columbia Way) which borders the southern boundary of the project site. A water line will also be installed in E. Avenue M from the project site west to 5th Street East. Refer to Exhibits 1-3 in Attachment A.

Methodology

A literature review and records search were conducted to determine which special-status biological resources have the potential to occur on or within the general vicinity of the project site and offsite improvement areas. 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), CNDDB 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 Survey[2];
- 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 CNDDB 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.

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.

Field Investigation

Following the literature review, biologists Jacob Lloyd Davies and Rachael A. Lyons initially inventoried and evaluated the condition of the habitat within a 200-foot buffer around the project site, where applicable, on November 15, 2022. A follow-up field investigation was conducted by biologists Rachael A. Lyons and Megan E. Peukert, on January 16, 2024. 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.

Soil Series Assessment

Onsite and adjoining soils were researched prior to the field investigation using the USDA NRCS Soil Survey for Los Angeles 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 proposed project site is located in an area that primarily consists of defunct agricultural land, and industrial development. The site is bounded to the north by an unnamed, unpaved access road with undeveloped, vacant land immediately beyond with sports fields and residential land uses to the north; to the south by Columbia Avenue, with a Northrup Grumman facility beyond; to the east by 35th Street East, with undeveloped, vacant land beyond; and to the west by 30th Street East, with solar field development beyond. The site itself is entirely undeveloped and has been heavily impacted by historic land uses associated with agricultural operations, off-road vehicular access, illegal dumping, and surrounding development.

Topography and Soils

The project site has an elevation range of approximately 2,461 to 2,475 feet above mean sea level, with no areas of significant topographic relief. Based on the NRCS USDA Web Soil Survey, the project site is historically underlain by Cajon loamy sand (0 to 2 percent slopes), Hesperia fine sandy loam (0 to 2 percent slopes), Rosamond loamy fine sand, and Rosamond fine sandy loam. Refer to Exhibit 4, *Soils*, in Attachment A. Soils onsite have been compacted by historic agricultural activities, weed abatement, and surrounding development.

Vegetation

Due to historic and existing land uses, no native plant communities or natural communities of special concern were observed on or adjacent to the project site and with the offsite improvement areas. The project site consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances, including weed abatement activities. These disturbances have eliminated and/or greatly disturbed the natural plant communities that historically occurred within the immediate vicinity of the project site. Refer to Attachment B, *Site Photographs*, for representative site photographs. No native plant communities will be impacted from implementation of the proposed project.

The site supports one (1) land cover type that would be classified as disturbed (refer to Exhibit 5, *Vegetation* in Attachment A). In addition, the offsite improvement areas support developed land associated with the existing paved road right of way of E. Avenue M. The disturbed portions of the are densely vegetated with early successional, weedy, and non-native plant species. Common plant species observed onsite include rubber rabbitbrush (*Ericameria nauseosa*), nettle-leaved goosefoot (*Chenopodiastrum murale*), Russian thistle (*Salsola tragus*), ripgut brome (*Bromus diandrus*), horsenettle (*Solanum carolinense*), puncturevine (*Tribulus terrestris*), Indian hedge mustard (*Sisymbrium orientale*), Gooding's willow (*Salix gooddingii*), Bermuda grass (*Cynodon dactylon*), Salt Cedar (*Tamarix* sp.), Menzies' fiddleneck (*Amsinckia menziesii*), Dutchman's pipe (*Aristolochia clematitis*), silver ragwort (*Jocobaea maritima*), rabbit tobacco (*Pseudognaphalium obtusifolium*), silver burr ragweed (*Ambrosia chamissonis*), and common dandelion

(*Taraxacum officinale*).

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 survey area provides suitable foraging and cover habitat for local reptile species adapted to a high degree of anthropogenic disturbance in the Mojave Desert. No reptilian species were observed at the time of the investigation. Common reptilian species that could be expected to occur include Great Basin fence lizard (*Sceloporus occidentalis longipes*) and western side-blotched lizard (*Uta stansburiana elegans*).

Birds

The project site provides suitable foraging and nesting habitat for bird species adapted to a high degree of anthropogenic disturbance in the Mojave Desert. Bird species detected during the field investigation include ruby-crowned kinglet (*Regulus calendula*), white-crowned sparrow (*Zonotrichia leucophrys*), horned lark (*Eremophila alpestris*), Ana's hummingbird (*Calypte anna*), common raven (*Corvus corax*), turkey vulture (*Cathartes aura*), loggerhead shrike (*Lanius ludovicianus*), Savannah sparrow (*Passerculus sandwichensis*), and *Say's* phoebe (*Sayornis saya*).

Mammals

The survey area provides sparse foraging and cover habitat for mammalian species adapted to a high degree of anthropogenic disturbance. Mammalian species detected during the field investigation were black-tailed jackrabbit (*Lepus californicus*) and California ground squirrel (*Otospermophilus beecheyi*). Additional common mammalian species that could be expected to occur are desert cottontail (*Sylvilagus audubonii*) and coyote (*Canis latrans*).

Nesting Birds

No active nests or birds displaying nesting behavior were observed during the field survey, which was conducted outside of breeding season. The salt cedar windrow along the eastern boundary, and the elm windrow offsite to the north of the project site have the potential to provide minimal nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area that area adapted 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.

The project site is located in an area of Palmdale historically used for agricultural practices. Most of this area has been heavily disturbed and repurposed for industrial development and is highly fragmented from any wildlife connectivity areas. The nearest preserved habitat is located approximately 7.94 miles southeast of the project site, in association with the Alpine Butte Wildlife Sanctuary. Additionally, Little Rock Wash, that extends from the south out of the San Gabrial Mountains north to Rosamond Dry Lake is located approximately 3 miles east of the project site. Little Rock Wash has the potential to support local wildlife movement opportunities out of the mountains to the valley floor.

The project site is separated from Alpine Butte Wildlife Sanctuary and Little Rock Wash by industrial and agricultural development, as well as several heavily trafficked roadways. Therefore, 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. No other wildlife corridors or linkages occur within the vicinity of the project site.

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 the project site.

The project site does not support any discernible drainage courses, inundated areas, wetland features, or hydric soils that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Therefore, project activities will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

Special-Status Biological Resources

The CNDDB 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 Lancaster East USGS 7.5-minute quadrangle. Only one quadrangle was queried due to the proximity of the site to quadrangle boundaries, regional topography, and conditions in the vicinity of the site. 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 nine (9) special-status plant species and eleven (11) special-status wildlife species as having potential to occur within the Lancaster East USGS 7.5-minute quadrangle. No special-status plant communities were identified as having potential to occur within this quadrangle. 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 is presented in Attachment C*: Potentially Occurring Special-Status Biological Resources*.

Special-Status Plants

According to the CNDDB and CNPS, nine (9) special-status plant species have been recorded in the Lancaster East quadrangle (refer to Attachment C). No special-status plant species were observed on-site during the field investigation. The project site consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred on-site which has removed ability of the habitat on the project site to provide suitable habitat for special-status plant species known to occur onsite. Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the project site does not provide suitable habitat for any of the special-status plant species known to occur in the area and all are presumed to be absent. No focused surveys are recommended.

Special-Status Wildlife

According to the CNDDB, eleven (11) special-status wildlife species have been reported in the Lancaster East quadrangle (refer to Attachment C). The only special-status wildlife species observed on site during the field investigation was loggerhead shrike (*Lanius ludovicianus*). The project site has been subject to anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred onsite which has reduced potential foraging and nesting/denning opportunities for wildlife species.

Based on habitat requirements for specific species and the availability and quality of onsite habitats, it was determined that the proposed project site does not have the potential to provide suitable habitat for any of the remaining special-status wildlife species known to occur in the area.

Due to presence of loggerhead shrike and the regional significance and/or listing status of, burrowing owl, mountain plover, and Mohave ground squirrel, these species are discussed in further detail below.

Loggerhead shrike

Loggerhead shrike is designated by the CDFW as a species of special concern. It is a year-round resident of southern California. This species is typically found in open country with short vegetation, including pastures, old orchards, cemeteries, golf courses, agricultural fields, riparian areas, and open woodlands. It utilizes somewhat prominent perching positions for hunting and eating. This species primarily nests in thorny shrubs and trees but will nest in brush piles or other debris if no shrubs or trees are present. The general nesting season extends from the end of January through the end of July.

Loggerhead shrike was observed during the field investigation. However, it was observed on the adjacent parcel outside of project boundaries and there is no suitable nesting habitat for loggerhead shrike present on-site. The project site provides suitable foraging habitat with minimal nesting habitat. To avoid potential impacts to nesting loggerhead shrike, it is recommended that the vegetation removal activities be conducted outside the general bird nesting season (February 1 through August 31). If vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal.

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 vegetated with a variety of low-growing plant species that allow for line-of-sight observation favored by burrowing owls. However, no suitable burrows (>4 inches) for roosting and nesting were observed within site boundaries. Additionally, the site is surrounded by electrical poles, tall buildings, and streetlights that provide perching opportunities for large raptors (i.e. red-tailed hawk (*Buteo jamaicensis*) that prey on burrowing owls, which may reduce the likelihood that burrowing owl would establish on-site. Therefore, the project site was determined to have no potential to support burrowing owl.

Mountain plover

The mountain plover is currently listed as a Species of Special Concern. It prefers dry habitats with short grass, usually due to grazing, and bare ground throughout North America and are not found near bodies of water or on wet soil. They are typically found in grassland and prairie habitats, plains, plateaus, foothills, and other relatively flat or gently rolling landscapes. Their breeding range spans from southeastern Alberta and southwestern Saskatchewan to northern New Mexico and the Texas panhandle. In winter, many are found in the San Joaquin and Imperial Valleys in California and along the U.S.-Mexican border. During winter, mountain plovers may move to different habitats, including agricultural fields, fallow land, or coastal areas. They can be found at lower elevations during these times but still prefer open habitats with suitable foraging opportunities.

Mountain plover generally only occur in this region during the winter months, and do not typically nest in this region. The second survey, conducted on January 16, 2024, was conducted during the timeframe when mountain plover are known to in the region of the project site. No mountain plovers were observed during the January 2024 survey. The majority of the project site is densely vegetated and provides minimal bare ground for foraging opportunities by mountain plover. Mountain plover are not expected to nest onsite. Therefore, the project site was determined to have no potential to support mountain plover.

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, Olancha 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 (Gutafson 1993).

Mohave ground squirrel was not observed during the field investigation. Although a focused trapping

survey was not performed, the field investigation 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 southwestern 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 or other known populations identified by Leitner.

The project supports plant communities 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. The closest documented Mohave ground squirrel was captured approximately 1.6 miles southeast of the project site west of Little Rock Wash in 1973 (CNDDB), and 2 miles northwest of the project site in 1984. These two observations in the CNDDB, were recorded prior to the buildout of the residential and commercial land uses bordering the project site.

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 immediate vicinity of the project site. Per the *Current Status of the Mohave Ground Squirrel* Report trapping data, which provides more current data than the CNDDB, no MGS have been trapped in the areas surrounding the project site; the closest reported MGS observation is located south of Edwards Airforce Base, located approximately 10 miles north of the project site.

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

There is no native habitat with a relatively diverse shrub component on the project site. In addition, hoary saltbush, spiny hopsage, and winterfat were not observed during the investigation. These are species that are considered important forage for Mohave ground squirrel. 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. 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 site lacks native habitat, disturbances associated with agricultural activities and the airport, and location from core populations reduces the potential for Mohave ground squirrel to occupy the project site.

The project site consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances associated with agricultural land uses, including weed abatement activities. Due to historic and existing land uses, no native plant communities or natural communities of special concern were observed on or adjacent to the project site and with the offsite improvement areas.

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 heavily trafficked roadways and commercial 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 Habitats

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 a 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 within federally designated Critical Habitat. Further, the nearest Critical Habitat designations is located approximately 13 miles northeast for Desert tortoise (*Gopherus agassizii*). Therefore, no impacts to federally designated Critical Habitat will occur from implementation of the proposed project.

Conclusion

Based on literature review and field survey, and existing site conditions discussed in this report, implementation of the project will have no significant impacts on 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.

The discussion below provides a summary of survey results; avoidance and minimization efforts; direct, indirect, and cumulative project impacts; and compensatory mitigation measures for each biological resource area required to be analyzed according to CEQA, based on Appendix G (Environmental Checklist Form) of the CEQA Guidelines:

***CEQA Threshold**: Would the proposed Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?*

Special-Status Plant Species

The only special-status wildlife species observed on site during the field investigation was loggerhead shrike. The project site has been subject to anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred onsite which has reduced potential foraging and nesting/denning opportunities for wildlife species. Based on habitat requirements for specific species and the availability and quality of onsite habitats, it was determined that the proposed project site does not have the potential to provide suitable habitat for any of the remaining special-status wildlife species known to occur in the area.

Special-Status Wildlife Species

Recommendations for avoidance and minimization:

1. Prior to grading or construction activities, including vegetation removal, occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the pre-construction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.

2. Project plans, specifications, and construction permitting instructions shall require pre-construction burrowing owl surveys be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (2012 or most recent version) (Staff Report). Pre-construction surveys shall be performed by a qualified biologist following the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation. If unoccupied burrows are observed onsite, construction may proceed.

   If the pre-construction surveys confirm occupied burrow(s), the burrow(s) shall be flagged, and a 160-foot diameter buffer shall be established during nonbreeding season or a 250-

foot diameter buffer during the breeding season. The qualified biologist shall coordinate with CDFW to prepare and implement a Burrowing Owl Plan for avoidance, minimization, and/or mitigation measures that shall be submitted to CDFW for review and approval prior to commencing Project activities. A grading permit may be issued once the Burrowing Owl Plan is approved and, if relocations are deemed necessary, the species has been relocated. If the grading permit is not obtained within 30 days of the survey, a new survey shall be required. Avoidance, minimization, and/or mitigation measures in the Burrowing Owl Plan may include any one of the following:

- **If burrowing owls are observed on-site outside the breeding season** (September 1 to January 31) and they cannot be avoided, active or passive relocation shall be used to exclude owls from their burrows, as agreed to by the CDFW. Relocation shall occur only outside of the breeding season or once the young are able to leave the nest and fly. In the event that burrowing owls are to be relocated, a Burrowing Owl Relocation Plan shall be submitted for review and approval by the CDFW. The CDFW shall be consulted prior to any relocation to determine acceptable receiving sites available where this species has a greater chance of successful long-term relocation.

  Passive relocation shall include the use of one-way doors to exclude owls from the burrows; doors shall be left in place for at least 48 hours. Once the burrow is determined to be unoccupied, as verified by site monitoring, the burrow shall be closed by a qualified Biologist who shall excavate the burrow using hand tools. Prior to excluding an owl from an active burrow, a receptor burrow survey shall be conducted to confirm that at least two potentially suitable unoccupied burrows are within approximately 688 feet prior to installation of the one-way door. If two natural receptor burrows are not located, two artificial burrows shall be created for every burrow that would be closed.

- **If burrowing owls are observed on-site during the breeding season** (September 1 to January 31), the burrow(s) shall be protected until nesting activity has ended (i.e., all young have fledged from the burrow). Temporary fencing, or a buffer, shall be installed at least at a 250-foot diameter buffer zone from the active burrow, (or as otherwise determined by the biologist) to prevent disturbance during grading or construction. The designated buffer will be clearly marked in the field and will be mapped as an Environmental Sensitive Area (ESA) on construction plans. Installation and removal of the buffer shall be done with a biological monitor present.

CEQA Threshold: *Would the proposed Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*

Riparian Habitat and Special-Status Natural Communities

The project site does not support any discernible drainage courses, inundated areas, wetland features, or

hydric soils that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Therefore, project activities will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

Additionally, no sensitive habitats or natural communities were identified within the Project site. Thus, no sensitive natural communities will be impacted from Project implementation.

CEQA Threshold: *Would the proposed Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Federally Protected Wetlands

No inundated areas, wetland features, or wetland plant species that would be considered wetlands as defined by Section 404 of the Clean Water Act occur within the proposed Project footprint. As a result, implementation of the proposed Project would not result in any impacts or have substantial adverse effect on federally protected wetlands.

CEQA Threshold: *Would the proposed Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Wildlife Corridors

The site is bounded to the north by an unnamed, unpaved access road with undeveloped, vacant land immediately beyond with sports fields and residential land uses located approximately 0.5 mile to the north; to the south by Columbia Avenue, with a Northrup Grumman facility and the Palmdale Regional Airport beyond; to the east 35th Street East, with undeveloped, vacant land beyond and a solar field approximately 0.3 miles further east; and to the west by 30th Street East, with solar field beyond. Due to surrounding land uses, the project site has does not function as a local or reginal wildlife movement corridor.

Further, the project site is separated from Alpine Butte Wildlife Sanctuary and Little Rock Wash by industrial and agricultural development, as well as several heavily trafficked roadways. The proposed project will be confined to existing areas that have been heavily disturbed and are isolated from regional wildlife corridors. Therefore, 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 local wildlife movement opportunities or prevent local wildlife movement through the area. Due to the lack of any identified impacts to wildlife movement, migratory corridors or linkages or native wildlife nurseries, no mitigation is required. Therefore, impacts to wildlife corridors or linkages are not expected to occur.

CEQA Threshold: *Would the proposed Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Local Policies or Ordinances

There are no local policies or ordinances that pertain to the proposed project. Therefore, impacts to local polices or ordinances are not expected to occur from development of the proposed project, and mitigation

is not required.

CEQA Threshold: *Would the proposed Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan?*

Local, Regional, and State Plans

There are no local, regional or State plans that pertain to the proposed project. Therefore, impacts to local, regional or State plans are not expected to occur from development of the proposed project, and mitigation is not required.

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

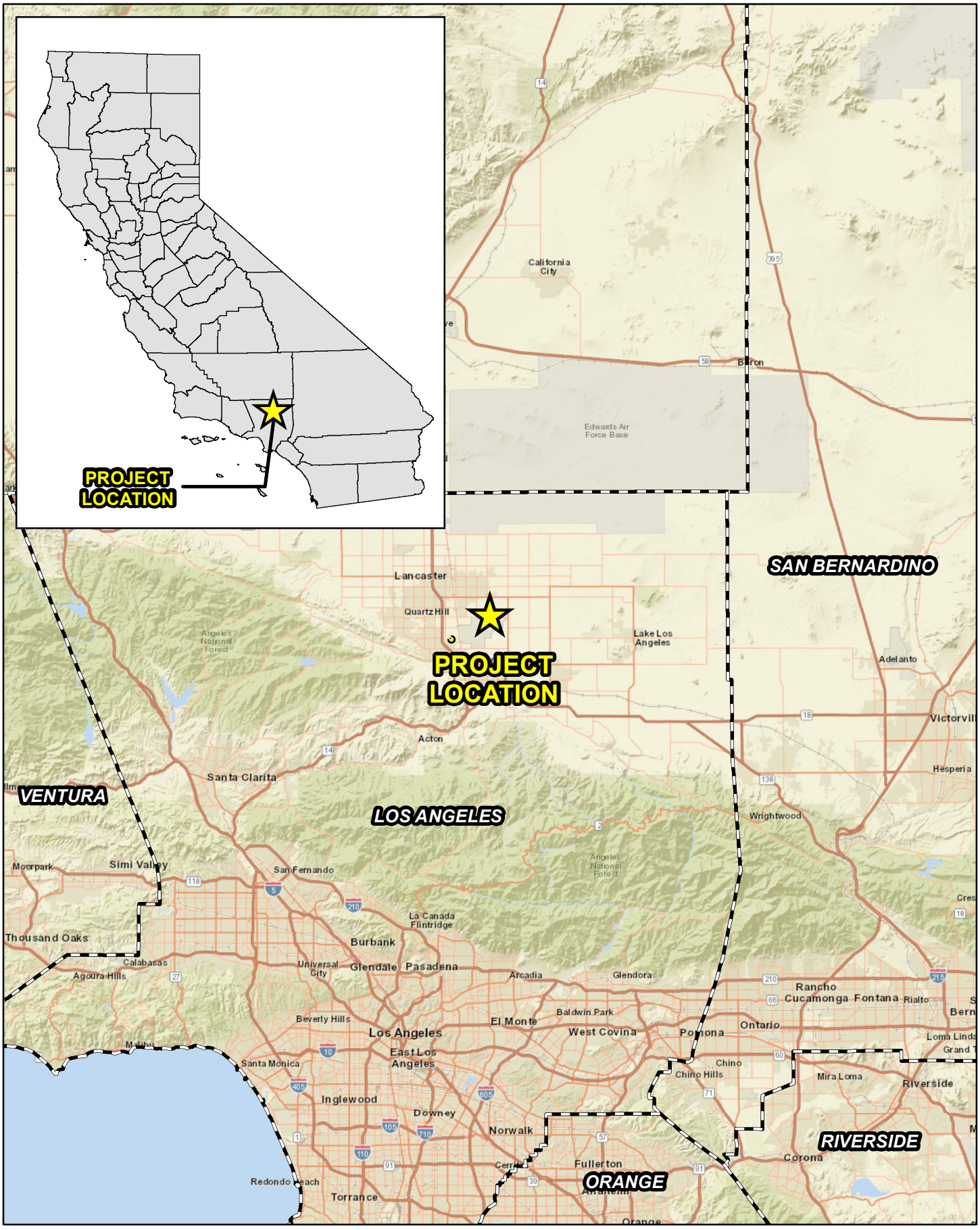
Travis J. McGill
Director

Attachments:

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

Attachment A

Project Exhibits



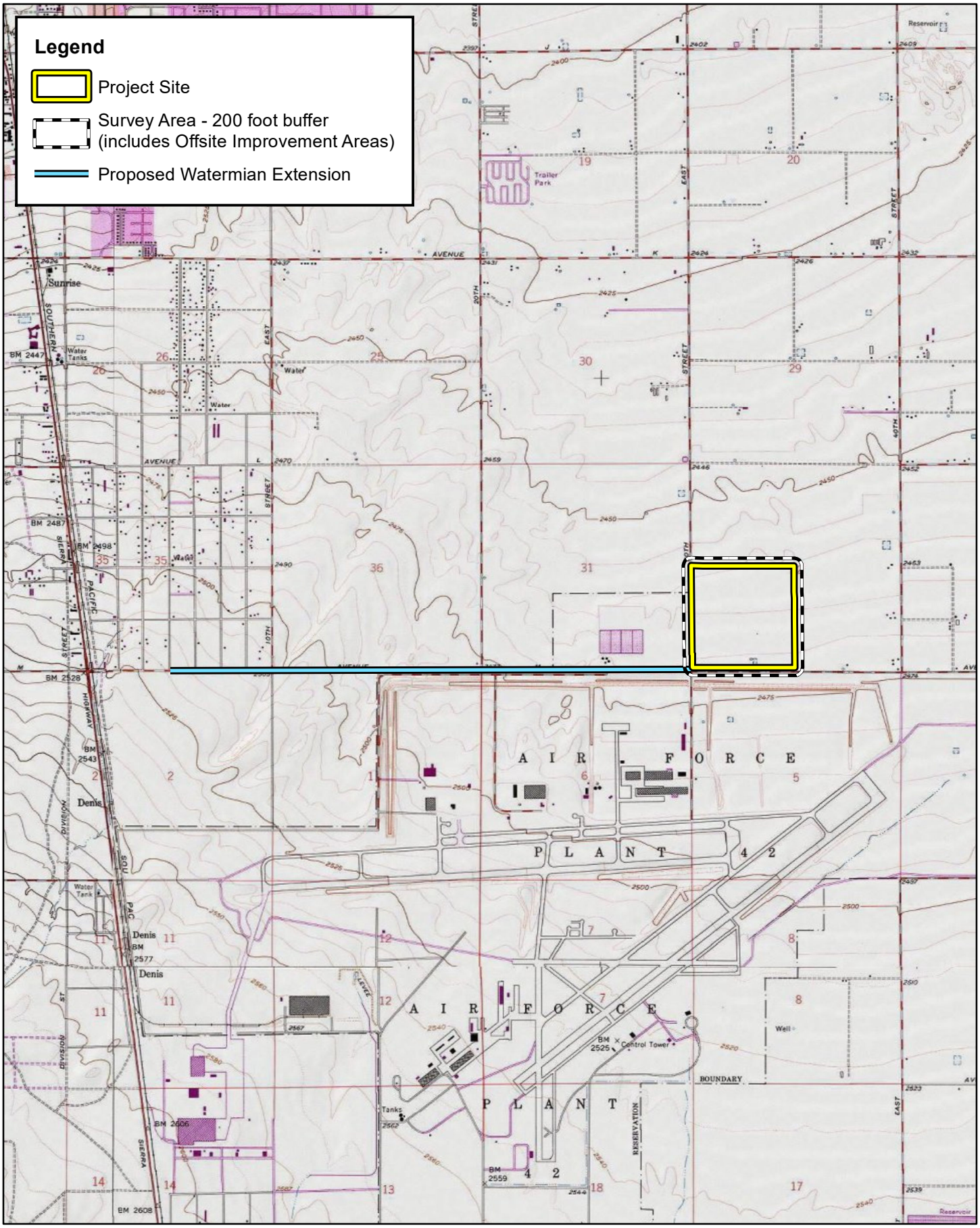
3347 EAST AVENUE M
BIOLOGICAL RESOURCES ASSESSMENT

Regional Vicinity

ELMT CONSULTING

Source: World Street Map, Los Angeles County

Exhibit 1



3347 EAST AVENUE M
BIOLOGICAL RESOURCES ASSESSMENT

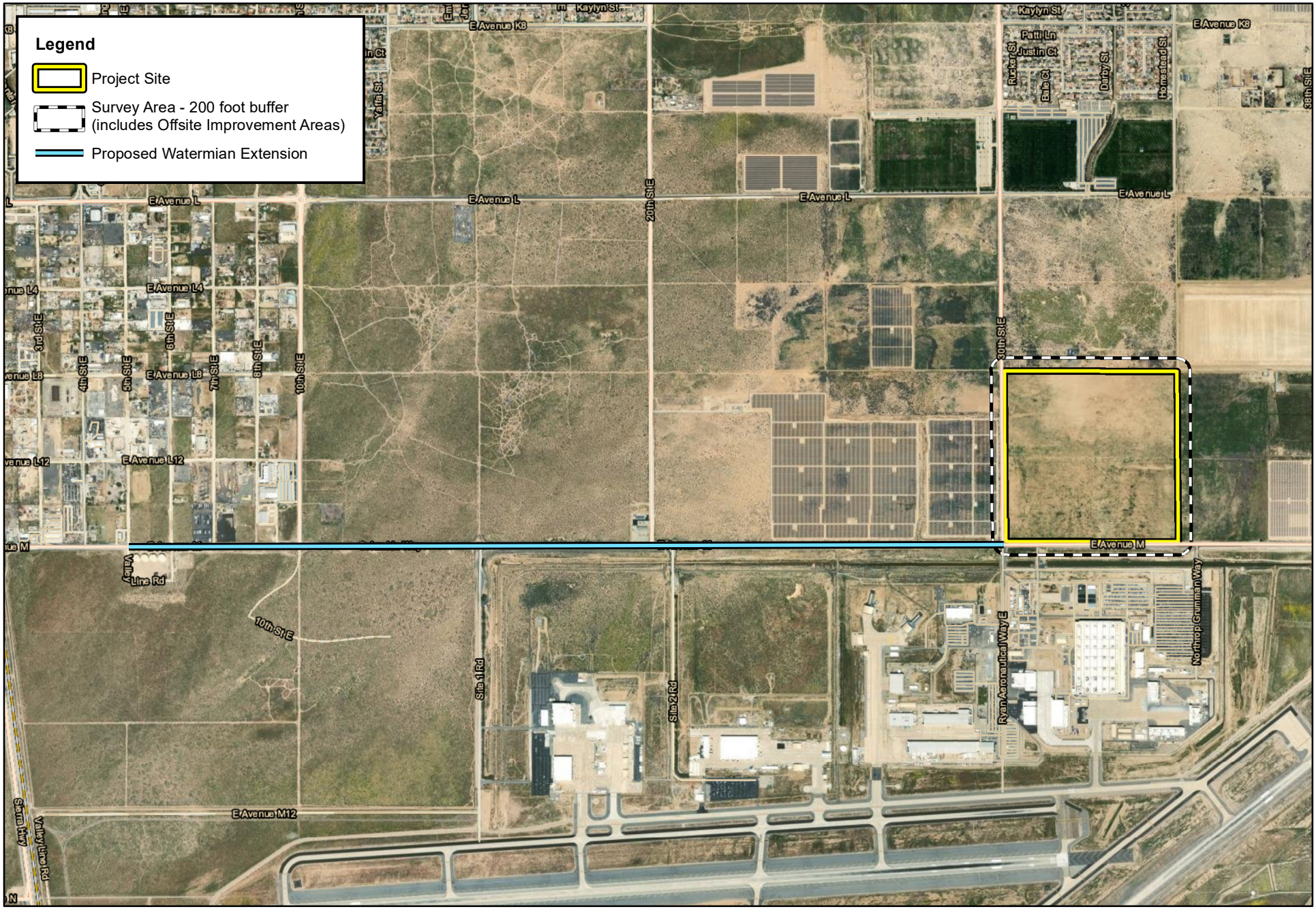
Site Vicinity

ELMT CONSULTING

0 2,500 5,000 10,000 Feet

Source: USA Topographic Map, Orange County

Exhibit 2



3347 EAST AVENUE M
BIOLOGICAL RESOURCES ASSESSMENT

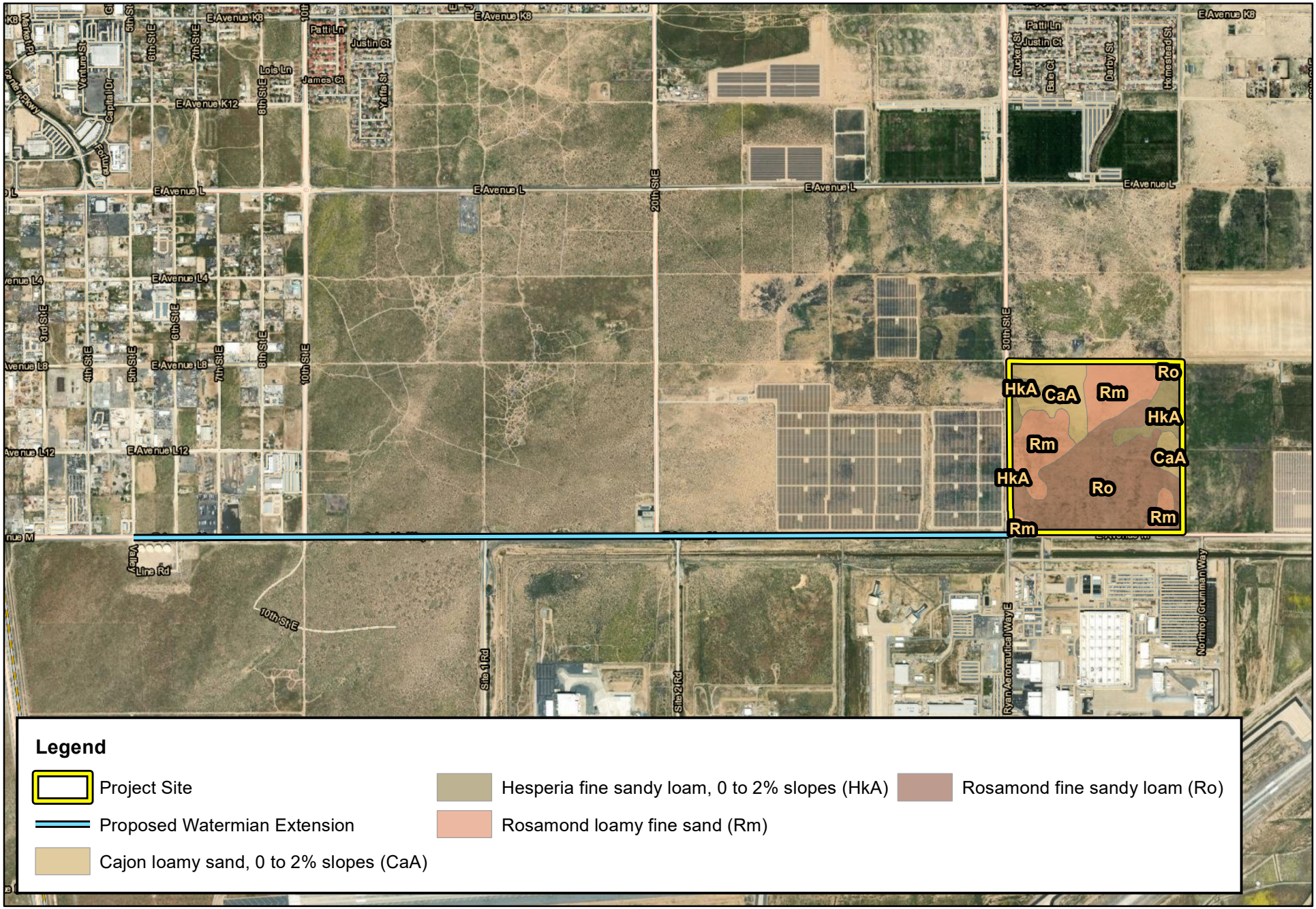
Project Site

ELMT CONSULTING

0 1,250 2,500 5,000 Feet

Source: ESRI Aerial Imagery, Los Angeles County

Exhibit 3



3347 EAST AVENUE M
BIOLOGICAL RESOURCES ASSESSMENT

Soils

ELMT CONSULTING

0 1,250 2,500 5,000 Feet

Source: ESRI Aerial Imagery, Soil Survey Geographic Database, Los Angeles County

Exhibit 4

3347 EAST AVENUE M
BIOLOGICAL RESOURCES ASSESSMENT

Vegetation

ELMT CONSULTING

Source: ESRI Aerial Imagery, Los Angeles County

Exhibit 5

Attachment B

Site Photographs

Photograph 1: From the northwest corner of the project site, looking east along the northern boundary.

Photograph 2: From the northwest corner of the project site, looking south along the western boundary.

Photograph 3: From the middle of the northern boundary of the project site, looking south.

Photograph 4: From the northeast corner of the project site, looking south along the eastern boundary.

Photograph 5: From the northeast corner of the project site, looking west along the northern boundary.

Photograph 6: From the middle of the eastern boundary of the project site, looking west.

Photograph 7: From the southeast corner of the project site, looking west along the southern boundary.

Photograph 8: From the southeast corner of the project site, looking north along the eastern boundary.

Photograph 9: From the middle of the southern boundary of the project site, looking north.

Photograph 10: From the southwest corner of the project site, looking north along the western boundary.

Photograph 11: From the southwest corner of the project site, looking east along the southern boundary.

Photograph 12: From the middle of the western boundary of the project site, looking east.

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				
Accipiter cooperii Cooper's hawk	Fed: None CA: WL	Can be found in a variety of habitats, including mixed and deciduous forests, small wooded lots, riparian, open, and pinyon woodlands, and forested mountainous regions. Can also be found in more urban areas. Nests in open areas with older and larger trees.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Anniella pulchra northern California legless lizard	Fed: None CA: SSC	Occurs primarily in areas with sandy or loose loamy soils under sparse vegetation of beaches, chaparral, or pine-oak woodland; or near sycamores, oaks, or cottonwoods that grow on stream terraces. Often found under or in the close vicinity of logs, rocks, old boards, and the compacted debris of woodrat nests.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Athene cunicularia 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** There is no suitable habitat present within or adjacent to the project site.
Buteo regalis ferruginous hawk	Fed: None CA: WL	Occurs primarily in open grasslands and fields, but may be found in sagebrush flats, desert scrub, low foothills, or along the edges of pinyon-juniper woodland. Feeds primarily on small mammals and typically found in agricultural or open fields.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Buteo swainsoni 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.
Charadrius montanus mountain plover	Fed: None CA: SSC	Can be found in semi-arid plains, grasslands, and plateaus. Favors short grass or bare ground. Only nests in areas with sparse vegetation or bare ground, such as prairies and disturbed grasslands.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Helminthoglypta fontiphila Soledad shoulderband	Fed: None CA: None	Known only from Los Angeles County from Little Rock Creek Canyon on the north flank of the San Gabriel Mountains and Soledad Canyon near Acton. Preferred habitat includes coastal sage scrub and chaparral. The type locality is in Soledad Canyon, the headwaters of the Santa Clara River, hence its common name.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat Description**	**Observed On-site**	**Potential to Occur**
Lanius ludovicianus 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.	Yes	**Present**
Phrynosoma blainvillii 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** There is no suitable habitat present within or adjacent to the project site.
Toxostoma lecontei Le Conte's thrasher	Fed: None CA: SSC	Found in open desert scrub, alkali desert scrub, and desert succulent scrub habitats. More common in areas dominated by saltbush, desert washes, and flats. Prefers lightly vegetated areas.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Xerospermophilus mohavensis 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** There is no suitable habitat present within or adjacent to the project site.
SPECIAL-STATUS PLANT SPECIES				
Astragalus preussii* var. *laxiflorus Lancaster milk-vetch	Fed: None CA: None CNPS: 1B.1	Occurs on alkaline clay flats, gravelly or sandy washes, and along draws in gullied badlands. Found at elevations around 2,379 feet. Blooming period is from March to May.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Calochortus striatus alkali mariposa-lily	Fed: None CA: None CNPS: 1B.2	Grows in seasonally moist alkaline soils in meadows, seeps, and ephemeral washes, especially within chaparral, chenopod scrub, and Mojavean desert scrub. Blooming period is from April to June. Grows in elevation from 230 to 5,233 feet.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Canbya candida 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 present within or adjacent to the project site.
Chorizanthe parryi* var. *parryi Parry's spineflower	Fed: None CA: None CNPS: 1B.1	Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 951 to 3,773 feet. Blooming period is from April to June.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat Description**	**Observed On-site**	**Potential to Occur**
Chorizanthe spinosa 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 present within or adjacent to the project site.
Goodmania luteola golden goodmania	Fed: None CA: None CNPS: 4.2	Grows on alkaline or clay soils within Mojavean desert scrub, meadows and seeps, playas, and valley and foothill grassland habitats. Found at elevations ranging from 70 to 7,220 feet. Blooming period is from April to August.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Loeflingia squarrosa var. artemisiarum 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** There is no suitable habitat present within or adjacent to the project site.
Monardella exilis Mojave monardella	Fed: None CA: None CNPS: 4.2	It is found in desert scrub, Joshua tree woodland, and pinyon pine habitats. Grows in elevations from 2,360 to 7,940 feet. Blooming period is from April to September.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Yucca brevifolia 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** There is no suitable habitat present within or the project site. No Joshua trees were observed onsite.

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 Sates" 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 insure 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.