

Appendix B

Biological Resources Assessment for the Proposed Project located at
15639 Smoke Tree Street in the City of Hesperia, San Bernardino
County, California

ELMT Consulting

October 31, 2022



October 31, 2022

Attention: Hossein Mazi
7772 Warner Avenue, Suite 201
Huntington Beach, California 92647

SUBJECT: Biological Resources Assessment for the Proposed Project located at 15639 Smoke Tree Street in the City of Hesperia, San Bernardino County, California

Introduction

This report contains the findings of ELMT Consulting's (ELMT) habitat assessment for the proposed project located at 15639 Smoke Tree Street in the City of Hesperia, San Bernardino County, California. The habitat assessment was conducted by biologists Jacob H. Lloyd Davies and Rachael A. Lyons on July 6, 2022 to document baseline conditions and assess the potential for special-status¹ 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 site to support 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 generally located south of State Route 18, east of United States Route 395 and Interstate 15, and north of State Route 138 in the City of Hesperia, San Bernardino County, California. The site is depicted on the Hesperia quadrangle of the United States Geological Survey's (USGS) 7.5-minute map series within Section 17 of Township 4 North, Range 4 West. Specifically, the site is bounded to the north by Smoke Tree Street and lies east of 11th Avenue, north of main street, and west of 9th Avenue within Assessor Parcel Number 0407-251-12. Refer to Exhibits 1-3 in Attachment A.

The site has approximately 528 linear feet of street frontage along the south side of Smoke Tree Street which is the northerly property line for the project. North of Smoke Tree Street lies residential development and a flood channel. The site is approximately 254 feet east of 11th Street, 347 feet north of Juniper Street, and 638 feet west of 9th street. Adjacent properties to the west and south are comprised of a variety of vacant land and residential development, and the adjacent property to the east is undeveloped.

Project Description

The project proposes the development of a residential tentative tract map.

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.

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. 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 (1985-2022);
- 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 Rachael A. Lyons inventoried and evaluated the condition of the habitat within a 200-foot buffer around the project site, where applicable, on July 6, 2022. 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

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.

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

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 proposed project site is located in moderately developed area in the City of Hesperia. The site is bounded to the north by Smoke Tree Street with residential development beyond; to the east with undeveloped, vacant land; and to the west and south by a mix of undeveloped, vacant land and residential development. The site itself is undeveloped but has been heavily impacted by anthropogenic disturbances (i.e., grading, illegal dumping, and off-road vehicular access).

Topography and Soils

Elevation ranges from approximately 3,261 to 3,276 feet above mean sea level. On-site topography is relatively flat with the site sloping slightly from east to west. Based on the NRCS USDA Web Soil Survey, the project site is historically underlain by Helendale loamy sand (0 to 2 percent slopes) and Bryman loamy fine sand (0 to 2 percent slopes). Soils on-site have been compacted by anthropogenic disturbances such as grading, off-road vehicular use, 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. The project site consists primarily of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances.. 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.

No natural plant communities occur within the boundaries of the project site. The site supports one (1) land cover types that would be classified as disturbed (refer to Exhibit 4, *Vegetation* in Attachment A). Most of the project site supports areas that are vegetated by weedy/early successional species, in addition to a few large perennials. Nonnative grassland is the dominant plant community on the site. Nonnative species like Russian thistle (*Salsola sp.*), Mediterranean mustard (*Herschfeldia incana*), and filaree (*Erodium cicutarium*) are the primary plant species that are supported by the project site. Other common plant species observed in this community include Joshua tree (*Yucca brevifolia*), Mexican bladder sage (*Scutellaria mexicana*), desert willow (*Chilopsis linearis*), Mexican palo verde (*Parkinsonia aculeata*), telegraph weed (*Heterotheca grandiflora*), western ragweed (*Ambrosia psilostachya*), creosote (*Larrea tridentata*), vinegar weed (*Trichostema lanceolatum*) and wire lettuce (*Stephanomeria pauciflora*),

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 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 limited foraging and cover habitat for local reptile species adapted to conditions within the Mojave Desert. The only reptilian species observed was western side-blotched lizard (*Uta stansburiana elegans*). Common reptilian species that could be expected to occur include Great Basin fence lizard (*Sceloporus occidentalis longipes*), Great basin gopher snake (*Pituophis catenifer deserticola*), and red racer (*Coluber flagellum piceus*).

Birds

The project site and surrounding area provide suitable foraging and nesting habitat for bird species adapted to conditions within the Mojave Desert, especially those that are also adapted to urban environments. Bird species detected during the field investigation include house finch (*Haemorrhous mexicanus*), common raven (*Corvus corax*), Eurasian collared dove (*Streptopelia decaocto*) and rock dove (*Columba livia*).

Mammals

The survey area provides suitable foraging and cover habitat for mammalian species adapted to a high degree of disturbance. Mammalian species detected during the field investigation include cottontail (*Sylvilagus sp.*), California ground squirrel (*Otospermophilus beecheyi*), and desert woodrat (*Neotoma lepida*). Common mammalian species that could be expected to occur include feral domestic cat (*Felis catus*), pocket gopher (*Thomomys bottae*), Virginia opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*) and coyote (*Canis latrans*).

Nesting Birds

No active nests or birds displaying nesting behavior were observed during the field survey, which was conducted during breeding season. The plant communities and land cover types found on-site have low potential to provide suitable nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that are adapted to urban environments. No raptors are expected to nest on-site due to lack of suitable nesting opportunities, but surrounding development in adjacent properties does provide perching for raptors that may hunt on the project site.

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. According to the San Bernardino County General Plan, the project site has not been identified as occurring within or near a Wildlife Corridor or Linkage.

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, major open space areas documented in the vicinity of the project site include the Mojave River located approximately 5.4 miles east of the site. The site is separated from this identified regional wildlife corridors and linkages by existing development and roadways, and undeveloped land, and there are no riparian corridors or creeks connecting the project site to these areas. 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 within or immediately surrounding the project site. The above resources did not identify any riverine resources within the boundaries of the project site. However, a flood channel was observed off-site, directly north of Smoke Tree Street, outside of the project footprint.

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. A query of the NWI database determined that no potential blueline streams, riverine, or other aquatic resources occur within or adjacent to the project site. 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 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 Hesperia 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 seven (7) special-status plant species and fourteen (14) special-status wildlife species as having potential to occur within the Hesperia USGS 7.5-minute quadrangle. No special-status plant communities were identified as having potential to occur within these quadrangles. 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 D: *Potentially Occurring Special-Status Biological Resources*.

Special-Status Plants

According to the CNDDDB and CNPS, seven (7) special-status plant species have been recorded in the Hesperia quadrangle (refer to Attachment D). The only special-status plant species observed on-site during the field investigation was Joshua tree (CDFW Candidate Endangered). The only special-status plant species observed during the field investigation was western Joshua tree. The project site has been subject to anthropogenic disturbances from grading, illegal dumping, off-road vehicular access and surrounding development. These disturbances have reduced the suitability of the habitat to support special-status plant species known to occur in the general vicinity of the project site and has significantly reduced the density of the onsite Joshua tree population. 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 have the potential to support the remainder of the special-status plant species known to occur in the vicinity of the site and all are presumed to be absent.

Western Joshua Tree

The western Joshua tree was granted candidate status under the California Endangered Species Act on September 25, 2020. This species is endemic to the Mojave Desert and occupies an elevation range of 1,600 and 6,660 feet above mean sea level. This species is recognized in several vegetation communities in varying densities. Known occupied communities include sagebrush scrub, desert shrub, southwestern shrubsteppe, pinyon-juniper woodland, and desert grasslands. When this species is dominant in high densities, the occupied habitat may be classified as a Joshua tree woodland, although densities are typically low due to their extensive and competitive root systems. Mature size varies greatly due to irregular branching, and large individuals can exceed 40 feet in height. Like other large members of family Agavaceae, western Joshua trees grow slowly, with estimated growth rates ranging from 2.3 to 4.6 inches per year depending on individual age and conditions. Western Joshua trees are long-lived species, with most estimates of average lifespan ranging from 150 to 300 years, although some estimates exceed 700 years. The largest known western Joshua tree exceeds 60 feet in height and is an estimated 1,000 years old. Like other long-lived plant species, seed production occurs very slowly and irregularly, although rhizome production and clonal growth can occur. Western Joshua trees are only known to be pollinated by one species: the yucca moth (*Tegeticula synthetica*).

Six (6) western Joshua trees were observed within the proposed limits of disturbances. As a candidate endangered species, western Joshua trees have the same protection as listed species in the California

Endangered Species Act. Joshua trees are also considered a significant resource under the CEQA and are a covered species under the Desert Plant Protection Act. In accordance with Section 2081 subdivision (b) of the California Fish and Game Code, removal of Joshua trees will require an Incidental Take Permit (ITP) to be prepared and processed if the Joshua trees cannot be avoided.

Current available literature (CDFW 2022) discusses the primary method of western Joshua tree seed dispersal as “scatter-hoarding behavior of rodents who actively collect seeds from fruits in the canopies of trees and fruits and seeds that have fallen on the ground, and bury seeds within the local area”, most of the time within 186 feet of the source tree. White-tailed antelope squirrels (*Ammospermophilus leucurus*) and kangaroo rats (*Dipodomys merriami* and *D. agilis*) were noted as likely having a large role in this process. Because of these data, CDFW has determined that a buffer of 186 feet surrounding each tree is considered within the tree’s associated seedbank, and therefore protected like that of the tree itself. In order to determine mitigation for impacts to Joshua tree, a 186-foot buffer will be placed around each tree to determine the acreage of impacts.

Special-Status Wildlife

According to the CNDDB, fourteen (14) special-status wildlife species have been reported in the Hesperia quadrangle (refer to Attachment D). None of these wildlife species were observed on-site during the field investigation. The project site has been subject to anthropogenic disturbances from grading, illegal dumping, off-road vehicular access and surrounding development. These disturbances have eliminated most of the natural 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 on-site habitats, it was determined that the proposed project site has a moderate potential to provide foraging habitat for Cooper’s hawk (*Accipiter cooperii*) and a low potential to support burrowing owl (*Athene cunicularia*), and loggerhead shrike (*Lanius ludovicianus*). All remaining special-status wildlife species are presumed to be absent from the project site due to a lack of quality habitat.

None of the aforementioned special-status wildlife species are state or federally listed as threatened or endangered. In order to ensure impacts to these avian species do not occur from implementation of the proposed project, a pre-construction nesting bird clearance survey shall be conducted prior to ground disturbance. With implementation of the pre-construction nesting bird clearance survey, impacts to special-status avian species will be less than significant and no mitigation will be required.

Based on regional significance, the potential occurrence of desert tortoise and burrowing owl within the project site are described in further detail below.

Desert Tortoise

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 desert tortoise has been characterized as creosote bush 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, 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, a moderately friable soil is required to allow for burrow construction and ensure that burrows do not collapse.

No desert tortoise or recent sign (i.e. burrows, tracks, or scat) were observed during the field investigation. The project site does not support vegetation communities routinely associated with desert tortoise, nor does available on-site vegetation feature the openness preferred by desert tortoises. Therefore, it was determined that the project site does not have potential to provide suitable habitat for desert tortoise and focused surveys are not recommended.

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 sign (i.e., pellets, feathers, castings, or whitewash) was observed during the field investigation. Portions of the project site are unvegetated and/or vegetated with a variety of low-growing plant species that allow for line-of-sight observation favored by burrowing owls. However, the project site lacks suitable burrows (>4 inches in diameter) capable of providing roosting and nesting opportunities. In addition, the site is bordered by electrical towers and power lines which decrease the likelihood that burrowing owls would occur on the project site as these features provide perching opportunities for larger raptor species (i.e., red-tailed hawk [*Buteo jamaicensis*]) that prey on burrowing owls. Therefore, it was determined that the project site has a low potential to provide suitable habitat for burrowing owls and focused surveys are not recommended. A pre-construction clearance survey is recommended to be conducted to ensure burrowing owl remain absent from the project site.

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 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 are located approximately 4.73 miles to northeast for southwestern willow flycatcher (*Empidonax traillii extimus*) and 6.64 miles to the south for arroyo toad (*Anaxyrus californicus*). Therefore, no impacts to federally designated Critical Habitat will occur from implementation of the proposed project.

Conclusion

With the exception of Joshua tree, based on the proposed project footprint and existing site conditions discussed in this report, none of the special-status plant or wildlife species known to occur in the general vicinity of the project site are expected to be directly or indirectly impacted from implementation of the proposed project. Development of the project will not impact designated Critical Habitats or regional wildlife movement corridors/linkages, or jurisdictional drainage features. With completion of a pre-construction nesting bird clearance survey, impacts to year-round, seasonal, or special-status avian residents will not occur from implementation of the proposed project.

If any impacts to the Joshua trees onsite will occur from project implementation, a CDFW Section 2081 ITP will need to be prepared and processed to mitigate impacts to the Joshua trees onsite.

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.

State Incidental Take Permit

Approximately 3.7 acres of the project site fall within the 186 foot buffer around the onsite Joshua trees that will need to be mitigated if impacts cannot be avoided. Impacts to 3.7 acre of Joshua tree habitat will be mitigated at an agreed upon ratio with CDFW that fully mitigate impacts to Joshua trees. The project applicant will need to prepare and process a Section 2081 ITP with CDFW, and purchase credits out of an approved conservation bank.

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



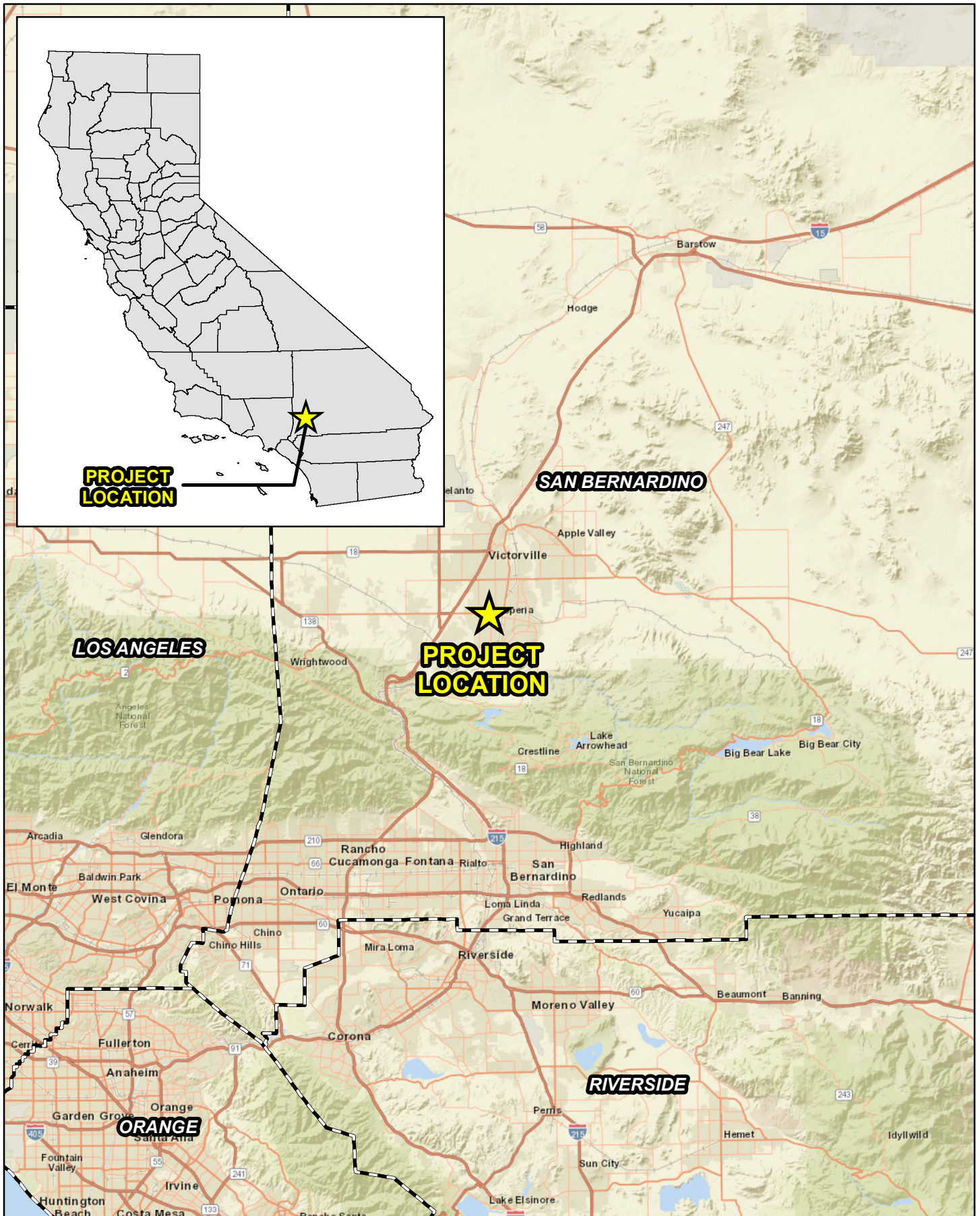
Travis J. McGill
Director

Attachments:

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

Attachment A

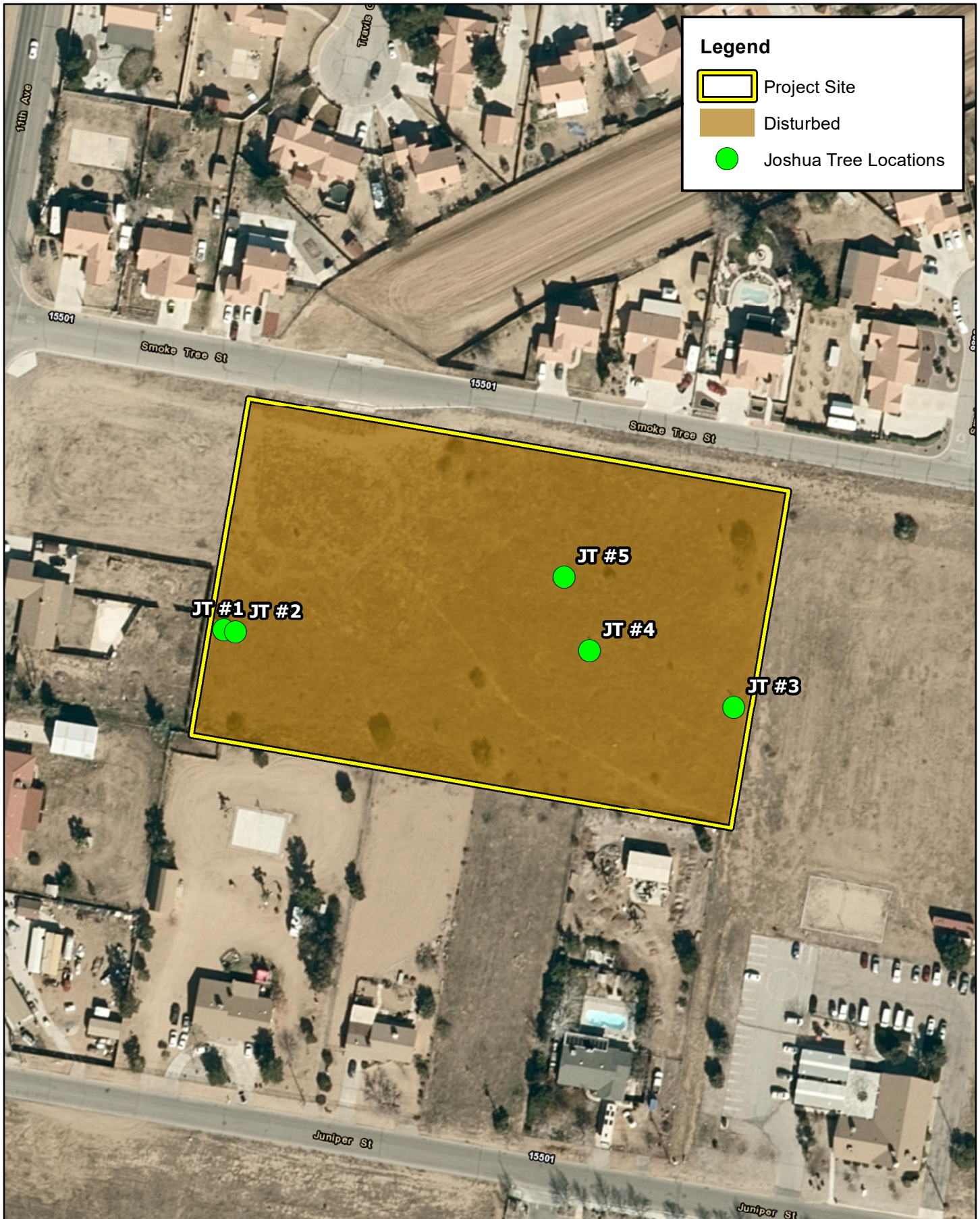
Project Exhibits








15639 SMOKE TREE STREET
 BIOLOGICAL RESOURCES ASSESSMENT
Site Vicinity





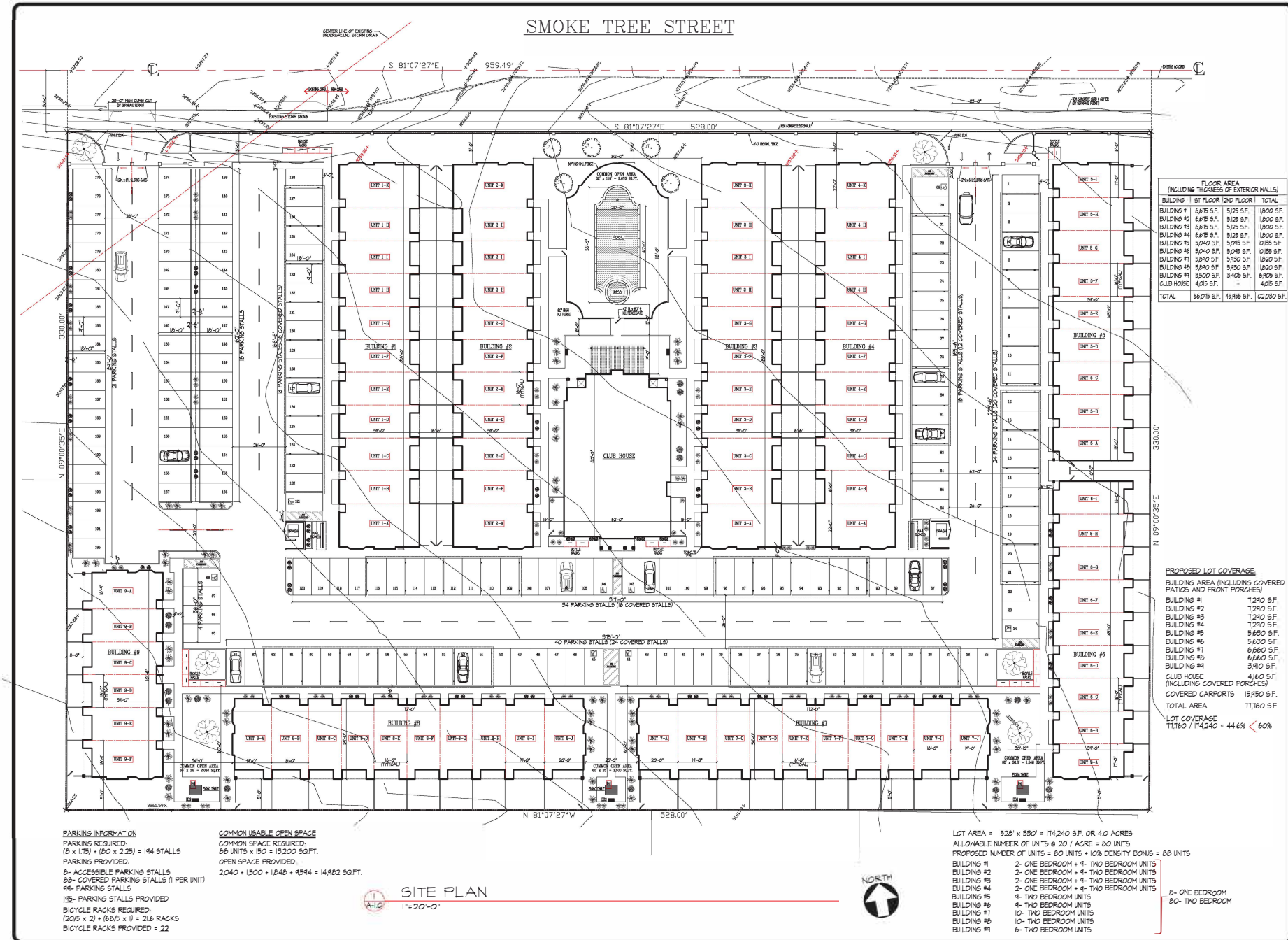
Legend

-  Project Site
-  Disturbed
-  Joshua Tree Locations

Attachment B

Site Plan

SMOKE TREE STREET



Attachment C

Site Photographs



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



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



Photograph 3: From the southwest corner of the project site looking north along the western boundary.



Photograph 4: From the southeast corner of the project site looking northeast across the site.



Photograph 5: From the middle of the southern boundary looking southeast along the southern boundary.



Photograph 6: From the southeast corner of the project site looking west along the southern boundary.



Photograph 7: From the northeast corner of the project site looking west along the northern boundary.



Photograph 8: From the northeast corner of the project site looking southwest.



Photograph 9: Looking at Joshua tree No. 1.



Photograph 10: Looking at Joshua tree No. 2.



Photograph 11: Looking at Joshua tree No. 3.



Photograph 12: Looking at Joshua tree No. 4.



Photograph 13: Looking at Joshua tree No. 5.

Attachment D

Potentially Occurring Special-Status Biological Resources

Table D-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>Accipiter cooperii</i> Cooper's hawk	Fed: None CA: WL	Generally found in forested areas up to 3,000 feet in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests but can be found in urban and suburban areas where there are tall trees for nesting. Common in open areas during nesting season.	No	Moderate The project site provides suitable foraging habitat, but no nesting opportunities are present. This species is adapted to urban environments and occurs commonly.
<i>Antrozous pallidus</i> pallid bat	Fed: None CA: SSC	Locally common species of low elevation in California. Occurs in grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. Most common in open, dry habitats with rocky areas for roosting.	No	Presumed Absent There is no suitable habitat present within or adjacent to the project site.
<i>Asio otus</i> long-eared owl	Fed: None CA: SSC	Hunts mostly at night over grasslands and other open habitats. Nesting occurs in dense trees such as oaks and willows where it occupies stick nests of other species, particularly raptors or corvids.	No	Presumed Absent There is no suitable habitat present within or adjacent to the project site.
<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	Low The project site provides line-of-sight opportunities favored by burrowing owls and supports suitable burrows (>4 inches in diameter) for roosting. However, foraging opportunities are limited and tall buildings adjacent to the project site provide roosting opportunities for raptors. No burrowing owls and/or sign were observed during the field investigation.
<i>Calypte costae</i> Costa's hummingbird	Fed: None CA: None	Desert and semi-desert, arid brushy foothills and chaparral. A desert hummingbird that breeds in the Sonoran and Mojave Deserts. Departs desert heat moving into chaparral, scrub, and woodland habitats.	No	Presumed Absent There is no suitable habitat present within or adjacent to the project site.
<i>Empidonax traillii</i> willow flycatcher	Fed: None CA: END	A rare to locally uncommon, summer resident in wet meadow and montane riparian habitats (2,000 to 8,000 ft) in the Sierra Nevada and Cascade Range. Most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willows.	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
<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 Minimal foraging habitat onsite.
<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 There is no suitable habitat present within or adjacent to the project site.
<i>Setophaga petechia</i> yellow warbler	Fed: None CA: SSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	Presumed Absent There is no suitable habitat present within or adjacent to the project site.
<i>Siphateles bicolor mohavensis</i> Mohave tui chub	Fed: END CA: END; FP	Found in deep pools or shallow outflow streams of mineralized, alkaline freshwater in slough-like areas. Formerly found in areas of the Mohave River, but now exclusively inhabits highly modified refuge sites in San Bernadino County.	No	Presumed Absent There is no suitable habitat present within or adjacent to the project site
<i>Taxidea taxus</i> American badger	Fed: None CA: SSC	Prefers grasslands, parklands, farms and other treeless areas with friable soil and a supply of rodent prey. Can also be found in forest glades and meadows, marshes, brushy areas, hot deserts, and mountain meadows.	No	Presumed Absent There is no suitable habitat 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 There is no suitable habitat present within or adjacent to the project site.
<i>Vireo vicinior</i> gray vireo	Fed: None CA: SSC	Found in hot, arid mountains and high plains scrubland. Nests in mesquite scrub, oak scrub, chaparral, and pinyon pine-juniper, up to about 7,800 feet in elevation.	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
<i>Xerospermophilus mohavensis</i> Mohave ground squirrel	Fed: None CA: THR	Inhabits the western Mohave desert in Joshua tree woodlands, creosote scrub, saltbush scrub and Mojave woody scrub. Lives in areas with flat or moderately sloping topography, like alluvial fans and deep sandy or gravely friable soils with an abundance of herbaceous vegetation.	No	Presumed Absent There is no suitable habitat present within or adjacent to the project 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>Castilleja plagiotoma</i> Mojave paintbrush	Fed: None CA: None CNPS: 4.3	Grows within Great Basin scrub (alluvial), Joshua tree woodland, lower montane coniferous forest, and pinyon and juniper woodland habitats. Found at elevations ranging from 984 to 8,202 feet. Blooming period is from April 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>Eremothera boothii</i> ssp. <i>boothii</i> Booth's evening-primrose	Fed: None CA: None CNPS: 2B.3	Occurs in desert washes, open plains, and scrubland. Found at elevations ranging from 814 to 2,402 feet above msl. Blooming period is from June to August.	No	Presumed Absent. Suitable habitat is present within the project site; however, the project site occurs outside the known elevation range for this species.
<i>Johnstonella costata</i> ribbed cryptantha	Fed: None CA: None CNPS: 4.3	Occurs in sandy soils within desert dunes and Mojavean and Sonoran desert scrub. Found at elevations ranging from -197 to 1,640 feet. Blooming period is from February to May.	No	Presumed Absent There is no suitable habitat present within or adjacent to the project site. The project site occurs outside of the known elevation range for this species.
<i>Opuntia basilaris</i> var. <i>brachyclada</i> short-joint beavertail	Fed: None CA: None CNPS: 1B.2	Habitats include chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodlands. Found at elevations ranging from 1,394 to 5,906 feet. Blooming period is from April to August.	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.	Yes	Present 5 individuals 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 E

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).

Local Regulations

San Bernardino County Development Code

Section 88.01.060 of the County of San Bernardino Development Code provides regulations for the removal or harvesting of specified desert native plants in order to preserve and protect the plants and to provide for the conservation and wise use of desert resources. The provisions are intended to coincide with the Desert Native Plants Act (Food and Agricultural Code Section 8001 et seq.) and the State Department of Food and Agriculture to implement and enforce the Act.

Pursuant to Section 88.01.060 of the Development Code, the following desert native plants or any part of them, except the fruit, shall not be removed except under a Tree or Plant Removal Permit:

- 1) The following desert native plants with stems two inches or greater in diameter or six feet or greater in height:
 - (A) *Dalea spinosa* (smoke tree)
 - (B) All species of the genus *Prosopis* (mesquites)
- 2) All species of the family *Agavaceae* (century plants, nolinias, yuccas)
- 3) Creosote Rings, 10 feet or greater in diameter
- 4) All Joshua trees
- 5) Any part of any of the following species, whether living or dead:
 - (A) *Olneya tesota* (desert ironwood)
 - (B) All species of the genus *Prosopis* (mesquites)
 - (C) All species of the genus *Cercidium* (palos verdes)

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

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the filling of “waters of the U.S.,” including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). The Corps has regulatory authority over the discharge of dredged or fill material into the waters of the United States under Section 404 of the CWA. The Corps and EPA define “fill material” to include any “material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States.” Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and “materials used to create any structure or infrastructure in the waters of the United States.” In order to further define the scope of waters protected under the CWA, the Corps and EPA published the Clean Water Rule on June 29, 2015. Pursuant to the Clean Water Rule, the term “waters of the United States” is defined as follows:

- (i) All waters which are 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) All interstate waters, including interstate wetlands¹.
- (iii) The territorial seas.
- (iv) All impoundments of waters otherwise defined as waters of the United States under the definition.
- (v) All tributaries² of waters identified in paragraphs (i) through (iii) mentioned above.
- (vi) All waters adjacent³ to a water identified in paragraphs (i) through (v) mentioned above, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

¹ The term *wetlands* means those areas that are inundated or saturated by surface or groundwater 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.

² The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (iv) mentioned above), to a water identified in paragraphs (i) through (iii) mentioned above, that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark.

³ The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (i) through (v) mentioned above, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like.

- (vii) All prairie potholes, Carolina bays and Delmarva bays, Pocosins, western vernal pools, Texas coastal prairie wetlands, where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (i) through (iii) mentioned above.
- (viii) All waters located within the 100-year floodplain of a water identified in paragraphs (i) through (iii) mentioned above and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (i) through (v) mentioned above, where they are determined on a case-specific basis to have a significant nexus to a waters identified in paragraphs (i) through (iii) mentioned above.

The following features are not defined as “waters of the United States” even when they meet the terms of paragraphs (iv) through (viii) mentioned above:

- (i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.
- (ii) Prior converted cropland.
- (iii) The following ditches:
 - (A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.
 - (B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.
 - (C) Ditches that do not flow, either directly or through another water, into a water of the United States as identified in paragraphs (i) through (iii) of the previous section.
- (iv) The following features:
 - (A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;
 - (B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;
 - (C) Artificial reflecting pools or swimming pools created in dry land;
 - (D) Small ornamental waters created in dry land;
 - (E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;
 - (F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of a tributary, non-wetland swales, and lawfully constructed grassed waterways; and
 - (G) Puddles.
- (v) Groundwater, including groundwater drained through subsurface drainage systems.
- (vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

- (vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

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.