BIOLOGY REPORT FOR THE LAKE JENNINGS CAMPGROUND IMPROVEMENTS PROJECT

Bass Road, Lakeside, California

August 14, 2025

Prepared for:

Helix Water District
7811 University Avenue
La Mesa, CA 91942

Prepared by:

Ben Van Allen, PhD, CSE and Derek Langsford, PhD, CSE
Tierra Data Inc.
10110 W. Lilac Road
Escondido, CA 92026

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August 14, 2025

Helix Water District
7811 University Avenue
La Mesa, CA 91942

Subject: Biological Resources Report - Lake Jennings Campground Improvements Project

Tierra Data Inc. is pleased to provide the Helix Water District (District) with this Biological Resources Report for the development of the proposed Lake Jennings Campground Project (project) at Lake Jennings within lands owned and managed by the District. The report describes the property's current biological conditions, vegetation communities, plant and wildlife species observed or detected during surveys, and identifies extant resources that are sensitive, in addition to sensitive species with potential to occur within the property. It was developed to provide the District, the County of San Diego, resource agencies, and the public with updated biological data and an analysis of project's effects on biological resources. It satisfies the review of the proposed development under the California Environmental Quality Act, and demonstrates compliance with federal and state regulations.

Development effects have been assessed, and mitigation measures are proposed to offset the proposed development's unavoidable significant impacts to sensitive biological resources.

If you have questions, please contact Derek Langsford or Ben Van Allen by phone at (760) 749-2247, or by email at derek.langsford@tierradata.net or ben@tierradata.net.

Sincerely,



PhD, Certified Senior Ecologist

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TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Property Location 1
1.2 Proposed Project 2
2.0 METHODS 7
2.1 Surveys and Limitations 7
2.1.1 Vegetation Mapping and General Zoological/Botanical Survey 7
2.1.2 Rare Plant Survey 8
2.1.3 Wetlands 8
2.1.4 San Diego Cactus Wren Survey 8
3.0 RESULTS 8
3.1 Existing Conditions and Surrounding Land Uses 8
3.2 Biological Resources 9
3.2.1 Vegetation Communities 9
3.2.1.1 Maritime Succulent Scrub 9
3.2.1.2 Diegan Coastal Sage Scrub (Including Disturbed) 10
3.2.1.3 Non-Native Grassland 12
3.2.1.4 Eucalyptus Woodland 12
3.2.1.5 Disturbed Habitat 12
3.2.1.6 Developed 12
3.2.2 Jurisdictional Wetlands 12
3.2.3 Plants 12
3.2.4 Animals 13
3.2.5 Rare, Endangered, or Sensitive Species and Habitats 13
3.2.5.1 Sensitive Habitats 13
3.2.5.2 Listed and Sensitive Species 13
3.2.5.2.1 Sensitive Animals Detected 13
3.2.5.2.2 Sensitive Plants Detected 13
3.3 Sensitive Species with Potential to Occur 14
3.4 Wildlife Corridors 14
3.5 Regulatory Environment 23
3.5.1 California Environmental Quality Act 23
3.5.2 Federal and State Regulations 23
3.5.2.1 Federal Government 23
3.5.2.2 State of California 24
3.5.2.3 Helix Water District 24
3.5.3 Wetland Regulation 25
3.5.3.1 U.S. Army Corps of Engineers 25
3.5.3.2 California Department of Fish and Wildlife 25
3.5.3.3 Regional Water Quality Control Board 25

4.0 IMPACTS 25
4.1 Impact Definitions 25
4.1.1 Direct Impacts 25
4.1.2 Indirect Impacts 25
4.1.3 Cumulative Impacts 26
4.2 Thresholds of Significance 26
4.3 Direct Impacts 26
4.3.1 Special Status Plants 28
4.3.2 Special Status Animals 28
4.4 Indirect Impacts 30
4.4.1 Errant Grading 31
4.4.2 Noise 31
4.4.3 Drainage 31
4.4.4 Surface Water Quality 31
4.4.5 Lighting 31
4.4.6 Invasive Plant Species 32
4.4.7 Brush Management 32
4.5 Cumulative Impacts 32
5.0 MITIGATION MEASURES 32
5.1 Direct Impacts 32
6.0 CONCLUSION 37
7.0 REFERENCES 38
APPENDIX A: PLANT SPECIES OBSERVED ON SITE A-1
APPENDIX B: ANIMAL SPECIES OBSERVED OR DETECTED B-1
APPENDIX C: SITE PHOTOS C-1
APPENDIX D: COASTAL CACTUS WREN SURVEY REPORTS D-1

ABBREVIATIONS

APN	Assessor's Parcel Number
BMP	Best Management Practice
CAGN	coastal California gnatcatcher
CAWR	cactus wren
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Acts
CFG	California Fish and Game
County	County of San Diego
CRPR	California Rare Plant Rank
CSS	Coastal Sage Scrub
CSS-D	Coastal Sage Scrub-Disturbed
CWA	Clean Water Act
DEV	Developed Habitat
DH	Disturbed Habitat
District	Helix Water District
ESA	Endangered Species Act
EW	Eucalyptus Woodland
ft	foot/feet
HCP	Habitat Conservation Plan
LSAA	Lake and Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
MMRP	Mitigation, Monitoring, and Reporting Program
MSCP	Multiple Species Conservation Program
MSS	Maritime Succulent Scrub
NCCP	Natural Community Conservation Planning
NNG	Non-Native Grassland
NPPA	Native Plant Protection Act
Project	Lake Jennings Campground Project
RV	recreational vehicle
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SSC	Species of Special Concern
SWPPP	Storm Water Pollution Prevention Plan
TDI	Tierra Data Inc.
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

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1.0 INTRODUCTION

Tierra Data Inc. (TDI) is pleased to provide you with this Biological Resources Report for the proposed Lake Jennings Campground Improvement Project (project) on Helix Water District (District) lands in the eastern portion of the unincorporated community of Lakeside. This report was prepared to provide the project applicant, District, County of San Diego (County), resource agencies, and the public with biological data and analysis of the effects on biological resources. The report is intended to satisfy review of the proposed project under the California Environmental Quality Act (CEQA) and to demonstrate compliance with federal and state regulations. This report describes the project site's current biological conditions, vegetation communities, plant and wildlife species observed or detected during the surveys, identifies extant resources that are sensitive, and sensitive species with potential to occur within the project site. In addition, the District is seeking a grading permit from the County to implement this project.

1.1 Property Location

The project is located in the eastern area of the urbanized portion of San Diego County, within unincorporated Lakeside, which is approximately 18 miles northeast of downtown San Diego (Figure 1, Regional Location). The 85-acre reservoir is located along Harritt Road, approximately 0.60 mile north of Interstate 8 (I-8). The project is situated at two, non-contiguous sites along the lake's shoreline (Figure 2, Aerial Photograph). The approximately 22.7 -acre project is proposed at the existing Lake Jennings Campground and nearby surface parking lot. Both sites are accessible from Bass Road, the internal access road that parallels the lake's shoreline and connects with Lake Jennings Park Road via Harritt Road. The District operates the lake and the nearby water treatment and filtration facilities using the reservoir for storage and recreation. The District water facilities at Lake Jennings produce potable water which is delivered to cities and communities within its service area. As a recreational facility, Lake Jennings offers fishing, camping, hiking, and picnicking activities.

The 18-acre, 97-space Lake Jennings Campground features both recreational vehicle (RV) spots and tent sites, as well as recreational amenities. The campground contains 35 full-hookup RV sites (water, electricity and sewer), 17 partial-hookup RV sites (electricity and water), 44 non-hookup sites for RVs or tents, and a group camp site which accommodates up to five tents. Existing amenities at the campground include three restroom buildings, an enclosed pavilion and covered playground, an outdoor lounge area, several outdoor game areas (e.g., ladder golf and horseshoe pits) and a semi-enclosed gazebo at the group camp site. Hiking trails exist throughout the campground, creating internal connections and linking the campground facilities to the nearby shoreline and other hiking trails in the project vicinity. An existing office building close to the campground entry point serves as an office for the campground management staff.

The Lake Jennings Campground operates year-round. The lake is open for fishing and boating every weekend Friday through Sunday and on Monday holidays. Shoreline fishing is available from the campground daily. As a drinking water reservoir, swimming is prohibited by the County Health Department. Leashed pets are allowed at the campground but are not permitted down by the water or on the lake loop trail. Campfires are only permitted within designated fire rings.

The 0.90-acre recreational amenity site south of the campground is currently operated as a paved parking area along the shoreline of the lake. In the vicinity of the project, Bass Road links the amenity site to the campground and crosses the Chet Harritt Dam. A gated connection to Lake Jennings Park Road is also located near the parking lot.

The site is shown on the U.S. Geological Survey 7.5-minute El Cajon Quadrangle in Township 15 South, Range 1 East San Bernardino Meridian.

1.2 Proposed Project

The proposed project would renovate and expand the existing campground facilities at Lake Jennings, adding new campsites and recreational amenities. The parking lot along the shoreline would be redeveloped with a dog park and playground facilities.

The project consists of a whole campground site redevelopment, including enhancements to existing facilities, as well as the installation of new campground sites and new recreational amenities. Proposed campground improvements include: demolition of various site elements, such as camp sites, utility infrastructure, asphalt roads, curbs, concrete paving, retaining walls, fencing, lighting, railings, campsite markers, existing site furnishings, and existing vegetation. Existing campground sites would be improved with new utility hookups (i.e., electrical, water, sewer infrastructure), and site furnishings, and new campsites would be constructed to feature utility hookups, permeable paver plaza spaces, site furnishings, campsite markers, and campfire rings (Figure 3). In addition, four new cabin sites would be sited in the campground using pre-fabricated cabin units with associated access stair and ramp assemblies, ADA accessible walkways and concrete paver patios, site furnishings, fire rings, and campsite markers. A gravel turnaround and parking area would be installed near the cabins. An area adjacent to the proposed cabins has been identified for the installation of four additional cabins in the future. Ultimately, the redeveloped campground would contain 111 sites, including 92 RV sites, 11 tent sites and four cabins (Figure 3), with the option to add four more cabins in the future.

Several existing buildings at the campground would be renovated by the project, including the restrooms, office building, garage, and laundry room. The various building renovations would upgrade the existing fixtures/facilities, install ADA accessibility improvements, provide fresh paint and install new windows, where applicable. New recreational amenities would be added to the campground, including a splash pad/pool area featuring a concrete plaza and artificial turf space); and a multi-purpose pavilion area containing shade structures, barbeque facilities, picnic tables, fire ring and site furnishings. In addition, a dog park surrounded by chain link fencing with an entry vestibule; an adventure playground area containing new play equipment, seating and retaining walls will be built to the south of the campground (Figure 4).

Throughout the campground, new concrete and decomposed granite walkways and plaza areas with lighting at major road intersections and community use areas and buildings would be constructed. Keystone retaining walls would be installed along slopes, where necessary, to minimize grading. Chain link fencing, wood privacy fencing and lodgepole fencing would be placed throughout the site. Wi-fi antenna poles and wiring would be installed to provide wireless service. Wood and chain safety bollard assemblies would be installed to control access. Permanent below-grade irrigation systems would be installed in all new landscape areas. Stormwater drainage systems and infrastructure would be installed to capture and treat runoff from impervious services before discharge into the reservoir. New landscaping, consisting of trees, shrubs, groundcovers and hydroseed would be placed throughout the site, including adjacent to areas near the campsites. The project would also involve the repaving or resurfacing of Bass Road from its westernmost intersection with Harritt Road to the campground entrance within its existing alignment. Parking spaces and the road would be restriped as part of the road improvements.

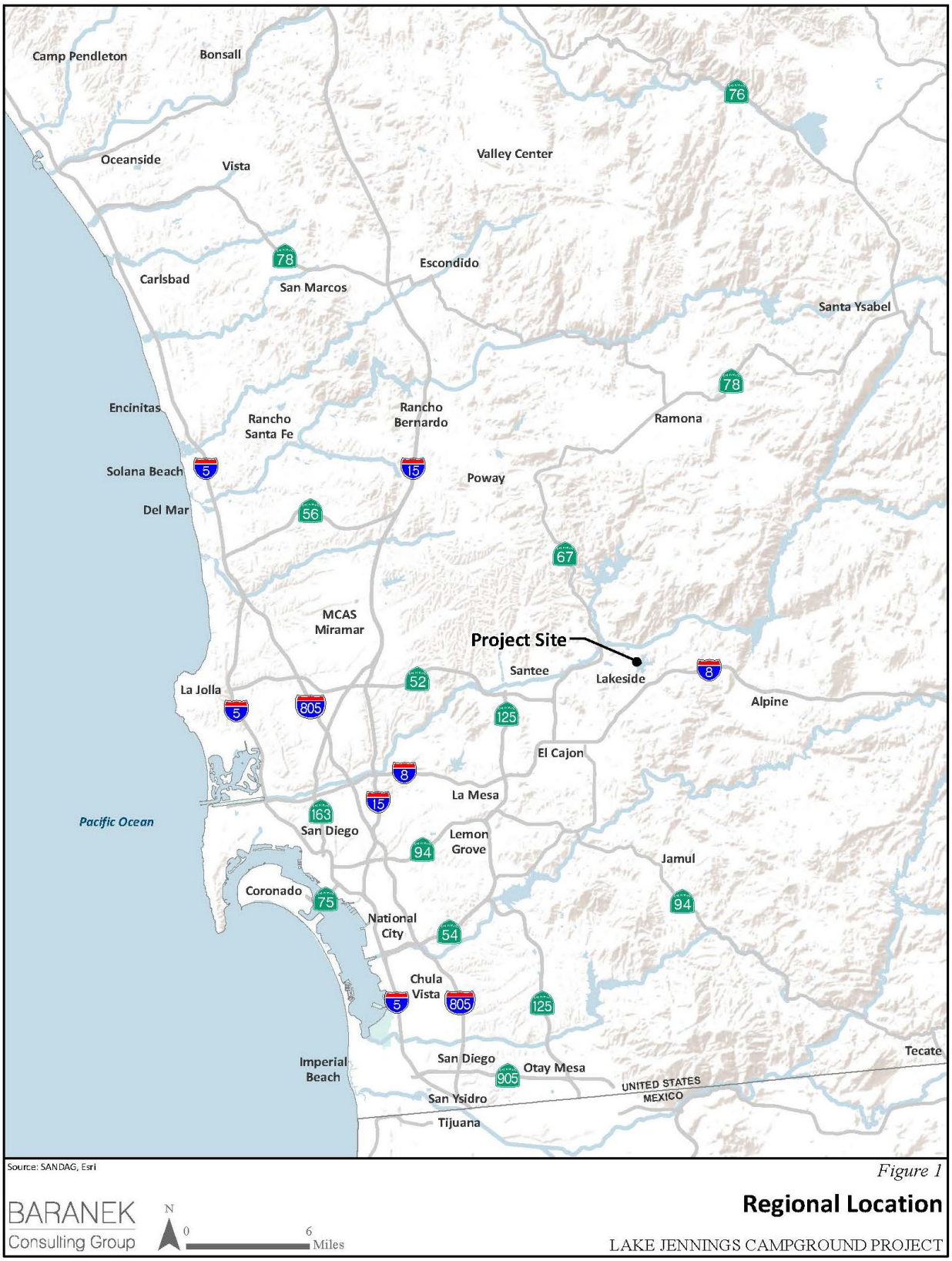


Figure 1: Lake Jennings Campground Project – Regional Location.

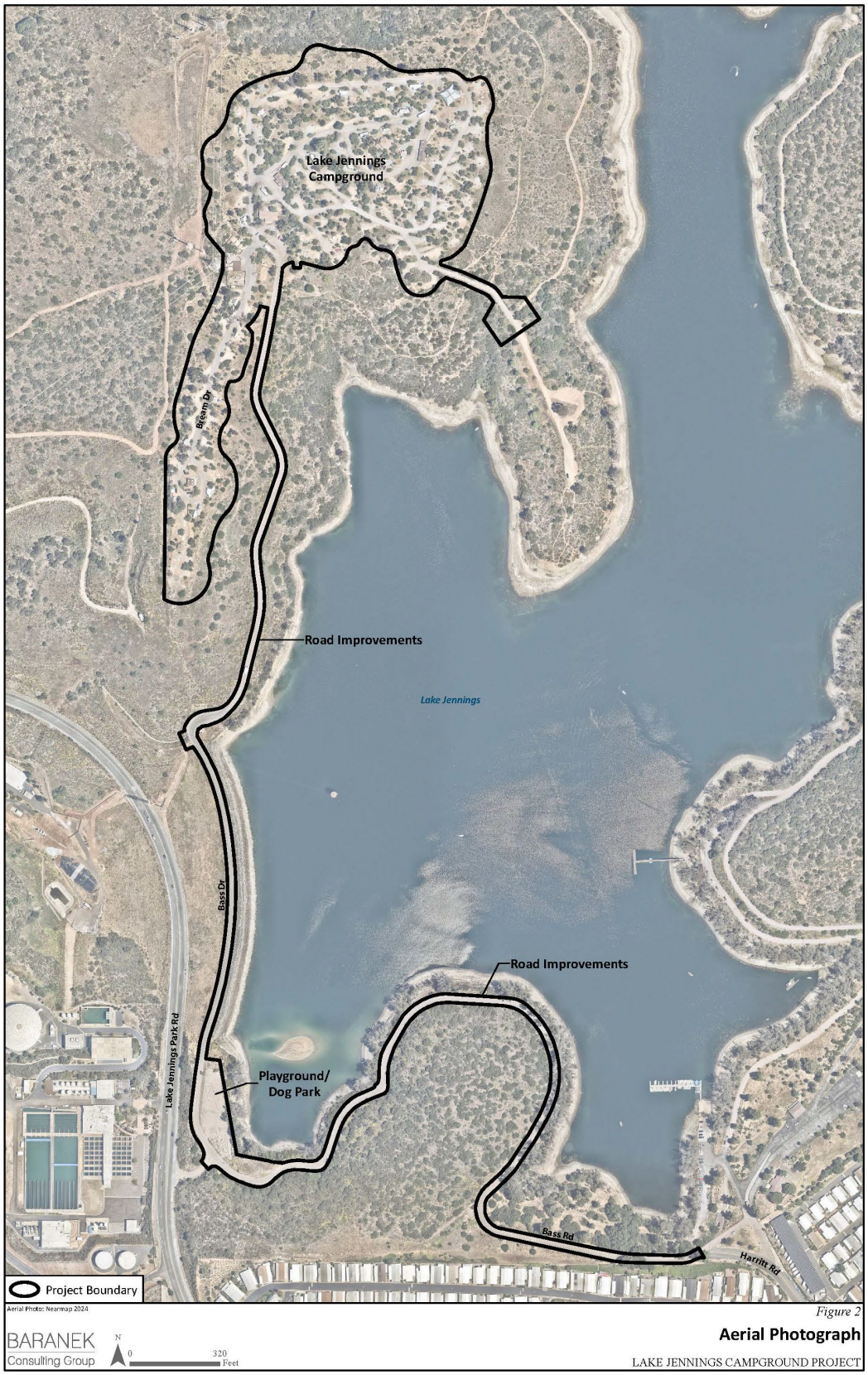


Figure 2: Lake Jennings Campground Project – Aerial Photo and Vicinity.

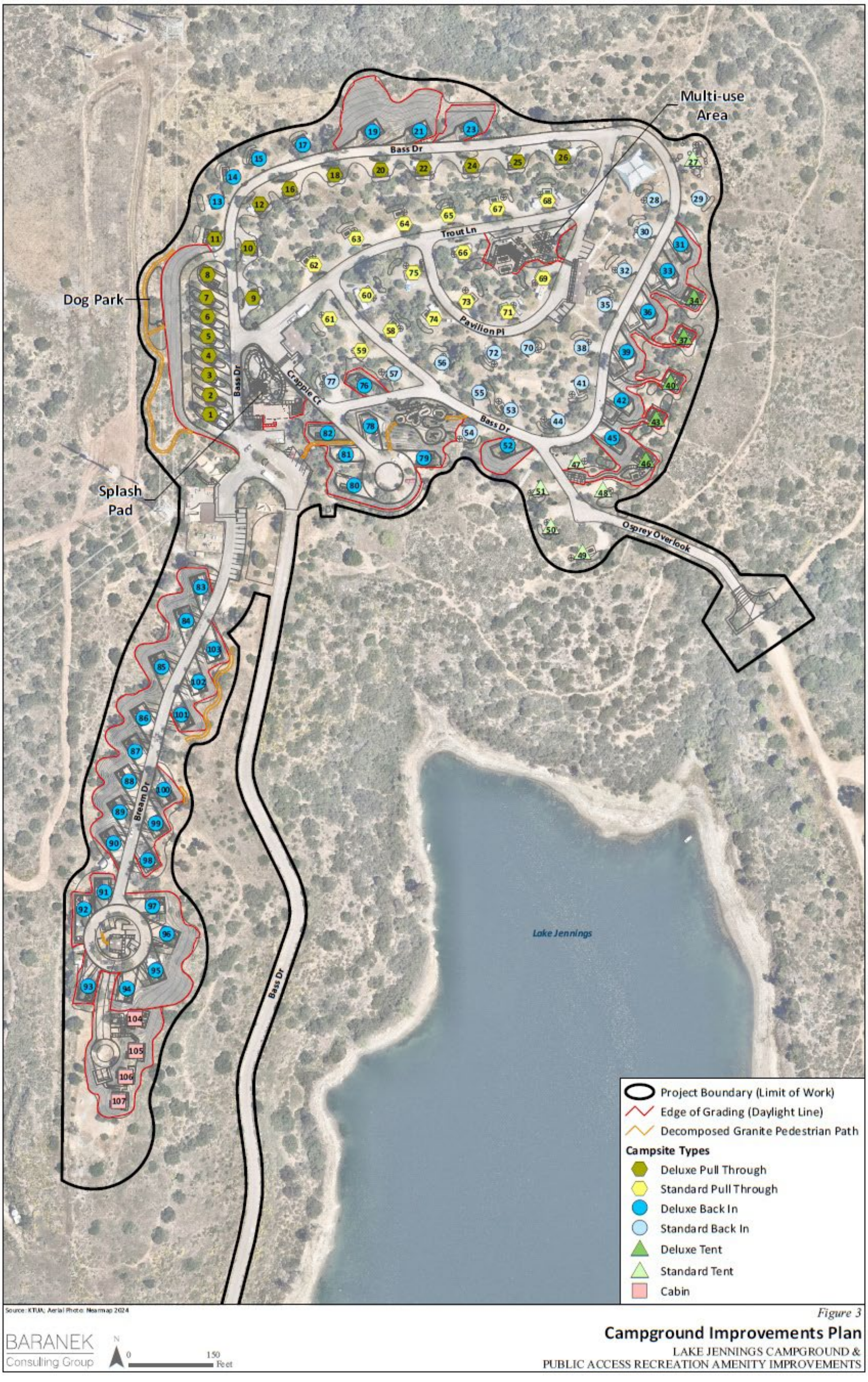


Figure 3: Lake Jennings Campground Project – Campground Improvements

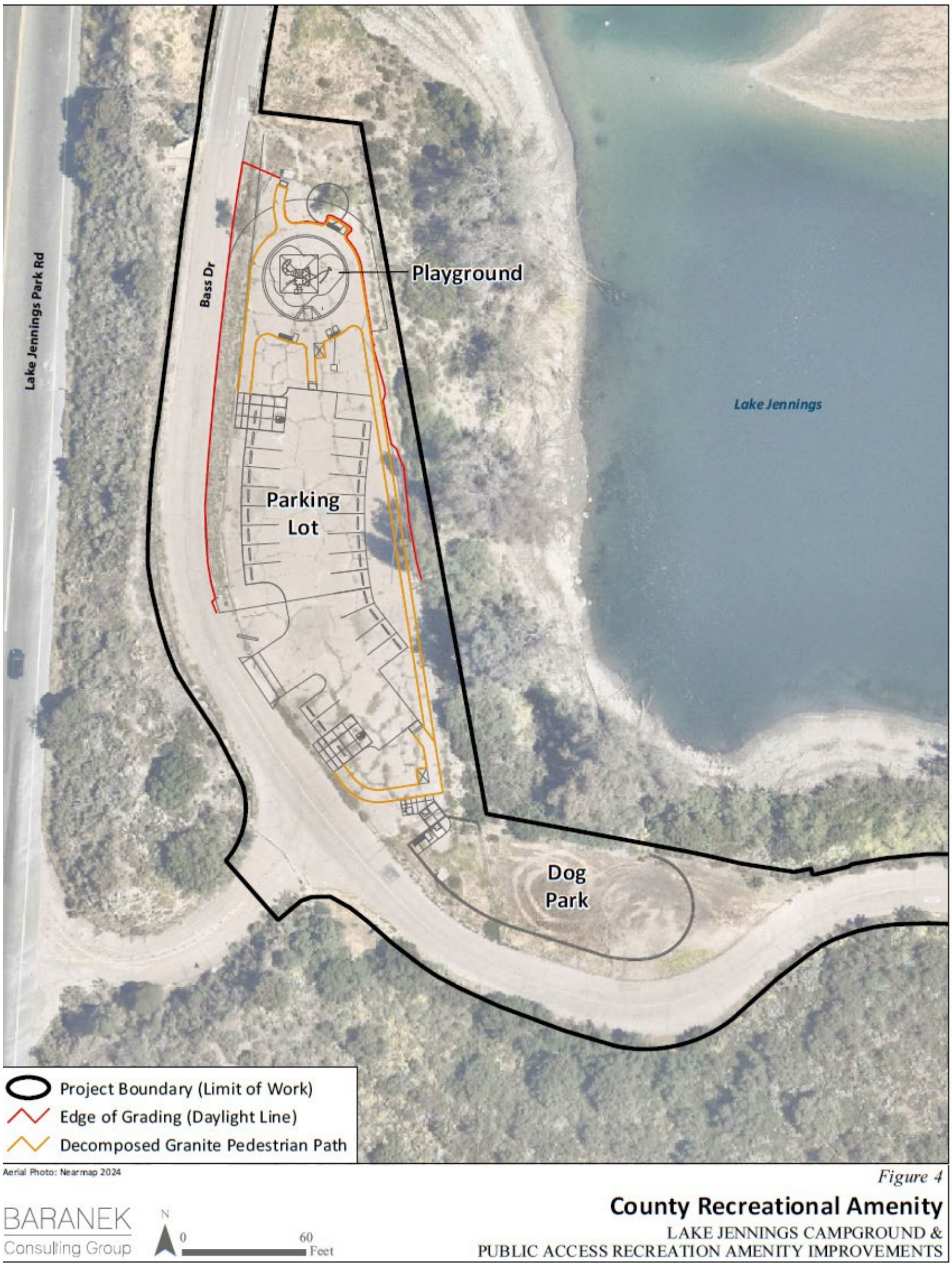


Figure 4: Lake Jennings Campground Project – Recreational Amenity

2.0 METHODS

2.1 Surveys and Limitations

Before performing field surveys, existing biological information for the site was reviewed including a California Natural Diversity Database search conducted to identify sensitive plant and wildlife species historically noted in the vicinity of the property (1-mile radius).

Two rounds of surveys were conducted on the project site. Surveys were recently performed in spring 2025 (Table 1). Historically, surveys were also conducted at this location in spring 2021. In both 2021 and 2025, general vegetation mapping, zoological, rare plant, and cactus wren (CAWR) surveys were conducted.

Table 1: Biological Surveys.

Survey	Date(s)	Personnel
2021		
Vegetation mapping, general zoological/botanical survey #1	1/21/21	DL/BV
San Diego Cactus Wren Surveys #1	4/1/21, 4/20/21, 5/18/21	BV
Rare Plant Survey #1	5/7/21	DL/BV
2025		
Vegetation mapping, general zoological/botanical survey #2	3/17/25, 3/24/25, 3/28/25	BV
San Diego Cactus Wren Surveys #2	3/17/25, 3/24/25, 3/28/25	BV
Rare Plant Survey #2	5/15/25	DL

Abbreviations: BV = Ben Van Allen, DL = Derek Langsford

The surveys were performed at appropriate times to maximize detectability of sensitive species. Complete inventories of the biological resources present on a site often require many hours of survey at different times of day, during different seasons of the year, over more than one year. Some animal species are active only at night, around sunrise, or around sundown. Bird activity is highest just after sunrise. Other species could be on site in such low numbers that they could have been missed; however, through literature review, study of existing databases of species distribution, and knowledge of habitat requirements and distribution, the probability of a particular species being present on a site can often be predicted with a high level of confidence. This report, combined with the results of all surveys performed by TDI represents TDI's best effort to identify potential biological resources on the subject property.

2.1.1 Vegetation Mapping and General Zoological/Botanical Survey

TDI Biologist Ben Van Allen visited the proposed project site on March 17, 24 and 28, 2025 to update the 2021 surveys by conducting vegetation mapping pursuant to Holland (1986) and a general botanical and zoological survey of the proposed project site. The TDI biologist recorded all plant and wildlife observations, while creating a map of the existing vegetation communities, and taking photographs. Vegetation was mapped out to 100 feet from the boundary of the proposed project.

2.1.2 Rare Plant Survey

Although rainfall patterns in the springs of 2021 and 2025 were not optimal for native annual plants (about 50% of the 30-yer average), many were visible and identifiable during the surveys.

2.1.3 Wetlands

During the initial vegetation mapping and surveys, the property was assessed for areas that could be jurisdictional to the U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), or San Diego Regional Water Quality Control Board (RWQCB). While Lake Jennings is clearly a jurisdictional body of water, it will not be impacted by the proposed project. There were no other obvious USACE or CDFW jurisdictional streams or creeks on site and as a result, no aquatic resources delineation was performed.

2.1.4 San Diego Cactus Wren Survey

Coastal cactus wren (CAWR; *Campylorhynchus brunneicapillus sandiegensis***)** is a large and conspicuous sedentary wren species that relies on well-developed stands of coast prickly pear and/or coast cholla for nesting and foraging year-round. This subspecies of the CAWR is restricted to coastal San Diego and southern Orange Counties within the United States. In San Diego County the coastal CAWR occurs in four main genetic clusters with a total population size in the low hundreds of individuals and fewer than 200 territories (Lynn and Kus 2024). Lake Jennings supports the largest concentration of the Lake Jennings genetic cluster of CAWR. The species has survived and even thrived at Lake Jennings despite being in the presence of a year-round active campground. The District has preserved the cactus and allowed it to expand into and between camp sites and the CAWR have learned to tolerate the presence of campers. Five nesting territories of coastal CAWR were detected during a 2025 survey immediately around the Lake Jennings Campsite. Three of these territories contain habitat within the proposed project area.

Three surveys were performed for the San Diego CAWR (*Campylorhynchus brunneicapillus sandiegensis*) in both 2021 and 2025 (Table 1). The 2025 surveys for this species of special concern (SSC) were conducted on March 17, 24 and 28 to confirm presence and distribution established in the April/May 2021 surveys. The Lake Jennings genetic cluster of San Diego CAWR has previously been identified as the fourth largest population of this rare subspecies (U.S Geological Survey [USGS] 2023).

All habitat was surveyed within the proposed project area by walking existing footpaths and animal trails wherever possible and minimizing disturbance through native habitats. CAWR are generally noisy and often conspicuous during the breeding season so passive observations were made of the CAWR and no tapes or other approaches were used to elicit calls. The 2021 and 2025 San Diego CAWR reports are presented in Appendix D.

3.0 RESULTS

3.1 Existing Conditions and Surrounding Land Uses

The Lake Jennings Campground is nestled above Lake Jennings and surrounded by fire-clearance zones and undeveloped habitat (Figure 2). It is connected to the rest of the Lakeside area only by Bass Road, which will also be improved as part of this project. Trails and dirt service roads leading from the area of the campground connect it to power company towers, and other local recreational trails as well as additional Helix Water District and Padre Dam Municipal Water District infrastructure. El Monte Valley is to the north across another

undeveloped ridge. The main project areas are on either side of the Lake Jennings Dam, which is above the District office and primary water treatment facility off Lake Jennings Park Road to the southwest. Primarily residential development surrounds the Lake Jennings area to the south, southwest and east, but this development ranges from half a mile to a full mile from the main campground project area. The high point of the project area is on the ridge that extends south from the main campground at 841 feet (ft) above mean sea level, and the low point is at 711 ft above mean sea level at the Playground/Dog Park improvement area south of the dam.

The soil on the two southern "arms" of the campground and all areas south of it are Friant rocky fine sandy loam, 30 to 70 percent slopes, and the north and eastern slopes of the campground are Friant fine sandy loam, 30 to 50 percent slopes. The soil type under the central part of the campground and parts of the western slope is Bosanko stony clay, 5 to 9 percent slopes (San Diego Association of Governments [SANDAG] 2014). The Friant soils are well drained decomposed granite derived soils, while the Bosanko stony clay is a flatter land soil with poor drainage after cracks swell shut (National Cooperative Soil Survey U.S. Department of Agriculture [USDA] 2025). The bedrock at the site is the undivided pre-Cenozoic metasedimentary and metavolcanic rocks of great variety (California Geologic Survey 1977). It is also within a Very High Fire Hazard Severity Zone (CalFire 2025).

Lake Jennings was constructed by the District in 1962, and first appears on the 1964 aerial photographs, and the 1969 topographic map (Historic Aerials 2025) The campground has been operating in a similar configuration to today since 1971 , with the sites on the ridge that head south on the western portion of the campground not graded or in operation until 1985. Around Lake Jennings, I-8 was built to the south by 1966 and development did not appear north of I-8 and just south of Lake Jennings until around 1978 by which time the mobile home parks immediately south of Lake Jennings had been established. Development slowly inched closer to the site from the west and east but remains distant from the campground because of terrain and District ownership around the lake. Fire clearance zones were established around the eastern and western slopes of the campground from the first available aerial images in the 1970s. Fire clearance is conducted by the District through an agreement with County Fire/CALFIRE.

3.2 Biological Resources

3.2.1 Vegetation Communities

Five distinct vegetation communities, as described by Holland (1986) and Oberbauer et al. (2008), were identified on the property (Figure 5; Table 2); Maritime succulent scrub (MSS), Diegan coastal sage scrub (CSS) with some disturbed (CSS-D), non-native grassland (NNG) and eucalyptus woodland (EW), in addition to areas identified as developed (DEV) and disturbed habitat (DH). The DEV is associated with the campground areas, roads, parking lots, developed yards and structures on the property, the DH is associated with the area of open land which are maintained as either areas cleared by the District and maintained in this state or as cleared firebreaks on the property. A detailed description of the vegetation communities is provided below. Table 2 lists the vegetation communities with Holland Codes. Lake Jennings is not covered by the local regional conservation plan, so vegetation communities are ordered in terms of most sensitive to not sensitive. Appendix A lists the plant species observed on site.

3.2.1.1 Maritime Succulent Scrub

The rarest of the coastal shrub communities in Southern California, MSS, occupies exposed xeric sites, such as terraces, bluffs and slopes with shallow rocky or sandy soils. It most commonly occurs in highly coastally influenced locations but can occur further inland on the coastal slope where it tends to increasingly consist of cacti. Dominated by drought-deciduous succulent shrub species with relatively shallow root systems and open

canopies, MSS communities often contain a reduced herbaceous component relative to CSS. MSS occurs along the coast from approximately Torrey Pines to Rosario Baja California, Mexico and on some Channel Islands (Holland 1986), where it supports several endangered, threatened, and rare vascular plants, as well as several bird and reptile species that have been listed or are candidates for federal listing. MSS is a target habitat for conservation under the State's Natural Community Conservation Planning (NCCP) Program.

The MSS on the southeastern and western slopes around the campground is dominated by coastal prickly pear (*Opuntia littoralis*). Some California sagebrush (*Artemesia californica*) and laurel sumac (*Malosma laurina*) occur in parts of this habitat, but largely it consists of the cactus with gaps between containing bare soil, lichen and diminutive herbaceous plants. Multiple stands of another characteristic MSS species, San Diego County viguera (*Bahiopsis lacinata*; CRPR 4.3) occur within the survey area and other areas nearby. Most of the MSS at this location is occupied by the San Diego CAWR (SSC) which uses the prickly pear for nesting and foraging year-round.

Much of the MSS around Lake Jennings burned in the cedar fire of 2003, but as of 2025 the habitat has largely recovered around the campground and in other nearby areas.

3.2.1.2 Diegan Coastal Sage Scrub (Including Disturbed)

Although it has been greatly reduced from its historical distribution, CSS is one of the major shrub types in Southern California, occupying xeric sites with shallow soils. Dominated by drought-deciduous shrub species with relatively shallow root systems and open canopies, CSS communities often contain a substantial herbaceous component. CSS occurs along the coast from Los Angeles to Baja California, Mexico (Baja; Holland 1986), where it supports several endangered, threatened, and rare vascular plants, as well as several bird and reptile species that have been listed or are candidates for federal listing. CSS is a target habitat for conservation under the State's NCCP Program.

Table 2: Vegetation Communities Around the Lake Jennings Campground.

Vegetation Community (Holland Code)	Totals in Mapped Area
High Sensitivity	
Maritime Succulent Scrub (32400)	3.84
Medium Sensitivity	
Coastal Sage Scrub (32500)	12.41
Coastal Sage Scrub – Disturbed (32500)	0.26
Low Sensitivity	
Non-Native Grassland (42200)	2.04
Not Sensitive	
Disturbed Habitat (11000)	1.44
Eucalyptus Woodland (79100)	0.60
Fresh Water (64140)	0.57
Developed (12000)	24.40
Total	**45.55**

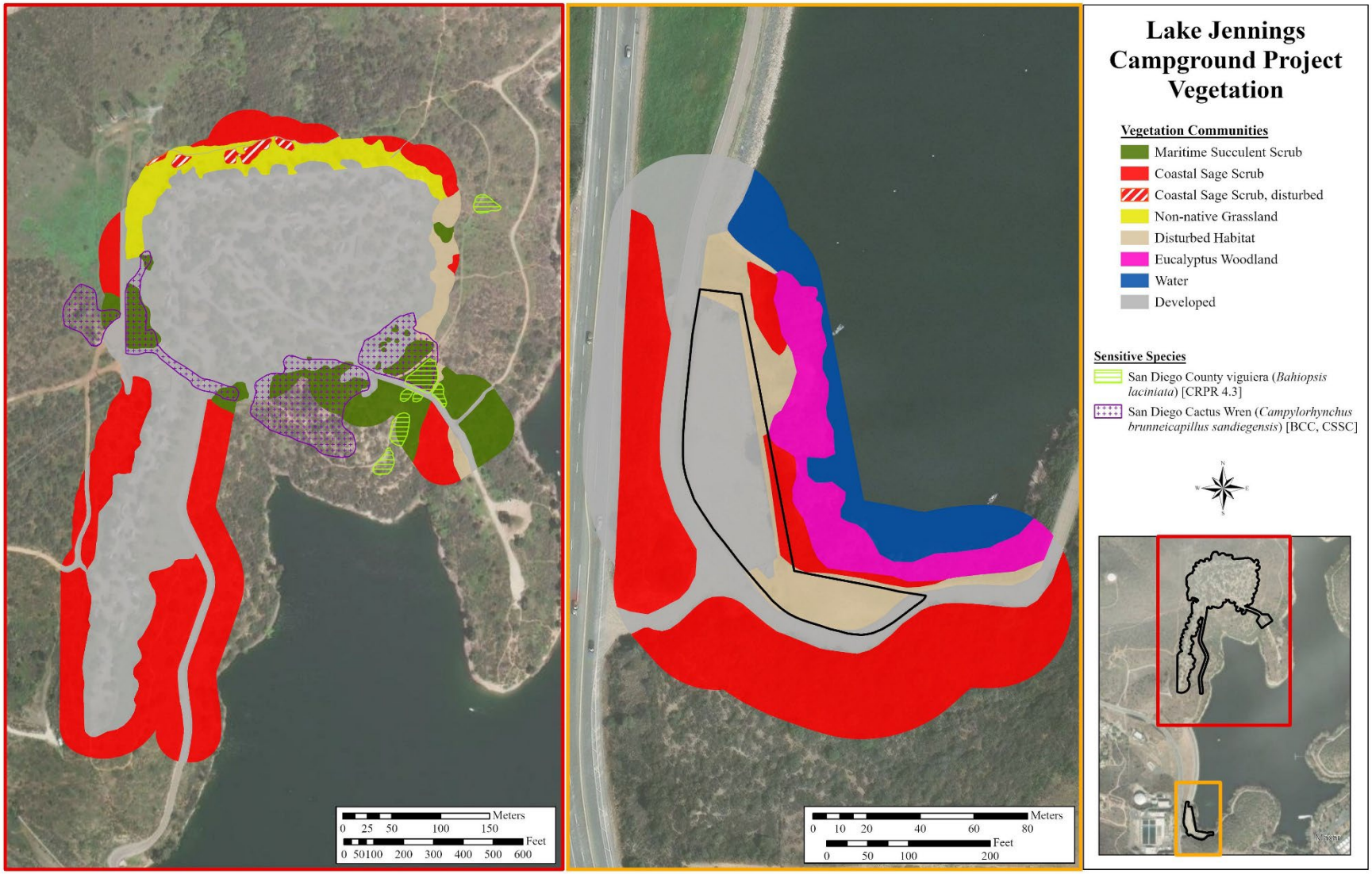


Figure 5: Lake Jennings Campground Improvements Vegetation and Sensitive Species

The CSS around Lake Jennings and within the survey area occurs where the dominant species of the coastal scrub community shifts from cactus to California sagebrush. Other species occurring in the CSS here include laurel sumac, flat-topped buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), white sage (*Salvia apiana*), sticky-monkey flower (*Diplacus puniceus*) and lemonade berry (*Rhus integrifolia*). Around the campground and on the more exposed slopes in the survey area the CSS is less diverse and the plants are relatively small. The draw at the southeast corner of the survey and project area is dominated by laurel sumac but ringed at the edges by California sagebrush and San Diego County viguera.

3.2.1.3 Non-Native Grassland

NNG is a widespread habitat in San Diego County, and has wildlife value for mammals, grassland birds, raptors and some reptiles. This habitat also hosts a number of rare native herbaceous plants as well as native herbs. The grassland along the northern slopes of the survey area consists primarily of ripgut brome (*Bromus diandrus*) with a few other herb species within it, increasing around the edges and in wetter spots. These additional species include western blue-eyed grass (*Sisyrinchium bellum*), San Diego fiesta flower (*Philostoma racemosum*), and miner's lettuce (*Claytonia perforliata*). The NNG immediately adjacent to the campground is in a fire clearance zone and is maintained in a low-lying vegetation state.

3.2.1.4 Eucalyptus Woodland

EW is composed of trees within the genus *Eucalyptus* most often forming a closed canopy over a low diversity and limited understory. It can also apply to scattered Eucalyptus trees above a well-developed herbaceous or shrub understory.

EW occurs along the shore of Lake Jennings immediately south of the lake's dam. Here it forms a closed canopy woodland one or two trees thick immediately next to the water with CSS species scattered within and adjacent to it.

3.2.1.5 Disturbed Habitat

DH occurs where habitat has been repeatedly cleared and where the natural topography has been altered without a natural community, agriculture or maintained landscaping covering it. The cleared areas of the slopes facing Lake Jennings are DH.

3.2.1.6 Developed

DEV occurs where permanent structures and/or pavement have been placed, or where landscaping is clearly tended and maintained, preventing the growth of native vegetation. The campground itself, the roads and trails leading from it, and the paved lot along the campground access road to the south are all developed lands.

3.2.2 Jurisdictional Wetlands

The site was assessed for signs of areas that could be jurisdictional to the USACE, CDFW, or San Diego RWQCB.

Lake Jennings itself is clearly a jurisdictional water, but the edge of this water are distinct, and no other potential water of the U.S. or the State occur in the vicinity of the proposed project.

3.2.3 Plants

The habitats on site support plants representative of MSS, CSS, NNG, EW and landscaped areas.

Approximately 83 species of plants were detected (Appendix A).

3.2.4 Animals

Similarly, the site supports typical Southern California species of CSS and MSS as well as of a lake environment. Notably, the site is at the center of one of the largest populations of Coastal San Diego CAWR. A total of 40 species of animals were recorded during surveys (Appendix B).

3.2.5 Rare, Endangered, or Sensitive Species and Habitats

3.2.5.1 Sensitive Habitats

All habitats on site, apart from DH, EW and DEV, are considered sensitive by the State. CSS is also a target for conservation under the state's Natural Community Conservation Planning (NCCP) Program. As the District is not enrolled in the local regional conservation plan, it relies on guidance from CEQA, NCCP guidelines and the County Multiple Species Conservation Program (MSCP) for categorizing habitat sensitivity.

3.2.5.2 Listed and Sensitive Species

3.2.5.2.1 Sensitive Animals Detected

Coastal Cactus Wren (*Campylorhynchus brunneicapillus sandiegensis*)
Status: California SSC.
Distribution: The subspecies occurs in southern coastal Orange County, and coastal San Diego County.
Habitat: Extensive stands of coast cholla or prickly pear cactus.
Status On Site: The cactus rich MSS around Lake Jennings supports the fourth largest population of coastal CAWR in San Diego County (Lynn and Kus 2024). Around 25% of the territories for this population of wrens occur adjacent to the Lake Jennings Campground.

Cooper's hawk was detected during the 2025 surveys and rufous-crowned sparrow was detected during the 2021 surveys on site. Red diamond rattlesnakes are found in San Diego, southern Orange and San Bernardino, and western Riverside Counties, and most of Baja. While restricted in range in Southern California, their presence in many habitats across the region protects them from regional extirpation. Western mastiff bat is an uncommon resident bat species found from Monterrey County south and east. This bat forages for the majority of the night and roosts in the daytime in small numbers and varies which daytime roost it will use. Western yellow bat occurs near water in foothill and desert areas and roost in trees during the day. An injured western yellow bat was discovered at the Lake Jennings Campground in 2021 and was brought to a wildlife rehab center (iNaturalist record).

3.2.5.2.2 Sensitive Plants Detected

San Diego County viguiera (*Bahiopsis lacinata*)
Status: CRPR 4.3
Distribution: Most abundant in coastal San Diego and southern coastal Orange Counties, with records up to Ventura County and in Baja California, Mexico.
Habitat: Chaparral and coastal scrub, with an affinity for MSS.
Status On Site: San Diego County viguiera was identified in multiple small thickets all approximately halfway up the slope from Lake Jennings to the Lake Jennings Campground and close to or intermixed with the cactus of the MSS here in most cases.

3.3 Sensitive Species with Potential to Occur

Sensitive species that occur in the immediate vicinity according to database records but were not observed and which may have some potential to occur on site are assessed below (Table 3, Table 4). Species with highly specific habitat needs (e.g., marshes, coastal dunes etc.) were not considered, nor were species for which the site is far from the known range of the species or for which no species-specific mitigation is typically expected.

3.4 Wildlife Corridors

Wildlife movement corridors are areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetative cover provide corridors for wildlife movement. Wildlife movement corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations.

Lake Jennings and surrounding District lands are identified in the MSCP Subarea Plan (City of San Diego 1998) as within the Lake Jennings/Wildcat Canyon-El Cajon Mountain Core Resource Area and is at the northern end of the Interstate 8 at Lakeside Linkage (City of San Diego 1998) also known as the Lakeside Archipelago which provides the only CSS habitat connecting across I-8.

The proposed project site is in an existing campground with only minor excursions beyond the existing developed area. Lake Jennings itself is part of a significant spur of native habitat south of the El Monte Valley of the San Diego River habitat corridor. The lake is an important foraging and wintering area for water birds. The MSS in the area also supports the largest component of the Lake Jennings genetic group of coastal CAWR, which is a centrally located population connecting the Sweetwater/Encanto and Otay populations with those to the north (Lynn and Kus 2024). The Lake Jennings area additionally is bordered by development on three sides while the El Monte Valley immediately to the north is a major corridor that connects El Capitan Reservoir and the mountains to the east with San Vicente Reservoir and Iron Mountain to the north and the San Diego River Valley to the west.

Table 3: Sensitive Plants with Potential to Occur.

Name		Status[1]				Characteristics	Potential To Occur On Site
Scientific	Common	Federal	State	MSCP	CRPR		
Acanthomintha ilicifolia	San Diego thorn-mint	Threatened	Endangered	Covered	1B.1	Occurs in moist habitat in the southern 2/3 of the coastal plain of SD Co.	Low. Nearest records are a few miles away. Would have been detected if in project area.
Adolphia californica	California adolphia	None	None		2B.1	Coastal SD Co. canyon shrublands species	Very low, too far inland and nearest record far away.
Astragalus deanei	Dean's milk-vetch	None	None		1B.1	Endemic to shrubby Peninsular Range slopes between El Cajon and Tecate. Occurs in chaparral.	Low. Could occur around Lake Jennings but not detected in project area.
Astragalus oocarpus	San Diego milk-vetch	None	None		1B.2	Endemic to CA, occurs in openings in chaparral and cismontane woodland at moderate elevations.	Low. Unlikely to occur around Lake Jennings but not detected in project area.
Baccharis vanessae	Encinitas baccharis	Threatened	Endangered	Covered	1B.1	Occurs in chaparral and Torrey pine forest understory, mostly in Carlsbad and Encinitas but rarely in other parts of the SD Co.	Very low. Unlikely to occur on site but not detected in the project area.
Bloomeria clevelandii	San Diego goldenstar	None	None		1B.1	Occurs in CSS and mesa grassland in coastal SD Co. and Baja California, Mexico.	Low, surveys on site were negative in 2021 and 2025 and only common goldenstars were found.
Brodiaea orcuttii	Orcutt's brodiaea	None	None	Covered	1B.1	Occurs in wetlands and riparian in S. CA, largely in SD Co.	Very low. No suitable riparian habitat on the project site.
Ceanothus cyaneus	Lakeside ceanothus	None	None	Covered	1B.2	Occurs in montane chaparral and pine forest, mostly in small portion of eastern SD Co.	Very low. Could occur around Lake Jennings but not detected in the project area.
Centromadia pungens ssp. *laevis*	smooth tarplant	None	None		1B.1	Very rare; occurs in open flats, depressions, beside waterways, grassland, and DH. Estimated to be fewer than 90 extant populations.	Very low. Tarplants growing on site evaluated and this species was not detected.
Clarkia delicata	delicate clarkia	None	None		1B.2	Foothill woodland and chaparral	Low. Not detected in the project area.
Dudleya variegata	variegated dudleya	None	None	Covered	1B.2	Occurs in clay soils in coastal southwestern SD Co. in a variety of habitat types.	Low. Not detected in the project area.
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	None	None	Covered	1B.1	Occurs in low elevation CSS, mostly in SD Co.	Low. Not detected in the project area.
Grindelia hallii	San Diego gumplant	None	None		1B.2	Occurs in meadows, dry slopes, and open woodland at 800-1700 m.	Low. Outside of the typical range and not detected.
Horkelia truncata	Ramona horkelia	None	None		1B.3	Occurs in dry red clay chaparral at 400-1300 m.	Very low. No suitable habitat on site and prefers higher elevations.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None	None		1B.2	Rare but occurs in a variety of habitats containing sandy soil, incl. chaparral, CSS, dunes, arroyos.	Low. Not detected in project area.

Name		Status[1]				Characteristics	Potential To Occur On Site
Scientific	Common	Federal	State	MSCP	CRPR		
Iva hayesiana	San Diego marsh-elder	None	None		2B.2	Occurs in mineral-rich wetland habitats, incl. alkaline flats, depressions, and streambanks.	Low. No suitable habitat on site. May occur around Lake Jennings.
Lepechinia cardiophylla	heart-leaved pitcher sage	None	None	Covered	1B.2	Very rare; occurs in chaparral. Only 20 known occurrences.	Very Low. No suitable habitat on site. Has never been seen on site or around Lake.
Lepechinia ganderi	Gander's pitcher sage	None	None	Covered	1B.3	Very rare; occurs in chaparral. Only 25 known occurrences.	Very Low. No suitable habitat on site.
Monardella breweri ssp. *microcephala*	small-headed monardella	None	None		2B.2	Occurs in rocky, grassy openings in chaparral and woodland.	Low. No suitable habitat on site.
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	None	None	Covered	1B.2	Occurs in chaparral and rocky slopes and hilltops at low-moderate elevation.	Low. No suitable habitat on site.
Monardella viminea	willowy monardella	Endangered	Endangered	Covered	1B.1	Extremely rare; occurs on cobbly, rocky washes and alluvail benches. Only 8 known extant occurrences.	Very Low. No suitable habitat on site.
Nolina interrata	Dehesa nolina	None	Endangered	Covered	1B.1	Very rare; prefers foothills with gabbro soils. 10-12 extant populations, mostly in protected habitat.	Low. Not known to occur on site but does occur nearby. Not detected during surveys.
Packera ganderi	Gander's ragwort	None	Rare		1B.2	Occurs in chaparral understory, recently burned chaparral, pref. gabbroic soils.700-1100 m.	Very Low. No suitable habitat on site and prefers much higher elevations.
Pentagramma rebmanii	Rebman's silverback fern	None	None		1B.3	Occurs on shaded rocky slopes at 450-1250 m.	Very Low. No suitable habitat on site and prefers much higher elevations.
Pseudognaphalium leucocephalum	white rabbit-tobacco	None	None		2B.2	Occurs on sandy/gravelly benches, dry stream bottoms, canyons.	Very Low. No suitable habitat on site. Would have been detected.
Quercus cedrosensis	Cedros Island oak	None	None		2B.2	Occurs in chaparral in only 14 sites in California.	Very Low. No suitable habitat on site. Never observed on site but does occur nearby.
Quercus dumosa	Nuttall's scrub oak	None	None		1B.1	Prefers sandy soils; found in coastal chaparral and CSS at low elevations.	Low. Not observed on site but known to occur nearby.
Ribes canthariforme	Moreno currant	None	None		1B.3	Occurs in chaparral at 500-1200.	Very Low. No suitable habitat on site and prefers much higher elevations.
Salvia munzii	Munz's sage	None	None		2B.2	Occurs throughout SD Co. in CSS and low elevation chaparral.	Low. Not observed on site but known to occur nearby.
Triquetrella californica	coastal triquetrella	None	None		1B.2	Very rare moss known to occur in SD Co. only on slopes of San Vicente Reservoir.	Very low. Not known to occur on site and not detected.

Name		Status[1]				Characteristics	Potential To Occur On Site
Scientific	Common	Federal	State	MSCP	CRPR		

[1] **Statuses**

Federal

FE = Federally Endangered

FT = Federally Threatened

State

SE = State Endangered

ST = State Threatened

Multiple Species Conservation Program (MSCP) - Covered

[2] **California Rare Plant Rank (CRPR)**

Rank (digits before the decimal):

1A = presumed extirpated in California and either rare or extinct elsewhere

1B = rare, threatened, or endangered in California and elsewhere

2A = presumed extirpated in California but common elsewhere

2B = rare, threatened, or endangered in California but more common elsewhere

3 = review list: more information is needed

4 = watch list: plants of limited distribution

Threat Ranks (digits after the decimal):

0.1 = seriously threatened in California

0.2 = moderately threatened in California

0.3 = not very threatened in California

Descriptions adapted from CNPS.org.

Table 4: Sensitive Animals with Potential to Occur.

Name		Status[1]			Characteristics	Potential to Occur On Site
Scientific	Common	Federal	State	CDFW/MSCP		
Amphibians						
Anaxyrus californicus	arroyo toad	Endangered		SSC; Covered	Breeds in open-canopy riparian areas with shallow, slowly moving streams, but burrows in adjacent uplands during dry months.	Very low. No streams on site or nearby.
Spea hammondii	western spadefoot	Proposed Threatened		SSC	Found in a variety of habitats from Central Valley through south coast of California but requires rain-filled pools that do not have bullfrogs, fish, or crayfish to breed.	Low. No pools on site for breeding.
Taricha torosa	Coast Range newt			SSC	Found in oak forest, chaparral, and grassland, requiring rocky canyons with cold, clear streams, preferably persistent. Most egg-laying occurs in pools.	Very low. No streams on site or nearby.
Birds						
Accipiter cooperii	Cooper's hawk			WL; Covered	Prefers oak or riparian forest habitats near permanent water. Found year round though all but upper tier states, in summer into southern Canada, and in winter south into Central America. Has become adapted to suburban areas of Southern California.	Present. Suitable foraging grounds and nesting sites on site. Prey species plentiful. Nesting status is unknown.
Accipiter striatus	sharp-shinned hawk			WL	Prefers dense forest, especially the coniferous forests of northern California and the Sierra Nevadas where it breeds.	Very Low. No suitable habitat on site.
Agelaius tricolor	tricolored blackbird		Threatened	SSC; Covered	Found in both wetlands and agricultural fields, often forming huge flocks with conspecifics and other blackbirds.	Low, with Low probability of breeding nearby. Lake provides suitable habitat. At least one individual was observed in the Lake in May 2022 (iNaturalist). Unlikely to forage over site.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow			WL; Covered	Inhabits CSS and open chaparral, particularly where nearby to grassland.	High. Some suitable habitat on site and in surrounding area. Observed during surveys in 2021.
Ammodramus savannarum	grasshopper sparrow			SSC	Strongly prefers open, grassy habitat, both agricultural and undeveloped. Avoids areas with excessive brush.	Very Low. Too little suitable habitat on site.
Aquila chrysaetos	golden eagle			FP | WL	Forages over grassy, open, shrubby habitats, generally nesting on cliffs and occasionally in trees. Tends to require habitat at a distance from humans.	Very Low. Area too developed for this species.
Artemisiospiza belli belli	Bell's sparrow			WL; Covered	Occurs in sunny, dry stands of interior and desert transition chaparral.	Very Low. No suitable habitat on site.
Athene cunicularia	burrowing owl		Candidate Endangered	SSC; Covered	Restricted to flattish, open habitat with suitable burrows or rocky areas for nesting. Burrows most often acquired from ground squirrels.	Very Low. Too little suitable habitat on site.
Buteo regalis	ferruginous hawk			WL; Covered	Inhabits open shrubland and grasslands, especially near forest edges, generally nesting in rocky features or trees.	Very Low. Too little suitable habitat on site.

Name		Status[1]			Characteristics	Potential to Occur On Site
Scientific	Common	Federal	State	CDFW/MSCP		
Buteo swainsoni	Swainson's hawk		Threatened	Covered	Prefers open prairie, grassland, and agricultural habitat, nesting in scattered tree stands bordering foraging territory.	Very Low. Too little suitable habitat on site.
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren			SSC; Covered	Occurs in CSS with large cactus patches for nesting.	Present.
Chaetura vauxi	Vaux's swift			SSC	Nests in old-growth coniferous and mixed forests of the Pacific Northwest, migrating to Central America in the winter.	Low. Site offers little preferred habitat but migratory flocks may pass through the area.
Circus hudsonius	northern harrier			SSC; Covered	Occurs in a wide variety of open upland, wetland, and coastal habitats with low vegetation, including agricultural habitat, breeding largely in dry upland habitats in the West.	Low to Moderate. Site neighbors and contains small quanitities of appropriate habitat. Unlikely to breed on site.
Contopus cooperi	olive-sided flycatcher			SSC	Prefers coniferous forests, migrating from Canada and western U.S. to northern South America for winter. Small patches of breeding territory in S. CA but bulk of breeding habitat is north and east.	Very Low. Site offers no preferred habitat but migratory flocks may pass through the area.
Coturnicops noveboracensis	yellow rail			SSC	Extremely cryptic small rail that inhabits reeds wet fields. Apparently very uncommon but occasionally present in San Diego County.	Very Low. Would not occur on actual project site unless injured, but could occur in reedy areas of the lake below.
Elanus leucurus	white-tailed kite			FP	Inhabits wide variety of habitats, ranging from crop fields to open woodlands to marshes. Nests in trees.	Low to Moderate. Site neighbors and contains small quanitities of appropriate habitat. Unlikely to breed on site.
Empidonax traillii extimus	southwestern willow flycatcher	Endangered	Endangered	Covered	Breeds within thickets of willows or other riparian understory usually along streams, ponds, lakes, or canyons. Migrants may be found among other shrubs in wetter areas. Significant known populations within the County only occur on Santa Margarita River and the San Luis Rey River.	Low to Moderate. May occur and even breed in willow thickets near lake but no appropriate habitat in project area. Stated potential to occur applies to foraging individuals only.
Eremophila alpestris actia	California horned lark			WL	Prefers bare and arid habitat with very short vegetation, avoiding even moderately high grass.	Low to Moderate. Site neighbors and contains small quantities of appropriate habitat. Unlikely to breed on site.
Falco peregrinus anatum	American peregrine falcon	Delisted	Delisted	Covered	Inhabits wide variety of open habitats, including coastal and freshwater lake habitats, but requires high cliffs or structure to breed.	High, but unlikely to nest on site due to lack of cliffs or high buildings. Lake provides suitable foraging habitat. Multiple sightings in and around project area since 2021 (iNaturalist).
Gymnogyps californianus	California condor	Endangered	Endangered	FP	Forages over open grassland but nests in scrub to forest habitat, usually in high, exposed areas that facilitate take-off.	None. Extremely rare. Nearest known populations are north of LA Co., and south of Lázaro Cárdenas, Baja California, Mexico.
Haliaeetus leucocephalus	bald eagle	Delisted	Endangered	FP; Covered	Prefer forested areas bordering large water bodies, nesting in large trees.	Very High, but unlikely to nest on site. Frequently sighted around lake, including in

Name		Status[1]			Characteristics	Potential to Occur On Site
Scientific	**Common**	**Federal**	**State**	**CDFW/MSCP**		
						project area. Likely nest in quieter part of lake if at all.
Icteria virens	yellow-breasted chat			SSC	Prefers dense shrublands, often along rivers. Breeds throughout U.S. and northern Mexico, wintering in Central America.	Very Low. Site offers no preferred habitat but migratory flocks may pass through the area.
Lanius ludovicianus	loggerhead shrike			SSC	Prefers open habitats with low vegetation and small trees and shrubs, both upland and riparian.	Low. Little suitable habitat on site.
Larus californicus	California gull			WL	Breeds on freshwater levees and islands with low vegetation, mostly in northwestern U.S. Also in SF salt ponds. Forage over a wide variety of habitats.	Low to Moderate. Frequently sighted in nearby Lindo Lake but do not appear to travel to Lake Jennings. No chance of breeding this far south.
Nannopterum auritum	double-crested cormorant			WL	Typically found near large bodies of water, both freshwater and marine.	Present in lake. Very unlikely to breed around lake.
Pandion haliaetus	osprey			WL	Nearly always found near shallow water with plentiful prey. Generally nest in trees.	High. Frequently seen over the lake.
Pelecanus erythrorhynchos	American white pelican			SSC	Typically breed on protected freshwater islands, foraging in a variety of freshwater wetland habitats.	Present. No chance of breeding this far south.
Polioptila californica californica	coastal California gnatcatcher	Threatened	None	SSC; Covered	Typically found in CSS at low elevations. Year-round residents of San Diego County.	Moderate. Site contains and is adjacent to small quantities of appropriate habitat. Heard in nearby CSS in the past but not on or immediately around campground.
Pooecetes gramineus affinis	Oregon vesper sparrow			SSC	Prefers open areas with short grass for in all seasons.	Very Low. Too little suitable habitat on site.
Progne subis	purple martin			SSC	Forage over a wide variety of natural and developed habitats. In western U.S., usually nest in tree cavities.	Low. Site offers no preferred breeding habitat but migratory or foraging flocks may pass through the area.
Rallus obsoletus levipes	light-footed Ridgway's rail	Endangered	Endangered	FP; Covered	Reside year-round in coastal saltmarshes of predominantly cordgrass and pickleweed.	None. Extremely rare. Site is not one of few known breeding areas.
Setophaga petechia	yellow warbler			SSC	Breed in disturbed and regrowing habitat and thickets near wetlands and streams. Breed throughout northern and central North America and winter in Central America and South America.	Low to Moderate. Frequently sighted in nearby Lindo Lake but do not appear to travel to Lake Jennings.
Vireo bellii pusillus	least Bell's vireo	Endangered	Endangered	Covered	Breed in scrubby riparian habitat locally. Winter in Baja California Sur, Mexico, and the west coast of mainland Mexico.	Very Low. Site offers no nesting habitat but some may exist near the lake.
Vireo vicinior	gray vireo			SSC	Breed in a variety of scrubland and chaparral habitats in the inland Southwest, wintering in northwestern Mexico.	None. Site offers very little nesting habitat and is not in migratory path.
Invertebrates						
Bombus crotchii	Crotch's bumble bee		Candidate Endangered		Prefers hot and arid grasslands and shrublands. May show a preference for milkweed but feed on a variety of flowers that it can access as a "short-tongued" bee. Little is known about wintering behavior.	Low. Site is mostly developed and disturbed within the surrounding area of fuel modification and recreation. Habitat further away from the campground contains some suitable habitat.

Name		Status[1]			Characteristics	Potential to Occur On Site
Scientific	**Common**	**Federal**	**State**	**CDFW/MSCP**		
Branchinecta sandiegonensis	San Diego fairy shrimp	Endangered		Covered	Vernal pool specialists that require ephemeral basins with no vegetation 12 inches or shallower.	None. Site contains no vernal pools.
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	Proposed Threatened			Breeds in a wide variety of environments, as long as they contain milkweed. Adults feed on other nectar sources and migrate huge distances. Overwinter in wooded areas.	Moderate. Site may contain sufficient food for migrants, but little roosting habitat and no apparent milkweed for breeding.
Euphydryas editha quino	Quino checkerspot butterfly	Endangered			Found on ridges and mesa tops in grasslands or openings in shrublands (e.g., fire breaks, near dirt roads) supporting dot-seed plantain host plant.	Very low. Site only contains small patches of CSS and does not appear to contain host plant.
Lycaena hermes	Hermes copper butterfly	Threatened			Species found in lower foothills of central and south San Diego County. Requires complexes of host plant redberry (*Rhamnus crocea*) and buckwheat.	Very low. Key plant host (spiny redberry) not present on site.
Mammals						
Antrozous pallidus	pallid bat			SSC	Roosts colonially in caves, mines, crevices, and abandoned buildings.	Low. Buildings on site may provide suitable habitat. Occurs in Lakeside.
Bassariscus astutus octavus	southern California ringtail			FP	Found in various riparian habitats and in brush stands of moist forest and shrub habitats at low to middle elevations.	Very Low. No suitable habitat on site.
Choeronycteris mexicana	Mexican long-tongued bat			SSC	Occurs in semi-arid scrublands and forests. Local population migrates south to Mexico for winter.	Very Low. Very little suitable habitat on site. Nearest sightings much more coastal.
Corynorhinus townsendii	Townsend's big-eared bat			SSC	Roosts in caves and buildings, but strongly tied to water. Widespread but uncommon through California. Presence negatively correlated with human presence.	Low. Buildings on site may provide suitable habitat.
Eumops perotis californicus	western mastiff bat			SSC	Roost in crevices in cliff faces, which are not found on site. Strongly tied to presence of large (100 feet long or more) ponds for drinking.	Moderate. Some suitable habitat on site.
Lasiurus frantzii	western red bat			SSC	Prefers riparian areas where it roosts in tree foliage. May be migratory, with U.S. observations generally occurring in summer.	Low. No suitable habitat on site but migrants may pass through.
Lasiurus xanthinus	western yellow bat			SSC	Little is known about the habitat preferences or distribution but it has mostly been found in wetland areas near arid areas, such as valley foothill riparian and palm oasis habitats.	Moderate. At least one individual was encountered in the project area in 2021 (iNaturalist).
Neotoma lepida intermedia	San Diego desert woodrat			SSC	Found in sage scrub or chaparral primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth	Low. Site neighbors and contains small quantities of appropriate habitat.
Nyctinomops femorosaccus	pocketed free-tailed bat			SSC	Prefers desert habitats with high cliffs or rock outcrops.	None. Out of species range. Site lacks high rocks.

Name		Status[1]			Characteristics	Potential to Occur On Site
Scientific	**Common**	**Federal**	**State**	**CDFW/MSCP**		
Nyctinomops macrotis	big free-tailed bat			SSC	Occurs in low, rugged canyons, foraging over water.	Very Low. No suitable habitat on site.
Onychomys torridus ramona	southern grasshopper mouse			SSC	Generally found in desert habitats with loose, friable soils. Less common in coastal scrub and chaparral.	Very Low. No preferred habitat and very little marginal habitat on site. No records in vicinity.
Taxidea taxus	American badger			SSC; Covered	Occurs in a variety of scrub habitats, particularly in open areas with friable soils. Require fossorial rodents upon which they prey.	Very Low. Little suitable habitat on site. Would have been detected if present.
Reptiles						
Actinemys pallida	southwestern pond turtle	Proposed Threatened	None	SSC; Covered	This turtle lives in a variety of freshwater environments but does not compete well with introduced turtle species.	Very Low. Unlikely to occur in Lake Jennings, would not come up to the Campground.
Anniella stebbinsi	Southern California legless lizard			SSC	Occurs in sandy loose soils.	None. Inappropriate soils at the site.
Arizona elegans occidentalis	California glossy snake			SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral with soils loose enough for burrowing.	Very low. Soils at the site not appropriate.
Aspidoscelis hyperythra	orange-throated whiptail			WL; Covered	Occurs in native shrub habitats with openings or adjacent open areas.	High. Suitable habitat present.
Aspidoscelis tigris stejnegeri	coastal whiptail			SSC	Occurs in shrub and woodland habitat that are hot and dry with openings	Moderate. Habitat is moderately suitable.
Coleonyx variegatus abbotti	San Diego banded gecko			SSC	Prefers rocky areas in coastal sage scrub and chaparral.	Low.
Crotalus ruber	red diamond rattlesnake			SSC	Occurs in rocky area in coastal sage scrub and chaparral.	Present. One was seen in 2021 in the fuel clearance zone in the northeast of the site but would not be expected within the campground.

[1] **Statuses**
Federal
FE = Federally Endangered
FT = Federally Threatened
State
SE = State Endangered
ST = State Threatened
California Department of Fish and Wildlife (CDFW)
SSC = Species of Special Concern
WL = Watch List
Multiple Species Conservation Program (MSCP) - Covered

3.5 Regulatory Environment

This section describes the regulatory requirements for the proposed project, and the proposed project site's regional resource planning status. Biological resources are subject to regulation by the federal government and State of California. The proposed project is subject to CEQA and is requesting a grading permit from the County.

3.5.1 California Environmental Quality Act

The District is the Lead Agency for the proposed project under CEQA for the environmental review process in accordance with state law and local ordinances.

3.5.2 Federal and State Regulations

Other regulations that apply or potentially apply to future development of the project site include the federal ESA, California Endangered Species Act (CESA), Migratory Bird Treaty Act (MBTA), California Fish and Game (CFG) Code, and federal Clean Water Act (CWA). Impacts to any jurisdictional drainage features or wetlands would require a USACE CWA Section 404 Permit, a RWQCB CWA Section 401 Certification, and CFG Code Section 1602 Lake and Streambed Alteration Agreement.

3.5.2.1 Federal Government

Under federal law, the USFWS and National Oceanic and Atmospheric Administration share responsibility for implementing the federal Endangered Species Act (ESA) of 1973 (Public Law 93-205, 16 United States Code [U.S.C.] § 1531) as amended. The ESA provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that result in harm or death to endangered or threatened species, including habitat modification that substantially impairs feeding, breeding, or sheltering activities constitutes "take" under the ESA. The ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

Sections 7 and 10(a) of the ESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when actions with federal agency involvement may adversely affect listed species. A biological assessment is required for any major construction activity if it may affect listed species. A Section 7 consultation (formal or informal) is required when there is a nexus between endangered or threatened species' use of a site and impacts to USACE jurisdictional areas. As wetland impacts are being avoided and no federal listed species were detected on site, the ESA is not applicable to the proposed project.

The USFWS designates areas of critical habitat for endangered or threatened species. Critical habitat is defined as areas of land that are considered necessary for the endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitat so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat, all federal agencies must consult with USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of the critical habitat. While the site is designated as critical habitat, no federal permit is needed for the project, and so no consultation with USFWS by any federal agency is required.

The MBTA is administered by the U.S. Department of the Interior, acting through the USFWS (16 U.S.C. § 703-712). Almost all native bird species found in the U.S. are included in the MBTA, including species

that do not migrate at all. The MBTA prohibits taking any bird, part, nest, or eggs and is implemented using 50 Code of Federal Regulation 10.12 of the MBTA regulations, which defines "take" as to: pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities. Take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, active nests, eggs, or parts thereof. The MBTA does not stipulate the type of protection required. In common practice, USFWS places restrictions on disturbances allowed near active bird nests during the bird-breeding season (January 1–September 15).

3.5.2.2 State of California

The CESA is similar to the ESA in that it contains a process for listing species and regulating potential impacts to listed species. Section 2081 of the CESA authorizes CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes.

Pursuant to Section 3503, 3503.5, 3505, and 3513 of the CFG Code, it is unlawful to take, possess, or needlessly destroy the active nest or eggs of any bird. The CFG Code defines "take" as to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in listed plants. The CESA followed the NPPA and covers both plants and animals determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were also designated rare under the CESA.

CEQA and its implementing guidelines (CEQA Guidelines) require discretionary projects with potentially significant effects (or impacts) on the environment to be submitted for environmental review. Mitigation for significant impacts to the environment is determined through the environmental review process, in accordance with existing laws and regulations.

3.5.2.3 Helix Water District

The NCCP Act (Section 2835) allows CDFW to authorize take of species covered by plans in agreement with NCCP guidelines. An NCCP initiated by the State of California under Section 4(d) of the federal ESA focuses on conserving CSS to avoid the need for future federal and state listing of CSS-dependent species. The CAGN is presently listed as threatened under the ESA, while several additional species inhabiting CSS are candidates for federal and/or state listing. The MSCP and draft subarea plans are intended to act as plans under the NCCP and Habitat Conservation Plan (HCP) processes.

The MSCP Subregional Plan was adopted and certified by the City of San Diego in 1997 (City 1998). District Lands at Lake Jennings were identified as part of the County's MSCP Subarea Plan (County 1997) but not as Pre-Approved Mitigation Area (PAMA). Later, the District, along with the Otay Water District, Padre Dam Municipal Water District, and Sweetwater Authority tried to formulate a Joint Water Agencies MSCP Subarea Plan but no Subarea Plan has been adopted. Currently the District is not considered part of the South County MSCP; however, the District uses the County's MSCP Subarea plan as a guide during project assessment and implementation.

The District has no specific ordinances that regulate biological resources resulting in reliance on NCCP guidelines, the County MSCP Subarea Plan, and CEQA for determining the significance of impacts and mitigation. Mitigation ratios for impacts to habitats vary to promote development outside of lands within the PAMA and mitigate within the PAMA to incentivize the preservation of areas of high biological value.

3.5.3 Wetland Regulation

Waters of the U.S. (wetlands and non-wetlands) are regulated by the USACE. California law regarding wetland, water-related, and wildlife issues is administered by the CDFW. If any impacts to wetlands occurred, the following would apply.

3.5.3.1 U.S. Army Corps of Engineers

The regulatory authority of the USACE comes from Section 404 of the CWA (33 U.S.C. §1251 et seq.). The Act requires USACE authorization for work involving intentional or unintentional placement of fill or discharge of dredge materials into any of the Waters of the U.S. USACE jurisdiction extends to the high water mark for non-tidal waters but excludes ephemeral drainages that are typical of the Southern California hills and mountains and which show a distinct bed and bank. Authorization for such activity is through a CWA Section 404 Permit (404 Permit) from the USACE.

3.5.3.2 California Department of Fish and Wildlife

CDFW requires a CFG Code 1602 Lake and Streambed Alteration Agreement (LSAA) for projects that will divert or obstruct the natural flow of water, change the bed, channel, or bank of any stream, remove riparian vegetation, or use any material from a streambed. The LSAA is a contract between a project proponent and CDFW stating what activities are permissible and what compensation is required for those activities.

3.5.3.3 Regional Water Quality Control Board

A federal CWA Section 401 Water Quality Certification (401 Certification) is required from the State Water Resources Control Board if a proposed project may result in a discharge into any Waters of the U.S. The program is administered by the RWQCB district in which the project is proposed. If a 404 Permit is required from the USACE, a 401 Certification is required from the RWQCB. The RWQCB also administers the State's Porter-Cologne Act which regulates discharge into Waters of the State.

4.0 IMPACTS

4.1 Impact Definitions

4.1.1 Direct Impacts

A direct impact occurs when the primary effect is loss of a biological resource through direct mortality during clearing and grading and removal of existing habitat, often replacing it with development and landscaping.

4.1.2 Indirect Impacts

An indirect impact consists of secondary effects of a project (such as noise, changes in drainage patterns, water quality, lighting, invasive plant species, and barriers to wildlife movement) that leads to habitat degradation and loss of species or habitat. The magnitude of an indirect impact may be the same as a direct impact; however, the effect usually takes a longer time to become apparent.

4.1.3 Cumulative Impacts

Although impacts to sensitive biological resources may not be significant when considered independently, when multiple impacts such as from several development projects within an area are combined, they may be cumulatively significant.

The significance of impacts to biological resources present or to those with potential to occur was determined based upon the sensitivity of the resource and the extent of the anticipated impacts.

4.2 Thresholds of Significance

Pursuant to Appendix G Section IV of the CEQA Guidelines, a proposed project would result in a significant impact if it would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the USFWS or CDFW;
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by USFWS or CDFW;
c) Have a substantial adverse effect on federally protected wetlands as defined by CWA Section 404;
d) Interfere substantially with movement of any native resident, migratory fish or wildlife species, or established native resident or migratory wildlife corridors; or impede use of native wildlife nursery sites;
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
f) Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state conservation plan.

4.3 Direct Impacts

Impacts would occur from the Lake Jennings Campground Improvement Project to areas of habitat that are adjacent to the current campground (Figure 6). Improvements to the campground, such as grading to establish new and improved campsites and the addition of a fire turnaround will impinge on the edges of the much larger areas of native habitat surrounding the campground. As the overall size of the campground is only changing slightly, the existing fire clearance areas for the campground will be maintained and any changes that could be needed will be evaluated at that time. Areas mapped as non-native grassland and disturbed CSS are within the current fire clearance zone of the campground and impacts to these areas have been removed from consideration in this report. To account for some uncertainty in the 60% design this report is analyzing, we have added a ten-foot buffer around each area of project impacts and consider this additional buffer to be an impact. Some areas within the study area left ungraded and unaffected by the proposed project will function as habitat for wildlife

CEQA Appendix G Section IV Significance thresholds a) through f) are assessed below as BIO 1 through BIO 6.

BIO 1: Have a substantial adverse effect, either directly or through habitat modifications, on any candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the USFWS or CDFW.

The small acreages of habitats being removed for development support the sensitive coastal CAWR (SSC), have the potential for the Federally Threatened California gnatcatcher (CAGN; *Polioptila californica*), and

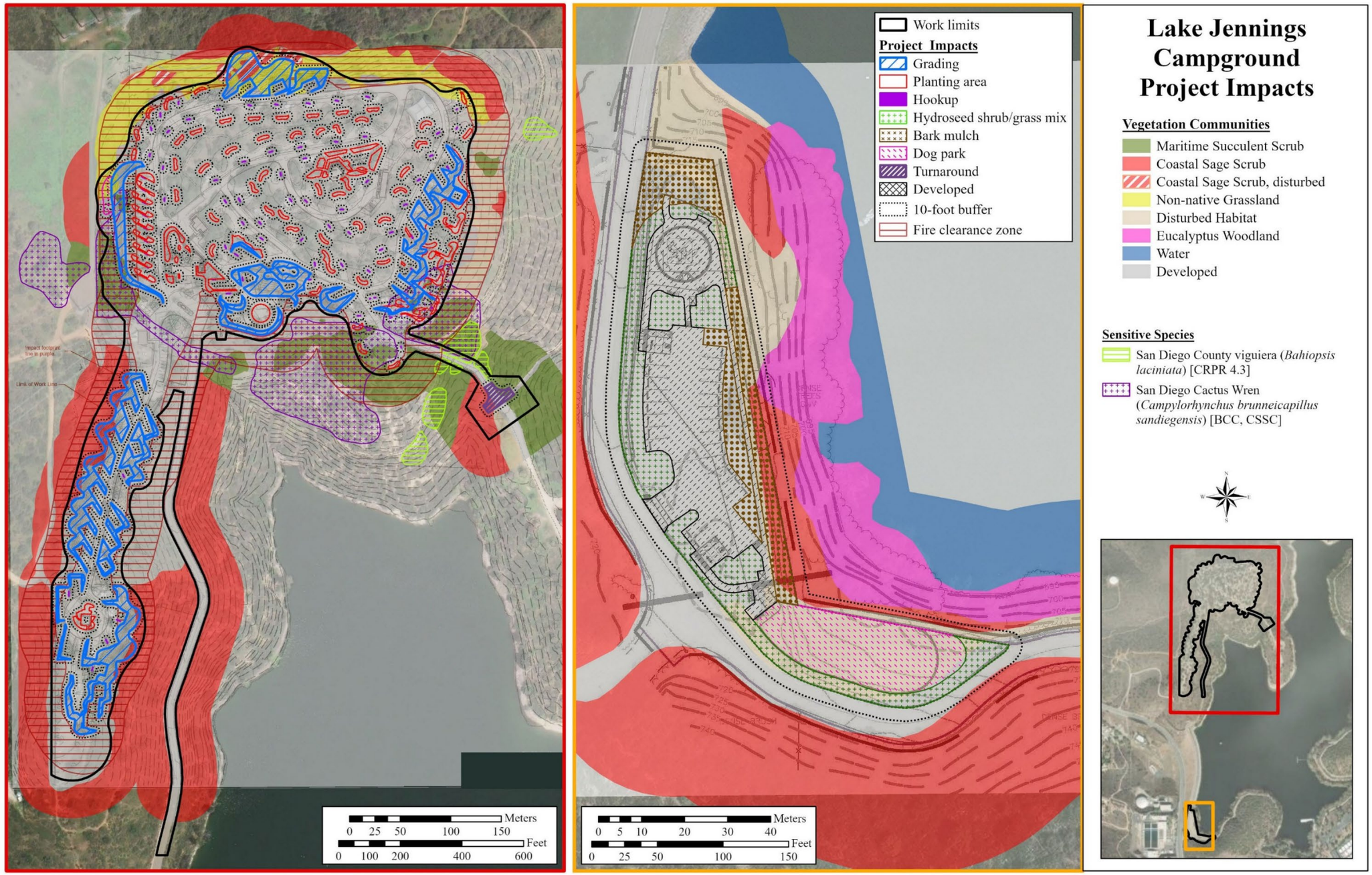


Figure 6: Lake Jennings Campground Project Impacts.

a number of other species that are not listed under the federal or state ESAs. Of the non-listed sensitive animal species which could occur with moderate or high potential, Cooper's hawk (*Astur cooperi*, WL), rufous-crowned sparrow (*Aimophila ruficeps*, WL), orange-throated whiptail *(Aspidoscelis hyperythrus*,WL), red diamond rattlesnake (*Crotalus ruber,* SSC) western mastiff bat (*Eumops perotis*, SSC), and western yellow bat (*Lasiurus xanthinus*, SSC), could occur on or immediately adjacent to the campground. Crotch's Bumble Bee has a low potential to occur within the campground or immediate periphery where the Project occurs and which is already developed or frequented by campers and their dogs.

4.3.1 Special Status Plants

No federal or state ESA-listed plants were detected. The following CRPR species were detected and would be impacted.

San Diego County viguiera is a CRPR 4B.3 species. San Diego County is the species stronghold in the United States where and it is a locally common plant in the coastal slope. The species has increasingly scattered records through the coastal areas of Orange, Los Angeles, and Ventura counties as well as western Riverside County. San Diego County viguiera occurs in coastal Baja California, Mexico as well. Across its range San Diego County viguiera is associated with coastal habitats with a special affinity for MSS:

> As the species is a CRPR 4.3 plant and it already occurs in sensitive habitat of which it is a component, impacts to San Diego County viguiera would be mitigated through preservation of habitat and not on a species-specific basis.

This species occurs immediately adjacent to planned project impacts but any impacts are mitigated by preservation of suitable habitat (CSS or MSS).

No other sensitive plant species are expected as rare plant surveys were performed at suitable times of year and were not detected. No other sensitive plant species has more than a low potential to occur on site (see Table 4). As a result, no impacts are expected to other sensitive plant species and no species-specific mitigation would be required.

4.3.2 Special Status Animals

No ESA-listed animals were detected on or immediately adjacent to the project area, however the habitat adjacent to the project area including some that would be impacted does have the potential for the ESA-listed as Threatened CAGN.

Additionally, a highly sensitive but not ESA-listed population of coastal CAWR (SSC) occurs in part within and adjacent to the proposed project area and would be impacted by this project. A total of 0.13 acres of occupied cactus would be impacted by the proposed project with a little over half of this coming from 10-foot buffers around impacts where impacts may or may not occur, depending on the degree of impact avoidance and implementation techniques. This acreage is split between three current coastal CAWR territories which in total cover approximately 4.25 acres. This impact would affect approximately 3 percent of the total occupied habitat mapped in the project area.

Coastal CAWR are protected under CFG Code as a SSC and a native bird. Direct impacts may occur to this species if clearing and grading occur in occupied habitat from February 15 to August 15.

Sensitive animal species that may be impacted because they have a moderate to high potential to occur in the immediate vicinity of the campground include the red diamond rattlesnake (SSC), orange-throated whiptail

*(*WL), Cooper's hawk (WL), rufous-crowned sparrow (WL), western mastiff bat (SSC) and western yellow bat (SSC). If any red diamond rattlesnakes, western mastiff bats, or western yellow bats occurred in the impacted area, impacts would be significant unless mitigated. In addition, although the potential for Crotch's bumble bee is considered low, the presence of scrub habitat and appropriate nectar sources within habitat adjacent to the project site, could result in potentially significant impacts if the species is listed under the CESA before project construction is initiated.

BIO 2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by USFWS or CDFW.

Impacts would occur to the following acreages of vegetation communities/land cover types (Table 5):

Table 5: Vegetation Communities – Impacts.

Vegetation Community (Holland Code)	Totals in Biological Study Area	Impacts
High Sensitivity		
Maritime Succulent Scrub (32400)	3.84	0.22
Medium Sensitivity		
Coastal Sage Scrub (32500)	12.41	0.42[1]
Coastal Sage Scrub – Disturbed (32500)	0.26	0.00[2]
Low Sensitivity		
Non-Native Grassland (42200)	2.04	0.00[2]
Not Sensitive		
Disturbed Habitat (11000)	1.44	0.35
Eucalyptus Woodland (79100)	0.60	<0.01
Water	0.57	0
Developed (12000)	24.40	9.29
Total Acres	**45.56**	**10.29**

[1] Excludes trimming of coastal sage scrub shrub branches at the County recreational amenity that have grown through or over the original chain link fence that identifies the perimeter of the old parking lot.

[2] NNG and CSS-D impacts in the project area are within an existing fire clearance zone and are maintained as cleared or thinned and impacts are not considered significant.

Impacts would occur to MSS and CSS, which would be significant unless mitigated. Impacts to CSS-D and NNG are not significant as they are in existing fire clearance zones and subject to mowing or thinning. DEV, EW and DH are not considered sensitive.

BIO 3: Have a substantial adverse effect on federally protected wetlands as defined by CWA Section 404.

No impact would occur to the potentially federal jurisdictional waters. As no impact will occur, no mitigation is required.

BIO 4: Interfere substantially with movement of any native resident, migratory fish or wildlife species, or established native resident or migratory wildlife corridors; or impede use of native wildlife nursery sites.

The proposed project site is in an existing campground with only minor excursions beyond the existing developed area. Lake Jennings itself is part of a significant spur of native habitat south of the El Monte Valley of the San Diego River habitat corridor. The lake is an important foraging and wintering area for water birds. It is also the largest component of the Lake Jennings genetic group of coastal CAWR, which is a centrally located population connecting the Sweetwater/Encanto and Otay populations with those to the north (Lynn and Kus 2024). Of the five territories of coastal CAWR close to the campground, three of the territories occur partly within the campground and cactus would be impacted by the proposed project. For all three of these territories a relatively small amount of the cacti in the territory (i.e., less than 3 percent or 0.13 acre) would be impacted, but the impacts would approach or cover areas with known nests in 2025.

The Lake Jennings area additionally is bordered by development on three sides while the El Monte valley immediately to the north is a major corridor that connects El Capitan Reservoir and the mountains to the east with San Vicente Reservoir and Iron Mountain to the north and the San Diego River Valley to the west. Development around the border of the Lake Jennings Campground will not have any effect on this important corridor.

BIO 5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The District has no specific policies that protect biological resources other than compliance with CEQA. As a result, *no impacts* would occur because of a conflict with local policies. The District is not a member of an NCCP plan, but it is following the provisions of the South County MSCP where applicable as the proposed work will be permitted by the County of San Diego.

BIO 6: Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state conservation plan.

With mitigation for impacts to habitats and covered sensitive species to County MSCP Subarea Plan standards, the proposed project would be in compliance with the County MSCP Subarea Plan and as a result would not be in conflict with the MSCP.

All actively nesting birds and their nests, with a few exceptions, are protected under the MBTA and CFG Code. Direct impacts may occur to birds nesting in the vegetation on site if clearing occurs during the bird-breeding season (January 1 through September 15). Impacts to nesting birds would be a violation of the MBTA and CFG Code and be significant unless avoided.

4.4 Indirect Impacts

Indirect impacts to sensitive habitats or species outside the project limits can occur from errant grading, construction or operational noise, changes in drainage patterns after grading that modify habitats, degraded surface water quality from runoff during construction, lighting onto habitat areas, introduction of invasive plant species, and brush management that leads to habitat degradation.

Sensitive species on or likely to occur at the site include coastal CAWR, CAGN, San Diego County viguiera, orange-throated whiptail, Cooper’s hawk, red diamond rattlesnake, western mastiff bat and western yellow bat. Impacts to these species should be avoided outside of the proposed project footprint. Particular care should be taken to avoid indirect impacts to cactus occupied by coastal CAWR.

4.4.1 Errant Grading

Impacts beyond the limits of work can occur for numerous reasons and could potentially impact sensitive habitat and plants outside the proposed project footprint and particular care should be taken in the vicinity of occupied coastal CAWR habitat. Any impact to sensitive habitat beyond the approved limits of work would be significant and require mitigation.

4.4.2 Noise

Noise from machinery during grubbing, earthwork, and construction activities would be a temporary impact to local wildlife. When construction noise exceeds 60 $dBA_{Leq,}$ noise-related impacts would be considered potentially significant if listed species, including CAWR, raptors and sensitive bird species are breeding in the habitats in and around Lake Jennings Campground and are displaced and/or failed to breed. Other sensitive species observed on site, such as the orange-throated whiptail and, are not sensitive to construction noise. Therefore, construction noise impacts to breeding birds and nesting coastal CAWR would be considered significant and require mitigation.

4.4.3 Drainage

Storm water drainage requirements ensure the amount of water leaving a site is not changed by installation of a project. Most newly graded areas and hardscaping will drain into the existing Lake Jennings reservoir which will prevent direct drainage into undeveloped new areas or modify the drainage patterns off site. Compliance with storm water regulations will ensure no impacts to adjacent sensitive habitats would occur from uncontrolled drainage.

4.4.4 Surface Water Quality

Surface water can be contaminated by sediment during grubbing, grading, and construction, from fuels, oils, and lubricants from construction vehicles, and post-construction by run off from rooftops, hardscaping and landscaping. Decreased water quality may adversely affect native vegetation, aquatic animals, and terrestrial wildlife that depend upon these resources.

Best Management Practices (BMPs) as stipulated in the project Storm Water Pollution Prevention Plan (SWPPP) would be used to control erosion, sedimentation, and pollution that could impact surface water quality during construction. Post-construction, detention or treatment of runoff from landscaping and hardscaping into on-site bioretention basins, would clean surface water and prevent run off of pollutants into surrounding areas. Based on compliance with a SWPPP and all storm water regulations and applications, the project's effects on surface water quality would be less than significant.

4.4.5 Lighting

Exterior night lighting has the potential to illuminate native habitats off site, which could interfere with wildlife movement and could unbalance predator/prey relationships and provide nocturnal predators with an added advantage over their prey. This could adversely affect native wildlife, especially if listed species would be affected.

Any outdoor lighting around the buildings and in the parking lots shall be shielded, where required, to prevent light from illuminating habitat around the proposed project using fixtures that physically direct light away from the outer edges of the property or fences, or other barriers on the edge of development to prevent light overspill. Final building plans for the campground improvements shall identify the shielded light

fixtures and/or fencing/barriers, in accordance with County outdoor lighting regulations (County 2023). Impacts from Potential night-lighting effects would be *Less than Significant with Mitigation Incorporated*.

4.4.6 Invasive Plant Species

Invasive weed species can colonize areas disturbed by grading, construction, development, and thinning of vegetation if invasive species seeds are already in the soil at the site or if invasive species are used in landscaping. Weeds from these sources could spread into adjacent native habitats and degrade habitat quality for native wildlife.

The site and surrounding fuel clearance areas have a prevalent weed seed bank and areas within and in the fuel clearance areas area mostly weeds.

To avoid additional problems, weeds may need to be periodically removed in graded or planted areas if dirt is left exposed during the rainy season and the District shall ensure that landscaping shall include only appropriate native or non-invasive ornamental plant species that are not invasive in native habitats.

4.4.7 Brush Management

The site is within the boundaries of the existing brush management zone for the campground and will only be slightly modified by the proposed project actions, if at all. No impacts from brush management will occur as part of this project. As such, any changes needed for the brush management zone will be less than significant.

4.5 Cumulative Impacts

The South County MSCP was designed to compensate for the loss of regional biological functionality that would otherwise occur on a project-by-project basis under CEQA. Compliance with the requirements of the MSCP would not result in cumulatively considerable impacts for those resources covered by the plan. As impacts to sensitive resources on site will be mitigated at MSCP–required ratios or requirements, implementation of the mitigation measures will ensure that the project would not contribute considerably to cumulative impacts.

5.0 MITIGATION MEASURES

Pursuant to CEQA requirements and the following mitigation measures are proposed to reduce potentially significant impacts to below a level of significance or to avoid them altogether. These mitigation measures constitute the Mitigation, Monitoring, and Reporting Program (MMRP) for the project for biological resources.

5.1 Direct Impacts

Potential significant impacts were identified in BIO 1, 2 and 6 above, and the following measures would be required to reduce those impacts to below a level of significance.

Impact BIO 1: Significant impacts to 0.13 acre of MSS prickly pear cactus contained in three territories occupied by the coastal CAWR and 0.09 acre of unoccupied but adjacent to occupied MSS would occur due to proposed construction of campground improvements . The proposed Project would also impact 0.42 acre of CSS which could be occupied by the CAGN (Table 6). In addition, the proposed project could

potentially impact habitats occupied by the orange-throated whiptail lizard, Cooper's hawk, red diamond rattlesnake, western mastiff bat, and western yellow bat.

Mitigation Measure (MM) BIO 1: Impacts to sensitive species

Cactus Wren

1. Direct removal of prickly pear cactus identified as occupied nesting habitat for the coastal CAWR will be avoided between February 15 through August 15.

2. All impacts to occupied CAWR habitat shall be avoided to the maximum extent possible during implementation.

3. Direct and indirect impacts to CAWR shall be mitigated through either:
    a. The salvage and propagation of prickly pear cactus and establishment of a 0.66-acre area of cactus on the west side of the Lake Jennings Campground for occupied prickly pear cactus removed (i.e., 3:1 ratio) per an MSS Mitigation Plan to be prepared by the District and approved by CDFW. This Plan shall identify the location, preparation, installation, species to be planted, installation, maintenance, monitoring and reporting requirements, protection, and responsible parties, in compliance with Item 3.d.

    or

    b. Recordation of a conservation easement over at least 0.66 acres (to mitigate impacts to 0.22 acres of MSS) of CAWR-occupied or adjacent habitat (Table 6). USGS (pers comm from HWD staff) has identified CAWR-occupation on a portion (approximately 1.9 acres) out of an 8.85 acre parcel (Assessor's Parcel Number 395-130-38-00) which is nearby and owned by the District. The Helix Water District shall utilize cactus-wren occupied habitat within recorded the Conservation Easement. The Conservation Easement shall be recorded 30 days prior to initiating project impacts to cactus wren occupied habitat (i.e., maritime succulent scrub).

    c. Indirect impacts to CAWR from detrimental edge effects shall be mitigated by:
        i. Avoidance of clearing, grading and construction adjacent to occupied habitat during the breeding season February 15 through August 15 shall be implemented. If such activities cannot be scheduled outside the breeding season, a pre-construction survey shall be conducted no more than 7 days prior to construction within the project site and a 300-foot buffer to confirm that the cactus wren and/or coastal California gnatcatcher are absent from the project construction zone. If the pre-construction survey is negative, no further actions are required. If the species are present, the Mitigation Plan outlined in item 3d shall address project-specific noise reduction measures.
        ii. Avoidance of illuminating MSS with lighting within the campground.
        iii. Enforcing the rules about pets (area restrictions and leashes) within and around the campground.
        iv. Providing educational material (a pamphlet) to campers about the sensitivity of the CAWR and its cactus habitat.

d. The cactus wren habitat mitigation and indirect mitigation measures to avoid detrimental edge effects and noise outlined herein shall be developed in a Mitigation Plan that shall be submitted by the Helix Water District for review and approval by CDFW at least 30 days prior to initiating project impacts. The Mitigation Plan shall identify and provide direction for habitat creation or habitat conservation, and the prevention of indirect effects as identified in this mitigation measure.

Coastal California Gnatcatcher

4. Impacts to the Federally Threatened CAGN shall be avoided through the placement of a 300-foot no-clearing, grubbing, or grading buffer around any active breeding territories prior to construction as determined through protocol CAGN breeding season surveys conducted the spring before work begins.

5. If direct impacts to nesting coastal California gnatcatchers cannot be avoided during the breeding season (February 15 to August 15), Helix Water District shall consult with USFWS and CDFW regarding the need to obtain an Incidental Take Permit. Any measures determined to be necessary through the Incidental Take Permit process to offset impacts to coastal California gnatcatcher may supersede measures provided in this mitigation measure.

Other Sensitive Species

6. Potential impacts to red diamond rattlesnake and other watchlist CSS species shall be mitigated through the preservation or creation of sensitive habitat that is suitable for these species (refer to Item 3.a/b for coastal cactus wren above and MM BIO-2).

Bats

7. Surveys for bats shall be conducted prior to initiating project impacts that removes suitable daytime roosting areas. If sensitive bats occur, their roosts shall not be disturbed by project work until such time when a qualified biologist determines they are no longer in use.

Crotch's Bumble Bee

8. If the species is CESA listed before project construction is initiated, a survey for Crotch's bumble bee shall occur within the April to August period prior to the start of construction. If Crotch's bumble bee are found to use an area, there shall be a 60-foot buffer placed around that area until the season in which Crotch's bumble bee does not nest (September-March).

With the implementation of MMs BIO 1.1 through Bio 1.3 and MM BIO 2.1, impacts to CAWR would be considered Less than Significant with Mitigation Incorporated. With the implementation of MM BIO 1.4, 1.6, 1.7, 1.8 and 2.1, impacts to CAGN, bats, and CBB would be avoided and No additional Mitigation Would be Required. With the implementation of MM BIO 1. and BIO 2.1 impacts to other special status species would be considered Less than Significant with Mitigation Incorporated.

Impact BIO 2: Significant impacts to 0.22 acre of highly sensitive MSS and 0.42 acre of sensitive CSS (Table 5) would occur due to proposed construction of campground improvements. The NNG and CSS-D in the project area are within an existing fire clearance zone and are maintained as cleared or thinned, and DEV, DH and EW are not considered sensitive. In addition, the CSS shrubs east of the new dog park in the south of the project have grown through or over a chain link fence and any trimming back to the fence would not be counted as an impact. Impacts to NNG, CSS-D, DEV, DH and EW will not be significant and will not require mitigation.

MM BIO 2:

1. In addition to the continued on-site preservation of MSS and CSS habitat that would be avoided and contain the same suite of rare species with potential to occur as the habitats that will be impacted, the district shall mitigate impacts to 0.22 acre of MSS at a 3:1 mitigation ratio with a minimum of 0.66 acres of MSS by either creation on the west side of the Lake Jennings Campground or preservation off site in a parcel near the Lake Jennings Campground per MM BIO 1.3b (Table 6). Impacts to 0.42 acre of CSS would be mitigated at a 2:1 mitigation ratio, with one of preservation of 0.84 acre of CSS or MSS (Table 6) within the District lands at Lake Jennings, preservation at the off-site parcel south of Lake Jennings Road; creation of 0.84 acres of CSS in addition to the 0.66 acres of MSS described in MM 1.3a (and protected with a Conservation Easement), or purchase of mitigation credits from an approved Mitigation Bank.

On or off-site mitigation is justified because the proposed off-site mitigation will protect high quality native habitat occupied by sensitive species, whether it be conservation on site, creation of habitat on site, conservation of suitable resources off site, or purchase of mitigation credits. In addition, as the lake is a drinking water reservoir for the District, the habitat around the lake has been undeveloped for decades and the District has no intention of developing the area around the lake to preserve water quality.

With the implementation of MM BIO 2.1, impacts to other sensitive habitats would be considered Less than Significant with Mitigation Incorporated.

Table 6: Vegetation Communities – Impacts and Mitigation.

Vegetation Community (Holland Code)	Totals	Impacts	Mitigation Ratio	Acreage of Mitigation
High Sensitivity				
Maritime Succulent Scrub (32400)	3.84	0.22	3:1	0.66
Medium Sensitivity				
Coastal Sage Scrub (32500)	12.41	0.42[1]	2:1	0.84
Coastal Sage Scrub – Disturbed (32500)	0.26	0[2]	2:1	0
Low Sensitivity				
Non-Native Grassland (42200)	2.04	0[2]	1:1	0
Not Sensitive				
Disturbed Habitat (11000)	1.44	0.35	NA	0
Eucalyptus Woodland (79100)	0.60	0.01	NA	0
Fresh Water (64140)	0.57	0	NA	0
Developed (12000)	24.40	9.29	NA	0
Total Acres	**45.56**	**10.29**	**NA**	**1.50**

[1] Excludes the CSS shrub branches that have grown through or over the original chain link fence that identifies the perimeter of an old parking lot.

[2] NNG and CSS-D impacts in the project area are within an existing fire clearance zone and are maintained as cleared or thinned and impacts are not considered significant.

Impact BIO 3: No mitigation is required for BIO 3 as no federal waters or wetlands pursuant to the CWA occur within the Lake Jennings Campground.

Impact BIO 4: Significant impacts will occur to 0.13 acres of MSS occupied by the coastal CAWR and 0.09 acres of unoccupied MSS and Lake Jennings is a major breeding population area for this special status species.

MM BIO 4: Mitigation measures for this impact are presented in MMs BIO 1.1 through 1.3 and MM BIO 2.1. To avoid significant impacts on special-status resources and inadvertent disturbance to areas outside the limits of the proposed project activities, the construction best management practices (BMPs) outlined in MMs BIO 7.a through 7.i shall be implemented to reduce these impacts to less than significant.

With the implementation of MMs BIO 1.1 thought Bio 1.3, BIO 2.1, and BIO 7.a through 7.i, impacts to wildlife corridors and nursery site would be considered Less than Significant with Mitigation Incorporated.

Impact BIO 5: The District has no policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance and follows South County MSCP Standards. As a result, no mitigation is required for BIO 5.

Impact BIO 6: Significant direct impacts may occur to native birds nesting in the vegetation on site which are protected under the MBTA and CFG Code, if clearing occurs during the bird-breeding season (January 1 through September 15). Implementation of these restrictions would ensure the proposed project's compliance with the MBTA and CFG Code and reduce impacts to a level less than significant.

MM ***BIO 6:***

With implementation of pre-construction surveys as required by MM BIO 6.1, impacts on nesting birds would be reduced to less than significant.

1. All shrub trimming, thinning, or removal will be performed prior to or after the bird-breeding season, January 1 through September 15 (i.e., only between September 16 and December 31). If clearing is planned to occur during the bird-breeding season, pre-construction nest surveys shall be conducted within 72 hours (three days) prior to any clearing. Surveys for active nests must be conducted by a qualified biologist to determine the presence/absence, location, and status of any active nests on or adjacent to the project site. Work may proceed if no active bird nests are detected. If active nests are discovered on site, a suitable buffer determined by the qualified biologist (e.g., 30 to 100 feet for passerines) should be established around such active nests. For raptors, the no-disturbance buffer shall be expanded to 500 feet. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Limits of construction to avoid a nest site shall be established in the field by a qualified biologist with flagging and stakes or construction fencing. Construction personnel shall be instructed regarding the ecological sensitivity of the marked area. The results of the survey shall be documented and filed with the District. By avoiding clearing during the bird-breeding season or performing surveys to ensure no active nests are present prior to clearing, the proposed project will ensure compliance with the MBTA and pertinent sections of the CFG Code.

Mitigation Measure BIO 7:

Best Management Practices.

To avoid significant impacts on special-status resources and inadvertent disturbance to areas outside the limits of the proposed project activities, the following monitoring requirements and BMPs shall be implemented under the oversight of a qualified biologist:

a. To prevent inadvertent disturbance to areas outside the limits of work, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary visibility construction fence) prior to ground-disturbance activities, and all construction activities, including equipment staging and maintenance, shall be conducted within the marked disturbance limits. The work limit delineation shall be maintained throughout project construction.
b. Construction activities shall occur during daytime hours.
c. If trash and debris need to be stored on site overnight, fully covered trash receptacles that are animal-proof and weather-proof shall be used by the construction personnel to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Alternatively, standard trash receptacles may be used during the day but must be removed each night.
d. At the end of each workday during construction, the applicant, or its contractors, shall cover all excavated, steep-sided holes or trenches more than eight inches deep and that have sidewalls steeper than 1:1 (45-degree) slope with plywood or similar materials, or provide a minimum of one escape ramp per 100 feet of trenching (with slopes no greater than 3:1) constructed of earth fill or wooden planks. The project biologist shall thoroughly inspect holes and trenches for trapped animals during biological monitoring.
e. The applicant, or its contractors, shall screen, cover, or elevate at least 1 foot above ground, all construction pipe, culverts, or similar structures with a diameter of 3 inches or greater that are stored on site overnight. These pipes, culverts, and similar structures shall be inspected by the project biologist for wildlife before such material is moved, buried, or capped.
f. All artificial light sources permanently installed as part of the project shall be directed downward at the impact area, away from adjacent habitat. Light sources shall be anti-glare and shielded.
g. If landscaping is required, non-native plants shall be avoided; a palette of native, local species will be used for on-site revegetation/hydroseeding, if necessary.
h. All construction equipment shall be inspected for non-native seeds to avoid the spread of noxious invasives within and around the project site.
i. Any project landscaping shall not include species identified as an invasive non-native plant species as identified by the California Invasive Plant Council at http://www.cal-ipc.org/paf/

6.0 CONCLUSION

Direct impacts to 0.22 acre of highly sensitive habitats (MSS) and 0.42 acre of sensitive habits (CSS) will be mitigated at a 3:1 and 2:1 mitigation ratio respectively for a minimum of 0.66 acres of MSS and 0.84 acres of CSS and/or MSS preserved or created. Mitigation for MSS is proposed to be assured through either creation of at least 0.66 acre of MSS on the west side of the Lake Jennings Campground (to be detailed in a MSS Mitigation Plan to be prepared by the District and approved by CDFW) or via placement of a

Conservation Easement off site to protect MSS habitat known to be occupied by CAWR. Approximately 1.9 acres of MSS on the nearby APN 395-130-38-00 may be protected in perpetuity to provide the needed 0.66 acres of mitigation. CSS mitigation of 0.84 acres would be through dedication on site, creation on site, off site preservation in the same parcel as the off-site MSS mitigation, or purchase of mitigation bank credits. Habitats within the District's Lake Jennings ownership would continue to be preserved on site protecting multiple sensitive species and connected to the open spaces around Lake Jennings and the broader Lake Jennings/Wildcat Canyon – El Cajon Mountain core resource area. Further a CAWR mitigation plan will be written and provided to the District for review and approval by CDFW at least 30 days prior to initiating project impacts. Potential impacts to the CAGN will be avoided through protocol surveys and application of avoidance during construction, if nesting CAGN are within 300 feet of construction. Impacts to additional special status species will be mitigated through the continued preservation of habitats at Lake Jennings and the MSS and CSS mitigation.. Impacts to nesting birds will be avoided though clearing outside the bird-breeding season (January 1 through September 15) unless a pre-construction survey demonstrates no active nests would be affected. Application of BMPs plus the additional measures for invasive species and lighting would ensure the proposed project would be in compliance with CEQA, MSCP, MBTA, and CFG Code.

After application of the biological mitigation measures that will form part of the project MMRP, no significant direct or indirect impacts to sensitive or special status animals or plants, riparian or sensitive vegetation communities, , wetlands, wildlife corridors or nursery sites, local policies or ordinances, would occur and the proposed project would be in compliance with the MSCP, all state or federal laws, codes, and treaties.

As a result of the proposed project design and MMRP, the proposed project would have a less than significant effect on biological resources.

7.0 REFERENCES

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APPENDIX A: PLANT SPECIES OBSERVED ON SITE

Scientific Name	Common Name	Status/Notes
Native Plants		
Achillea millefolium	yarrow	
Acmispon glaber	deerweed	
Acmispon tomentosis	Heerman's lotus	
Adenostoma sparsifolium	redshanks	cultivated
Amsinckia menziesii	Menzies' fiddleneck	
Artemisia californica	California sagebrush	
Asterellopsis palmeri	*liverwort*	
Baccharis sarathroides	desert broom	
Bahiopsis laciniata	San Diego County viguiera	CRPR 4.3
Bloomeria crocea	goldenstars	
Clarkia purpurea	purple clarkia	
Claytonia perfoliata	miner's lettuce	
Corethrogyne filaginifolia	common sandaster	
Croton setiger	turkey mullien	
Cylindropuntia prolifera	coast cholla	
Daucus pusillus	American wild carrot	
Dienandra fasciculata	fascicled tarplant	
Diplacus puniceus	red bush monkeyflower	
Dipterostemon capitatus	blue dicks	
Dudleya pulverulenta	chalk dudleya	
Eriogonum fasciculatum	California buckwheat	
Eriopyllum confertiflorum	golden yarrow	
Euphorbia polycarpa	smallseed sandmat	
Galium aparine	cleavers	
Galium angustifolium	narrow-leave bedstraw	
Grindelia camporum	common gumplant	
Heteromeles arbutifolia	toyon	
Malosma laurina	laurel sumac	
Marah macrocarpa	marah	
Mirabilis sp.	four o'clock	
Opuntia littoralis	coastal prickly pear	
Parkinsonia sp.	Palo verde	
Philostoma racemosum	San Diego fiesta flower	
Plagiobothrys sp.	popcorn flower	
Pseudognaphalium sp.	cudweed	
Quercus agrifolia	coast live oak	
Rhamnus crocea	spiny redberry	
Rhus integrifolia	lemonadeberry	
Riccia trichocarpa	hairy crystalwort	

Scientific Name	Common Name	Status/Notes
Salvia apiana	white sage	
Sambucus mexicana	blue elderberry	
Sidalcea malviflora	Checker bloom	
Sisyrinchium bellum	Western blue-eyed grass	
Stipa sp.	needle grass	
Non-native Plants		
Agave americana	American century plant	cultivated
Asparagus asparagoides	African asparagus fern	Cal-IPC: Moderate
Avena fatua	wildoats	Cal-IPC: Moderate
Bougainvillia sp.	paperflower	cultivated
Brassica nigra	black mustard	Cal-IPC: Moderate
Bromus diandrus	ripgut brome	Ca-IPC: Moderate
Bromus rubens	red brome	Cal-IPC: High
Calendula arvensis	field marigold	
Capsella bursa-pastoris	shepherds purse	
Carduus pycnocephalus	Italian thistle	Cal-IPC: Moderate
Centauria melitensis	tocalote	Cal-IPC: Moderate
Ceratonia siliqua	carob	cultivated
Crassula ovata	jade plant	cultivated
Dittrichia graveolens	stinkwort	Cal-IPC: Moderate
Emex spinosa	devil's thorn	Cal-IPC: Moderate
Erodium cicutarium	Redstem filaree	Cal-IPC: Limited
Erodium botrys	broad leaf filaree	
Erodium moschatum	white-stemmed filaree	
Eucalyptus sideroxylon	red ironbark	cultivated
Euphorbia maculata	spotted spurge	south site
Euphorbia peplus	petty spurge	
Euphorbia tirucalli	firestick (pencil cactus)	cultivated
Hedypnois rhagadioloides	crete weed	
Helminthotheca echioides	bristly ox-tongue	Cal-IPC: Limited
Hirschfeldia incana	shortpod mustard	Cal-IPC: Moderate
Marrubium vulgare	white horehound	Cal-IPC: Limited
Medicago polymorpha	bur clover	Cal-IPC: Limited
Melia azedarach	chinaberry tree	cultivated
Melilotus albus	white sweetclover	
Melinis repens	natal grass	south site
Nicotiana glauca	tree tobacco	Cal-IPC Moderate
Opuntia microdasys	angel's wings	cultivated
Pennisetum sp.	fountaingrass	south site
Schinus molle	Peruvian pepper tree	Cal-IPC: Limited
Schinus terebinthifolia	Brazilian pepper tree	Cal-IPC: Moderate
Sonchus asper	spiny sowthistle	

Scientific Name	Common Name	Status/Notes
Urticaria urens	annual stinging nettle	
Washingtonia robusta	Mexican fan palm	Cal-IPC: Moderate
Acronyms: CRPR – California Rare Plant Ranking; Cal-IPC – California Invasive Plant Council rating.		

APPENDIX B: ANIMAL SPECIES OBSERVED OR DETECTED

Scientific Name	Common Name	Status/Notes
Birds		
Anas platyrhynchos	mallard	
Aphelocoma californica	California scrub-jay	
Astur cooperii	Cooper's hawk	WL
Aythya collaris	ring-necked duck	
Buteo jamaicensis	red-tailed hawk	
Callipepla californica	California quail	
Calypte anna	Anna's hummingbird	
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	SSC; BCC
Cathartes aura	turkey vulture	
Chamaea fasciata	wrentit	
Corvus brachyrhynchos	American crow	
Corvus corax	common raven	
Falco sparverius	American kestrel	
Fulica americana	American coot	
Geococcyx californianus	greater roadrunner	
Haemorhous mexicanus	house finch	
Megaceryle alcyon	belted kingfisher	
Melospiza melodia	song sparrow	
Melozone crissalis	California towhee	
Mimus polyglottos	Northern mockingbird	
Nannopterum auritum	double-crested cormorant	WL
Pandion haliaetus	osprey	
Pelecanus erythrorhynchos	American white pelican	SSC (nesting colony); BCC
Pipilo maculatus	spotted towhee	
Podilymbus podiceps	pied-billed grebe	
Polioptila caerulea	blue-gray gnatcatcher	
Psaltriparus minimus	bushtit	
Sayornis nigricans	black phoebe	
Setophaga coronata	yellow-rumped warbler	
Spinus psaltria	lesser goldfinch	
Tachycineta thalassina	violet-green swallow	
Thryomanes bewickii	Bewick's wren	
Toxostoma redivivum	California thrasher	
Zenaida macroura	mourning dove	
Zonotrichia leucophrys	white-crowned sparrow	
Mammals		
Otospermophilus beecheyi	California ground squirrel	
Sylvilagus bachmani	brush rabbit	

Scientific Name	Common Name	Status/Notes
Reptiles		
Sceloporus occidentalis	Western fence lizard	south side
Uta stansburiana	common side-blotched lizard	south side
Insects		
Apis sp.	honey bees	
Linepithema humile	Argentine ant	non-native
Acronyms: WL – CDFW "Watchlist" Species; SSC – CDFW Species of Special Concern; BCC – USFWS Bird of Conservation Concern.		

APPENDIX C: SITE PHOTOS



Photo 1: A portion of the coast prickly pear MSS on the south facing slope south of the Lake Jennings Campground on March 24, 2025.



Photo 2: The Lake Jennings Campground from a vantage point to the north of it on March 17, 2025.



Photo 3: MSS on the east facing slope east of the Lake Jennings Campground on March 17, 2025.

Photo 4: A coastal cactus wren nest in a stand of prickly pear between camp sites 45, 46, 47, and 48 on March 17, 2025.



Photo 5: Mature stands of coast prickly pear occupied by cactus a cactus wren pair and between camp sites 45, 46, 47 and 48 on March 17, 2025.





Photo 6: The southern area of the project proposed to become additional parking, a dog park and a playground. Looking south from near the north end of the area on March 17, 2025.

Photo 7: A coastal cactus wren on a patch of cactus in the MSS on the slope south of the Lake Jennings Campground. The Lake Jennings Dam and Helix Water District facilities are visible in the distant background on March 24, 2025.





Photo 8: San Diego County vigiuera at the edges of the MSS on the south facing slope southeast of the Lake Jennings Campground on March 17, 2025..



Photo 9: Looking east from the middle of the main area of the Lake Jennings Campground on March 17, 2025. Areas adjacent to patches of cactus in the mid-range and further back in this photo would be appropriate areas to propagate new cactus as mitigation for this project.



Photo 10: Lake Jennings from the slope southeast of the campground on March 17, 2025.

APPENDIX D: COASTAL CACTUS WREN SURVEY REPORTS

Tierra Data, Inc.
10110 W. Lilac Road
Escondido, CA 92026
(760) 749-2247

MEMO

To: Kim Baranek, Baranek Consulting

Cc: Amy Hoffman, KTU+A

From: Ben Van Allen PhD, Biologist
Derek Langsford PhD, Biology Practice Manager

Date: June 14, 2021

Subject: Lake Jennings Campground: San Diego Cactus Wren Survey results

Dear Kim,

Three San Diego Cactus Wren (*Campylorhynchus brunneicapillus sandiegensis*; San Diego CAWR) surveys were performed at the Helix Water District (HWD) Lake Jennings Campground. The cactus stands around the campground, some of which could be impacted by proposed project activity, support a regionally important population of San Diego CAWRs. These surveys were conducted to determine what habitat at the campground is currently used by the CAWR and the extent of occupancy around the campground area.

Background

The CAWR, a large, conspicuous wren and an obligate cactus dweller, lives year-round in scrub communities with a sufficient amount and stature of cactus in the southwestern United States and northern Mexico (Hamilton et al. 2020). CAWRs are compulsive nest builders, and territories occupied by the species contain many globular nests both new and from previous seasons. From a very young age, each CAWR that has left its nest roosts in its own nest every night. In February of each year, CAWR pairs reassert their territories and begin to build new nests. CAWR territory size is likely related to the abundance of resources, but an average of 3.2 acres per territory was found in Escondido (Rea and Weaver 2008) while a typical territory size of 2.4 acres each has been found across more inland sites (Anderson and Anderson 1973). CAWR eat insects and fruits, particularly the fruits of cactus, and will puncture cactus pads for water and pulp. While CAWR is dependent on cactus of a certain stature for nesting and other resources, they readily forage in other adjacent habitat and will glean under tree bark and examine thickets and nooks like other wren species. High quality habitat in proximity to cactus improves habitat quality for CAWR, but as non-native grasses or even non-cactus shrubs crowd out cactus the desirability of the habitat for CAWR declines (Mitrovitch and Hamilton 2007; Nature Conservancy 2015). CAWR nests are globular and composed of grass or herbaceous vegetation with a tunnel-shaped entrance on one side. The brooding nest in each territory contains an average of five eggs per brood. Once egg laying is complete juveniles fledge from the nest after 37 to 40 days. CAWR lay eggs up to three times per year starting in March with the last fledglings leaving the nest as late as September.

The San Diego subspecies of CAWR (*C. brunneicapillus sandiegensis*) which occurs in coastal Southern California has undergone drastic reductions in population size as development and agriculture removed their habitat, and more recently, as droughts and wildfires threaten the habitat that remains. San Diego CAWR is listed as a California Species of Special Concern by the California Department of Fish and Wildlife and a Bird of Conservation Concern by the U.S. Fish and Wildlife Service. Between 2009 and 2014 estimated populations of San Diego CAWR dropped by almost two-thirds at a number of sites south of Lake Jennings (Nature Conservancy 2015). Multiple federal, state, and Non-Governmental Organization groups have interest in protecting and restoring habitat for San Diego CAWR (Nature Conservancy 2015).

At HWD Lake Jennings the Cedar Fire impacted habitat on the northeast side of the Lake and the campground, but habitat on the south and west sides of the campground, as well as Sentry Point, did not

burn. The well-developed coastal scrub habitat that remains around the southern half of the campground contains substantial stands of coast prickly pear (*Opuntia oricola*, formerly *littoralis*). During a biological constraints survey at the Lake Jennings Campground on January 21, 2021, TDI biologists Derek Langsford and Ben Van Allen documented multiple San Diego CAWR using this habitat. As the proposed project at the site to improve the campground could impact some foraging and breeding habitat for the San Diego CAWR that live around the Campground, surveys for San Diego CAWR were scheduled to determine how much of the habitat around the campground is used.

Results

Surveys for San Diego CAWR were conducted on April 1 and 20, and May 18, 2021, by TDI avian biologist Ben Van Allen (Table 1). Conditions were good for observing the species during all surveys and observations were made of nest building, territorial interactions, foraging, nestlings, and fledglings during the surveys.

Table 1. Summary of Weather Conditions During Three Focused San Diego Cactus Wren Surveys at the HWD Campground Lake Jennings Project Area, San Diego County, California, 2021.

Survey #	Date	Surveyor (Species)*	Time	Weather Conditions
1	04/01/21	BV (CAWR)	0640-0955	10% overcast, 56-64oF, wind 3-5 mph
2	04/20/21	BV (CAWR)	0630-1130	100% overcast, 59-75oF, wind 1-3 mph
3	05/18/21	BV (CAWR)	0600-1000	100% overcast, 58-72oF, wind 1-5 mph

* BV – Ben Van Allen; CAWR – San Diego Cactus Wren

Overall, the surveys determined that San Diego CAWR are using all the suitable habitat around the Lake Jennings Campground, with five territories active detected during two or more surveys in approximately 11.6 acres of the survey area (Map 1). Of this area 5.29 acres of San Diego CAWR-occupied habitat occur within the existing campground area, proposed project activity areas, or buffer (Map 1). The territories which occur entirely within the survey area (i.e., excluding territory 5) are an average of 2.45 acres with territories 1 and 3 being larger and territories 2 and 4 noticeably smaller.

Some habitat within the survey area contains cactus which is likely too small to support San Diego CAWR nesting. This habitat is marked on Map 1 as potential habitat for CAWR. With time, and in some areas, the appropriate management, these areas should be able to support San Diego CAWR territories; however, the existing five territories located during the survey likely represent saturation of the available habitat. Territory 4, for example, occupies cactus which is either a small patch along a foot trail or isolated stands along the entry road to the campground, while territory 2 is largely inside the campground. San Diego CAWR around Lake Jennings were banded by US Geological Survey biologists up until 2019, and the majority of wrens observed were banded. Between surveys 1 and 2 a young male (fledged since 2019 and un-banded) was displaced by an older banded male in territory 2. Territory 4 also was occupied by an un-banded young pair of wrens, but this territory was small and in less than ideal habitat. It appears that the habitat around the Lake Jennings Campground is not quite sufficient to support all the San Diego CAWR that currently live there, so any impacts to foraging or nesting habitat for the wrens could be detrimental to the population.

Conclusion

The San Diego CAWR surveys identified 5 territories within or partially within the campground surveys area and buffer. Occupied San Diego CAWR foraging and nesting habitat should be avoided or mitigated based on the proposed impacts to be analyzed in a future biological report. The San Diego CAWRs at the Campground are somewhat tolerant of humans, so limited activities within territories could potentially proceed within them outside of the breeding season.

Other Observations

Orange-throated whiptails (*Aspidoscelis hyperythra*), a CDFW Watch List species occurs in the habitat on the south and east slopes of the campground. This species seems widespread around the campground and is a target of conservation under the Multiple Species Conservation Program (MSCP).

A singing Rufous-crowned Sparrow (*Aimophila ruficeps*), a CDFW Watch List species, was observed on the slope above Lake Jennings and well outside off the planned Project boundary. This species is a target of conservation under the Multiple Species Conservation Program (MSCP).

Certification

I certify that the information in this survey report and attached exhibits fully and accurately represent my work. The results of focused surveys for sensitive species are typically considered valid for one year by the USFWS and CDFW. If you have any questions or require additional information, please email (ben@tierradata.net) or call me at (614) 499-3271.

Sincerely,



References

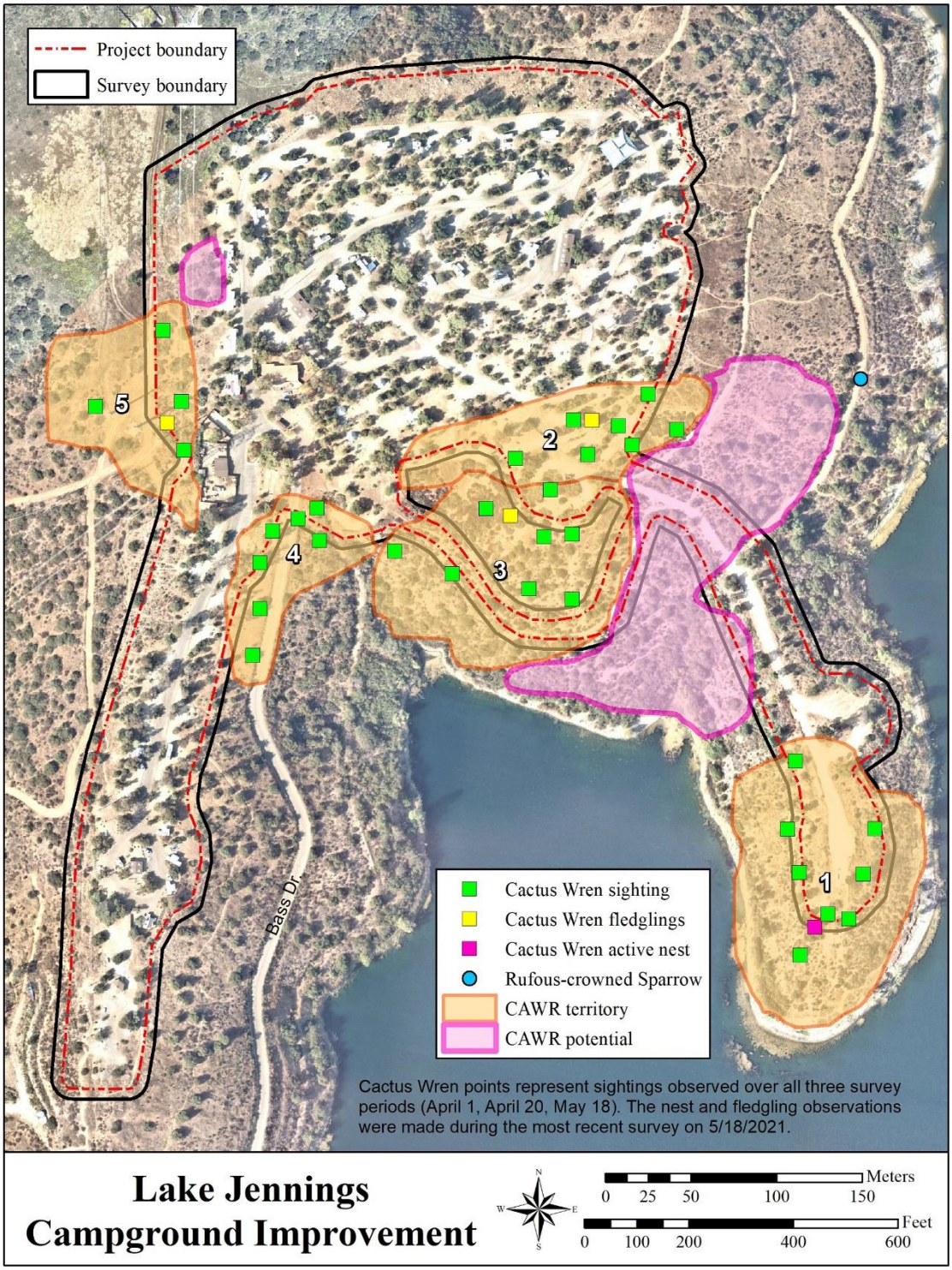
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Map 1. The habitat in use by nesting San Diego Cactus Wrens around the Lake Jennings Campground in spring 2021 (gold). Habitat which could become nesting habitat for CAWR in the future (pink) and a selection of sightings including the location of fledglings and active nests during the final survey are noted as well.

Photos



Photo 1: The territory 1 male singing on Sentry Point. 4/1/21.



Photo 2: The territory 1 pair while nest building on 4/20/21.



Photo 3: The territory 2 female foraging at an occupied campsite minutes after the campers left to go fishing. 4/20/21.



Photo 4: The territory 3 male finishing a nest immediately adjacent to a foot trail. 4/1/21.



Photo 5: The territory 4 male in territory 5 drinking nectar from a coast prickly pear. 5/18/21.



Photo 6: The Rufous-crowned Sparrow observed on April 1st, 2021.

Tierra Data, Inc.
10110 W. Lilac Road
Escondido, CA 92026
(760) 749-2247

MEMO

To: Kim Baranek, Baranek Consulting

Cc: Stephen Nunez, KTU+A

From: Ben Van Allen PhD, Biologist
Derek Langsford PhD, Principal Scientist

Date: March 28, 2025

Subject: Lake Jennings Campground: San Diego Cactus Wren Survey results

Dear Kim,

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burn. The well-developed coastal scrub habitat that remains around the southern half of the campground contains substantial stands of coast prickly pear (*Opuntia littoralis*). During a biological constraints survey and a CAWR survey at the Lake Jennings Campground in 2021, TDI biologists Derek Langsford and Ben Van Allen documented multiple pairs of San Diego CAWR using this habitat. As the proposed project at the site to improve the campground could impact some foraging and breeding habitat for the San Diego CAWR that live around the Campground, surveys for San Diego CAWR were scheduled to determine how much of the habitat around the campground is used.

Results

Surveys for San Diego CAWR were conducted March 17, 24 and 28, by TDI avian biologist Ben Van Allen (Table 1). Conditions were good for observing the species during all surveys and observations were made of nest building, territorial interactions and foraging during the surveys.

Table 1. Summary of Weather Conditions During Three Focused San Diego Cactus Wren Surveys at the HWD Campground Lake Jennings Project Area, San Diego County, California, 2025.

Survey #	Date	Surveyor (Species)*	Time	Weather Conditions
1	03/17/25	BV (CAWR)	0705-1000	90% overcast, 50-62oF, wind 3-5 mph
2	03/24/25	BV (CAWR)	0710-0930	0% overcast, 53-64oF, wind 1-3 mph
3	03/28/25	BV (CAWR)	0730-0930	90% overcast, 58-64oF, wind 1-3 mph

* BV – Ben Van Allen; CAWR – San Diego Cactus Wren

Overall, the surveys determined that San Diego CAWR are likely using all the suitable habitat around the Lake Jennings Campground, with five active territories detected during one or more surveys in approximately 11.6 acres of the survey area (Map 1). Of this area 4.25 or more acres of San Diego CAWR-occupied habitat occur within the existing campground area, proposed project activity areas, or buffer (Map 1). The territories which occur entirely within the survey area (i.e., excluding territory 5) are an average of 1.06 acres with territories 1 and 3 being smaller and territories 2 and 4 noticeably larger.

The existing five territories located during the survey likely represent saturation of the available habitat. Territory 4, for example, is strung along a linear ring of cactus stands on across the southwest corner of the main campground. Territory 2 controls the main patch of cactus on the slope south of the campground but is focused on nesting immediately adjacent to campsites near the top of the slope. Territory 3 is also split between the campground and stands of cactus further down the slope. Territories 1 and 5 are fully outside of the main project footprint survey area to the east and west of the three territories within parts of the campground.

Some habitat within the survey area and within CAWR territories contains cactus which is likely too small to support San Diego CAWR nesting. However, these stands of cactus are still valuable foraging and shelter habitats and are much closer to reaching the size required for nesting than recently planted cactus. With time, and in some areas, the appropriate management, these areas should be able to support San Diego CAWR territories

San Diego CAWR around Lake Jennings were banded by US Geological Survey biologists up until 2019, and the majority of wrens observed in 2021 were banded. However, this survey conducted four years later observed no banded CAWR out of at least nine individuals observed. Cactus wrens can live for up to seven years, so these results are consistent with the banded individuals observed in 2021 being two or more years old already. It also indicates that most or all of the CAWR observed during these 2025 surveys were different individual CAWR. Despite being different wrens, they still used roughly the same habitat around the campground, evidencing the stability of the habitat and population at this site.

Conclusion

The San Diego CAWR surveys identified 5 territories within or partially within the campground surveys area and buffer. Occupied San Diego CAWR foraging and nesting habitat should be avoided or mitigated based on the proposed impacts to be analyzed in a future biological report. The San Diego CAWRs at the Campground are somewhat tolerant of humans, so limited activities within territories could potentially proceed within them outside of the breeding season.

Certification

I certify that the information in this survey report and attached exhibits fully and accurately represent my work. The results of focused surveys for sensitive species are typically considered valid for one year by the USFWS and CDFW. If you have any questions or require additional information, please email (ben@tierradata.net) or call me at (614) 499-3271.

Sincerely,



References

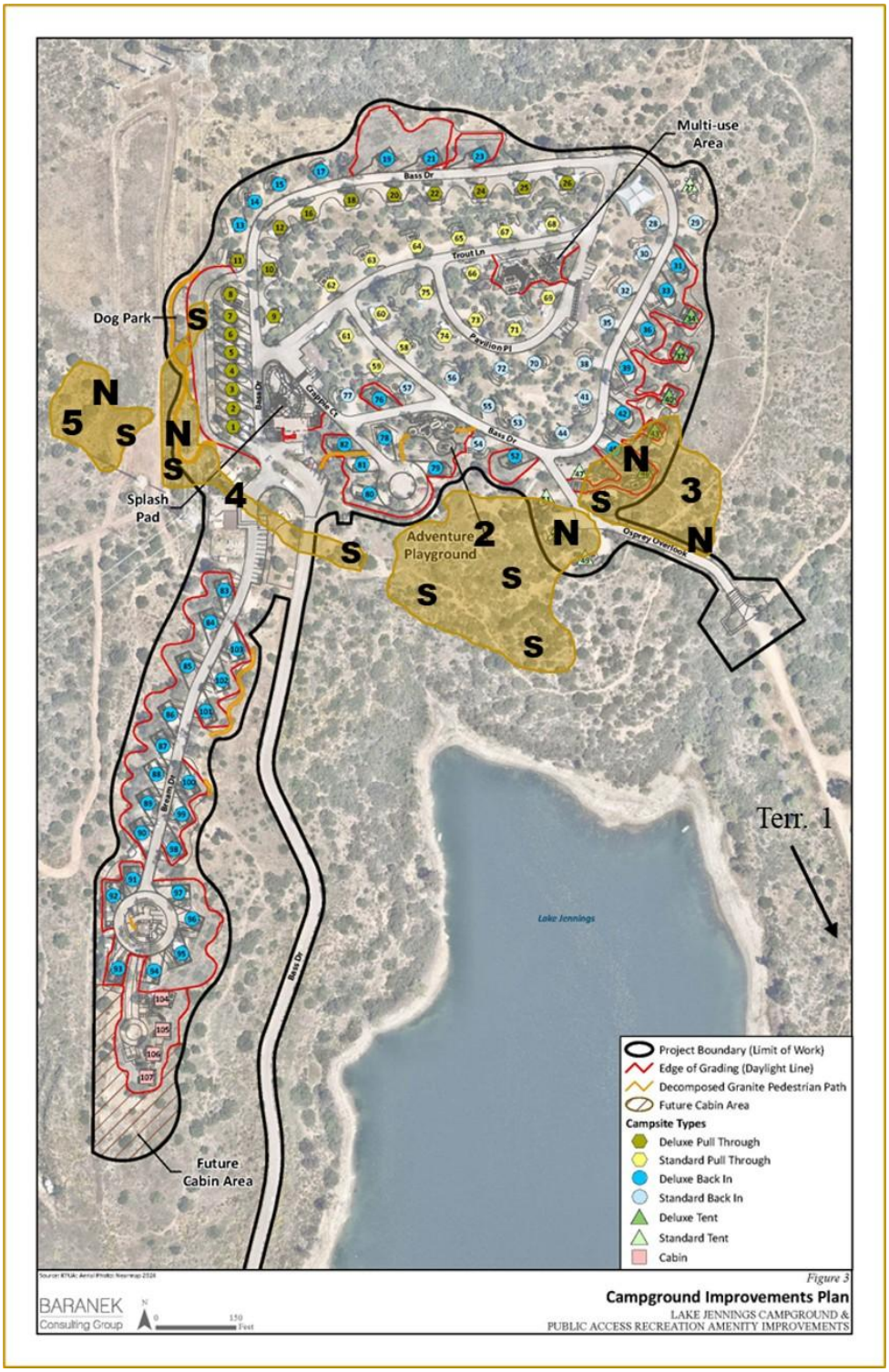
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Map 1. The habitat in use by nesting San Diego Cactus Wrens around the Lake Jennings Campground in spring 2025 (gold). Nest under construction during the late March survey window are marked N, a selected group of sightings of singing male CAWR are marked with S and the territory number is written on each territory.

Photos

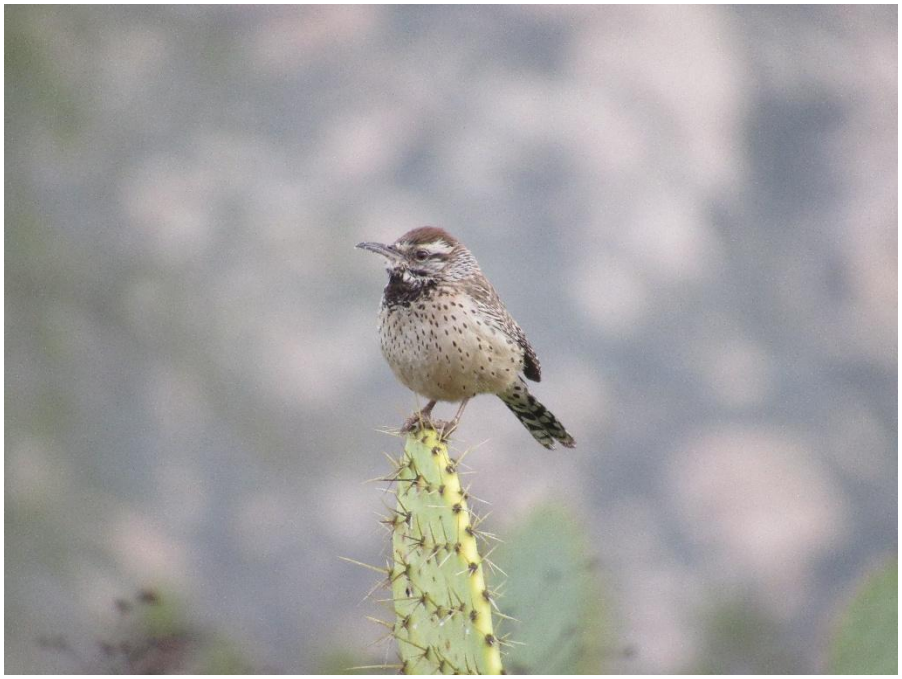


Photo 1: A territory 2 CAWR on 3/17/25.



Photo 2: A territory 3 CAWR on 3/28/25.

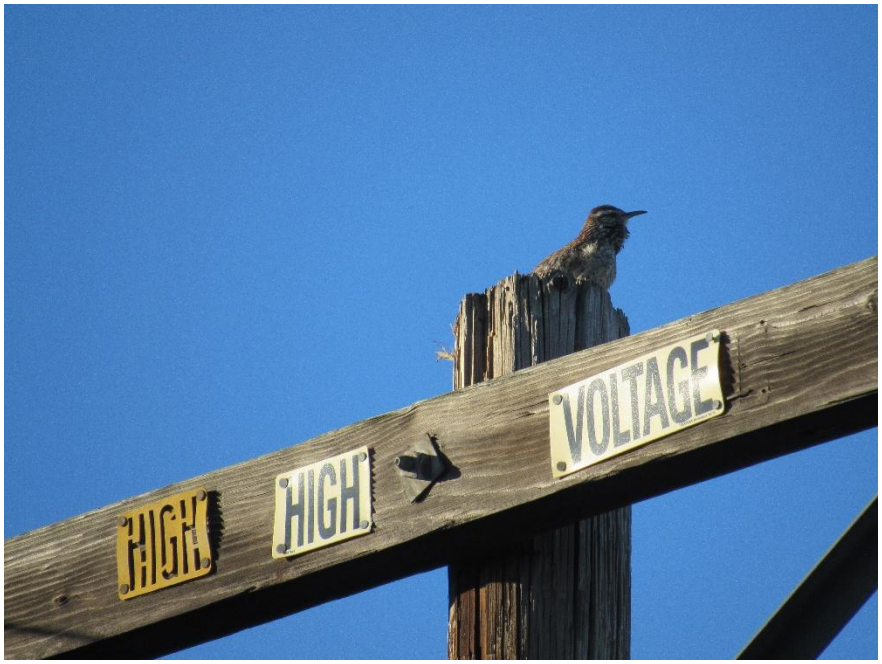


Photo 3: The territory 4 singing territorially from an overlook on 3/24/25.



Photo 4: A territory 4 CAWR in a cactus patch on 3/24/25.