HUME SOCAL CAMPGROUND PROJECT

SAN BERNARDINO COUNTY, CALIFORNIA
KELLER PEAK USGS 7.5-MINUTE TOPOGRAPHIC QUADRANGLE
SECTIONS 28 AND 33, TOWNSHIP 2 NORTH, RANGE 2 WEST
APN: 0328-071-05, -07, AND -10, AND 0328-121-40 AND -42

Biological Resources Assessment

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September 2023

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SAN BERNARDINO COUNTY, CALIFORNIA

Biological Resources Assessment

The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.

Travis J. McGill
Director/Biologist

Thomas J. McGill, Ph.D.
Managing Director

September 2023

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EXHIBITS

APPENDIX

Section 1 Introduction

This report contains the findings of ELMT Consulting's (ELMT) biological resources assessment prepared for the Hume SoCal Campground Project (project site, site) located within the Green Valley Lake Community in the mountain region of San Bernardino County, California. ELMT biologists Jacob H. Lloyd Davies, Rachael A. Lyons, and Megan E. Peukert conducted a field survey and evaluated the condition of the habitat within the project site on July 31, 2023, and August 2, 2023.

The purpose of the biological resources assessment is to characterize existing site conditions on the entire project site and to assess the probability of occurrence of special-status[1] plant and wildlife species that could pose a constraint to project implementation. Special attention was given to the suitability of the project site to support southern rubber boa (*Charina umbratica*), San Bernardino flying squirrel (*Glaucomys sabrinus californicus*), California spotted owl (*Strix occidentalis*), 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 site.

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.

1.1 PROJECT LOCATION

The project site is generally located north, west, and south of State Route 18, and southeast of Lake Arrowhead within the San Bernardino Mountains in the unincorporated Community of Green Valley Lake, San Bernardino County, California (Exhibit 1, *Regional Vicinity*). The site is depicted on the *Keller Peak* quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series within Sections 28 and 33 of Township 2 North, Range 2 West (Exhibit 2, *Site Vicinity*). Specifically, the approximately 251-acre project site is transected by Green Valley Lake Road and roughly centered around the existing Hume SoCal campground facility within Assessor's Parcel Numbers (APN) 0328-071-05, -07, and -10, and 0328-121-40 and -42 (Exhibit 3, *Project Site*).

[1] As used in this report, "special-status" refers to plant and wildlife species that are federally or State listed, proposed, or candidates; plant species that have been designated a California Native Plant Society (CNPS) Rare Plant Rank; wildlife species that are designated by the California Department of Fish and Wildlife (CDFW) as fully protected, species of special concern, or watch list species; California Department of Forestry and Fire Protection sensitive species; and International Union for Conservation of Nature Red List species.

1.2 PROJECT DESCRIPTION

The Project involves the expansion of campground uses for the existing Hume SoCal campground to accommodate up to 2,854 total occupants. This would be accomplished through the continued use of existing campground structures as well as the development of additional campground and recreational structures and uses within a 251-acre area of the Green Valley Lake community. Development of the Project site would be completed in five phases.

Each phase of the Project would include the development of expanded infrastructure, additional amenities, support structures, and buildings necessary to accommodate expanded camper capacity as well as paved parking areas and paved access roadways. Refer to Appendix A, *Site Plans*.

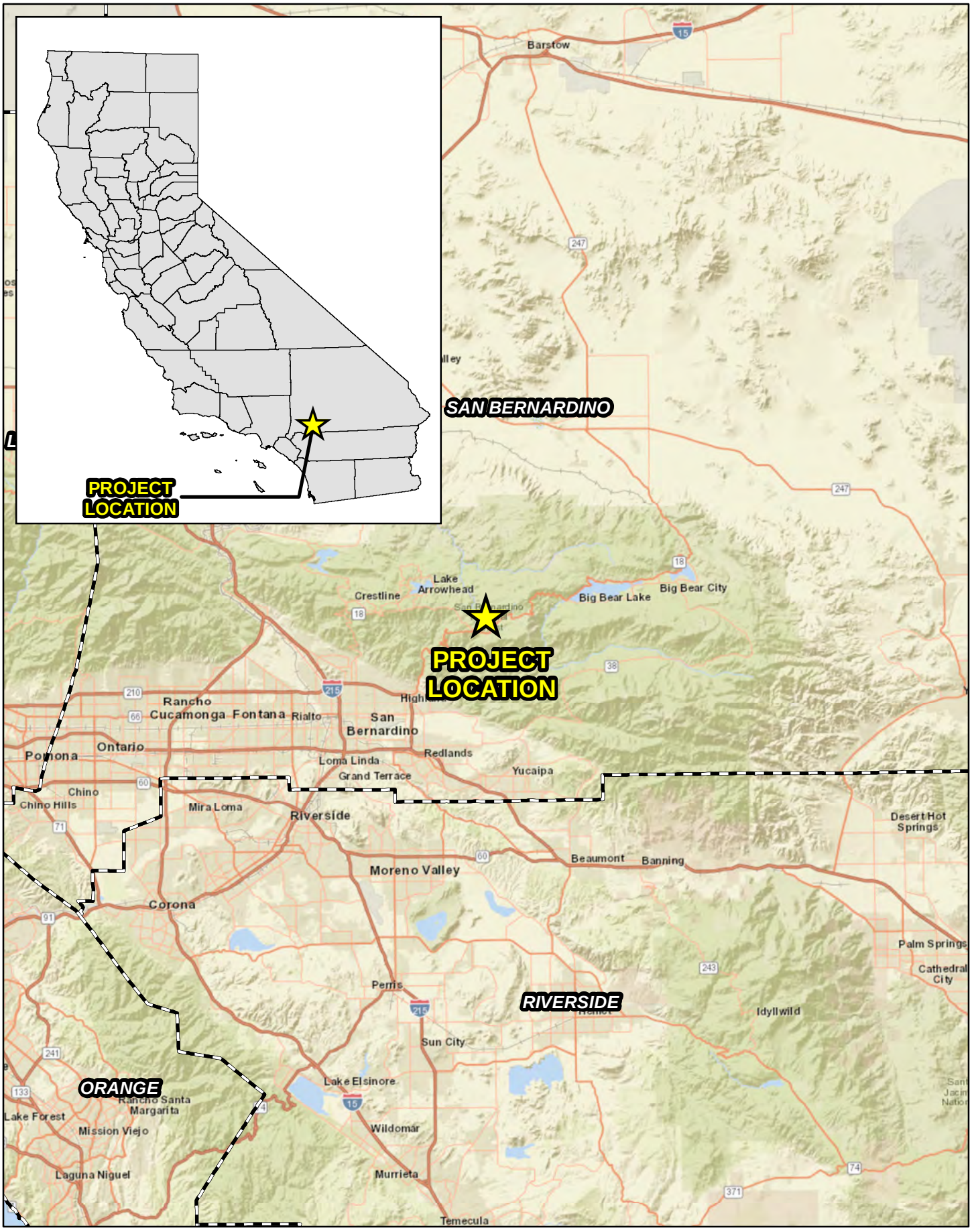
Phase 1 of the Project would involve the development of facilities to be used as a Junior High Camp. Proposed residential structures within the Phase 1 area include an expanded welcome center, private administration and guest speaker residencies, staff housing, and student dormitories. Phase 1 also includes the development of a gymnasium, bus parking, a snack shop, a chapel, converting an existing chapel to a small meeting space, an expansion to the existing dining hall, a maintenance building, an amphitheater, and restrooms. Outdoor recreation facilities include grass quads. Existing and proposed facilities within Phase 1 would accommodate up to 988 guest occupants.

Phase 2 of the Project would involve the development of facilities to be used as a High School Camp. Proposed residential structures within the Phase 2 area include staff housing buildings, and student dormitories. Phase 2 also includes the development of a large dining hall, gymnasium, a chapel, amphitheater, and restrooms. Outdoor recreation facilities include grass quads, a swimming pool, and a recreation pond. Existing and proposed facilities within Phase 2 would accommodate up to 1,096 occupants.

Phase 3 of the Project proposes the development of an Adult Lodge. Phase 3 would include the development of one adult lodge with included access road. Existing and proposed facilities within Phase 3 would accommodate up to 140 occupants.

Phase 4 of the Project would include the development of an Elementary Age Camp and associated facilities. Proposed residential structures within Phase 4 include semi-permanent insulated tent structures for students. Phase 4 also includes the development of restroom facilities with showers and an amphitheater. Outdoor recreation facilities include grass quads, a dining canopy, a swimming pool, and a recreation pond. Existing and proposed facilities within Phase 4 would accommodate up to 500 occupants.

Phase 5 of the Project proposes the creation of a tent-based youth camp, Wildwood Camp. Residential structures proposed for this phase consist of semi-permanent insulated tent structures. Phase 5 also includes the development of restroom facilities with showers and an amphitheater. Outdoor recreation facilities include grass quads, a dining canopy, a swimming pool, and a recreation pond. Existing and proposed facilities within Phase 5 would accommodate up to 130 occupants.



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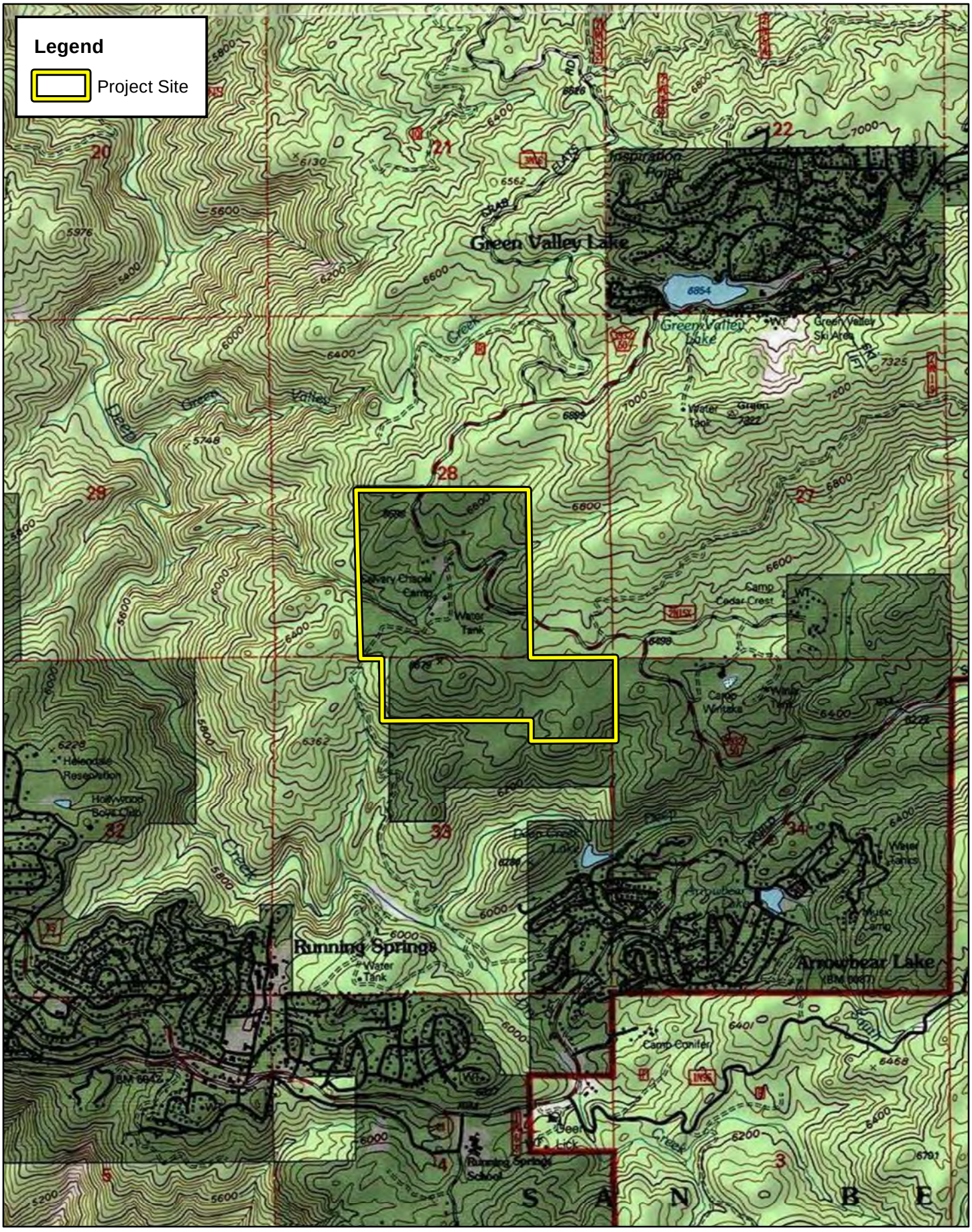
HUME SO CAL CAMPGROUND PROJECT

Regional Vicinity

Exhibit 1



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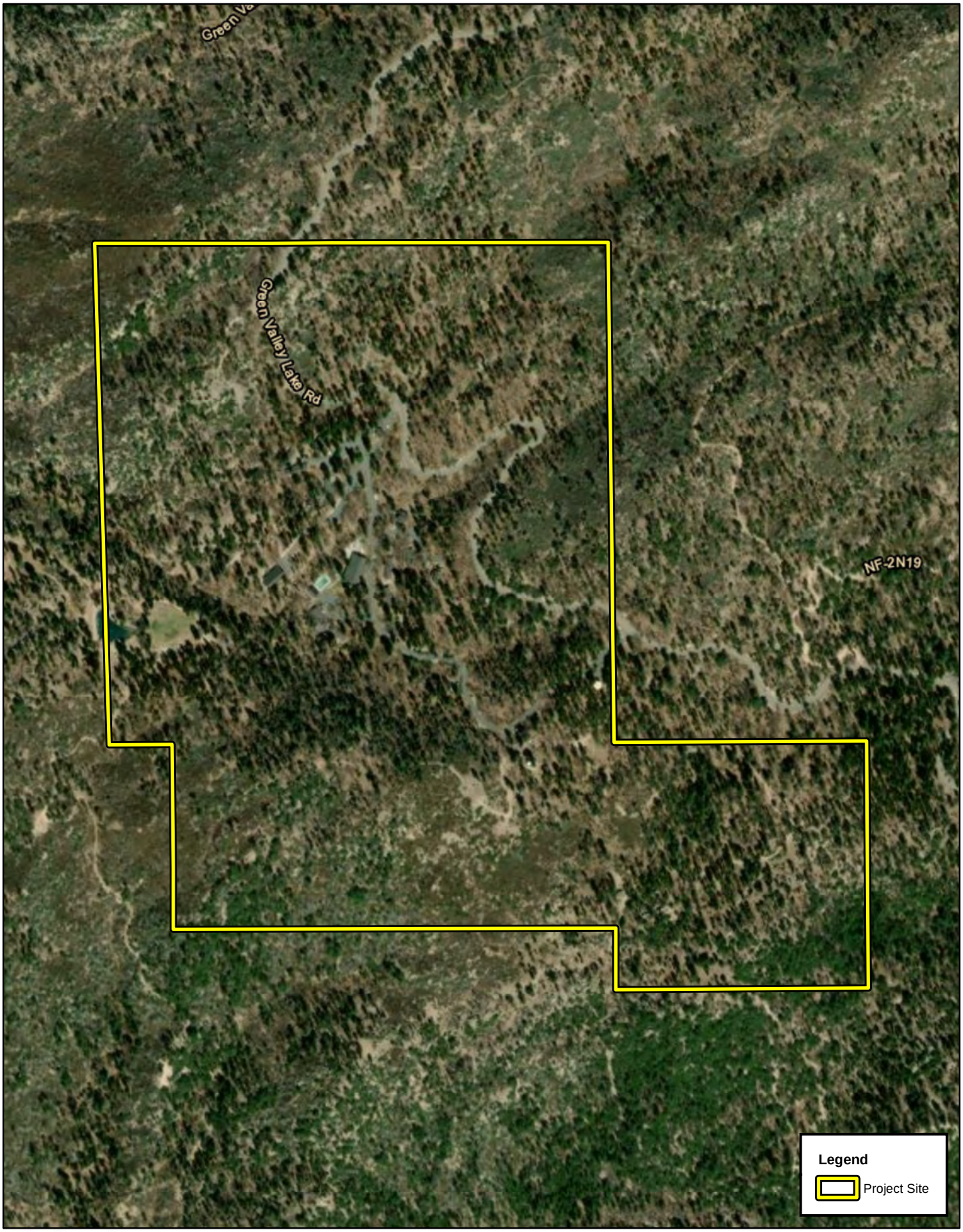
Source: USA Topographic Map, San Bernardino County

HUME SO CAL CAMPGROUND PROJECT

Site Vicinity

Exhibit 2



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0 500 1,000 2,000 Feet

HUME SO CAL CAMPGROUND PROJECT

Project Site

Source: ESRI Aerial Imagery, San Bernardino County

Exhibit 3

Section 2 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. The field investigation was conducted to document existing conditions within the project site and assess the potential for special-status biological resources to occur.

2.1 LITERATURE REVIEW

Prior to conducting the field study, species and habitat information was gathered from the reports related to the specific project and relevant databases for the *Butler Peak, Harrison Mtn., Keller Peak,* and *Lake Arrowhead* USGS 7.5-minute quadrangles to identify species and habitats known to occur locally. These quadrangles were queried due to the proximity of the project site to quadrangle boundaries and regional topography. The literature review sources included:

- U.S. Fish and Wildlife (USFWS) threatened and endangered species occurrence GIS overlay;
- USFWS Designated Critical Habitat Maps;
- California Natural Diversity Database (CNDDB) *Rarefind 5*;
- International Union for Conservation of Naturae (IUCN);
- CNDDB Biogeographic Information and Observation System (BIOS);
- California Native Plant Society Electronic Inventory (CNPSEI) database;
- Calflora Database;
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey;
- USFWS National Wetland Inventory;
- Environmental Protection Agency (EPA) Water Program "My Waters" data layers;
- Google Earth Pro historic aerial imagery (1985-2023);
- San Bernardino County General Plan;
- USFWS Critical Habitat designations for Threatened and Endangered Species;
- USFWS National Wetlands Inventory (NWI); and

The literature review provided a baseline from which to inventory the biological resources potentially occurring on the subject property. 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.

2.2 FIELD INVESTIGATION

ELMT biologists Jacob H. Lloyd Davies, Rachael A. Lyons, and Megan E. Peukert evaluated the conditions of the plant communities found within the boundaries of the project site on March 22, April 18, and June 30, 2023. Plant communities identified on aerial photographs during the literature review were verified in the field. The plant communities were evaluated for their potential to support special-status plant and

wildlife species. In addition, field staff identified any natural corridors and linkages that may support the movement of wildlife through the area.

The plant communities were evaluated for their potential to support special-status plant and wildlife species. 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) and delineated on an aerial photograph, and then digitized into ArcGIS. The ArcGIS application was used to compute the area of each plant community in acres.

Common plant species observed during the field survey 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 species detected during field surveys by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides were 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 fairly well standardized, scientific names are provided immediately following common names in this report (first reference only). In addition, field staff identified any natural corridors and linkages that may support the movement of wildlife through the area.

2.3 SOIL SERIES ASSESSMENT

On-site and adjoining soils were researched prior to the field survey using the USDA NRCS Soil Survey for San Bernardino County Hilltop Community. 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.

2.4 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 Corps, Regional Board, and/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 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.

Section 3 Existing Conditions

3.1 LOCAL CLIMATE

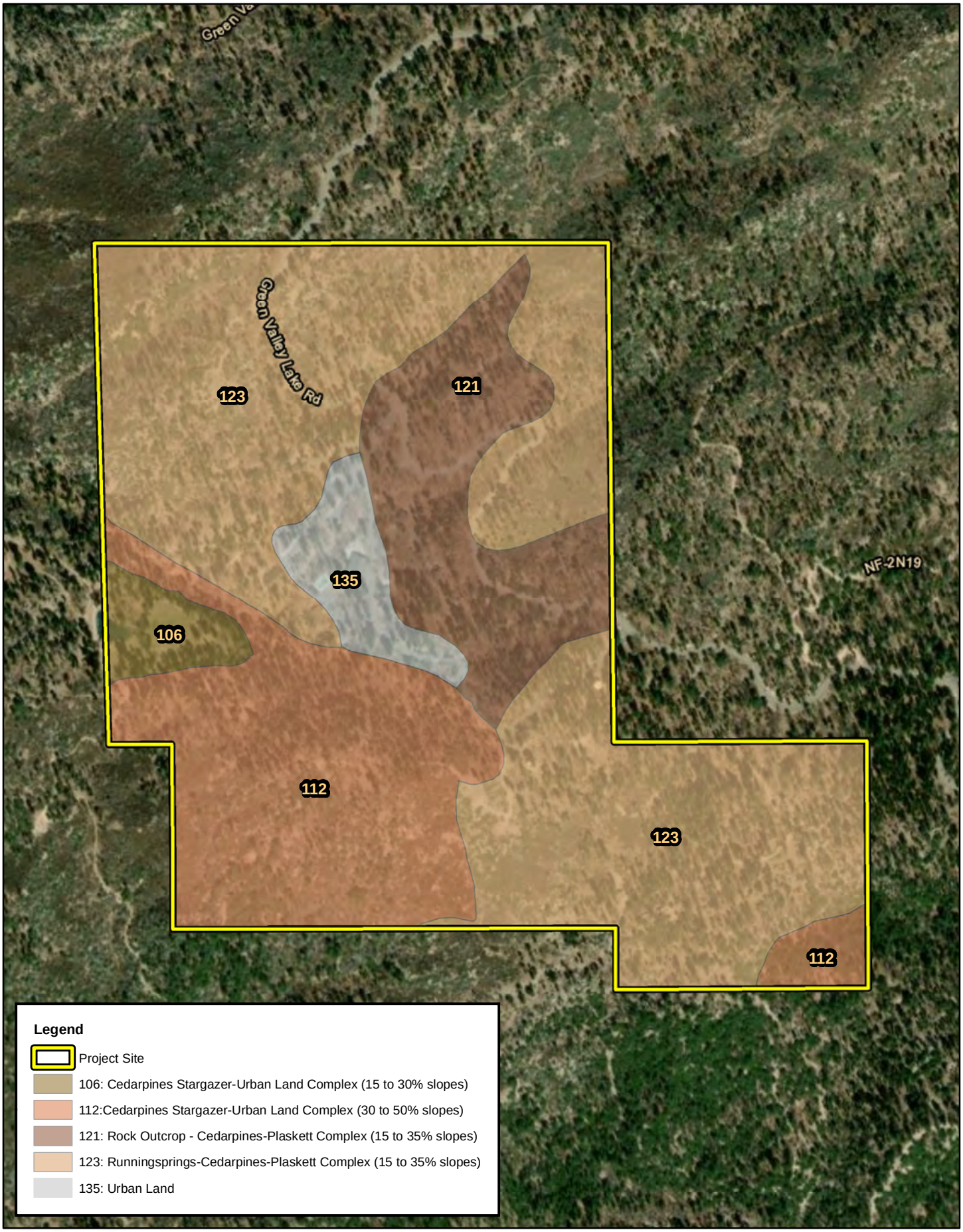
The Hilltop Community in San Bernardino County features a somewhat cooler version of a Mediterranean climate, or semi-arid climate, with warm, sunny, dry summers and cool, rainy, mild winters. Relative to other areas in Southern California, the upper elevations of the San Bernardino Mountains are influenced by a steppe climate, with colder, snowy winters and cold morning temperatures common. Climatological data obtained for the nearby City of Big Bear Lake indicates the annual precipitation averages 12.56 inches per year. The majority of precipitation in the form of rain occurs in the months between December and March, with hardly any occurring between the months of May and June. The wettest months are January and February, with monthly average total precipitation of 1.93 and 2.24 inches, respectively, and the driest months are May and June, with monthly average total precipitation of 0.47 and 0.20 inches, respectively. The average maximum and minimum temperatures are 61.1- and 41.1-degrees Fahrenheit (° F), respectively, with July (monthly average high 77.7° F) being the hottest month and February (monthly average lows 29.5° F) being the coldest. The temperature during the visits were in the mid-50s to 70s ° F with clear skies and calm winds.

3.2 TOPOGRAPHY AND SOILS

On-site surface elevation ranges from approximately 6,280 to 6,760 feet above mean sea level. The topography in the region supporting the project site is highly variable, consisting of steep slopes and valleys, and generally slopes from north to south. According to the NRCS Custom Soil Resource Report, the project site is underlain by Cedarpines-Plaskett-Stargazer complex (30 to 50 percent slopes), Cedarpines-Stargazer-Urban land complex (15 to 30 percent slopes), Rock outcrop-Cedarpines-Plaskett complex (15 to 35 percent slopes), Runningsprings-Cedarpines-Plaskett complex (15 to 35 percent slopes), and Urban land. Refer to Exhibit 4, *Soils*. Soils within portions of the site have been disturbed and compacted by on-site and surrounding development, infrastructure, and dirt and paved roads.

3.3 SURROUNDING LAND USES AND SITE CONDITIONS

The project site occurs on the southwest outskirts of the mountain Community of Green Valley Lake in a primarily undeveloped area in the San Bernardino Mountains. The majority of the area surrounding the site is comprised of natural mountain forest habitats with scattered campgrounds, residential developments, and similar camp-like settings occurring primarily to the west and east, the more consolidated portions of the Community of Green Valley Lake occurring to the northeast, and the community of Running Springs occurring to the south. The project site is generally surrounded by undeveloped land with scattered structures associated with unaffiliated camps throughout. Green Valley Lake traverses the site and continues to the northeast and southeast. The site itself primarily supports undeveloped land with various campground facilities, infrastructure, and access roads and paths throughout.



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Soils

Source: ESRI Aerial Imagery, Soil Survey Geographic Database, San Bernardino County

Exhibit 4

Section 4 Discussion

4.1 VEGETATION AND LAND COVER

The project site supports land that has undergone varying degrees of anthropogenic disturbance in association with the active campground onsite. Most of the project site is undeveloped and undisturbed, and the level of disturbance increases with closer proximity to campground facilities, and roadways and paths that connect these facilities throughout the site. Two (2) vegetation communities were observed on-site: Mixed Conifer Forest and Willow Riparian Woodland. In addition, the site supports two (2) land cover types that would be classified as disturbed and developed. The vegetation communities and land cover types are described in further detail below (refer to Exhibit 5, *Vegetation*).

4.1.1 Mixed Conifer Forest

The Mixed Conifer Forest plant community is co-dominated by conifer species such as Jeffrey pine (*Pinus jeffreyi*), sugar pine (*Pinus lambertiana*), and bigcone Douglas-fir (*Pseudotsuga macrocarpa*), and supports lesser dominance of oak species such as California black oak (*Quercus kelloggii*) and canyon live oak (*Quercus chrysolepis*). Understories are variable, with some areas supporting dense understories of shrubs and a dense herbaceous later, and some areas relatively lacking understories. Other common plant species observed in this plant community include bigberry manzanita (*Arctostaphylos glauca*), Sierra lotus (*Acmispon decumbens*), California false indigo (*Amorpha californica*), coffee berry (*Frangula californica*), diffuse groundsmoke (*Gayophytum diffusum*), California aster (*Corethrogyne filaginifolia*), woollypod milkweed (*Asclepias eriocarpa*), goldenstar (*Bloomeria crocea*), giant red Indian paintbrush (*Castilleja miniate*), mountain gooseberry (*Ribes montigenum*), Grinnell's beardtongue (*Penstemon grinnellii*), Bridge's penstemon (*Penstemon rostriflorus*), snowplant (*Sarcodes sanguinea*), western wallflower (*Erysimum capitatum*), giant woollystar (*Eriastrum densifolium*), yarrow (*Achillea millefolium*), common bracken fern (*Pteridium aquilinum*), woodland strawberry (*Fragaria vesca*), California fuchsia (*Epilobium canum*), and rainbow iris (*Iris hartwegii*).

4.1.2 Willow Riparian Woodland

The Willow Riparian Woodland plant community is consolidated to riparian areas along much of the middle and eastern portions of Drainage 1, where underlying substrates and immediate topography allows associated species to establish. This plant community is dominated by arroyo willow (*Salix lasiolepis*), Pacific willow (*Salix lasiandra*), Scouler willow (*Salix scouleriana*), and typically supports densely vegetated understories with a varied shrub layer and robust herbaceous layer. Other common species observed in this plant community include yarrow, woodland strawberry, western columbine (*Aquilegia formosa*), musk monkeyflower (*Erythranthe moschata*), seep monkeyflower (*Erythranthe guttata*), cardinal monkeyflower (*Erythranthe cardinalis*), broadleaf lupine (*Lupinus latifolius*), mountain pink currant (*Ribes nevadense*), silver maple (*Acer saccharinum*), quaking aspen (*Populus tremuloides*), soft rush (*Juncus effusus*), willow dock (*Rumex salicifolius*), watercress (*Nasturtium officinale*), willow herb (*Epilobium ciliatum*), perennial pepperweed (*Lepidium latifolium*), common water weed (*Elodea canadensis*), and fragile sheathed sedge (*Carex fracta*).

4.1.3 Disturbed

Disturbed areas are generally areas that have been subject to a high level of human disturbances from anthropogenic activities and no longer comprise a native plant community. These areas are unpaved and are primarily or entirely devoid of vegetation, or support ruderal/weedy plant species. Disturbed areas observed within the boundaries of the project site generally occur along roadways and campground recreational areas. Plant species occurring within these disturbed areas include Mediterranean mustard (*Hirschfeldia incana*), rabbit's foot grass (*Polypogon monspeliensis*), Canary grass (*Phalaris canariensis*), and Jimsonweed (*Datura wrightii*).

4.1.4 Developed

Developed areas generally encompass all buildings/structures, parks, and paved, impervious surfaces. Within the boundaries of the project site, developed areas include campsite facilities such as lodging, administrative offices, recreational-use structures, water towers, roadways, and flood control infrastructure. These areas are largely devoid of vegetation or support only weedy/early successional species adapted to growing in such conditions, in addition to any ornamental vegetation that may be maintained with or without artificial irrigation.

4.2 WILDLIFE

Plant communities provide foraging habitat, nesting and denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed during the field survey or that 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 condition in which the field survey was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation.

4.2.1 Fish

No fish species were observed within the boundaries of the project site. The creeks observed flowing within site boundaries did not have large enough basins to support any fish species known to occur in the area. A man-made pond occurs in the western region of the project site. This pond is regularly used for recreational activities associated with the active campground and appears to be devoid of any fish species. Therefore, it was determined that all fish species are assumed to be absent from the project site.

4.2.2 Amphibians

The riparian plant community within the project site, has the potential to provide suitable habitat for amphibian species known to occur within the San Bernardino Mountains. Common amphibian species that could potentially occur onsite include arroyo toad (*Bufo californicus*), western toad (*Bufo boreas*), California treefrog (*Pseudacris cadaverina*), Baja California tree frog (*Pseudacris hypochondriaca*), ensatina (*Ensatina eschscholtzii*), and bullfrog (*Rana catesbeiana*).

4.2.3 Reptiles

Reptilian species observed during the field investigation include southern sagebrush lizard (*Scleporus vandenburgianus*) and western fence lizard (*Scleoporus occidentalis*). Common reptilian species that could potentially occur onsite include southern Pacific rattlesnake (*Crotalus oreganus helleri*), mountain gartersnake (*Thamnophis elegans elegans*), gopher snake (*Pituophis catenifer*), two-striped gartersnake (*Thamnophis hammondii*), and western sideblotched lizard (*Uta stansburiana elegans*).

4.2.4 Birds

The plant communities found within the boundaries of the project site provide suitable foraging and nesting habitat for a variety of resident and migrant bird species adapted to conditions within the San Bernardino Mountains. Avian species detected during the survey include Stellar's jay (*Cyanocitta stelleri*), common raven (*Corvus corax*), mountain quail (*Oreortyx pictus*), mountain bluebird (*Sialia currucoides*), black-headed grosbeak (*Pheucticus melanocephalus*), hairy woodpecker (*Leuconotopicus villosus*), white-breasted nuthatch (*Sitta carolinensis*), red-breasted nuthatch (*Sitta canadensis*), mountain chickadee (*Poecile gambeli*), northern flicker (*Colaptes auratus*), American robin (*Turdus migratorius*), western wood-pewee (*Contopus sordidulus*), spotted towhee (*Pipilo maculatus*), acorn woodpecker (*Melanerpes formicivorus*), song sparrow (*Melospiza melodia*), dark-eyed junco (*Junco hyemalis*), red-winged blackbird (*Agelaius phoeniceus*), house wren (*Troglodytes aedon*), and band-tailed pigeon (*Patagioenas fasciata*).

4.2.5 Mammals

The plant communities found within the boundaries of the project site provide suitable foraging and denning habitat for a variety of mammalian species. Most mammal species are nocturnal and are difficult to observe during a diurnal field visit. Mammalian species observed during the field investigation were chipmunk (*Neotomias* sp.), grey squirrel (*Sciurus griseus*), and ground squirrel (*Otospermophilus beecheyi*). Additional mammalian species that have the potential to occur onsite include coyote (*Canis latrans*), opossum (*Didelphis albiventris*), raccoon (*Procyon lotor*), big brown bat (*Eptesicus fuscus*), American black bear (*Ursus americanus*), mule deer (*Odocoileus hemionus*), mountain lion (*Puma concolor*), and bobcat (*Lynx rufus*).

4.4 NESTING BIRDS

No active nests were observed during the field investigation, which was conducted during the nesting season; however, several species were observed exhibiting nesting behaviors. The onsite plant communities provide suitable foraging and nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that have adapted to the mountains.

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.

4.5 WILDLIFE CORRIDORS AND LINKAGES

Habitat linkages provide links between larger undeveloped 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 inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

According to the San Bernardino County General Plan, Deep Creek and its associated valleys have been identified as a Wildlife Corridor or Linkage. While the named portion of Deep Creek occurs approximately 0.54 miles to the west of the project site, the site supports a tributary to Deep Creek and the site boundaries overlap with the valley that straddles nearby portions of Deep Creek.

Although partially constrained by existing roadway and buildings, the natural habitats on and surrounding the project site allow for local wildlife to move from the project site into the undeveloped areas surrounding the project site in search of food, shelter, or nesting habitat. However, the project site does not function as a major wildlife movement corridor or linkage. As such, implementation of the proposed project is not expected to have a significant impact to wildlife movement opportunities or prevent local wildlife movement through the area since there is ample habitat adjacent to the project site to support wildlife movement opportunities.

4.6 STATE AND FEDERAL 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 and/or fill materials into “waters of the United States” 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 Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act and the CDFW regulates alterations to streambed and associated plant communities pursuant to Section 1602 of the California Fish and Game Code.

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 immediate surrounding the project site. Based on this review, one blue-line stream was identified as occurring within project site boundaries. This blue-line stream is classified as an intermittent seasonally flooded streambed. During the time of the field investigation this stream was inundated with water, and its banks and surrounding area supported a willow riparian plant community. Additionally, several other hydrological resources were observed throughout the project site. In total, three (3) perennial drainage features and four (4) ephemeral drainage features were observed within the boundaries of the project site.

Three (3) perennial drainage features and four (4) ephemeral drainage features were observed within the boundaries of the project site during the field delineation. ELMT carefully assessed the site for depressions,

inundation, presence of hydrophytic vegetation, staining, cracked soil, ponding, and indicators of active surface flow and corresponding physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris. Suspected jurisdictional areas were checked for the presence of definable channels, soils, and hydrology. The drainage features mapped on-site are numbered from west to east as they occur within the project site.

Drainage 1

Drainage 1 corresponds to the mapped riverine resource documented in the NWI query and is the largest and main drainage supported on the project site. This drainage is a perennial creek and traverses the entire site in an overall westerly direction. This drainage enters the northern portion of the eastern boundary and traverses to the southwest and then northwest until exiting the site near the middle of the western boundary. Flows within Drainage 1 are conveyed for approximately 2,964 linear feet before exiting the site. Surface water was present throughout most of Drainage 1. Further evidence of an OHWM was observed via scour, changes in substrate, shelving, and lack of vegetation. The OHWM of Drainage 1 ranged from approximately 2 to 35 feet. Riparian vegetation is supported along most of the middle and eastern portions of Drainage 1. The channel bottom consists of exposed bedrock, cobble, and silty substrates. After flowing off-site, Drainage 1 is a direct tributary to Deep Creek, which occurs approximately 3,560 linear feet downstream to the east.

Drainage 2

Drainage 2 is an ephemeral drainage feature that originates on a south-facing slope in the northwest portion of the project site. This drainage conveys flows south and southwest for approximately 893 linear feet until its confluence with Drainage 1. No surface water was present within Drainage 2. Evidence of an OHWM was observed via scour, changes in substrate, shelving, and lack of vegetation. The OHWM of Drainage 2 ranged from approximately 2 to 20 feet. No riparian vegetation is present within Drainage 2, which only supports upland plant species. This drainage supports a Mixed Conifer Forest and Willow Riparian Woodland plant community similar to that observed in Drainage 1.

Drainage 3

Drainage 3 is an ephemeral drainage feature that originates on a south-facing slope in the northwest portion of the project site. This drainage conveys flows to the southwest for approximately 324 linear feet until its confluence with Drainage 1. No surface water was present within Drainage 2. Evidence of an OHWM was observed via scour, changes in substrate, shelving, and lack of vegetation. The OHWM of Drainage 2 ranged from approximately 2 to 7 feet. No riparian vegetation is present within Drainage 2, which only supports upland plant species. This drainage supports a Mixed Conifer Forest and Willow Riparian Woodland plant community similar to that observed in Drainage 1.

Drainage 4

Drainage 4 is a perennial creek that originates off-site to the north. This drainage enters the eastern portion of the northern boundary of the project site and conveys flows to the southwest until converging with Drainage 1. Flows are conveyed beneath Green Valley Lake Road via a 4-foot-wide culvert into an earthen spillway, which also receives surface flows from Green Valley Lake Road. Flows within Drainage 4 are

conveyed for approximately 1,622 linear feet before entering Drainage 1. Surface water was present throughout Drainage 4. Further evidence of an OHWM was observed via scour, changes in substrate, shelving, and lack of vegetation. The OHWM of Drainage 4 ranged from approximately 2 to 20 feet. Riparian vegetation is supported along the majority of the drainage. The channel bottom consists of exposed bedrock, cobble, and silty substrates. Drainage 4 supports the same Mixed Conifer Forest and Willow Riparian Woodland plant communities observed in Drainage 1.

Drainage 5

Drainage 5 is an ephemeral drainage feature that originates on a south-facing slope in the middle portion of the project site near Green Valley Lake Road. This feature conveys surface flows south and west for approximately 1,504 linear feet until its confluence with Drainage 1. No surface water was present within Drainage 5, although riparian vegetation was present. Evidence of an OHWM was observed via scour, changes in substrate, shelving, and lack of vegetation. The OHWM of Drainage 5 ranged from approximately 2 to 6 feet. This drainage supports a Mixed Conifer Forest and Willow Riparian Woodland plant community similar to that observed in Drainage 1.

Drainage 6

Drainage 6 is an ephemeral drainage feature that originates on a south-facing slope in the middle portion of the project site near Green Valley Lake Road. This feature conveys surface flows southwest for approximately 620 linear feet until its confluence with Drainage 5. No surface water was present within Drainage 5, although riparian vegetation was present. Evidence of an OHWM was observed via scour, changes in substrate, shelving, and lack of vegetation. The OHWM of Drainage 6 ranged from approximately 2 to 4 feet. This drainage supports a Mixed Conifer Forest and Willow Riparian Woodland plant community similar to that observed in Drainage 1.

Drainage 7

Drainage 7 includes both ephemeral and perennial drainage features. The upper limits of Drainage 7 are ephemeral in nature and originate off-site near Green Valley Lake Road, just north of the southeast portion of the project site. Flows are collected from Green Valley Lake Road and are conveyed to the southwest towards a culvert beneath an access road. Just beyond this access road, perennial flows enter the drainage via a series of culverts and are conveyed further southwest until exiting site boundaries and continuing southwest along local topography. No surface water was observed upstream of the access road, but is present just downstream of the access road, where riparian vegetation and a narrow patch of wetland is present. Drainage 7 conveys flows for approximately 1,523 linear feet while within site boundaries. Further evidence of an OHWM was observed via scour, changes in substrate, shelving, changes in vegetation, and static water conditions. The OHWM of Drainage 7 ranged from approximately 2 to 16 feet. Riparian vegetation is supported along the majority of the drainage. The channel bottom consists of exposed bedrock, cobble, and silty substrates. Drainage 7 supports the same Mixed Conifer Forest and Willow Riparian Woodland plant communities observed in Drainage 1. After flowing off-site, Drainage 7 is a direct tributary to Deep Creek, which occurs approximately 1,400 linear feet downstream to the south.

4.7 SPECIAL-STATUS BIOLOGICAL RESOURCES

The CNDDB Rarefind 5, CNDDB Quickview Tool in BIOS 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 *Butler Peak, Harrison Mtn., Keller Peak,* and *Lake Arrowhead* USGS 7.5-minute quadrangles. 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 seventy-four (74) special-status plant species, fifty-nine (59) special-status wildlife species, and five (5) special-status plant communities as having the potential to occur within the *Butler Peak, Harrison Mtn., Keller Peak,* and *Lake Arrowhead* quadrangles. Special-status plant and wildlife species were evaluated for their potential to occur within the project boundaries 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 are presented in *Table B-1: Potentially Occurring Special-Status Biological Resources*, provide in Appendix D. Refer to Table D-1 for a determination regarding the potential occurrence of special-status plant and wildlife species within the project site.

4.7.1 Special-Status Plants

According to the CNDDB and CNPS, sixty-three (74) special-status plant species have been recorded in *Butler Peak, Harrison Mtn., Keller Peak,* and *Lake Arrowhead* quadrangles (refer to Appendix D). No special-status plant species were observed on-site during the field investigation, which was conducted during the blooming period for most of the special-status plant species known to occur in the vicinity of the site. Based on habitat requirements for the identified special-status species, and known distributions, it was determined that the undeveloped/undisturbed plant communities found within the project site have a low potential to support the following special-status plant species:

- Coville's dwarf abronia (*Abronia nana* var. *covillei*; CNPS 4.2)
- Palmer's mariposa lily (*Caolochortus palmeri* var. *palmeri*; CNPS 1B.2)
- San Bernardino Mountains owl's clover (*Castilleja lasiorhyncha*; CNPS 1B.2))
- Parish's alumroot (*Heuchera parishii*; CNPS 1B.3)
- Lemon lily (*Lilium parryi*; CNPS 1B.2)
- Silky lupine (*Lupinus elatus*; CNPS 4.3)
- Parish's yampah (*Perideridia parishii* ssp. *parishii*; CNPS 2B.2)
- Laguna Mountains jewelflower (*Strepthanthus bernardinus*; CNPS 4.3)
- Southern jewelflower (*Streptanthus campestris*; CNPS 1B.3)

None of the aforementioned special-status plant species are federally or state listed as endangered or threatened but are listed as CNPS Rare Plant Rank Species.

4.7.2 Special-Status Wildlife

According to the CNDDB, fifty-nine (59) special-status wildlife species have been reported in the *Butler Peak, Harrison Mtn., Keller Peak,* and *Lake Arrowhead* quadrangles (refer to Appendix C). Based on habitat requirements for the identified special-status species, and known distributions, it was determined that the project site has the potential to support the following special-status wildlife species:

- Cooper's hawk (*Accipiter cooperii*)
- arroyo toad (*Anaxyrus californicus*)
- golden eagle (*Aquila chrysaetos*)
- long-eared owl (*Asio otus*)
- San Bernardino golden-mantled ground squirrel (*Callospermophilus lateralis bernardinus*)
- Southern rubber boa (*Charina umbratica*)
- Olive-sided flycatcher (*Contopus cooperi*)
- San Bernardino flying squirrel (*Glaucomys oregonensis californicus*)
- Bald eagle (*Haliaeetus leucocephalus*)
- White-eared pocket mouse (*Perognathus alticola alticola*)
- Purple martin (*Progne subis*)
- California spotted owl (*Strix occidentalis occidentalis*)
- Two-striped gartersnake (*Thamnophis hammondii*)

Of the afformentioned species, arroyo toad is listed as federally endangered; golden eagle is federally protected, southern rubber boa is listed as threatened in California, and bald eagle is listed as endangered in California and is federally protected.

The tall, mature trees provide suitable nesting habitat for both golden eagle and bald eagle, and the open, disturbed areas scattered throughout the project site provide hunting opportunities for both raptor species. Additionally, bald eagle has been observed nearby. Neither of these species were observed within the project site at the time of the investigation. However, out of an abundance of caution, a preconstruction nesting bird clearance survey should be conducted prior to ground disturbance to ensure impacts to golden eagle and bald eagle do not occur as a result of project implementation.

Based on regional significance and listing status, the potential occurrence of California spotted owl, southern rubber boa, and San Bernardino flying squirrel are described in further detail below.

California spotted owl

The California spotted owl has been designated by the CDFW as a species of special concern and is also considered a sensitive species in the San Bernardino National Forest by the U.S. Forest Service. The California spotted owl is distributed across the Sierra Nevada from Shasta County to Kern County, and along coastal southern California mountain ranges from Monterey County to San Diego County. In the San Bernardino Mountains, California spotted owl nests in mixed conifer habitat, oak/ Douglas-fir habitat, and hardwood/conifer habitat. In the San Bernardino Mountains, the average elevation of occupied nest habitat is at 6,000 feet. Home ranges in the San Bernardino Mountains vary from approximately 800 acres to 2,200

acres. Eighty percent of nesting trees have canopy cover greater than 70 percent, with surrounding nesting habitat having at least two canopy layers. Nest trees often contain large cavities, broken tops, and/or dwarf mistletoe brooms. In southern California conifer forest, stick nests placed on platforms built by other species are most common. In coniferous forests, such as that on-site, large snags and fallen logs are typically present in nesting habitat; this appears to be less important in lower-elevation nesting habitat. Nesting trees are on average 37 inches diameter at breast height in the San Bernardino Mountains and are typically on north-facing slopes where temperatures tend to be cooler. While California spotted owls may forage in the same habitat that they use for nesting and roosting, foraging habitat is often much more open, with canopy cover as low as 40 percent to provide large amounts of open space for flying. Although the California spotted owl will forage opportunistically on a variety of different prey species, their primary prey (79 to 97 percent) is woodrats (typically dusky-footed woodrat [*Neotoma fuscipes*]).

The project site supports high quality habitat and generally primarily consists of undisturbed forested areas along with areas which have undergone varying levels of disturbance in association with campground development and recreational areas. The canopy varies in density, but there are many areas with closed canopy which is favorable for cover for the species. Additionally, there are many trees that are both tall and mature enough to provide nesting cavities and perching opportunities for this species. Therefore, it was determined that there is a high potential for California spotted owl to occur onsite.

The proposed project will be installed adjacent to previously disturbed areas that do not provide as high of quality habitat for spotted owl as the undeveloped areas on the periphery of the project site. Prior to implementation of each phase of the project, a clearance survey should be conducted to ensure spotted owl remain absent from the project site.

Southern rubber boa

The southern rubber boa (SRB) has been designated by the CDFW as a threatened species under the California Endangered Species Act and is also considered a sensitive species in the San Bernardino National Forest by the U.S. Forest Service. SRB inhabits oak-conifer and mixed-conifer forests at elevations between 5,000 to 8,200 feet where rocks and logs or other debris provide shelter. It is semi-fossorial with either nocturnal or crepuscular tendencies, making it difficult to find in a general diurnal field survey. It is restricted to the San Bernardino and San Jacinto Mountains. They emerge from hibernation in April and general disappear during the summer months though they can appear after rains or periods of high humidity (Stewart et. al. 2005). Hoyer and Stewart (2000) found that almost all collections of SRB were on or around small to large rock outcrops which are important for hibernacula.

The periphery of the project stie supports rock outcrops suitable for hibernacula and other debris for shelter. Therefore, it was determined that the undisturbed areas on the project site has a moderate potential to support southern rubber boa. The proposed project will be installed adjacent to previously disturbed areas that do not provide as high of quality habitat for southern rubber boa as the undeveloped areas on the periphery of the project site. The proposed project will be installed adjacent to previously disturbed areas that do not provide suitable habitat for southern rubber boa.

San Bernardino flying squirrel

The San Bernardino flying squirrel is not a listed species by USFWS or CDFW. However, CDFW has designated San Bernardino flying squirrel a species of special concern. It is also considered a sensitive species in the San Bernardino National Forest by the U.S. Forest Service. The historic distribution of the San Bernardino flying squirrel includes both the San Bernardino and San Jacinto Mountains. Recent data analysis suggests that this subspecies may now only be extant in the San Bernardino Mountains. The San Bernardino flying squirrel is nocturnal and is rarely observed. It occurs in a range of coniferous and deciduous forests, including riparian forests and mixed conifer forests. They are usually found in mature old-growth forests, although forests with second-growth stands may also suffice. Occupied habitat tends to have an open understory with a heavy duff (organic debris) layer and a somewhat closed canopy. For locomotion/gliding purposes, they require somewhat dense tree cover (less than 120 feet between tall trees and preferably around 65 feet). Trees with snags and cavities suitable for nesting and denning are required, and trees that are greater than 100 feet tall and greater than 30 inches diameter at breast height are preferred. The San Bernardino flying squirrel depends strongly on truffles and arboreal moss for food, as well as to a much lesser degree seeds, nuts, insects, fruit, bird eggs, and even tree sap. Larger, older trees with associated woody debris and decaying logs tend to indicate a higher potential for healthy truffle growth in the underlying soil.

The project site consists primarily of heavily forested, undisturbed areas with a dense canopy with larger, older trees which provide suitable nesting, denning, and gliding habitat for flying squirrel. Additionally, the understory in these areas in composed of adequate woody debris which provides suitable habitat for moss and truffle for flying squirrel to forage. Due to the high quality of onsite habitat and the occurrence of San Bernardino flying squirrel in nearby areas, it was determined that the project site has a high potential to support San Bernardino flying squirrel.

The proposed project will be installed adjacent to previously disturbed areas that do not provide as high of quality habitat for San Bernardino flying squirrel as the undeveloped areas on the periphery of the project site. Prior to implementation of each phase of the project, a clearance survey should be conducted to ensure San Bernardino flying squirrel remain absent from the project site.

4.7.3 Special-Status Plant Communities

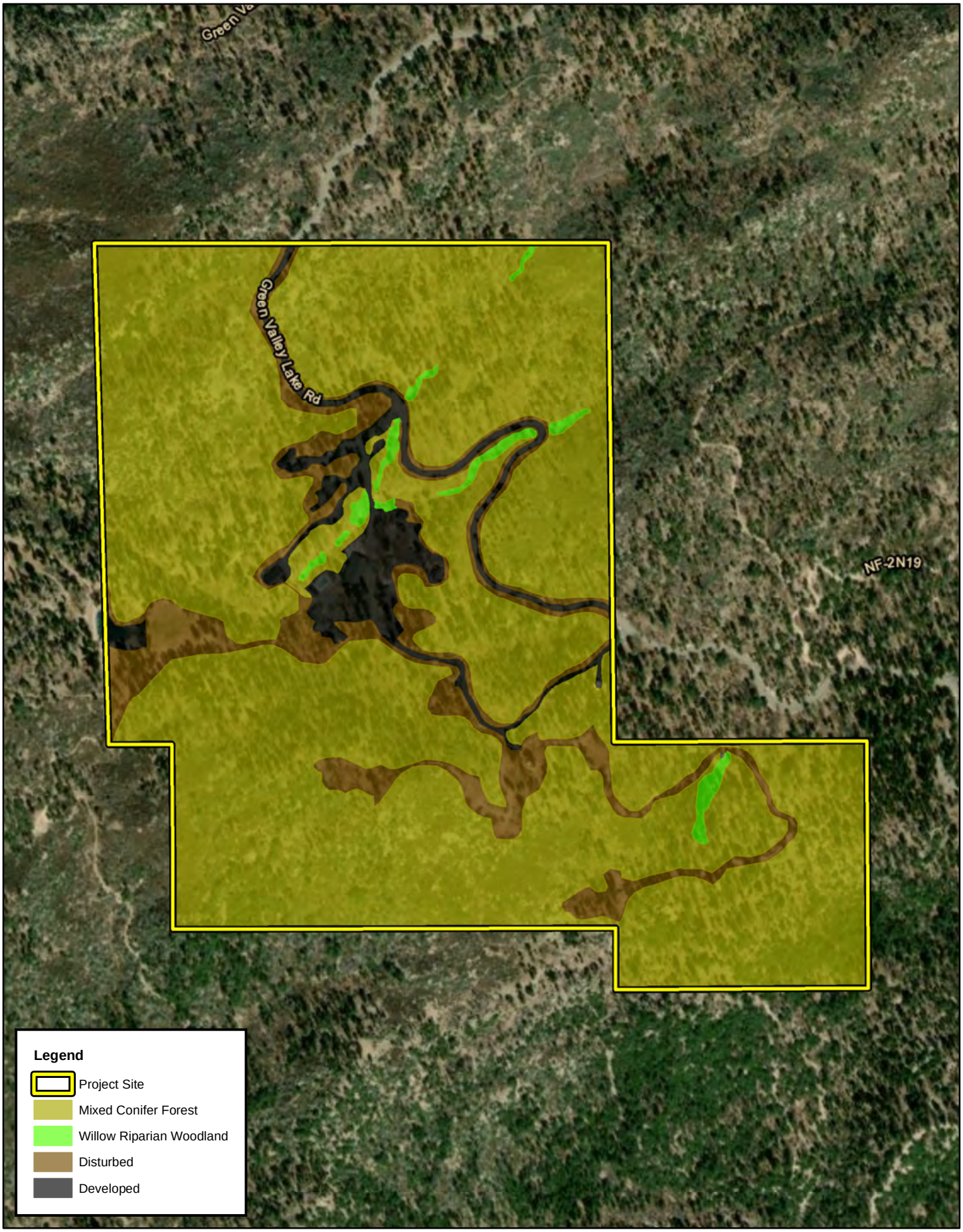
According to the CNDDB, five (5) special-status plant community has been reported in the *Butler Peak, Harrison Mtn., Keller Peak,* and *Lake Arrowhead* quadrangles: Mixed Montane Chaparral, Riversidian Alluvial Fan Sage Scrub, Southern Mixed Riparian Forest, Southern Sycamore Alder Riparian Woodland, and Westside Ponderosa Pine Forest. No special-status plant communities were observed on-site.

4.8 CRITICAL HABITAT

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

not. All federal agencies are required to consult with the United States Fish and Wildlife Service (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 CWA Permit from the Corps). 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. The nearest Critical Habitat to the site occurs approximately 2.5 miles to the east for ash-grey paintbrush (*Castilleja cinerea*), 3.2 miles to the north for southwestern willow flycatcher (*Empidonax traillii extimus*), and 3.3 miles to the west for mountain yellow-legged frog (*Rana muscosa*) (Exhibit 6, *Critical Habitat*). Therefore, no impacts to federally designated Critical Habitat will occur from implementation of the proposed project.



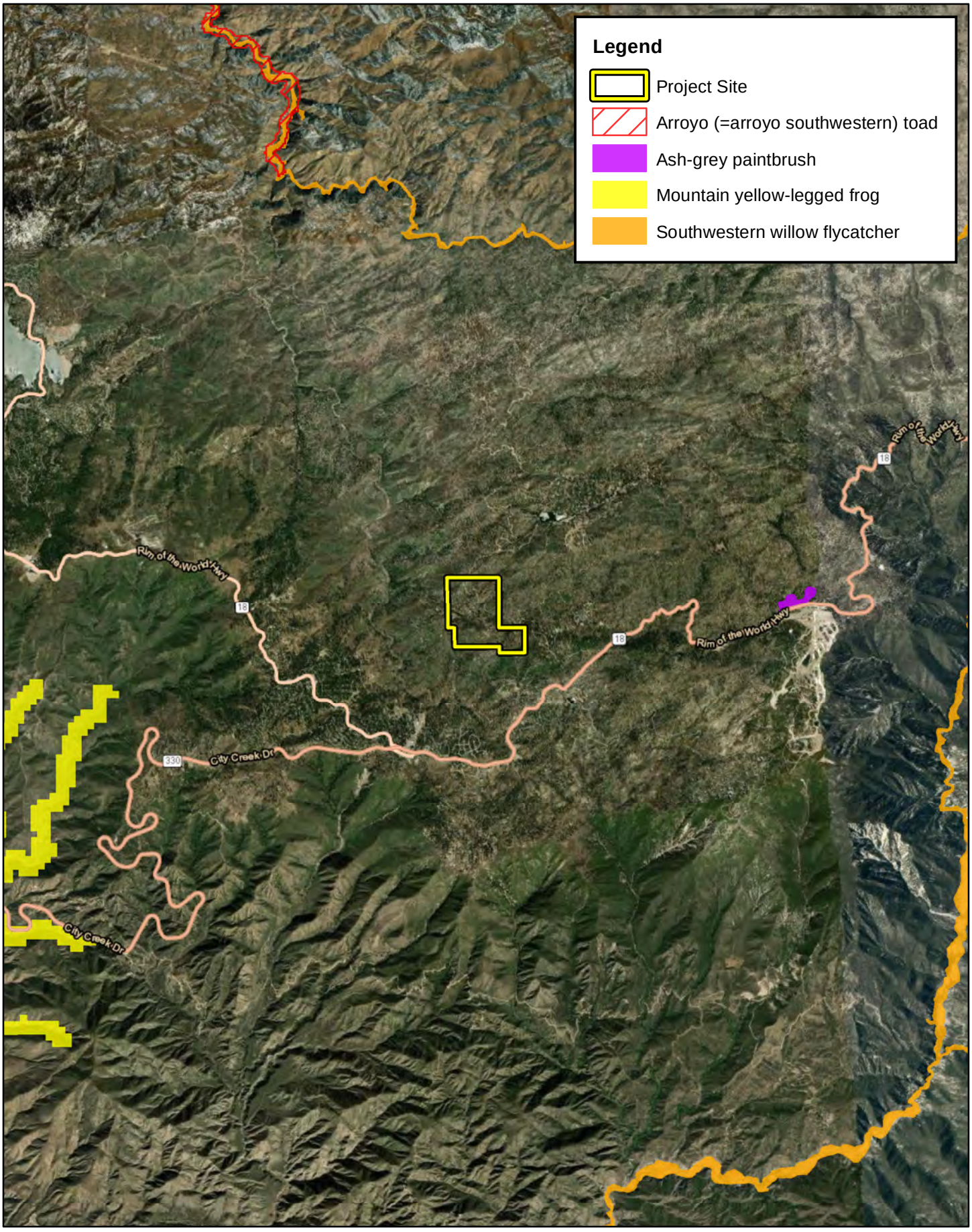
ELMT CONSULTING

HUME SO CAL CAMPGROUND PROJECT

Vegetation

Source: ESRI Aerial Imagery, San Bernardino County

Exhibit 5



ELMT CONSULTING

0 0.5 1 2 Miles

Source: ESRI Aerial Imagery, USFWS Critical Habitat, San Bernardino County

HUME SO CAL CAMPGROUND PROJECT

Critical Habitat

Exhibit 6

Section 5 Conclusion and Recommendations

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:

Special-Status Plant Species

No special-status plant species were observed during the field investigation. Based on habitat requirements for the identified special-status species, known species distributions, and the quality and availability of habitats present, it was determined that the project site has the potential to support the following species:

- Coville's dwarf abronia (CNPS 4.2)
- Palmer's mariposa lily (CNPS 1B.2)
- San Bernardino Mountains owl's clover (CNPS 1B.2))
- Parish's alumroot (CNPS 1B.3)
- Lemon lily (CNPS 1B.2)
- Silky lupine (CNPS 4.3)
- Parish's yampah (CNPS 2B.2)
- Laguna Mountains jewelflower (CNPS 4.3)
- Southern jewelflower (CNPS 1B.3)

None of the aforementioned special-status plant species are federally or state listed as endangered or threatened. They are designated with CNPS Rare Plant Ranks 4.2, 4.3, 2B.2, 1B.2, and 1B.3. As such, if any of the aforementioned special-status plant species were observed onsite, their small isolated populations would not contribute meaningfully to the conservation of their relative species. No focused surveys are recommended.

Special-Status Wildlife Species

Based on habitat requirements for the identified special-status species, and known distributions, it was determined that the project site has the potential to support the following special-status wildlife species:

- Cooper's hawk
- arroyo toad
- golden eagle
- long-eared owl
- San Bernardino golden-mantled ground squirrel
- Southern rubber boa
- Olive-sided flycatcher
- San Bernardino flying squirrel
- Bald eagle
- White-eared pocket mouse
- Purple martin

- California spotted owl
- Two-striped gartersnake

Of the afformentioned species, arroyo toad is listed as federally endangered; golden eagle is federally protected, southern rubber boa is listed as threatened in California, and bald eagle is listed as endangered in California and is federally protected.

In order to ensure no impacts to nesting birds, including Cooper's hawk, golden eagle, long-eared owl, olive-sided flycatcher, bald eagle, purple martin, and California spotted owl do not occur, the following avoidance and minimization measure will need to be implemented prior to project implementation.

Migratory Bird Treaty Act and Fish and Game Code

In order to avoid violation of the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code, site-preparation activities (removal of trees and vegetation) for all projects shall be avoided, to the greatest extent possible, during the nesting season (generally February 1 to August 31) of potentially occurring native and migratory bird species. If project development are proposed during the nesting/breeding season (February 1 to August 31), a pre-activity field survey shall be conducted by a qualified biologist prior to ground disturbance to determine if active nests of species protected by the MBTA or the California Fish and Game Code are present in the construction zone. If active nests are not located within the implementing project site and an appropriate buffer of 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected bird nests (nonlisted), or 100 feet of sensitive or protected songbird nests, construction may be conducted during the nesting/breeding season. However, if active nests are located during the pre-activity field survey, no grading or heavy equipment activity shall take place within at least 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected (under MBTA or California Fish and Game Code) bird nests (nonlisted), or within 100 feet of sensitive or protected songbird nests until the nest is no longer active.

Riparian Habitat and Special-Status Natural Communities

A total of seven (7) drainage features (Drainages 1-7) were observed within the boundaries of the project site during the field delineation. The on-site drainage features, after flowing off-site, flow into Deep Creek before ultimately flowing into the Mojave River. Therefore, the onsite drainage features would qualify as waters of the United States under the jurisdiction of the Corps, and would qualify as "waters of the State" under the regulatory authority of the Regional Board and CDFW. Based on the proposed project footprint, all of the onsite jurisdictional areas will be avoided, and no impacts will occur.

Wildlife Corridors

According to the San Bernardino County General Plan, Deep Creek and its associated valleys have been identified as a Wildlife Corridor or Linkage. While the named portion of Deep Creek occurs approximately 0.54 miles to the west of the project site, the site supports a tributary to Deep Creek and the site boundaries overlap with the valley that straddles nearby portions of Deep Creek.

Proposed project development would be confined to project site boundaries and areas adjacent to current onsite development. Therefore, project activities are not expected to significantly impact the capacity of Deep Creek to support wildlife movement.

Local, Regional, and State Plans

The project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan. Therefore, impacts to any local, regional, or state habitat conservation plans are not expected to occur from development of the proposed project, and mitigation is not required.

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Appendix A Site Plans

ROBERT C. STEVENS
Planning — Graphic Design — Development Consulting
21 Beaverbrook Road — West Simsbury, Connecticut 06092

LEGEND
- PROPERTY LINE
- EXISTING CONTOUR
- EXISTING WATER COURSE
- EXISTING WELL - ACTIVE
- EXISTING WELL ABANDONED
- EXISTING ASPHALT PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- EXISTING BUILDING
- PROPOSED BUILDING

SCALE: 1"=200'

JAN. 9, 2023

Hume Lake CHRISTIAN CAMPS

HUME SoCal
GREEN VALLEY LAKE, CALIFORNIA

PRELIMINARY PLAN

HUME

Appendix B Site Photographs

Photograph 1: From Green Valley Lake Road, looking northeast through a drainage present in the northeastern portion of the project site.

Photograph 2: From the northwest area of the project site, looking west at Green Valley Lake Road and additional areas of the project site beyond.

Photograph 3: From Green Valley Lake Road looking east through a heavily wooded area within the northeast portion of the project site.

Photograph 4: From an area along the northern boundary, looking south through a forested area of the project site.

Photograph 5: Depicting a water tower and surrounding forested area off Smokey Way, along the eastern boundary of the project site.

Photograph 6: From Smokey Way in the middle of the eastern boundary, looking south through a forested area adjacent to Green Valley Lake Road.

Photograph 7: From within a drainage in the southeast portion of the project site, looking north through the site.

Photograph 8: From an unnamed road in the middle of the southern portion of the project site, looking northwest through a disturbed area.

Photograph 9: From an unnamed road in the middle of the southern portion of the project site, looking south through a forested area of the project site, and beyond the southern boundary.

Photograph 10: An installed pond and outdoor recreational-use structures and surrounding facilities near the western boundary of the project site.

Photograph 11: A maintained sports field and surrounding disturbed areas near the western boundary of the project site.

Photograph 12: From the western boundary of the project site, looking north through a canyon with a significant decline in elevation.

Photograph 13: From a drainage central to the project site, looking south through riparian vegetation.

Photograph 13: From the western bank of Drainage 1, looking south though surrounding riparian vegetation.

Photograph 13: From within Drainage 1, looking north.

Photograph 14: From the entrance to the campgrounds off of Green Valley Road, looking northeast through a culvert that feeds into Drainage 1.

Photograph 14: From the upper southwest corner of the project site, looking northeast through an unnamed access road that runs through the site.

Appendix C Potentially Occurring Special-Status Biological Resources

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

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
SPECIAL-STATUS WILDLIFE SPECIES				
Accipiter cooperii 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	**Low** The project site occurs outside of the typical elevation range for this species. However, Cooper's hawk have been observed nearby.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	Fed: None CA: WL	Typically found between 3,000 and 6,000 feet in elevation. Breed in sparsely vegetated shrublands on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (*Artemisia californica*), but can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Anaxyrus californicus arroyo toad	Fed: **END** CA: SSC	Occurs in semi-arid regions near washes or intermittent streams, including valley-foothill grasslands, desert riparian, desert washes, and oak woodlands. Breeding habitat consists of shallow streams with a mixture of sandy and gravelly substrate and sandy terraces. Generally requires mulefat (*Baccharis salicifolia*) and willow (Salix sp.) in the streambed for vegetative canopy for breeding areas and forages for insects primarily under oak (*Quercus* sp.), cottonwood (*Populus fremontii*), and sycamore (*Platanus racemosa*) trees. Occurs at elevations from near sea level to about 4,600 feet above msl.	No	**Low** The project site occurs outside of the typical elevation range for this species. However, the project site does provide suitable habitat, and arroyo toad have been observed nearby.
Anniella stebbinsi southern California legless lizard	Fed: None CA: SSC	Locally abundant specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. A large, protected population persists in the remnant of the once extensive El Segundo Dunes at Los Angeles International Airport.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Aquila chrysaetos golden eagle	Fed: None CA: FP; WL	Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	No	**Moderate** The project site and surrounding area provide suitable foraging and nesting habitat for the species.
Ardea herodias great blue heron	Fed: None CA: None	Fairly common all year throughout most of California, in shallow estuaries and fresh and saline emergent wetlands. Less common along riverine and rocky marine shores, in croplands, pastures, and in mountains about foothills.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Arizona elegans occidentalis California glossy snake	Fed: None CA: SSC	Inhabits arid scrub, rocky washes, grasslands, and chaparral habitats.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Artemisiospiza belli belli Bell's sage sparrow	Fed: None CA: WL	Occurs in chaparral dominated by fairly dense stands of chamise. Also found in coastal sage scrub in south of range.	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Asio otus long-eared owl	Fed: None CA: SSC	Nests in conifer, oak, riparian, pinyon-juniper, and desert woodlands that are either open or are adjacent to grasslands, meadows, or shrublands. Key habitat components are some dense cover for nesting and roosting, suitable nest platforms, and open foraging areas.	No	**Low:** The project site provides suitable nesting and cover habitat for this species; however, it lacks the open foraging areas.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: None CA: SSC	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Athene cunicularia burrowing owl	Fed: None CA: SSC	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:** No suitable habitat is present within the project site.
Bombus crotchii Crotch bumble bee	Fed: None CA: None	Exclusive to coastal California east towards the Sierra-Cascade Crest; less common in western Nevada. Inhabit grasslands and scrub areas. Require hot, dry environment. Nests underground, often in abandoned rodent dens.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Bombus morrisoni Morrison bumble bee	Fed: None CA: None	Occurs throughout the west from California, east of the Sierra-Cascade Ranges, to southern British Columbia; east to New Mexico, Texas, and north to western South Dakota. Dependent on habitats with rich floral resources throughout the nesting season.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Callospermophilus lateralis bernardinus San Bernardino golden-mantled ground squirrel	Fed: None CA: None	Inhabits mountain slopes and foothills, chaparral, open areas in pine, spruce, and fir forests, rocky outcroppings and slides, margins of mountain meadows, and rocky sagebrush country; campgrounds. Often in areas with abundant stumps, rocks, or fallen logs.	No	**Low** Limited habitat is present within the project site.
Calypte costae 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:** No suitable habitat is present within the project site.
Catostomus santaanae Santa Ana sucker	Fed: **THR** CA: None	Occur in the watersheds draining the San Gabriel and San Bernardino Mountains of southern California. Steams that Santa Ana Sucker inhabit are generally perennial streams with water ranging in depth from a few inches to several feet and with currents ranging from slight to swift.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: None CA: SSC	Occurs in desert and coastal habitats in southern California, Mexico, and northern Baja California, from sea level to at least 4,596 feet above msl. Found in a variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Requires low growing vegetation or rocky outcroppings, as well as sandy soils for burrowing.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
Chaetodipus fallax pallidus pallid San Diego pocket mouse	Fed: None CA: SSC	Common resident of sandy herbaceous areas, usually in association with rocks or course gravel in southwestern California. Occurs mainly in arid coastal and desert border areas. Habitats include coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland.	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Charina umbratica southern rubber boa	Fed: None CA: **THR**	Found in a variety of montane forest habitats, particularly in the vicinity of streams or wet meadows. Requires loose, moist soil for burrowing and seeks cover in rotting logs. Restricted to the San Bernardino and San Jacinto Mountains.	No	**Moderate** Suitable habitat is present within the undisturbed northeast and western portions of the project site in association with rock outcrops, rotten logs, leaf litter, and the mesic habitat on the forested slopes and drainage.
Coccyzus americanus occidentalis western yellow-billed cuckoo	Fed: **THR** CA: **END**	In California, the breeding distribution is now thought to be restricted to isolated sites in Sacramento, Amargosa, Kern, Santa Ana, and Colorado River valleys. Obligate riparian species with a primary habitat association of willow-cottonwood riparian forest.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Contopus cooperi olive-sided flycatcher	Fed: None CA: SSC	Uncommon to common, summer resident in a wide variety of forest and woodland habitats below 9,000 feet throughout California exclusive of the deserts, the Central Valley, and other lowland valleys and basins. Preferred nesting habitats include mixed conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir, and lodgepole pine.	No	**High:** The project site provides suitable nesting habitat for this species.
Diadophis punctatus modestus San Bernardino ringneck snake	Fed: None CA: None	Common in open, relatively rocky areas within valley-foothill, mixed chaparral, and annual grass habitats.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Dipodomys merriami parvus San Bernardino kangaroo rat	Fed: **END** CA: CE; SSC	Primarily found in Riversidian alluvial fan sage scrub and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub. May occur at lower densities in Riversidian upland sage scrub, chaparral and grassland in uplands and tributaries in proximity to Riversidian alluvial fan sage scrub habitats. Tend to avoid rocky substrates and prefer sandy loam substrates for digging of shallow burrows.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Dipodomys simulans Dulzura kangaroo rat	Fed: None CA: None	Relatively common in chaparral, coastal sage scrub, Riversidean alluvial fan sage scrub, and peninsular juniper woodland habitats.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site. On-site soils are rocky and have been mixed and heavily compacted by historic land uses.
Empidonax traillii 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 feet) 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:** No suitable habitat is present within the project site.
Empidonax traillii extimus southwestern willow flycatcher	Fed: **END** CA: **END**	Occurs in riparian woodlands in southern California. Typically requires large areas of willow thickets in broad valleys, canyon bottoms, or around ponds and lakes. These areas typically have standing or running water, or are at least moist.	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Euchloe hyantis andrewsi Andrew's marble butterfly	Fed: None CA: None	Inhabits yellow pine forests near Lake Arrowhead and Big Bear Lake at elevations between 5,000 and 6,000 feet. Uses Laguna Mountains jewelflower (*Streptanthus bernardinus*) and pine rockcress (*Arabis holboelli var. pinetorum*) as host plants; larvae feed on mountain tansy mustard (*Descurainia incana*).	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Eumops perotis californicus western mastiff bat	Fed: None CA: SSC	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least three meters below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Euphilotes baueri Bauers dotted-blue	Fed: None CA: None	Its habitat is dry slopes and desert flats with scattered short brush where the larval host plants, various wild buckwheats, grow. Adults drink nectar, particularly from buckwheat. Eggs are laid singly on host plant flowers. Caterpillars eat flowers and seeds of host plants and are tended by ants. Chrysalids hibernate in sand or leaf litter	No	**Presumed Absent:** No suitable habitat is present within the project site.
Gila orcuttii arroyo chub	Fed: None CA: SSC	Warm streams of the Los Angeles Plain, which are typically muddy torrents during the winter, and clear quiet brooks in the summer, possibly drying up in places. They are found both in slow-moving and fast-moving sections, but generally deeper than 40 cm.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Glaucomys oregonensis californicus San Bernadino flying squirrel	Fed: None CA: SSC	Occurs in white fir (*Abies concolor*) and Jeffrey pine (*Pinus jeffreyi*) mixed conifer forests with black oak (*Quercus kelloggii*) components at higher elevations. Use cavities in large trees, snags, and logs for cover. Habitats are typically mature, dense conifer forest in close proximity to riparian areas.	No	**High:** Suitable habitat can be found throughout the project site. This species was observed nearby.
Gopherus agassizii Mojave desert tortoise	Fed: **THR** CA: **THR**	Occurs in desert scrub, desert wash, and Joshua tree habitats with friable, sandy, well-drained soils for nest and burrow construction. Highest densities occur in creosote bush scrub with extensive annual wildflower blooms and succulents with little to no non-native plant species.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Gymnogyps californianus California condor	Fed: **END** CA: **END**; FP	Permanent resident of the semi-arid, rugged mountain ranges surrounding the southern San Joaquin Valley, including the Coast Ranges from Santa Clara Co. south to Los Angeles Co., the Transverse Ranges, Tehachapi Mts., and southern Sierra Nevada. Forages over wide areas of open rangelands, roots on cliffs and in large trees and snags.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Haliaeetus leucocephalus bald eagle	Fed: Delisted CA: **END**; FP	Found along the ocean shore, lake margins, and on rivers, where it both nests and winters, typically within one mile of water. Nests in large, old-growth, or dominant live trees with open branches, favoring ponderosa pines. Roosts communally in winter.	No	**High:** Suitable nesting habitat can be found throughout the project site. Additionally, this species has been observed nesting and foraging within the vicinity of Lake Arrowhead.
Lanius ludovicianus loggerhead shrike	Fed: None CA: SSC	Often found in broken woodlands, shrublands, and other habitats. Prefers open country with scattered perches for hunting and fairly dense brush for nesting.	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Lasiurus xanthinus western yellow bat	Fed: None CA: SSC	Roosts in palm trees in foothill riparian, desert wash, and palm oasis habitats with access to water for foraging.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Myotis yumanensis Yuma myotis	Fed: None CA: None	Found in forests and woodlands near water. Roosts in caves, buildings, mines, and crevices.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Neotamias speciosus speciosus lodgepole chipmunk	Fed: None CA: None	Occurs in open-canopy forests of mixed conifer and pine, and occasionally in chaparral.	Yes	**Present** Species was observed onsite during the investigation.
Neotoma lepida intermedia San Diego desert woodrat	Fed: None CA: SSC	Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Prefers moderate to dense canopies, and especially rocky outcrops.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: None CA: SSC	Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis.	No	**Presumed Absent:** No suitable habitat is present within the project site.
***Oncorhynchus mykiss irideus* pop. 10** steelhead – southern california DPS	Fed: **END** CA: CE	Found in permanent coastal streams from San Diego to the Smith River.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Perognathus alticola alticola white-eared pocket mouse	Fed: None CA: SSC	Endemic to the San Bernadino and Tehachapi Mountains. Found in isolated montane areas among ponderosa and Jeffrey pine habitats, but sometimes found in mixed chaparral and sagebrush habtitats as well as in fallow fields dominated by Russian thistle. Forages in open ground and beneath shrubs.	No	**Low:** The project site provides suitable habitat for this species; however, it has not been documented in the vicinity of the project site since 1938. Additionally, this species was not found during previous trapping surveys (2001 and 2003)
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: None CA: SSC	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead.	No	**Presumed Absent:** No suitable habitat is present within the project site.
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:** No suitable habitat is present within the project site.
Piranga rubra summer tanager	Fed: None CA: SSC	Breeds primarily in mature riparian woodland with an extensive canopy of Fremont cottonwood (*Populus fremontii*).	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Polioptila californica californica coastal California gnatcatcher	Fed: **THR** CA: SSC	Obligate resident of sage scrub habitats that are dominated by California sagebrush. This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. It prefers habitat with more low-growing vegetation.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
Progne subis purple martin	Fed: None CA: SSC	Summer resident in a variety of wooded, low-elevation habitats throughout the state. Uses valley foothill and montane hardwood, valley foothill and montane hardwood-conifer, and riparian habitats. Also occurs in coniferous habitats, including closed-cone pine-cypress, ponderosa pine, Douglas-fir, and redwood. Requires areas with a concentration of nesting cavities.	No	**Moderate:** The project site provides suitable nesting habitat for this species.
Rana draytonii California red-legged frog	Fed: **THR** CA: SSC	Found mainly near ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover. Most common in lowlands or foothills. Frequently found in woods adjacent to streams. Occurs along the coast ranges from Mendocino County south and in portions of the Sierra Nevada and Cascades ranges.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Rana muscosa southern mountain yellow-legged frog	Fed: **END** CA: **END**; WL	Occurs in lower elevation habitats characterized by rocky streambeds and wet meadows, while higher elevation habitats include lakes, ponds, and streams. Occupy well lit, streams in narrow, rock-walled canyons. Often found along rock walls or vegetated banks and always within a few feet of the water.	No	**Presumed Absent:** No suitable habitat is present within the project site due to the closed forest canopy and lack of rocky stream courses with open margins within the project site. Additionally, this species was not observed during previous field surveys (2001 and 2003).
***Rhinichthys osculus* ssp. 8** Santa Ana speckled dace	Fed: None CA: SSC	Requires permanent flowing streams within summer water temperatures of 17 – 20 degrees Celsius. Inhabits shallow cobble and gravel riffles and small streams that flow through steep, rocky canyons with chaparral covered walls.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Setophaga petechia 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:** No suitable habitat is present within the project site.
Siphateles bicolor mohavensis Mohave tui chub	Fed: **END** CA: **END**; FP	Endemic to the Mojave River Basin and adapted to alkaline, mineralized waters. Requires deep pools, ponds, or slough-like areas and needs vegetation for spawning	No	**Presumed Absent:** No suitable habitat is present within the project site.
Spea hammondii western spadefoot	Fed: None CA: SSC	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washed, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rainpools which do not contain bullfrogs, fish, or crayfish are necessary for breeding.	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Spinus lawrencei Lawrence's Goldfinch	Fed: None CA: None	Open woodlands, chaparral, and weedy fields. Closely associated with oaks. Nests in open oak or other arid woodland and chaparral near water.	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Strix occidentalis occidentalis California spotted owl	Fed: None CA: SSC	Primarily associated with oak and oak-conifer habitats and uses dense, multi-layered canopy cover for roost seclusion. Requires mature forest with permanent water and suitable nesting trees and snags.	No	**High:** Suitable habitat can be found throughout the project site. Additionally, this species was observed foraging on-site during surveys in 2007. However, there are no known historic roost or nest sites within the project site.
Taricha torosa Coast Range newt	Fed: None CA: SSC	Found in wet forests, oak forests, chaparral, and rolling grasslands. In southern California, drier chaparral, oak woodland, and grasslands are used.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Taxidea taxus American badger	Fed: None CA: SSC	Primarily occupy grasslands, parklands, farms, tallgrass and shortgrass prairies, meadows, shrub-steppe communities and other treeless areas with sandy loam soils where it can dig more easily for its prey. Occasionally found in open chaparral (with less than 50% plant cover) and riparian zones.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Thamnophis hammondii two-striped gartersnake	Fed: None CA: SSC	Utilizes a variety of habitats including forests, mixed woodlands, grassland, chaparral, and farmlands. Often found near ponds, marshes, or streams.	No	**High** Suitable habitat can be found adjacent to streams running through the project site. Species has been observed nearby.
Vireo bellii pusillus least Bell's vireo	Fed: **END** CA: **END**	Primarily occupy Riverine riparian habitat that typically feature dense cover within 1 -2 meters of the ground and a dense, stratified canopy. Typically it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodlands, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, 2,000 feet elevation in the interior.	No	**Presumed Absent:** No suitable habitat is present within the project site. The site does not contain the large sections of riparian forest that this species prefers.
SPECIAL-STATUS PLANT SPECIES				
Abronia nana* var. *covillei Covilles dwarf abronia	Fed: None CA: None CNPS: 4.2	Grows in carbonate, sandy areas within Great Basin scrub, Joshua tree "woodland", pinyon and juniper woodland, subalpine coniferous forest, and upper montane coniferous forest habitats. Found at elevations ranging from 5,000 to 10,710 feet. Blooming period is from May to August.	No	**Low** The habitat within the project site consists of vegetative cover that is likely too dense to support this species. However, this species has been observed nearby.
Acanthoscyphus parishii* var. *goodmaniana Cushenbury oxytheca	Fed: **END** CA: None CNPS: 1B.1	Grows within carbonate and sandy soils within pinyon and juniper woodlands (carbonate, talus). Found at elevations ranging from 4,000 to 7,800 feet. Blooming period is from May to October.	No	**Presumed Absent** Potential habitat supported by the subareas occurs outside of the known elevation range for this species.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Acanthoscyphus parishii* var. *parishii Parish's oxytheca	Fed: None CA: None CNPS: 4.2	Habitats include sandy or shale chaparral. Found at elevations ranging from 3,750 to 6,748 feet above mean sea level (msl). Blooming period is from June to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Allium howellii* var. *clokeyi Mt. Pinos onion	Fed: None CA: None CNPS: 1B.3	Grows in Great Basin scrub, meadows and seeps (edges), and pinyon and juniper woodland habitats. Found at elevations ranging from 4,265 to 6,070 feet above msl. Blooming period is from April to June.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Allium parishii Parish's onion	Fed: None CA: None CNPS: 4.3	Found in rocky soils within Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland habitats. Found at elevations ranging from 2,953 to 5,692 feet above msl. Blooming period is from April to May.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Androsace elongata* ssp. *acuta California androsace	Fed: None CA: None CNPS: 4.2	Habitats include chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, and valley and foothill grassland. Found at elevations ranging from 492 to 4,281 feet above msl. Blooming period is from March to June.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
Astragalus bicristatus crested milk-vetch	Fed: None CA: None CNPS: 4.3	Grows in sandy or rocky, mostly carbonate soils within lower montane coniferous forest and upper montane coniferous forest habitats. Found at elevations ranging from 5,577 to 9,006 feet. Blooming period is from May to August.	No	**Presumed Absent.** No suitable habitat is present within or adjacent to the Alternative Subareas. The Alternative Subareas occurs outside the known elevation range for this species.
Astragalus lentiginosus* var. *sierrae Big Bear Valley milk-vetch	Fed: None CA: None CNPS: 1B.2	Grows in gravelly (sometimes) and rocky (sometimes) soils within Mojavean desert scrub, meadows and seeps, pinyon and juniper woodland, and upper montane coniferous forest habitats. Found at elevations ranging from 5,905 to 8,530 feet. Blooming period is from April to August.	No	**Presumed Absent** There is no suitable habitat present within or immediately adjacent to the proposed limits of disturbance.
Astragalus leucolobus Big Bear Valley woollypod	Fed: None CA: None CNPS: 1B.2	Grows in rocky soils within lower montane coniferous forest, pebble (pavement) plain, pinyon and juniper woodland, and upper montane coniferous forest habitats. Found at elevations ranging from 3,609 to 9,465 feet. Blooming period is from May to July.	No	**Presumed Absent.** No suitable habitat is present within or adjacent to the Alternative Subareas. The Alternative Subareas occurs outside the known elevation range for this species.
Berberis nevinii Nevin's barberry	Fed: **END** CA: **END** CNPS: 1B.1	Occurs on steep, north-facing slopes or in low-grade sandy washes in chaparral, cismontane woodland, coastal scrub, and riparian scrub. Found at elevations ranging from 951 to 5,167 feet above msl. Blooming period is from March to June.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
Boechera dispar pinyon rockcress	Fed: None CA: None CNPS: 2B.3	Grows in granitic, gravelly areas within Joshua tree "woodland", Mojavean desert scrub, and pinyon and juniper woodland habitats. Found at elevations ranging from 3,935 to 8,335 feet. Blooming period is from March to June.	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Boechera parishii Parish's rockcress	Fed: None CA: None CNPS: 1B.2	Grows in quartzite on clay soils, carbonate (sometimes), and rocky soils within pebble plain, pinyon and juniper woodland, upper montane coniferous woodland habitats. Found at elevations ranging from 5,805 to 9,810 feet. Blooming period is from April to May.	No	**Presumed Absent** There is no suitable habitat present within or immediately adjacent to the proposed limits of disturbance.
Boechera shockleyi Shockleys rockcress	Fed: None CA: None CNPS: 2B.2	Grows within pinyon and juniper woodland habitats. Found at elevations ranging from 2,870 to 7,580 feet. Blooming period is from May to June.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Calochortus palmeri* var. *palmeri Palmer's mariposa-lily	Fed: None CA: None CNPS: 1B.2	Grows in mesic soils within chaparral, lower montane coniferous forest, and meadows and seeps. Found at elevations ranging from 2,329 to 7,841 feet above msl. Blooming period is from April to July.	No	**Low:** Some suitable habitat is present within the project site.
Calochortus plummerae Plummer's mariposa-lily	Fed: None CA: None CNPS: 4.2	Prefers openings in chaparral, foothill woodland, coastal sage scrub, valley foothill grasslands, cismontane woodland, lower montane coniferous forest and yellow pine forest. Often found on dry, rocky slopes and soils and brushy areas. Can be very common after a fire. Found at elevations ranging from 459 to 6,299 feet above msl. Blooming period is from May to July.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Canbya candida white pygmy-poppy	Fed: None CA: None CNPS: 4.2	Grows in gravelly, sandy, and granitic soils within Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland habitats. Grows in elevation ranging from 1,969 to 4,790 feet above msl. Blooming period is from March to June.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
Castilleja cinerea ash-grey paintbrush	Fed: **THR** CA: None CNPS: 1B.2	Grows within Mojavean desert scrub, meadows and seeps, pebble (pavement) plain, pinyon and juniper woodland, and upper montane coniferous forest (clay, openings) habitats. Found at elevations ranging from 5,905 to 9,710 feet. Blooming period is from June to August.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the BSA. The BSA occurs outside of the known elevation range for this species.
Castilleja lasiorhyncha San Bernardino Mountains owl's-clover	Fed: None CA: None CNPS: 1B.2	Occurs in mesic or drying sites along the edges of streams, meadows, and vernal pools. Found in meadows and seeps, pebble plains, upper montane coniferous forest, chaparral, and riparian woodland. Found at elevations ranging from 4,265 to 7,841 feet above msl. Blooming period is from May to August.	No	**Low:** Some suitable habitat is present within the project site.
Castilleja montigena Heckard's paintbrush	Fed: None CA: None CNPS: 4.3	Grows within lower montane coniferous forest, pinyon and juniper woodland, and upper montane coniferous forest habitats. Found at elevations ranging from 6,400 to 9,185 feet. Blooming period is from May to August.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the BSA. The BSA occurs outside of the known elevation range for this species.
Castilleja plagiotoma Mojave paintbrush	Fed: None CA: None CNPS: 4.3	Found in 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 above msl. Blooming period is from April to June.	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Centromadia pungens* ssp. *laevis smooth tarplant	Fed: None CA: None CNPS: 1B.1	Occurs in alkaline soils within chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland habitats. Grows in elevation ranging from 0 to 2,100 feet above msl. Blooming period ranges from April to September.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
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 above msl. Blooming period is from April to June.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
Chorizanthe xanti* var. *leucotheca white-bracted spineflower	Fed: None CA: None CNPS: 1B.2	Grows on sandy or gravelly soils within coastal scrub (alluvial fans), Mojavean desert scrub, pinyon and juniper woodland habitats. Found at elevations ranging from 984 to 3,937 feet. Blooming period is from April to June.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the Project site.
Dudleya abramsii* ssp. *affinis San Bernardino Mountains dudleya	Fed: None CA: None CNPS: 1B.2	Found in pebble plain, upper montane coniferous forest, and pinyon-juniper woodland in granite or quartzite outcrops. It is rarely found on limestone. Found at elevations ranging from 4,101 to 8,530 feet above msl. Blooming period is from April to July.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Eremogone ursina Big Bear Valley sandwort	Fed: **THR** CA: None CNPS: 1B.2	Grows in mesic and rocky soils within meadows and seeps, pebble plain, and pinyon and juniper woodland habitats. Found at elevations ranging from 5,905 to 9,515 feet. Blooming period is from May to August.	No	**Presumed Absent** There is no suitable habitat present within or immediately adjacent to the proposed limits of disturbance.
Eremothera boothii* ssp. *boothii Booth's evening-primrose	Fed: None CA: None CNPS: 2B.3	Found in Joshua tree woodland and pinyon-juniper woodland habitats. Found at elevations ranging from 2,953 feet to 7,874 feet above msl. Blooming period is from April to September.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Eriastrum densifolium* ssp. *sanctorum Santa Ana River woollystar	Fed: **END** CA: **END** CNPS: 1B.1	Grows in coastal scrub and chaparral habitats within sandy soils on river floodplains or terraces fluvial deposits. Found at elevations ranging from 295 to 2,001 feet above msl. Blooming period is from April to September.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
Erigeron parishii Parish's daisy	Fed: **THR** CA: None CNPS: 1B.1	Grows in carbonate and granitic soils in Mojavean desert scrub and pinyon/juniper woodland habitats. Found at elevations ranging from 2,624 to 6,561 feet. Blooming period is from May to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Eriogonum ovalifolium var. vineum Cushenbury buckwheat	Fed: **END** CA: None CNPS: 1B.1	Grows in carbonate soils in Joshua tree woodland, Mojavean desert scrub, and pinyon/juniper woodland habitats. Found at elevations ranging from 4,593 to 8,005 feet. Blooming period is from May to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Eriophyllum lanatum* var. *obovatum southern Sierra woolly sunflower	Fed: None CA: None CNPS: 4.3	Prefers sandy loam soils within lower montane coniferous forest and upper montane coniferous forest habitats. Found at elevations ranging from 3,655 to 8,202 feet above msl. Blooming period is from June to July.	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Erythranthe exigua San Bernardino Mountains monkeyflower	Fed: None CA: None CNPS: 1B.2	Grows in clay and mesic soils within meadows and seeps, pebble (pavement) plain, and upper montane coniferous forest habitats. Found at elevations ranging from 5,905 to 7,595 feet. Blooming period is from May to July	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the BSA. The BSA occurs outside of the known elevation range for this species.
Erythranthe purpurea little purple monkeyflower	Fed: None CA: None CNPS: 1B.2	Grows within meadows and seeps, pebble plain, and upper montane coniferous forest habitats. Found at elevations ranging from 6,235 to 7,545 feet. Blooming period is from May to June.	No	**Presumed Absent** There is no suitable habitat present within or immediately adjacent to the proposed limits of disturbance.
Frasera neglecta pine green-gentian	Fed: None CA: None CNPS: 4.3	Occurs in lower montane coniferous forest, pinyon and juniper woodland and upper montane coniferous forest habitats. Found at elevations ranging from 4,593 to 8,202 feet above msl. Blooming period is from May to July.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Fritillaria pinetorum pine fritillary	Fed: None CA: None CNPS: 4.3	Associated with granitic and metamorphic soils within chaparral, lower montane coniferous forest, upper montane coniferous forest, subalpine coniferous forest, pinyon and juniper woodland. Found at elevations ranging from 5,692 to 10,826 feet above msl. Blooming period is from May to September.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Galium johnstonii Johnston's bedstraw	Fed: None CA: None CNPS: 4.3	Preferred habitats include chaparral, riparian woodland, lower montane coniferous forest, pinyon and juniper woodland. Found at elevations ranging from 4,003 to 7,546 feet above msl. Blooming period is from June to July.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Heuchera abramsii urn-flowered alumroot	Fed: None CA: None CNPS: 4.3	Grows within upper montane coniferous forest habitats. Found at elevations ranging from 9,185 to 11,485. Blooming period is from July to august		**Presumed Absent:** No suitable habitat is present within the project site.
Heuchera caespitosa urn-flowered alumroot	Fed: None CA: None CNPS: 4.3	Grows in rocky soils within cismontane woodland, lower montane coniferous forest, riparian forest, and upper montane coniferous forest. Found at elevations ranging from 3,789 to 8,694 feet above msl. Blooming period is from May to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Heuchera parishii Parish's alumroot	Fed: None CA: None CNPS: 1B.3	Found in lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest, and alpine boulder and rock fields in rocky places. It sometimes occurs on carbonate. Found at elevations ranging from 4,921 to 12,467 feet above msl. Blooming period is from June to August.	No	**Low:** Some suitable habitat is present within the project site.
Hulsea vestita* ssp. *parryi Parry's hulsea	Fed: None CA: None CNPS: 4.3	Grows in granitic or carbonate, rocky openings within lower montane coniferous forest, pinyon and juniper woodland and upper montane coniferous forest habitats. Found at elevations ranging from 4,495 to 9,498 feet above msl. Blooming period is from April to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Imperata brevifolia California satintail	Fed: None CA: None CNPS: 2B.1	Occurs in mesic sites, alkali seeps, and riparian areas within coastal scrub, chaparral, riparian scrub, Mojavean scrub, and alkali meadows and seeps. Found at elevations ranging from 0 to 1,640 feet above msl. Blooming period is from September to May.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Ivesia argyrocoma* var. *argyrocoma silver-haired ivesia	Fed: None CA: None CNPS: 1B.2	Found in meadows, pebble plains, and upper montane coniferous forest, often with other rare plants. Found at elevations ranging from 4,790 to 9,711 feet above msl. Blooming period is from June to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Lilium humboldtii* ssp. *ocellatum ocellated humboldt lily	Fed: None CA: None CNPS: 4.2	Found in openings within chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland habitats. Found at elevations ranging from 98 to 5,906 feet above msl. Blooming period is from March to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Lilium parryi lemon lily	Fed: None CA: None CNPS: 1B.2	Occurs in lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest habitats. Generally occurs in wet, mountainous terrain; forested areas; on the shady edges of streams; or in open, boggy meadows and seeps. Found at elevations ranging from 4,003 to 9,006 feet above msl. Blooming period is from July to August.	No	**Low:** Some suitable habitat is present within the project site.
Lupinus elatus silky lupine	Fed: None CA: None CNPS: 4.3	Grows within lower montane coniferous forest and upper montane coniferous forest habitats. Found at elevations ranging from 4,920 to 9,845 feet. Blooming period is from June to August.	No	**Low:** Some suitable habitat is present within the project site.
Malacothamnus parishii Parish's bush-mallow	Fed: None CA: None CNPS: 1A	Occurs within chaparral and coastal scrub habitats. Found at elevations ranging from 1,001 to 1,493 feet above msl. Blooming period is from June to July.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
Monardella macrantha* ssp. *hallii Hall's monardella	Fed: None CA: None CNPS: 1B.3	Occurs in broadleaved upland forest, chaparral, lower montane coniferous forest, cismontane woodland, and valley and foothill grassland along dry slopes and ridges. Found at elevations ranging from 2,395 to 7,201 feet above msl. Blooming period is from June to October.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Muhlenbergia californica California muhly	Fed: None CA: None CNPS: 4.3	Found in chaparral, coastal scrub, lower montane coniferous forest, meadows and seeps. Only known to occur in the San Bernardino Mountains. Found at elevations ranging from 328 to 6,562 feet above msl. Blooming period is from June to September.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Navarretia peninsularis Baja navarretia	Fed: None CA: None CNPS: 1B.2	Grows in mesic areas within chaparral, lower montane coniferous forest, meadows and seeps, and pinyon and juniper woodland habitats. Found at elevations ranging from 4,920 to 7,545 feet. Blooming period is from (May) June to August.	No	**Presumed Absent** There is no suitable habitat present within or immediately adjacent to the proposed limits of disturbance.
Nemacladus gracilis graceful nemacladus	Fed: None CA: None CNPS: 4.3	Grows in gravelly (sometimes), sandy (sometimes) areas within cismontane woodland and valley and foothill grassland habitats. Found at elevations ranging from 395 to 6,235 feet. Blooming period is from March to May.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Opuntia basilaris* var. *brachyclada 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 above msl. Blooming period is from April to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Packera bernardina San Bernardino ragwort	Fed: None CA: None CNPS: 1B.2	Grows within meadows and seeps, pebble plain, and upper montane coniferous forest habitats. Fount at elevations ranging from 5,905 to 7,545 feet. Blooming period is from May to July.	No	**Presumed Absent** There is no suitable habitat present within or immediately adjacent to the proposed limits of disturbance.
Packera ionophylla Tehachapi ragwort	Fed: None CA: None CNPS: 4.3	Grows in lower montane coniferous forest and upper montane coniferous forest habitats. Found at elevations ranging from 4,921 to 8,858 feet above msl. Blooming period is from June to July.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Pediomelum castoreum Beaver Dam breadroot	Fed: None CA: None CNPS: 1B.2	Occurs in Joshua tree woodland and Mojavean desert scrub in sandy soils and in washes and roadcuts. Found at elevations ranging from 2,001 to 2,707 feet above msl. Blooming period is from April to May.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
Pelazoneuron puberulum* var. *sonorensis Sonoran maiden fern	Fed: None CA: None CNPS: 2B.2	Grows within meadows and seeps (seeps, streams) habitats. Found at elevations ranging from 165 to 2,000 feet. Blooming period is from January to September.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Perideridia parishii* ssp. *parishii Parish's yampah	Fed: None CA: None CNPS: 2B.2	Found in lower montane coniferous forest, meadows, and upper montane coniferous forest in damp meadows or along streambeds. It often grows in areas with an open pine canopy. Found at elevations ranging from 4,806 to 9,843 feet above msl. Blooming period is from June to August.	No	**Low:** Marginal habitat is present within the project site.
Phacelia exilis Transverse Range phacelia	Fed: None CA: None CNPS: 4.3	Grows in sandy or gravelly soils within lower montane coniferous forest, meadows and seeps, pebble (pavement) plain, and upper montane coniferous forest habitats. Found at elevations ranging from 3,609 to 8,858 feet above msl. Blooming period is from May to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Phacelia mohavensis Mojave phacelia	Fed: None CA: None CNPS: 4.3	Occurs in sandy or gravelly soils within cismontane woodland, lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland. Found at elevations ranging from 4,593 to 8,202 feet above msl. Blooming period is from April to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Phlox dolichantha Big Bear Valley phlox	Fed: None CA: None CNPS: 1B.2	Grows within pebble plain and upper montane coniferous forest habitats. Fout at elevations ranging from 6,005 to 9,745 feet. Blooming period is from May to July.	No	**Presumed Absent** There is no suitable habitat present within or immediately adjacent to the proposed limits of disturbance.
Piperia leptopetala narrow-petaled rein orchid	Fed: None CA: None CNPS: 4.3	Found in cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest habitats. Found at elevations ranging from 1,247 and 7,300 feet above msl. Blooming period is from May to July.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Rupertia rigida Parish's rupertia	Fed: None CA: None CNPS: 4.3	Grows within chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, pebble plain, and valley and foothill grassland habitats. Found at elevations ranging from 2,295 to 8,205 feet. Blooming period is from June to August.	No	**Presumed Absent** There is no suitable habitat present within or immediately adjacent to the proposed limits of disturbance.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Saltugilia latimeri Latimer's woodland-gilia	Fed: None CA: None CNPS: 1B.2	Habitats include chaparral, Mojavean desert scrub, pinyon and juniper woodland. Prefers rocky or sandy, often granitic soils. Found at elevations ranging from 1,312 to 6,234 feet. Blooming period is from March to June.	No	**Presumed Absent** There is no suitable habitat present within or immediately adjacent to the proposed limits of disturbance.
Selaginella asprella bluish spike-moss	Fed: None CA: None CNPS: 4.3	Occurs in granitic and rocky soils within cismontane woodland, lower and upper montane coniferous forests, pinyon and juniper woodland, and subalpine coniferous forests. Found at elevations ranging from 5,249 to 8,858 feet. Blooming period is July.	No	**Presumed Absent.** The Alternative Subareas occurs outside the known elevation range for this species.
Sidalcea hickmanii* ssp. *parishii Parish's checkerbloom	Fed: None CA: Rare CNPS: 1B.2	Grows within chaparral, cismontane woodland, and lower montane coniferous forest habitats. Found at elevations ranging from 3,280 to 8,200 feet. Blooming period is from (May) June to August.	No	**Presumed Absent** There is no suitable habitat present within or immediately adjacent to the proposed limits of disturbance.
Sidalcea malviflora* ssp. *dolosa Bear Valley checkerbloom	Fed: None CA: None CNPS: 1B.2	Found in meadows and seeps, riparian woodland, lower montane coniferous forest, and upper montane coniferous forest in wet areas. It is highly affected by hydrological changes in its environment. Found at elevations ranging from 4,905 to 8,809 feet above msl. Blooming period is from May to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Sidalcea neomexicana Salt Spring checkerbloom	Fed: None CA: None CNPS: 2B.2	Habitat includes chaparral, coastal scrub, lower montane coniferous forest, plays, and mojavean desert scrub. Found at elevations ranging from 49 to 5,020 feet above msl. Blooming period is from March to June.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
Sidalcea pedata bird-foot checkerbloom	Fed: **END** CA: **END** CNPS: 1B.1	Grows within meadows and seeps and pebble plain habitats. Found at elevations ranging from 5,250 to 8,205 feet. Blooming period is from May to August.		**Presumed Absent** There is no suitable habitat present within or immediately adjacent to the proposed limits of disturbance.
Sidotheca caryophylloides chickweed oxytheca	Fed: None CA: None CNPS: 4.3	Grows in sandy soils within lower montane coniferous forest. Found at elevations ranging from 3,655 to 8,530 feet above msl. Blooming period is from July to September.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Streptanthus bernardinus Laguna Mountains jewelflower	Fed: None CA: None CNPS: 4.3	Grows in chaparral and lower montane coniferous forest on clay or decomposed granite soils. It is sometimes found in disturbed areas such as streamsides or roadcuts. Found at elevations ranging from 4,724 to 8,202 feet above msl. Blooming period is from May to August.	No	**Low:** Some suitable habitat is present within the project site.
Streptanthus campestris southern jewelflower	Fed: None CA: None CNPS: 1B.3	Occurs in open, rocky areas in chaparral, lower montane coniferous forest, and pinyon-juniper woodland. Found at elevations ranging from 1,969 to 9,154 feet above msl. Blooming period is from May to July.	No	**Low:** Marginal habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Symphyotrichum defoliatum San Bernardino aster	Fed: None CA: None CNPS: 1B.2	Grows in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic). Can be found growing near ditches, streams, and springs within these habitats. Found at elevations ranging from 7 to 6,693 feet above msl. Blooming period is from July to November.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Syntrichopappus lemmonii Lemmon's syntrichopappus	Fed: None CA: None CNPS: 4.3	Occurs in sandy or gravelly soils within chaparral, Joshua tree woodland, and Pinyon and juniper woodland habitats. Found at elevations ranging from 1,640 to 6,004 feet above msl. Blooming period is from April to May (June).	No	**Presumed Absent:** No suitable habitat is present within the project site.
Thelypteris puberula* var. *sonorensis Sonoran maiden fern	Fed: None CA: None CNPS: 2B.2	Found in meadows and seeps along streams and other seepage areas. Found at elevations ranging from 164 to 2,001 feet above msl. Blooming period is from January to September.	No	**Presumed Absent:** No suitable habitat is present within the project site and the project site is out of the elevation range for this species.
Trichostema micranthum small-flowered bluecurls	Fed: None CA: None CNPS: 4.3	Occurs in mesic soils within lower montane coniferous forest and meadows and seeps. Found at elevations ranging from 5,003 to 7,546 feet above msl. Blooming period is from June to September.	No	**Presumed Absent:** No suitable habitat is present within 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 within or adjacent to the project site.
SPECIAL-STATUS PLANT COMMUNITIES				
Mixed Montane Chaparral	CDFW Sensitive Habitat	Associated with mountainous terrain from mid to high elevation at 3000 to 10,000 feet above msl. In southern California, it occurs above 7000 feet above msl. Mixed montane chaparral is characterized by a mixture of evergreen species; however, deciduous or partially deciduous species may also be present. When mature, it is often impenetrable to large mammals. Species composition of mixed montane chaparral varies throughout California and is dependent on changes with elevation, geographical range, and soil type. Examples of species occurring within this plant community include mountain whitehorn (*Ceanothus cordulatus*), various species of manzanita (*Arctostaphylos* sp.) mountain mahogany (*Cercocarpus betuloides*), and toyon (*Heteromeles arbutifolia*).	No	**Absent**
Riversidian Alluvial Fan Sage Scrub	CDFW Sensitive Habitat	Occur within broad washes of sandy alluvial drainages that carry rainfall runoff sporadically in winter and spring, but remain relatively dry through the remainder of the year. Is restricted to drainages and floodplains with very sandy substrates that have a dearth of decomposed plant material. These areas do not develop into riparian woodland or scrub due to the limited water resources and scouring by occasional floods.	No	**Absent**
Southern Mixed Riparian Forest	CDFW Sensitive Habitat	Typically a younger successional stage of riparian forest, due to disturbance or more frequent flooding. Plant species include willow (*Salix* sp.) species, elderberry (*Sambucus* sp.), oak species, sycamore (*Platanus racemosa*), cottonwood (*Populus* sp.), and smaller shrubs.	No	**Absent**

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Southern Sycamore Alder Riparian Woodland	CDFW Sensitive Habitat	Occurs below 2,000 meters in elevation, sycamore and alder often occur along seasonally-flooded banks; cottonwoods and willows are also often present. Poison oak, mugwort, elderberry and wild raspberry may be present in understory.	No	**Absent**
Westside Ponderosa Pine Forest	CDFW Sensitive Habitat	The Westside Ponderosa Pine Forest is found on suitable mountain and foothill sites throughout California except in the immediate area of San Francisco Bay, in the north coast area, south of Kern County in the Sierra Nevada and east of the Sierra Nevada Crest. It consists of pure stands of ponderosa pine as well as stands of mixed species in which at least 50% of the canopy area is ponderosa pine. Associated species varies depending on location in the state and site conditions.	No	**Absent**

U.S. Fish and Wildlife Service (USFWS) - Federal
END - Federal Endangered
THR - Federal Threatened

California Department of Fish and Wildlife (CDFW) - California
END- California Endangered
THR - California Threatened
SSC - California Species of Concern
WL - Watch List
FP - California Fully Protected

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

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

Appendix 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.