BIOLOGICAL RESOURCES ASSESSMENT AND JURISDICTIONAL DELINEATION FOR THE ARROWBEAR BOAT STORAGE PROJECT, IN THE UNINCORPORATED AREA OF ARROWBEAR, CALIFORNIA

Prepared for:

Lilburn Corporation
1905 Business Center Drive
San Bernardino, CA 92408
909-890-1818

Prepared by:

Jennings Environmental, LLC
35414 Acacia Ave.
Yucaipa, CA 92399
909-534-4547

January 2025

Contents

SECTION 1.0 – INTRODUCTION

Jennings Environmental, LLC (Jennings) was retained by Lilburn Corporation (Lilburn) to conduct a literature review and reconnaissance-level survey for the Arrowbear Boat Storage Project (Project), within the unincorporated area of Arrowbear, San Bernardino County, California. The survey identified vegetation communities, the potential for the occurrence of special status species, or habitats that could support special status wildlife species, and recorded all plants and animals observed or detected within the Project boundary. This biological resources assessment is designed to address potential effects of the proposed project to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW) or the California Native Plant Society (CNPS). Information contained in this document is in accordance with accepted scientific and technical standards that are consistent with the requirements of the United States Fish and Wildlife Service (USFWS) and (CDFW). Additionally, the site was surveyed for any drainage features that would meet the definition of the Waters of the US (WOUS), Waters of the State (WOS), or CDFW jurisdiction.

1.1 PROJECT LOCATION

The Project is generally located in Section 33, Township 2 North, Range 2 West, and is depicted on the *Keller Peak* U.S. Geological Survey's (USGS) 7.5-minute quadrangles topographic map. More specifically the Project is located on the northern corner of the intersection of State Hwy 18 and Powers Lane, within the unincorporated area of Arrowbear, San Bernardino County, California. The site is surrounded by rural development to the west and north, with commercial development to the east and south. (Figures 1 and 2 in Appendix A).

1.2 PROJECT DESCRIPTION

The proposed Project is for the permitting and expansion of the existing boat storage facility.

SECTION 2.0 – METHODOLOGY

2.1 LITERATURE REVIEW

Prior to performing the field survey, existing documentation relevant to the Project site was reviewed. The most recent records were reviewed for the following quadrangle containing and surrounding the Project site: *Keller Peak and Harrison Mtn.,* USGS 7.5-minute quadrangles. The *Harrison Mtn.* quad was included in this search due to the site's proximity to its' border. These databases contain records of reported occurrences of federal- or state-listed endangered or threatened species, California Species of Concern (SSC), or otherwise special status species or habitats that may occur within or in the immediate vicinity of the Project site. These sources include:

- California Natural Diversity Database (CNDDB) managed by CDFW (CDFW 2024)
- USFWS Critical Habitat Mapper (USFWS 2024)

- California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2024), issuer of the California Rare Plant Rank.
- U.S. Fish and Wildlife (USFWS) threatened and endangered species occurrence GIS overlay;
- USDA Natural Resources Conservation Service (NRCS) Web Soil Survey;
- USGS National Map;
- Calwater Watershed Maps
- Environmental Protection Agency My Waters Maps
- USFWS Designated Critical Habitat Maps
- San Bernardino County Biotic Resources Map

2.2 SOILS

Before conducting the surveys, soil maps for San Bernardino County were referenced online to determine the types of soil found within the Project site. Soils were determined in accordance with categories set forth by the United States Department of Agriculture (USDA) Soil Conservation Service and by referencing the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2024).

2.3 BIOLOGICAL RECONNAISSANCE-LEVEL SURVEY

Jennings biologist, Gene Jennings, conducted the general reconnaissance survey within the Project site to identify the potential for the occurrence of special status species, vegetation communities, or habitats that could support special status wildlife species. The surveys were conducted on foot, throughout the Project site between 1000 and 1100 hours on September 18, 2024. Weather conditions during the survey included temperatures ranging from 65.4 to 67.3 degrees Fahrenheit, with clear skies, no precipitation, and 0.5 to 2.6 mile-per-hour winds. Photographs of the Project site were taken to document existing conditions (Appendix B).

2.4 JURISDICTIONAL FEATURES

A general assessment of jurisdictional waters regulated by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW was conducted for the proposed Project area. Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates the discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter- Cologne Water Quality Control Act (California Water Code, Division 7, §13000 et seq.). Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. The assessment was conducted by a desktop survey through the USGS National Hydrography Dataset for hydrological connectivity. An additional discussion of the regulatory framework is provided in Appendix C.

2.5 VEGETATION

All plant species observed within the Project site were recorded. Vegetation communities within the Project site were identified and qualitatively described. Plant communities were determined in accordance with the *Manual of California Vegetation*, *Second Edition* (Sawyer et al. 2009). Plant

nomenclature follows that of *The Jepson Manual, Second Edition* (Baldwin et al. 2012). A comprehensive list of the plant species observed during the survey is provided in Appendix D.

2.6 WILDLIFE

All wildlife and wildlife signs observed and detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, were recorded. Additional survey time was spent in those habitats most likely to be utilized by wildlife (native vegetation, wildlife trails, etc.) or in habitats with the potential to support state- and/or federally listed or otherwise special-status species. Notes were made on the general habitat types, species observed, and the conditions of the Project site. A comprehensive list of the wildlife species observed during the survey is provided in Appendix D.

SECTION 3.0 – RESULTS

3.1 LITERATURE REVIEW RESULTS

According to the CNDDB, CNPSEI, and other relevant literature and databases, 67 sensitive species, 20 of which are listed as threatened or endangered, and 3 sensitive habitats, have been documented in the *Keller Peak and Harrison Mtn.* quads. This list of sensitive species and habitats includes any State and/or federally-listed threatened or endangered species, CDFW-designated Species of Special Concern (SSC), and otherwise Special Animals. “Special Animals” is a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special status species.” The CDFW considers the taxa on this list to be those of greatest conservation need.

An analysis of the likelihood for the occurrence of all CNDDB-sensitive species documented in the *Keller Peak and Harrison Mtn.* quads is provided in Table 1, in Appendix D. This analysis takes into account species range as well as documentation within the vicinity of the project area and includes the habitat requirements for each species and the potential for their occurrence on the site, based on required habitat elements and range relative to the current site conditions. According to the databases, no sensitive habitat, including USFWS-designated critical habitat, occurs within or adjacent to the project site.

3.1.1 SOILS

After a review of the USDA Soil Conservation Service and by referencing the USDA NRCS Web Soil Survey (USDA 2024), it was determined that the Project site is located within the San Bernardino County National Forest Area, California area CA777. Based on the results of the database search, two (2) soil types is documented in the area (Figure 3 in Appendix A):

Running Springs-Cedarpines-Plaskett complex, 15 to 35 percent slopes (123). This soil is somewhat excessively drained with a very low to moderately low capacity to transmit water. This soil consists of residuum weathered from granitoid, typically ranges in elevation from 4,620 to 6,770 feet above mean sea level (amsl) and is not considered prime farmland.

Urban land (135). This classification is given to soils that are developed or no longer exist in a natural state. This classification is not considered prime farmland.

3.1.2 WILDLIFE CORRIDORS AND HABITAT CONSERVATION PLAN

According to the California Essential Habitat Connectivity Project, the Project Site is mapped within an area of low to less permeable for wildlife movement. Wildlife within the mountains will largely use trees as a mode of transportation within the forest. The proposed Project is within an existing developed portion of the mountains. Additionally, the proposed Project, does not propose the development of a building over three stories tall. Therefore, the ability for wildlife to move across the Project site or within the Project vicinity will remain unobstructed. The Project site is also not within or adjacent to a habitat conservation plan. Therefore, the proposed Project will have a less than significant impact on any current wildlife corridors or habitat conservation plans.

3.1.3 SPECIAL STATUS SPECIES BACKGROUND

Of the 67 species found within the *Keller Peak and Harrison Mtn.* quads, 20 have a special designation of either: federally listed, state listed, or a species of special concern (SSC) under California Fish and Game Code. The discussion below provides the background information on those species that have the potential to occur within the Project site or vicinity.

Southern rubber boa (Charina umbratical) – Threatened (State)

The State-listed as threatened southern rubber boa (rubber boa) is a small, rather stout-bodied snake with smooth scales and a blunt head and tail (Stewart et al. 2005). Adults grow to about 49.5-55.9 cm in length. Adults are light brown or tan in dorsal color with an unmarked yellow venter; juveniles are pale without a distinct margin between dorsal and ventral coloration (Stewart et al. 2005). Rubber boas are primarily fossorial and are rarely encountered on the surface, except on days and nights of high humidity and overcast sky. During warm months, it is active at night and on overcast days. It hibernates during winter, usually in crevices in rocky outcrops. Other potential hibernacula may be rotting stumps.

Typical habitat for this species is mixed conifer-oak forest or woodland dominated by two or more of the following species: Jeffrey pine (*Pinus jeffreyi*), yellow pine (*P. ponderosa*), sugar pine (*P. lambertiana*), incense cedar (*Calocedrus decurrens*), white fir (*Abies concolor*), and black oak (*Quercus kelloggii*) (Stewart et al., 2005). Rubber boas are usually found near streams or wet meadows or within or under surface objects with good moisture-retaining properties such as rotting logs (CDFW 2014). Much of the literature suggests that the rubber boa prefers mixed conifer-oak forests and woodlands between 5,000 and 8,000 feet in elevation, especially in canyons and on cool, north-facing slopes (CDFW 1987). However, the factors of overriding importance seem to be access to hibernation sites below the frost line and access to damp soil (Keasler 1982).

Rubber boas have been documented to the north, south, and west of the Project site.

Bald eagle (Haliaeetus leucocephalus) – Delisted (Federal)/ Endangered (State)

The bald eagle (BAEA) was a federally-listed species until 2007 when it was delisted because of the increase in population. However, it remains a State-listed endangered species and is covered under the Migratory Bird Treaty Act (MBTA). BAEA are distinguished by a white head and white tail feathers, are powerful, brown birds that may weigh 14 pounds, and have a wingspan of 8 feet. Male eagles are smaller,

weighing as much as 10 pounds, and have a wingspan of 6 feet. Sometimes confused with Golden Eagles, BAEA are mostly dark brown until they are four to five years old and acquire their characteristic coloring. They live near rivers, lakes, and marshes where they can find fish, their staple food. BAEA will also feed on waterfowl, turtles, rabbits, snakes, and other small animals and carrion. BAEA requires a good food base, perching areas, and nesting sites. Their habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts (CDFW 2016). In winter, the birds congregate near open water in tall trees for spotting prey and night roosts for sheltering (CDFW 1999). They mate for life, choosing the tops of large trees to build nests, which they typically use and enlarge each year. In most of California, the breeding season lasts from about January through July or August (CDFW 2016). Nests may reach 10 feet across and weigh a half-ton. They may also have one or more alternate nests within their breeding territory (CDFW 2016). The young eagles are flying within three months and are on their own about a month later.

According to the CNDDB, the nearest occurrence for the BAEA is 5.5 miles northwest of the Project site, near Lake Arrowhead.

California spotted owl (Strix occidentalis) – SSC

The California spotted owl (SPOW) is considered a SSC by the CDFW and is listed as a Sensitive Species by the U.S. Forest Service. The SPOW breeds and roosts in forests and woodlands with large old trees and snags, high basal areas of trees and snags, dense canopies (≥70% canopy closure), multiple canopy layers, and downed woody debris (Verner et al. 1992a, as cited in Davis and Gould 2008). Large, old trees are the key component; they provide nest sites and cover from inclement weather and add structure to the forest canopy and woody debris to the forest floor. These characteristics typify old-growth or late-seral-stage habitats (Davis and Gould 2008). Because the SPOW selects stands that have higher structural diversity and significantly more large trees than those generally available, it is considered a habitat specialist (Moen and Gutiérrez 1997, as cited in Davis and Gould 2008). In southern California, SPOW principally occupy montane hardwood and montane hard-wood-conifer forests, especially those with canyon live oak (*Quercus chrysolepis*) and bigcone Douglas-fir (*Pseudotsuga macrocarpa*), at mid- to high elevations (Davis and Gould 2008).

SPOW prey on small mammals, particularly dusky-footed woodrats (*Neotoma fuscipes*) at lower elevations (oak woodlands and riparian forests) and throughout southern California. The SPOW breeding season occurs from early spring to late summer or fall. Breeding spotted owls begin pre-laying behaviors, such as preening and roosting together, in February or March and juvenile owl dispersal likely occurs in September and October (Meyer 2007). The SPOW does not build its own nest but depends on finding suitable, naturally occurring sites in tree cavities or on broken-topped trees or snags, on abandoned raptor or common raven (*Corvus corax*) nests, squirrel nests, dwarf mistletoe (*Arceuthobium* spp.) brooms, or debris accumulations in trees. In the San Bernardino Mountains, platform nests predominate (59%) and were in trees with an average diameter at breast height (dbh) of 75 cm, whereas cavity nest trees and broken-top nest trees were significantly larger (mean dbh of 108.3 cm and 122.3 cm, respectively).

According to LaHaye and Gutierrez (2005), urbanization in the form of primary and vacation homes has degraded or consumed some forest in most mountain ranges. The results of spotted owl surveys conducted between 1987 and 1998 in the San Bernardino Mountains indicated that a large area of potentially-suitable spotted owl habitat, enough to support 10-15 pairs, existed between Running Springs and Crestline (LaHaye and others 1999, as cited in LaHaye and Gutierrez 2005). However, only four pairs

have been found in this area, and owls were found only in undeveloped sites. Thus, residential development within montane forests may preclude spotted owl occupancy, even when closed-canopy forests remain on developed sites.

Per the CNDDB Spotted Owl Observations Database (2024), the nearest documented SPOW activity center (roosting or nesting site) is approximately 0.54 miles northwest of the Project site.

San Bernardino flying squirrel (Glaucomys oregonensis californicus) – SSC

The San Bernardino flying squirrel (flying squirrel) is considered a SSC by the CDFW and is listed as a Sensitive Species by the U.S. Forest Service. The flying squirrel is a nocturnally active, arboreal squirrel that is distinguished by the furred membranes extending from wrist to ankle that allow squirrels to glide through the air between trees at distances up to 91 meters (300 feet) (Wolf 2010). The San Bernardino flying squirrel is the most southerly distributed subspecies of northern flying squirrel (*Glaucomys sabrinus*) and is paler in color and smaller than most other northern flying squirrel subspecies. It inhabits high-elevation mixed conifer forests comprised of white fir, Jeffrey pine, and black oak between ~4,000 to 8,500 feet. It has specific habitat requirements that include associations with mature forests, large trees and snags, closed canopy, downed woody debris, and riparian areas, and it is sensitive to habitat fragmentation. It specializes in eating truffles (e.g. hypogeous mycorrhizal sporocarps) buried in the forest floor as well as arboreal lichens in winter when truffles are covered with snow and unavailable (Wolf 2010). This flying squirrel historically occurred as three isolated populations in the San Gabriel, San Bernardino, and San Jacinto mountain forests.

Flying squirrel populations are adversely affected by habitat fragmentation. Rosenberg and Raphael (1984) found that in northwestern California, the abundance of squirrels increased with stand size, they were generally absent in stands smaller than 20 hectares (ha), and approximately 75% of stands over 100 ha had flying squirrels. An additional problem with fragmented habitats is the constraints that open spaces pose to the movements of individuals and the colonization of unoccupied habitat patches. Mowrey and Zasada (1982) reported an average gliding distance of about 20 meters in *sabrinus*, with a maximum of 48 meters, and concluded that movements are unimpeded in areas with average openings of 20 meters and occasional openings of 30 to 40 meters.

The Flying Squirrels of Southern California is a project of the San Diego Natural History Museum (SDNHM), in collaboration with the U.S. Forest Service and the USFWS, to try to determine the distribution and habitat use of the flying squirrel in southern California. Per the SDNHM database, the nearest documented flying squirrel occurrence is approximately 1.83 miles southwest of the Project site, within a more dense tree canopy area.

3.1.4 JURISDICTIONAL WATERS

Aerial imagery of the site was examined and compared with the surrounding USGS 7.5-minute topographic quadrangle maps to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. The U.S. Fish and Wildlife Service National Wetland Inventory and Environmental Protection Agency (EPA) Water Program "My Waters" data layers were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site. Similarly, the Soil maps from the U.S. Department of Agriculture

(USDA) - Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2024) were reviewed to identify the soil series on-site and to check if they have been identified regionally as hydric soils. Upstream and downstream connectivity of waterways (if present) was reviewed in the field, on aerial imagery, and topographic maps to determine jurisdictional status. After a review of the aerials, it appeared that there was a jurisdictional feature on the western edge of the parcel.

3.1.5 HYDROLOGY AND HYDROLOGIC CONNECTIVITY

Hydrologically, the project site is located within an undefined Hydrologic Sub-Area (HSA 628.20), as identified on the Calwater Watershed maps. This undefined area comprises a 556,821-acre drainage area within the larger Deep Creek Watershed Area (Hydrologic Unit Code [HUC10] 1809020801, US Watershed Maps) (CalTrans, 2024). The Deep Creek watershed in Arrowbear is bordered to the north by the Bell Mountain Wash-Mojave River, Silver Creek-Rabbit Lake, and Crystal Creek-Lucerne Lake watersheds, to the east by the Bear Creek watershed, to the south by the Headwaters Santa Ana River and Upper Stan Ana River watersheds, and to the west by West Fork Mojave River watershed. (Figure 4 in Appendix A).

3.1.6 DESIGNATED CRITICAL HABITAT

The site is not located within or adjacent to any USFWS-designated Critical Habitat. No further action is required.

3.2 FIELD STUDY RESULTS

3.2.1 VEGETATION

Large portions of the site are highly disturbed as the site is currently used as a boat storage facility. The habitat within the northern portion of the parcel would be described as disturbed Jeffrey pine forest and woodland (*Pinus jeffreyi* Forest & Woodland Alliance). Table 1 in Appendix D contains a list of all species observed.

3.2.2 WILDLIFE

The Project site is located within a developed area of Arrowbear. As mentioned above the site is currently used for boat storage. There is no habitat within the proposed Project footprint, as well as the immediate surrounding area, that is suitable for the sensitive species identified in the CNDDB search Table 1 in Appendix D contains a list of all species observed.

3.2.3 SPECIAL STATUS SPECIES

Southern rubber boa – Threatened (State)

Although this species has been observed within 5 miles of the project site, there is no suitable habitat within the Project boundary. The site is highly disturbed and is currently used for boat storage. Additionally, the Project site does not contain any fallen debris for hibernacula and there are no north-facing slopes to that provide any rock outcrops. The site is also separated from the occupied habitat by multiple development projects. Therefore, this species is considered absent from the Project site and the proposed Project will not affect rubber boa.

Bald eagle – Delisted (Federal)/ Endangered (State)

The Project is not within or adjacent to any suitable BAEA foraging or nesting habitat. The nearest suitable habitat for this species is the Lake Arrowhead shoreline, which is approximately 1.35 miles north of the Project site. Additionally, the proposed Project does not require the removal of large old-growth vegetation. Therefore, the proposed Project will not affect BAEA and no further investigation relative to this species is warranted or required.

California spotted owl – SSC

The Project site is within an already disturbed area and the immediate vicinity has been subject to ongoing human disturbances associated with the existing commercial and residential developments in the area for a long time. Therefore, it is unlikely that the immediate surrounding area would be utilized by SPOW for nesting or roosting. Additionally, the Project site lacks the basic habitat requirements for this species. Furthermore, this species has not been documented within the Project area or immediate surroundings. Although the U.S. Forest Service does not survey for SPOW on private property, the surrounding San Bernardino National Forest areas have been surveyed extensively by the Forest Service since the late 1980s. For the reasons discussed, the Project area is not occupied by SPOW, and the proposed Project will not affect this species.

San Bernardino flying squirrel – SSC

The Project site and surrounding area do not provide habitat suitable to support flying squirrels. The surrounding area is either residential or commercial developments. Furthermore, this species has been documented within approximately 1 mile of the Project site, in mixed conifer forest habitat. The habitat within the surrounding vicinity is not suitable to support flying squirrels and the proposed Project would not result in impacts to this species. Therefore, the proposed Project will not have an effect on this species.

3.2.4 NESTING BIRDS

The immediate surrounding area does contain habitat suitable for nesting birds (developed shrubs and tall trees). As such the Project is subject to the following nesting bird regulations. Recommendations for avoidance and minimization are in section 4.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918. This Act implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The Act has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The Act prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service.

California Fish and Game Code

The Project site is also subject to Sections 3503 and 3503.5 of the Fish and Game Code. Section 3503 states, “It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as

otherwise provided by this code or any regulation made pursuant thereto". And Section 3503.5 states, "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto".

3.2.5 JURISDICTIONAL WATERS

Waters of the United States and Waters of the State

The USACE has the authority to permit the discharge of dredged or fill material in Waters of the U.S. (WOUS) under Section 404 CWA. While the Regional Water Quality Board has authority over the discharge of dredged or fill material in Waters of the State under Section 401 CWA as well as the Porter-Cologne Water Quality Control Act. The Project area was surveyed with 100 percent visual coverage and no drainage features were present on site that met the definition for WOUS. As such, the subject parcel does not contain any wetlands, Waters of the U.S., or Waters of the State.

Fish and Game Code Section 1602 - State Lake and/or Streambed

The CDFW asserts jurisdiction over any drainage feature that contains a definable bed and bank or associated riparian vegetation. The Project area was surveyed with 100 percent visual coverage and no definable bed or bank features exist on the project site. As such, the subject parcel does not contain any areas under CDFW jurisdiction.

Section 4.0 – CONCLUSIONS AND RECOMMENDATIONS

Based on the literature review and personal observations made on-site and in the immediate vicinity, no State and/or federally listed threatened or endangered species are documented/or expected to occur within the Project site. Additionally, no plant species with the California Rare Plant Rank (CRPR) of 1 or 2 were observed on-site. No other sensitive species were observed within the Project area or buffer area.

Jurisdictional Features

There are no streams, channels, washes, or swales that meet the definitions of Section 1600 of the State of California Fish and Game Code (FGC) under the jurisdiction of the CDFW, Section 401 ("Waters of the State") of the Clean Water Act (CWA) under the jurisdiction of the Regional Water Quality Control Board (RWQCB), or "Waters of the United States" (WoUS) as defined by Section 404 of the CWA under the jurisdiction of the U.S. Army Corps of Engineers (Corps) within the subject parcel. Therefore, no permit from any regulatory agency will be required.

Nesting Birds

Since there is some habitat within the immediate surrounding area that is suitable for nesting birds in general, the following mitigation measure should be implemented if any future construction is proposed:

> Nesting bird nesting season generally extends from February 1 through September 15 in southern California and specifically, March 15 through August 31 for migratory passerine birds. To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist will conduct pre-construction Nesting Bird Surveys (NBS) prior to project-related disturbance to nestable vegetation to identify any active

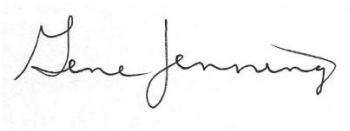
nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

Certification

I hereby certify that the statements furnished herein, and in the attached exhibits present data and information required for this analysis to the best of my ability, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief. This report was prepared in accordance with professional requirements and standards. Fieldwork conducted for this assessment was performed by me. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project proponent and that I have no financial interest in the project.

Please do not hesitate to contact me at 909-534-4547 should you have any questions or require further information.

Sincerely,



Gene Jennings
Principal/Regulatory Specialist

Appendices:

Appendix A – Figures
Appendix B – Site Photos
Appendix C – Regulatory Framework
Appendix D – Tables

Section 5 – REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, and T.J. Rosatti, and D.H. Wilken (editors) 2012 *The Jepson Manual: Vascular Plants of California, Second Edition.* University of California Press, Berkeley, CA.

Barbour, M.G., J.H. Burk, W.D. Pitts, F.S. Gilliam, and M.W. Schwartz. 1999 *Terrestrial Plant Ecology, Third Edition.* Addison Wesley Longman, Inc. Menlo Park, CA.

Bolster, B.C., editor. 1998. Terrestrial Mammal Species of Special Concern in California. Draft Final Report prepared by P.V. Brylski, P.W. Collins, E.D. Pierson, W.E. Rainey and T.E. Kucera. Report submitted to California Department of Fish and Game Wildlife Management Division, Nongame Bird and Mammal Conservation Program for Contract No. FG3146WM.

Butler, R., C. Schiffer, and A. Mann, 1991. Final report - San Bernardino flying squirrel. Unpublished report, U.S.D.A. Forest Service, San Bernardino Ranger District. 1-29 pp.

California Department of Fish and Wildlife (CDFW). 1987. Five Year Status Report: Southern Rubber Boa (*Charina bottae umbratica*). July 1, 1987.

California Department of Fish and Wildlife (CDFW). Bald Eagles in California. Retrieved from: https://www.wildlife.ca.gov/Conservation/Birds/Bald-Eagle.

California Department of Fish and Game (CDFW). California Interagency Wildlife Task Group. 1999. Life History Account for Bald Eagle. Sacramento, California.

California Department of Fish and Wildlife (CDFW) 2020 California Natural Diversity Database (CNDDB). RareFind Version 3.1.0. Wildlife and Habitat Data Analysis Branch. [Accessed January 2025]

California Native Plant Society (CNPS)2020 Inventory of Rare and Endangered Plants (online edition, v8-03 0.39). Rare Plant Scientific Advisory Committee, California Native Plant Society, Sacramento, California. Website http://www.rareplants.cnps.org; [Accessed September 2024].

Davis, J., and Gould Jr., G. 2008. California Spotted Owl (*Strix occidentalis occidentalis*). In W.D. Shuford and T. Gardali (Eds.), *California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1*. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

Hall, E.R. 1981. The Mammals of North America. John Wiley and Sons, New York. 2 Vol. 1181

Keasler, Gary L. 1982. Eastern San Bernardino Mountain southern rubber boa survey. Report prepared for the U.S. Department of Agriculture, Forest Service, San Bernardino National Forest, San Bernardino, California; 22 p. and 2 maps.

LaHaye, William S. and Gutiérrez, R. J. 2005. The Spotted Owl in Southern California: Ecology and Special Concerns for Maintaining a Forest-Dwelling Species in a Human-Dominated Desert Landscape. In

Barbara E. Kus and Jan L. Beyers (technical coordinators), *Planning for Biodiversity: Bringing Research and Management Together.* Gen. Tech. Rep. PSW-GTR-195. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture; 274 p.

Rosenberg, K. V., and M. G. Raphael. 1984. Effects of forest fragmentation on vertebrates in douglas-fir forests. Pp. 263-272 In: Wildlife 2000: Modeling habitat relationships of terrestrial vertebrates, (J. Verner, M. L. Morrison, and C. J. Ralph, eds). Univ. Wisconsin Press, Madison, WI. 1-470 pp.

San Diego Natural History Museum (SDNHM). 2017. Flying Squirrels of Southern California. Biodiversity Research Center of the Californias, SDNHM. Available at: http://flyingsquirrels.sdnhm.org/. (Accessed: January 2023).

Sawyer, J.O., Jr., T. Keeler-Wolf, J. Evens2009 *A Manual of* California *Vegetation, Second Edition*. California Native Plant Society, Sacramento, CA.

Stewart, Glenn R. 1988. The rubber boa (*Charina bottae*) in California, with particular reference to the southern subspecies, *C. b. umbratica*. In: De Lisle, H. F.; Brown, P. R.; Kaufman, B.; McGurty, B.M., editors. Proceedings of the conference on California herpetology. Southwestern Herpetologists Society, Special Publication (4); 131-138.

Stewart, Glenn R., Jennings, Mark R., and Goodman Jr., Robert H. 2005. Sensitive Species of Snakes, Frogs, and Salamanders in Southern California Conifer Forest Areas: Status and Management. USDA Forest Service Gen. Tech. Rep. PSW-GTR-195. 2005.

U.S. Fish and Wildlife Service (USFWS). National Wetlands Inventory. Website: http://wetlands.fws.gov. (Accessed: September 2024)

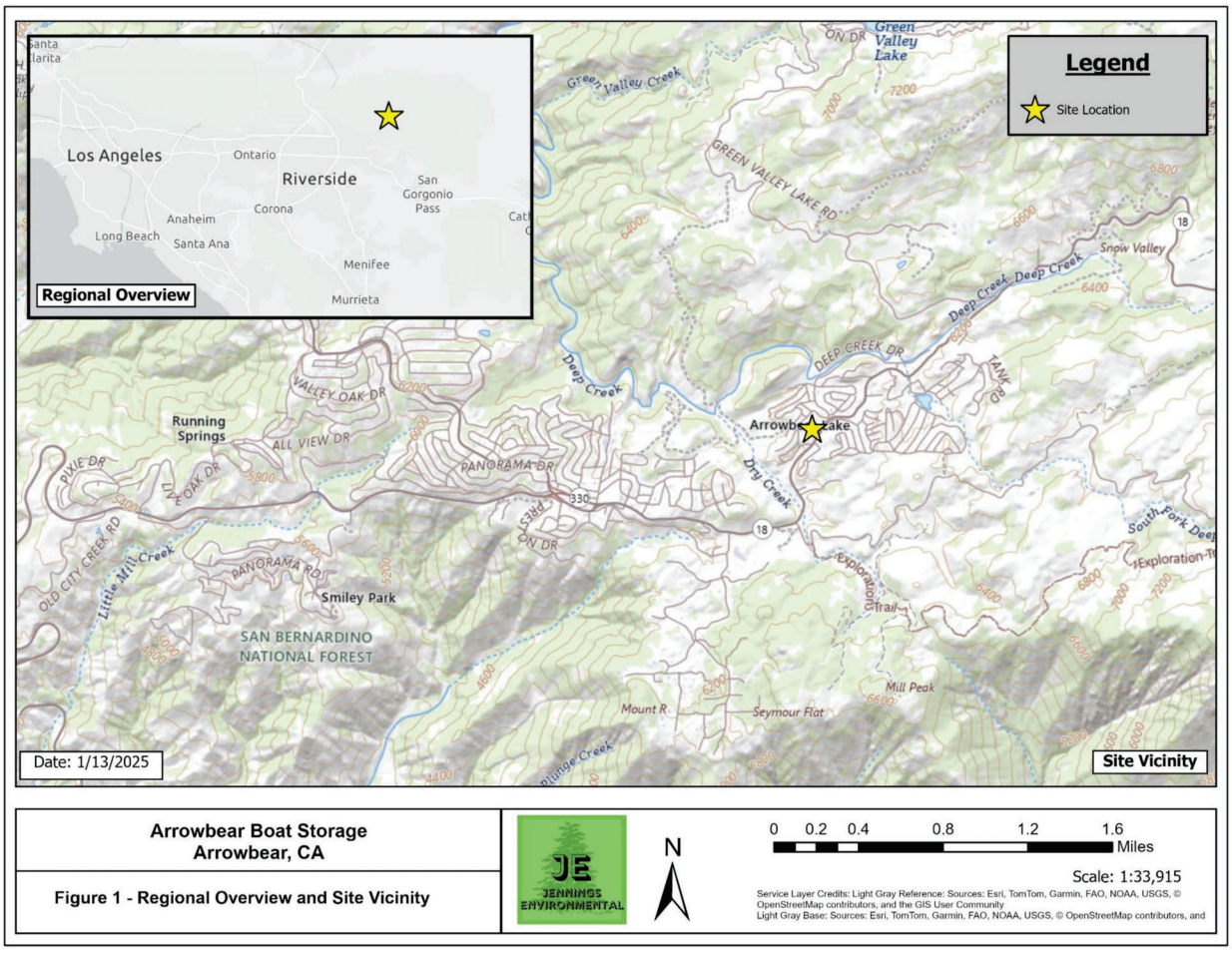
U.S. Department of Agriculture (USDA)2020 Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions [Online Edition]. Website https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx [Accessed January 2025].

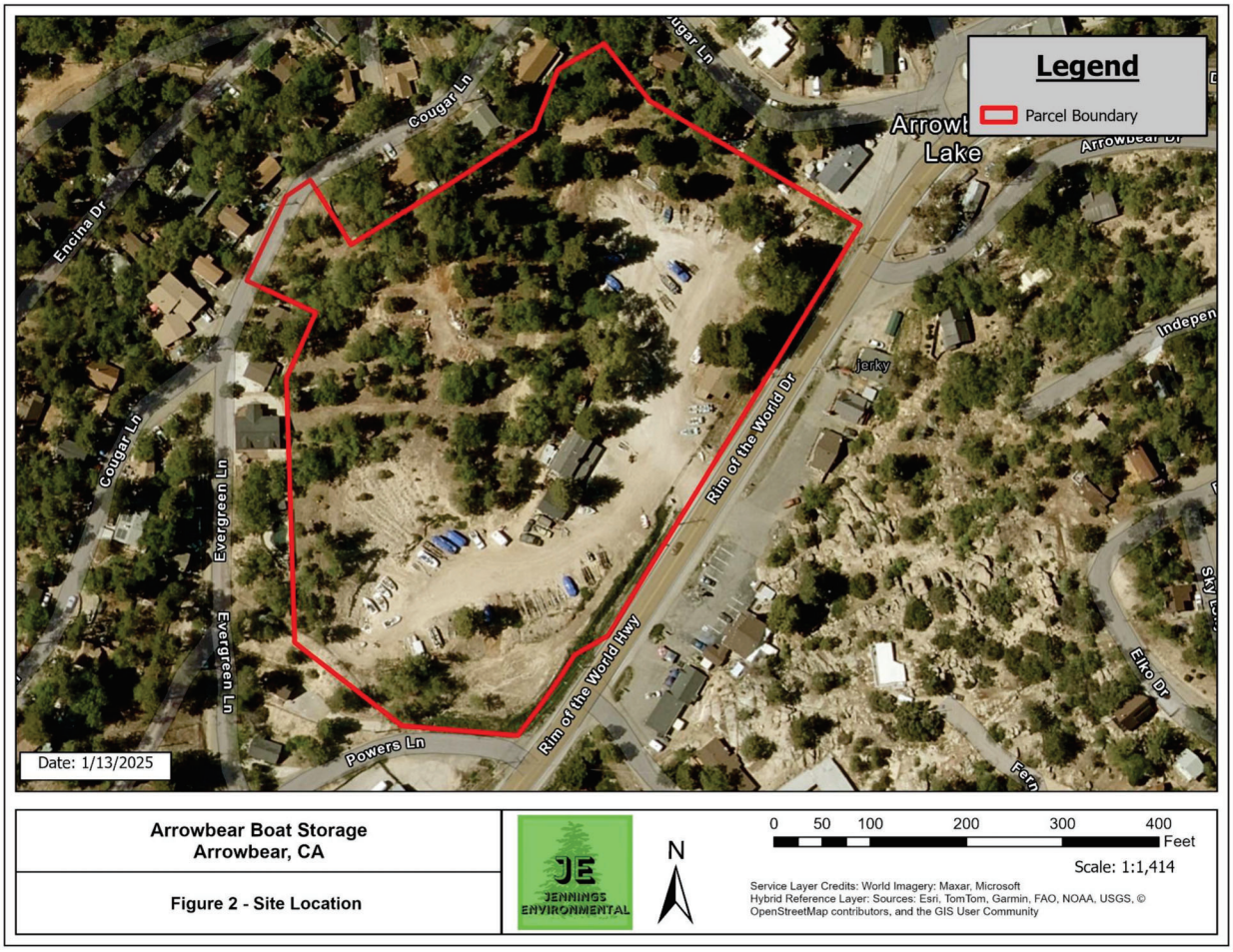
Walter, Hartmut, PhD. and Garrett, Kimbal L. 1981. The Effects of Human Activity on Wintering Bald Eagles in the Big Bear Valley, California. Unpublished report to U.S. Forest Service, 89 pp.

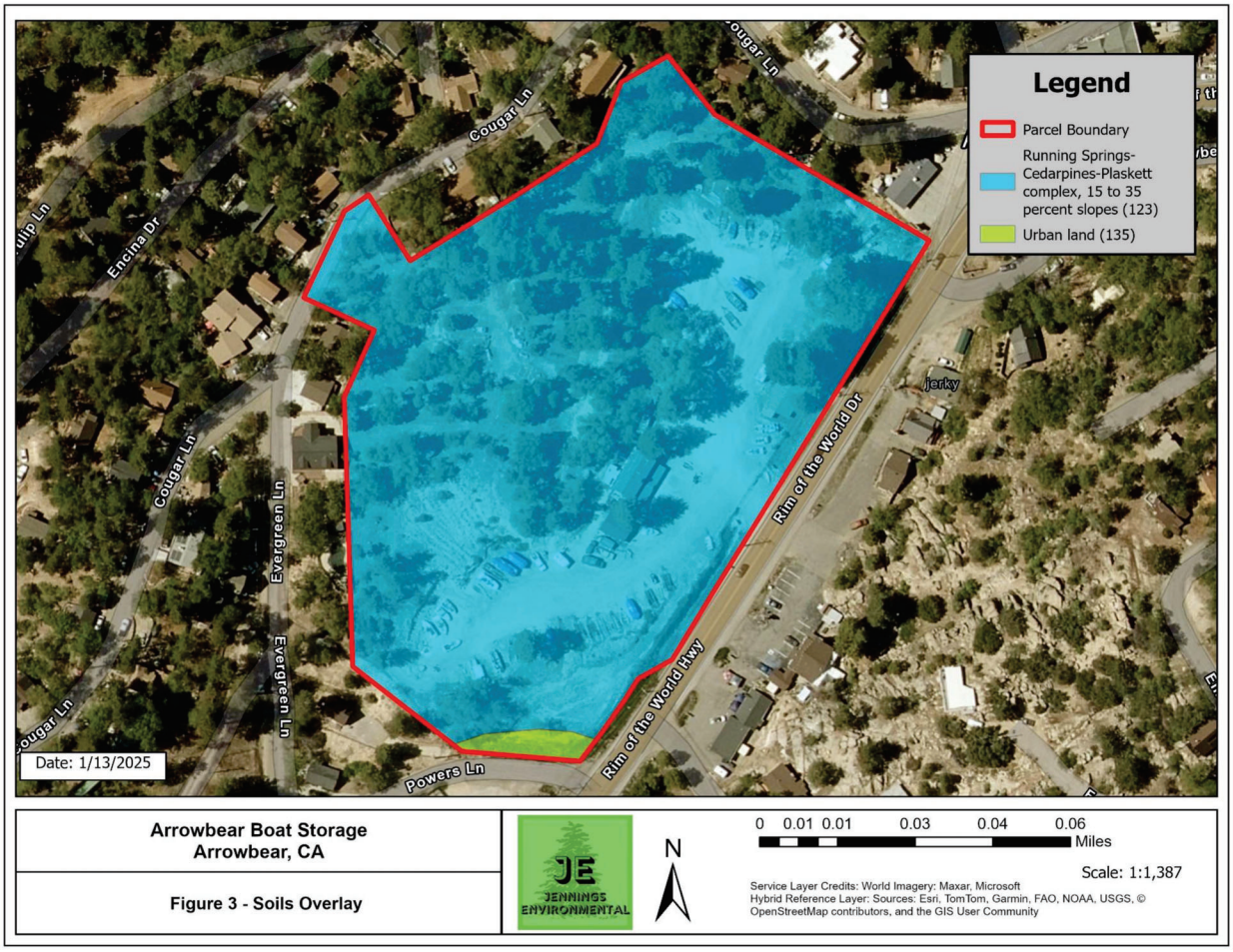
Williams. D.F. 1986. Mammalian Species of Special Concern in California. State of California Department of Fish and Game. 1 *USACE Wetlands Research Program Technical Report Y-87-1 (on-line edition), Wetlands Delineation Manual, Environmental Laboratory, 1987 (Wetland Delineation Manual).*12 pp.

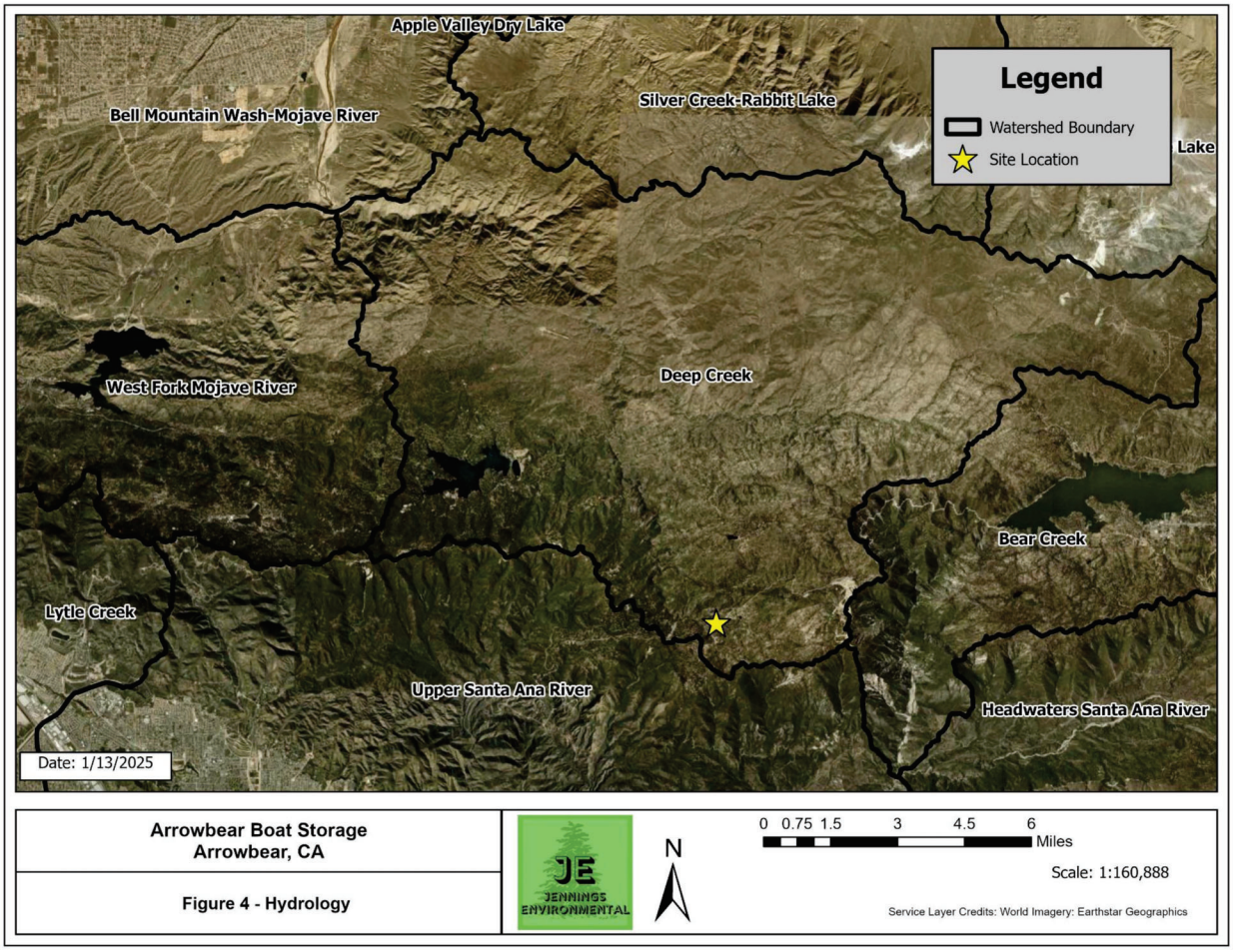
Wolf, Shaye, PhD. 2010. Petition to List The San Bernardino Flying Squirrel (*Glaucomys sabrinus californicus*) As Threatened Or Endangered Under The United States Endangered Species Act. Center for Biological Diversity, Petitioner August 24, 2010.

Appendix A – Figures


Legend
Site Location
Regional Overview
Los Angeles
Ontario
Riverside
San Gorgonio Pass
Anaheim
Corona
Long Beach
Santa Ana
Menifee
Murrieta
Green Valley Lake
Green Valley Creek
GREEN VALLEY LAKE RD
Snow Valley
Deep Creek
DEEP CREEK DR
TANK RD
Running Springs
VALLEY OAK DR
ALL VIEW DR
PANORAMA DR
PIXIE DR
OAK DR
OLD CITY CREEK RD
Little Mill Creek
PANORAMA RD
Smiley Park
SAN BERNARDINO NATIONAL FOREST
Dry Creek
Exploration Trail
Mill Peak
Mount R
Seymour Flat
Plunge Creek
Date: 1/13/2025
Site Vicinity
Arrowbear Boat Storage
Arrowbear, CA
Figure 1 - Regional Overview and Site Vicinity
JENNINGS ENVIRONMENTAL
N
0 0.2 0.4 0.8 1.2 1.6
Miles
Scale: 1:33,915
Service Layer Credits: Light Gray Reference: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
Light Gray Base: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and


Legend
Parcel Boundary
Cougar Ln
Encina Dr
Evergreen Ln
Rim of the World Dr
Rim of the World Hwy
Powers Ln
Elko Dr
Lake
jerky
Date: 1/13/2025
Arrowbear Boat Storage
Arrowbear, CA
Figure 2 - Site Location
JE
JENNINGS ENVIRONMENTAL
N
0 50 100 200 300 400
Feet
Scale: 1:1,414
Service Layer Credits: World Imagery: Maxar, Microsoft
Hybrid Reference Layer: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community


Legend
Parcel Boundary
Running Springs-Cedarpines-Plaskett complex, 15 to 35 percent slopes (123)
Urban land (135)
Cougar Ln
Encina Dr
Evergreen Ln
Rim of the World Dr
Rim of the World Hwy
Powers Ln
jerky
Date: 1/13/2025
Arrowbear Boat Storage
Arrowbear, CA
Figure 3 - Soils Overlay
JE
JENNINGS ENVIRONMENTAL
N
0 0.01 0.01 0.03 0.04 0.06
Miles
Scale: 1:1,387
Service Layer Credits: World Imagery: Maxar, Microsoft
Hybrid Reference Layer: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community


Apple Valley Dry Lake
Bell Mountain Wash-Mojave River
Silver Creek-Rabbit Lake
Lake
Legend
Watershed Boundary
Site Location
West Fork Mojave River
Deep Creek
Bear Creek
Lytle Creek
Upper Santa Ana River
Headwaters Santa Ana River
Date: 1/13/2025
Arrowbear Boat Storage
Arrowbear, CA
Figure 4 - Hydrology
JE
JENNINGS ENVIRONMENTAL
N
0 0.75 1.5 3 4.5 6
Miles
Scale: 1:160,888
Service Layer Credits: World Imagery: Earthstar Geographics

Appendix B – Photos

	Photo 1 – Southeast edge, at Entrance gate, facing northwest.
	Photo 2 – Southeast edge, at Entrance gate, facing north.

	Photo 3 – Northeast corner, facing northwest.
	Photo 4 – Northeast corner facing west.

	Photo 5 – Center of Parcel, facing southeast.
	Photo 6 – Center of Parcel, facing south.

Appendix C – Regulatory Framework

1.1 FEDERAL JURISDICTION

1.1.1 United States Army Corps of Engineers

Activities within inland streams, wetlands, and riparian areas in California are regulated by agencies at the federal, state, and regional levels. At the federal level, the U.S. Army Corps of Engineers (USACE) Regulatory Program regulates activities within wetlands and waters of the US pursuant to Section 404 of the Federal Clean Water Act (CWA).

At the state level, the California Department of Fish and Wildlife (CDFW) regulates activities within the bed, bank, and associated habitat of a stream under the Fish and Game Code §§ 1600–1616. The California State Water Resources Board (SWRB) delegates authority at the regional level to Regional Water Quality Control Boards (RWQCB) that are responsible for regulating discharge into waters of the US under Section 401 of the federal CWA and waters of the State under the California Porter-Cologne Water Quality Act.

The CWA was implemented to maintain and restore the chemical, physical, and biological integrity of the Waters of the United States (33 Code of Federal Regulations [CFR] Part 328 Section 328.3). "Waters of the US" are defined as follows:

> **§ 328.3 Definitions.**
> For the purpose of this regulation these terms are defined as follows:
> (a) *Waters of the United States* means:
> (1) Waters which are:
> (i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
> (ii) The territorial seas; or
> (iii) Interstate waters, including interstate wetlands;
> (2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
> (3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section:
> (i) That are relatively permanent, standing or continuously flowing bodies of water; or
> (ii) That either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section;
> (4) Wetlands adjacent to the following waters:
> (i) Waters identified in paragraph (a)(1) of this section; or
> (ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3)(i) of this section and with a continuous surface connection to those waters; or
> (iii) Waters identified in paragraph (a)(2) or (3) of this section when the wetlands either alone or in combination with similarly situated

waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section;

(5) Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section:

(i) That are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3)(i) of this section; or

(ii) That either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section.

(b) The following are not ''waters of the United States'' even where they otherwise meet the terms of paragraphs (a)(2) through (5) of this section:

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

(2) Prior converted cropland designated by the Secretary of Agriculture The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;

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

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

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

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

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

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

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

(1) *Wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that

under normal circumstances do support, a prevalence of vegetation typically
adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(2) *Adjacent* means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes, and the like are ''adjacent wetlands.''

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

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

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

(6) *Significantly affect* means a material influence on the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section. To determine whether waters, either alone or in combination with similarly situated waters in the region, have a material influence on the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section, the
functions identified in paragraph (c)(6)(i) of this section will be assessed and the factors identified in paragraph (c)(6)(ii) of this section will be considered:

(i) Functions to be assessed:

(A) Contribution of flow;

(B) Trapping, transformation, filtering, and transport of materials (including nutrients, sediment, and other

pollutants);

(C) Retention and attenuation of floodwaters and runoff;

(D) Modulation of temperature in waters identified in paragraph (a)(1) of this section; or

(E) Provision of habitat and food resources for aquatic species located in waters identified in paragraph (a)(1) of this section;

(ii) Factors to be considered:

(A) The distance from a water identified in paragraph (a)(1) of this section;

(B) Hydrologic factors, such as the frequency, duration, magnitude, timing, and rate of hydrologic connections, including shallow subsurface flow;

(C) The size, density, or number of waters that have been determined to be similarly situated;

(D) Landscape position and geomorphology; an

(E) Climatological variables such as temperature, rainfall, and snowpack.

1.2 STATE JURISDICTION

The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the CWA as well as the California Porter-Cologne Water Quality Control Act (Porter-Cologne; California Water Code, Division 7, §13000 et seq.). Waters of the State are defined by Porter-Cologne as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code Section 13050(e)). Waters of the State broadly includes all waters within the State's boundaries (public or private), including waters in both natural and artificial channels.

1.2.1 Regional Water Quality Control Board

Under Porter-Cologne, the State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Boards (RWQCB) regulate the discharge of waste into waters of the State. Discharges of waste include "fill, any material resulting from human activity, or any other 'discharge' that may directly or indirectly impact 'waters of the state.'" Porter-Cologne reserves the right for the State to regulate activities that could affect the quantity and/or quality of surface and/or groundwaters, including isolated wetlands, within the State. Wetlands were defined as waters of the State if they demonstrated both wetland hydrology and hydric soils. Waters of the State determined to be jurisdictional for these purposes require, if impacted, waste discharge requirements (WDRs).

When an activity results in fill or discharge directly below the OHWM of jurisdictional waters of the United States (federal jurisdiction), including wetlands, a CWA Section 401 Water Quality Certification is required. If a proposed project is not subject to CWA Section 401 certification but

involves activities that may result in a discharge to waters of the State, the project may still be regulated under Porter-Cologne and may be subject to waste discharge requirements. In cases where waters apply to both CWA and Porter-Cologne, RWQCB may consolidate permitting requirements to one permit.

1.2.2 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, the California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation" (California Code of Regulations, Title 14, Section 1.72). The jurisdiction of CDFW may include areas in or near intermittent streams, ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams that are indicated on USGS maps, watercourses that may contain subsurface flows, or within the flood plain of a water body. CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW limits of jurisdiction typically include the maximum extents of the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

In a CDFW guidance of stream processes and forms in dryland watersheds (Vyverberg 2010), streams are identified as having one or more channels that may all be active or receive water only during some high flow event. Subordinate features, such as low flow channels, active channels, banks associated with secondary channels, floodplains, and stream-associated vegetation, may occur within the bounds of a single, larger channel. The water course is defined by the topography or elevations of land that confine a stream to a definite course when its waters rise to their highest level. A watercourse is defined as a stream with boundaries defined by the maximal extent or expression on the landscape even though flow may otherwise be intermittent or ephemeral.

Artificial waterways such as ditches (including roadside ditches), canals, aqueducts, irrigation ditches, and other artificially created water conveyance systems also may be under the jurisdiction of CDFW. CDFW may claim jurisdiction over these features based on the presence of habitat characteristics suitable to support aquatic life, riparian vegetation, and/or stream-dependent terrestrial wildlife. As with natural waterways, the limit of CDFW jurisdiction of artificial waterways includes the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

CDFW does not have jurisdiction over wetlands but has jurisdiction to protect against a net loss of wetlands. CDFW supports the wetland criteria recognized by USFWS; one or more indicators

of wetland conditions must exist for wetlands conditions to be considered present. The following is the USFWS accepted definition of a wetland:

> Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the lands supports hydrophytes, (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated withwater or covered by shallow water at some time during the growing season of each year (Cowardin et al. 1979).

In A Clarification of the U.S. Fish and Wildlife Service's Wetland Definition (Tiner 1989), the USFWS definition was further clarified "that in order for any area to be classified as wetland by the Service, the area must be periodically saturated or covered by shallow water, whether wetland vegetation and/or hydric soils are present or not; this hydrologic requirement is addressed in the first sentence of the definition." When considering whether an action would result in a net loss of wetlands, CDFW will extend jurisdiction to USFWS-defined wetland conditions where such conditions exist within the riparian vegetation that is associated with a stream or lake and does not depend on whether those features meet the three-parameter USACE methodology of wetland determination. If impacts to wetlands under the jurisdiction of CDFW are unavoidable, a mitigation plan will be implemented in coordination with CDFW to support the CDFW policy of "no net loss" of wetland habitat.

Appendix D – Tables

Table 1. Species Observed On-Site

Common Name	Scientific Name
Plants	
Jeffery pine	*Pinus jeffreyi*
Flatspine bur rageweed	*Ambrosia acanthicarpa*
Arroyo willow	*Salix lasiolepis*
California black oak	*Quercus kelloggii*
Douglas fir	*Pseudotsuga menziesii*
California wild rose	*Rosa californica*
California Incense cedar	*Calocedrus decurrens*
Ripgut brome	*Bromus diandrus*
Kennedy's buckwheat	*Eriogonum kennedyi*
Ponderosa pine	*Pinus ponderosa*
White fir	*Abies concolor*
Malta star thistle	*Centaurea melitensis*
California scrub oak	*Quercus berberidifolia*
Canyon live oak	*Quercus chrysolepis*
Russian star thistle	*Rhaponticum repens*
Common lady fern	*Athyrium filix-femina*
Birds	
Acon woodpecker	*Melanerpes formicivorus*
House finch	*Haemorhous mexicanus*
Stellar's jay	*Cyanocitta stelleri*
Dark-eyed junco	*Junco hyemalis*
Common raven	*Corvus corax*
Mountain chickadee	*Poecile gambeli*
Mammals	
Western Grey squirrel	*Sciurus griseus*
California Ground squirrel	*Otospermophilus beecheyi*

Table 2 – CNDDB Potential to Occur for the *Keller Peak and Harrison Mtn.* USGS 7.5 minute Quadrangles

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Acanthoscyphus parishii var. parishii	Parish's oxytheca	None,None	G4?T3T4, S3S4, 4.2	Chaparral, Lower montane coniferous forest	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	None,None	G5T3, S4, CDFW-WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Allium howellii var. clokeyi	Mt. Pinos onion	None,None	G3G4T2, S2, 1B.3, USFS-S	Great Basin scrub, pinyon and juniper woodland, meadows and seeps (edges). 1385-1800 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Androsace elongata ssp. acuta	California androsace	None,None	G5?T3T4, S3S4, 4.2	Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Anniella stebbinsi	Southern California legless lizard	None,None	G3, S3, CDFW-SSC, USFS-S	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Arizona elegans occidentalis	California glossy snake	None,None	G5T2, S2, CDFW-SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Aspidoscelis tigris stejnegeri	coastal whiptail	None,None	G5T5, S3, CDFW-SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Berberis nevinii	Nevin's barberry	Endangered,Endangered	G1, S1, 1B.1	Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low grade sandy washes. 90-1590 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Bombus crotchii	Crotch's bumble bee	None,Candidate Endangered	G2, S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Bombus morrisoni	Morrison bumble bee	None,None	G3, S1S2	From the Sierra-Cascade ranges eastward across the intermountain west. Food plant genera include Cirsium, Cleome, Helianthus, Lupinus, Chrysothamnus, and Melilotus.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Calochortus palmeri var. palmeri	Palmer's mariposa-lily	None,None	G3T2, S2, 1B.2	Meadows and seeps, chaparral, lower montane coniferous forest. Vernally moist places in yellow-pine forest, chaparral. 195-2530 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Calochortus plummerae	Plummer's mariposa-lily	None,None	G4, S4, 4.2	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Castilleja cinerea	ash-gray paintbrush	Threatened,None	G1G2, S1S2, 1B.2	Pebble plains, upper montane coniferous forest, Mojavean desert scrub, meadows and seeps, pinyon and juniper woodland. Endemic to the San Bernardino Mountains, in clay openings; often in meadow edges. 725-2860 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Castilleja lasiorhyncha	San Bernardino Mountains owl's-clover	None,None	G2?, S2?, 1B.2	Meadows and seeps, pebble plain, upper montane coniferous forest, chaparral, riparian woodland. Mesic to drying soils in open areas of stream and meadow margins or in vernally wet areas. 1140-2320 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Castilleja montigena	Heckard's paintbrush	None,None	G3, S3, 4.3	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Catostomus santaanae	Santa Ana sucker	Threatened,None	G1, S1, CDFW-SSC	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Centromadia pungens ssp. laevis	smooth tarplant	None,None	G3G4T2, S2, 1B.1	Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 5-1170 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Charina umbratica	southern rubber boa	None,Threatened	G2G3, S2, USFS-S	Found in a variety of montane forest habitats. Previously considered morphologically intermediate, recent (2022) genomic analysis clarifies individuals from Mt Pinos, Tehachapi Mts, and southern Sierra Nevada are southern rubber boa. Found in vicinity of streams or wet meadows; requires loose, moist soil for burrowing; seeks cover in rotting logs, rock outcrops, and under surface litter.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Chorizanthe parryi var. parryi	Parry's spineflower	None,None	G3T2, S2, 1B.1	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 90-1220 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Threatened,Endangered	G5T2T3, S1, USFS-S	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Dipodomys merriami parvus	San Bernardino kangaroo rat	Endangered,Endangered	G5T1, S1, CDFW-SSC	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Empidonax traillii extimus	southwestern willow flycatcher	Endangered,Endangered	G5T2, S3	Riparian woodlands in Southern California.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Endangered,Endangered	G4T1, S1, 1B.1	Coastal scrub, chaparral. In sandy soils on river floodplains or terraced fluvial deposits. 180-705 m.	Suitable habitat for this species does not occur on site. As such, this species

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
					is considered absent from the Project site.
Eriophyllum lanatum var. obovatum	southern Sierra woolly sunflower	None,None	G5T4, S4, 4.3	Lower montane coniferous forest, Upper montane coniferous forest	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Euchloe hyantis andrewsi	Andrew's marble butterfly	None,None	G3G4T2, S2	Inhabits yellow pine forest near Lake Arrowhead and Big Bear Lake, San Bernardino Mtns, San Bernardino Co, 5000-6000 ft. Hostplants are Streptanthus bernardinus and Arabis holboellii var pinetorum; larval foodplant is Descurainia richardsonii.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Eumops perotis californicus	western mastiff bat	None,None	G4G5T4, S3S4, CDFW-SSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Fritillaria pinetorum	pine fritillary	None,None	G4, S4, 4.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Subalpine coniferous forest, Upper montane coniferous forest	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Galium johnstonii	Johnston's bedstraw	None,None	G4, S4, 4.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Riparian woodland	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Glaucomys oregonensis californicus	San Bernardino flying squirrel	None,None	G5T1T2, S1S2, CDFW-SSC, USFS-S	Known from black oak or white fir dominated woodlands between 5200 - 8500 ft in the San Bernardino and San Jacinto ranges. May be extirpated from San Jacinto range. Needs cavities in trees/snags for nests and cover. Needs nearby water.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Haliaeetus leucocephalus	bald eagle	Delisted,Endangered	G5, S3, CDFW-FP, USFS-S	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Heuchera caespitosa	urn-flowered alumroot	None,None	G3, S3, 4.3	Cismontane woodland, Lower montane coniferous forest, Riparian forest (montane), Upper montane coniferous forest	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Heuchera parishii	Parish's alumroot	None,None	G3, S3, 1B.3	Lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest, alpine boulder and rock field. Rocky places. Sometimes on carbonate. 1340-3505 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Hulsea vestita ssp. parryi	Parry's sunflower	None,None	G5T4, S4, 4.3	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Imperata brevifolia	California satintail	None,None	G3, S3, 2B.1	Coastal scrub, chaparral, riparian scrub, mojavean desert scrub, meadows and seeps (alkali), riparian scrub. Mesic sites, alkali seeps, riparian areas. 3-1495 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Ivesia argyrocoma var. argyrocoma	silver-haired ivesia	None,None	G2T2, S2, 1B.2	Meadows and seeps, pebble plains, upper montane coniferous forest. In pebble plains and meadows with other rare plants. 1490-2960 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Lasiurus xanthinus	western yellow bat	None,None	G4G5, S3, CDFW-SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Lilium humboldtii ssp. ocellatum	ocellated Humboldt lily	None,None	G4T4?, S4?, 4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Lilium parryi	lemon lily	None,None	G3, S3, 1B.2	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest. Wet, mountainous terrain; generally in forested areas; on shady edges of streams, in open boggy meadows and seeps. 625-2930 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Malacothamnus parishii	Parish's bushmallow	None,None	GXQ, SX, 1A	Chaparral, coastal sage scrub. In a wash. 305-455 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Monardella macrantha ssp. hallii	Hall's monardella	None,None	G5T3, S3, 1B.3	Broadleafed upland forest, chaparral, lower montane coniferous forest, cismontane woodland, valley and foothill grassland. Dry slopes and ridges in openings. 700-1800 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Muhlenbergia californica	California muhly	None,None	G4, S4, 4.3	Chaparral, Coastal scrub, Lower montane coniferous forest, Meadows and seeps	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Neotamias speciosus speciosus	lodgepole chipmunk	None,None	G4T3T4, S2	Summits of isolated Piute, San Bernardino, and San Jacinto mountains. Usually found in open-canopy forests. Habitat is usually lodgepole pine forests in the San Bernardino Mts and chinquapin slopes in the San Jacinto Mts.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Nyctinomops femorosaccus	pocketed free-tailed bat	None,None	G5, S3, CDFW-SSC	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Oncorhynchus mykiss irideus pop. 10	steelhead - southern California DPS	Endangered,Candidate Endangered	G5T1Q, S1,	Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County). Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Packera bernardina	San Bernardino ragwort	None,None	G2, S2, 1B.2	Meadows and seeps, pebble plains, upper montane coniferous forest. Mesic, sometimes alkaline meadows, and dry rocky slopes. 1615-2470 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Pelazoneuron puberulum var. sonorense	Sonoran maiden fern	None,None	G5T4, S2, 2B.2, USFS-S	Meadows and seeps. Along streams, seepage areas. 60-930 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Perideridia parishii ssp. parishii	Parish's yampah	None,None	G4T3T4, S2, 2B.2	Lower montane coniferous forest, meadows and seeps, upper montane coniferous forest. Damp meadows or along streambeds-prefers an open pine canopy. 1470-2530 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Perognathus alticola alticola	white-eared pocket mouse	None,None	G2TH, SH, CDFW-SSC, USFS-S	Ponderosa and Jeffrey pine habitats; also in mixed chaparral and sagebrush habitats in the San Bernardino Mountains. Burrows are constructed in loose soil.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Phacelia mohavensis	Mojave phacelia	None,None	G4Q, S4, 4.3	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Pinyon and juniper woodland	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Phrynosoma blainvillii	coast horned lizard	None,None	G4, S4, CDFW-SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Piperia leptopetala	narrow-petaled rein orchid	None,None	G4, S4, 4.3	Cismontane woodland, Lower montane coniferous forest, Upper montane coniferous forest	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Rana draytonii	California red-legged frog	Threatened,None	G2G3, S2S3, CDFW-SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Rana muscosa	southern mountain yellow-legged frog	Endangered,Endangered	G1, S2, CDFW-WL, USFS-S	Disjunct populations known from southern Sierras (northern DPS) and San Gabriel, San Bernardino, and San Jacinto Mtns (southern DPS). Found at 1,000 to 12,000 ft in lakes and creeks that stem from springs and snowmelt. May overwinter under frozen lakes. Often encountered within a few feet of water. Tadpoles may require 2 - 4 yrs to complete their aquatic development.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Rhinichthys osculus ssp.	Santa Ana speckled dace	None,None	G5T1, S1, CDFW-SSC	Headwaters of the Santa Ana and San Gabriel rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temps of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Riversidian Alluvial Fan Sage Scrub	Riversidian Alluvial Fan Sage Scrub	None,None	G1, S1.1	Coastal scrub	This habitat type is absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Sidalcea malviflora ssp. dolosa	Bear Valley checkerbloom	None,None	G4G5T2, S2, 1B.2	Meadows and seeps, riparian woodland, lower montane coniferous forest, upper montane coniferous forest. Known from wet areas within forested habitats. Affected by hydrological changes. 1575-2590 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Sidalcea neomexicana	salt spring checkerbloom	None,None	G4, S2, 2B.2, USFS-S	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Alkali springs and marshes. 3-2380 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Sidalcea pedata	bird-foot checkerbloom	Endangered,Endangered	G1, S1, 1B.1	Meadows and seeps, pebble plains. Vernally mesic sites in meadows or pebble plains. 1840-2305 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Sidotheca caryophylloides	chickweed oxytheca	None,None	G4, S4, 4.3	Lower montane coniferous forest (sandy)	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Southern Mixed Riparian Forest	Southern Mixed Riparian Forest	None,None	G2, S2.1	Riparian forest	This habitat type is absent from the Project site.
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	None,None	G4, S4	Riparian woodland	This habitat type is absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Spea hammondii	western spadefoot	Proposed Threatened,None	G2G3, S3S4, CDFW-SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Streptanthus bernardinus	Laguna Mountains jewelflower	None,None	G3G4, S3S4, 4.3	Chaparral, Lower montane coniferous forest	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Streptanthus campestris	southern jewelflower	None,None	G3, S3, 1B.3, USFS-S	Chaparral, lower montane coniferous forest, pinyon and juniper woodland. Open, rocky areas. 605-2590 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Symphyotrichum defoliatum	San Bernardino aster	None,None	G2, S2, 1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 3-2045 m.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Taxidea taxus	American badger	None,None	G5, S3, CDFW-SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Thamnophis hammondii	two-striped gartersnake	None,None	G4, S3S4, CDFW-SSC, USFS-S	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Trichostema micranthum	small-flowered bluecurls	None,None	G4, S3, 4.3	Lower montane coniferous forest, Meadows and seeps	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.
Vireo bellii pusillus	least Bell's vireo	Endangered,Endangered	G5T2, S3	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Suitable habitat for this species does not occur on site. As such, this species is considered absent from the Project site.

Coding and Terms

E = Endangered T = Threatened C = Candidate FP = Fully Protected WL = Watch List SSC = Species of Special Concern R = Rare

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: "It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird."

State Fully Protected: The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Global Rankings (Species or Natural Community Level):

G1 = Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2 = Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
G3 = Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
G4 = Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5 = Secure – Common; widespread and abundant.
? = Uncertainty in the exact status of an element (could move up or down one direction from current rank)

Subspecies Level: Taxa which are subspecies or varieties receive a taxon rank (T-rank**)** attached to their G-rank. Where the G-rank reflects the condition of the entire species, the T-rank reflects the global situation of just the subspecies. For example: the Point Reyes mountain beaver, *Aplodontia rufa* ssp. *phaea* is ranked G5T2. The G-rank refers to the whole species range i.e., *Aplodontia rufa.* The T-rank refers only to the global condition of ssp. *phaea*.

State Ranking:

S1 = Critically Imperiled – Critically imperiled in the State because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.
S2 = Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the State.
S3 = Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the State.
S4 = Apparently Secure – Uncommon but not rare in the State; some cause for long-term concern due to declines or other factors.
S5 = Secure – Common, widespread, and abundant in the State.

California Rare Plant Rankings (CNPS List):

1A = Plants presumed extirpated in California and either rare or extinct elsewhere.
1B = Plants rare, threatened, or endangered in California and elsewhere.
2A = Plants presumed extirpated in California, but common elsewhere.
2B = Plants rare, threatened, or endangered in California, but more common elsewhere.
3 = Plants about which more information is needed; a review list.
4 = Plants of limited distribution; a watch list.

Threat Ranks:

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