HUME SOCAL CAMPGROUND PROJECT

SAN BERNARDINO COUNTY, CALIFORNIA

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

Delineation of State and Federal Jurisdictional Waters

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September 2023

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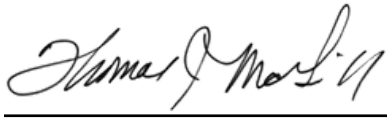
The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge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

Travis J. McGill
Biologist/Director



Thomas J. McGill, Ph.D.
Managing Director

September 2023

Executive Summary

ELMT Consulting (ELMT) has prepared this Delineation of State and Federal Jurisdictional Waters Report for the proposed Hume SoCal Campground Project located within Assessor Parcel Numbers (APNs) 0328-071-05, -07, -10, 121-40, and 121-42 (project site or site) located in the City of Green Valley Lake, San Bernardino County, California. The jurisdictional delineation documents the regulatory authority of the U.S. Army Corps of Engineers (Corps), the Regional Water Quality Control Board (Regional Board), and the California Department of Fish and Wildlife (CDFW) pursuant to Section 401 and 404 of the Federal Clean Water Act (CWA), the California Porter-Cologne Water Quality Control Act, and Sections 1600 *et. seq.* of the California Fish and Game Code.[1]

A total of seven (7) drainage features (Drainages 1-7) were observed within the boundaries of the project site during the field delineation. The on-site drainage features, after flowing off-site, flow into Deep Creek before ultimately flowing into the Mojave River. Therefore, the onsite drainage features would qualify as waters of the United States under the jurisdiction of the Corps, and would qualify as "waters of the State" under the regulatory authority of the Regional Board and CDFW. Refer to Table ES-1 for a summary of on-site jurisdictional areas.

Table ES-1: Jurisdictional Areas

Jurisdictional Feature	Stream Flow	Cowardin Class	Class of Aquatic Resource	Corps/Regional Board Waters of the State		CDFW Streambed		
				On-Site Jurisdiction		On-Site Jurisdictional Streambed		Associated Habitat
				Acreage	Linear Feet	Acreage	Linear Feet	Acreage
Drainage 1	Perennial	Riverine	Non-Section 10 Non-Wetland	0.95	3,382	0.95	3,382	1.48
Drainage 2	Ephemeral	Riverine	Non-Section 10 Non-Wetland	0.18	875	0.18	875	0
Drainage 3	Ephemeral	Riverine	Non-Section 10 Non-Wetland	0.03	303	0.03	303	0
Drainage 4	Perennial	Riverine	Non-Section 10 Non-Wetland	0.28	1,613	0.28	1,613	0.73
Drainage 5	Ephemeral	Riverine	Non-Section 10 Non-Wetland	0.094	1,504	0.094	1,504	0
Drainage 6	Ephemeral	Riverine	Non-Section 10 Non-Wetland	0.055	620	0.055	620	0
Drainage 7	Perennial	Riverine	Non-Section 10 Non-Wetland	0.25	1,523	0.25	1,523	0.75
			TOTALS	**1.839**	**9,820**	**1.839**	**9,820**	**2.96**

[1] The field surveys for this jurisdictional delineation were conducted on November 17, 2021 pursuant to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Corps 2008); and *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports* (Corps 2017); *The MESA Field Guide: Mapping Episodic Stream Activity* (CDFW 2014); and a *Review of Stream Processes and Forms in Dryland Watersheds* (CDFW 2010).

Approximately 1.839 acres (9,820 linear feet) of waters of the United States occur on-site. Likewise, the on-site drainage features exhibit characteristics consistent with CDFW's methodology and would be considered CDFW streambed totaling 4.8 acres (9,820 linear feet).

Any impacts to the on-site jurisdictional areas will require a Corps Clean Water Act Section 404 Permit, Regional Board CWA Section 401 Water Quality Certification, and a CDFW Section 1602 Lake and Streambed Alteration Agreement prior to Project implementation. However, based on the proposed project footprint, all of the onsite jurisdictional areas will be avoided and no impacts will occur. Refer to Sections 1-7 for a detailed analysis of site conditions and regulatory requirements.

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EXHIBITS

APPENDIX

Section 1 Introduction

This delineation has been prepared for the Hume SoCal Campground Project (project site, site) located near Green Valley Lake within Assessor Parcel Numbers 0328-071-05, -07, and -10, and 0328-121-40 and -42 in the unincorporated community of Green Valley Lake, San Bernardino County, California (Project) in order to document the potential jurisdictional authority of the U.S. Army Corps of Engineers (Corps), the Regional Water Quality Control Board (Regional Board), and the California Department of Fish and Wildlife (CDFW) pursuant to Section 401 and 404 of the Federal Clean Water Act (CWA), the California Porter-Cologne Water Quality Control Act and Sections 1600 *et seq.* of the California Fish and Game Code. The analysis presented in this report is supported by field surveys and verification of site conditions conducted on July 31, 2023 and August 2, 2023.

This jurisdictional delineation explains the methodology undertaken by ELMT Consulting (ELMT) to define the regulatory authority of the aforementioned regulatory agencies and documents the findings made by ELMT. This report documents the jurisdictional boundaries using the most up-to-date regulations, written policy, and guidance from the regulatory agencies.

1.1 PROJECT LOCATION

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

1.2 PROJECT DESCRIPTION

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

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

Phase 1 of the Project would involve the development of facilities to be used as a Junior High Camp. Proposed residential structures within the Phase 1 area include an expanded welcome center, private administration and guest speaker residencies, staff housing, and student dormitories. Phase 1 also includes the development of a gymnasium, bus parking, a snack shop, a chapel, converting an existing chapel to a

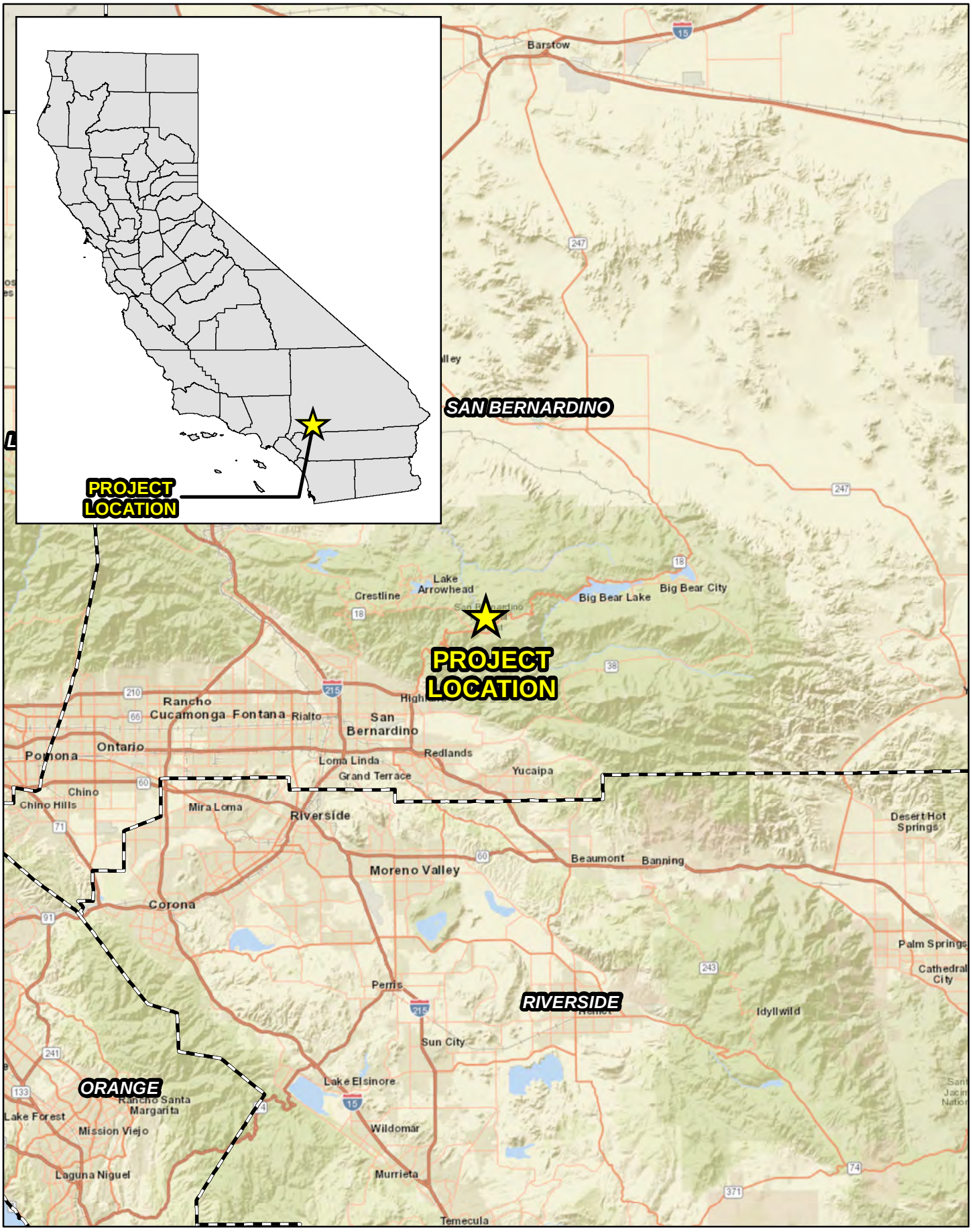
small meeting space, an expansion to the existing dining hall, a maintenance building, an amphitheater, and restrooms. Outdoor recreation facilities include grass quads. Existing and proposed facilities within Phase 1 would accommodate up to 988 guest occupants.

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

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

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

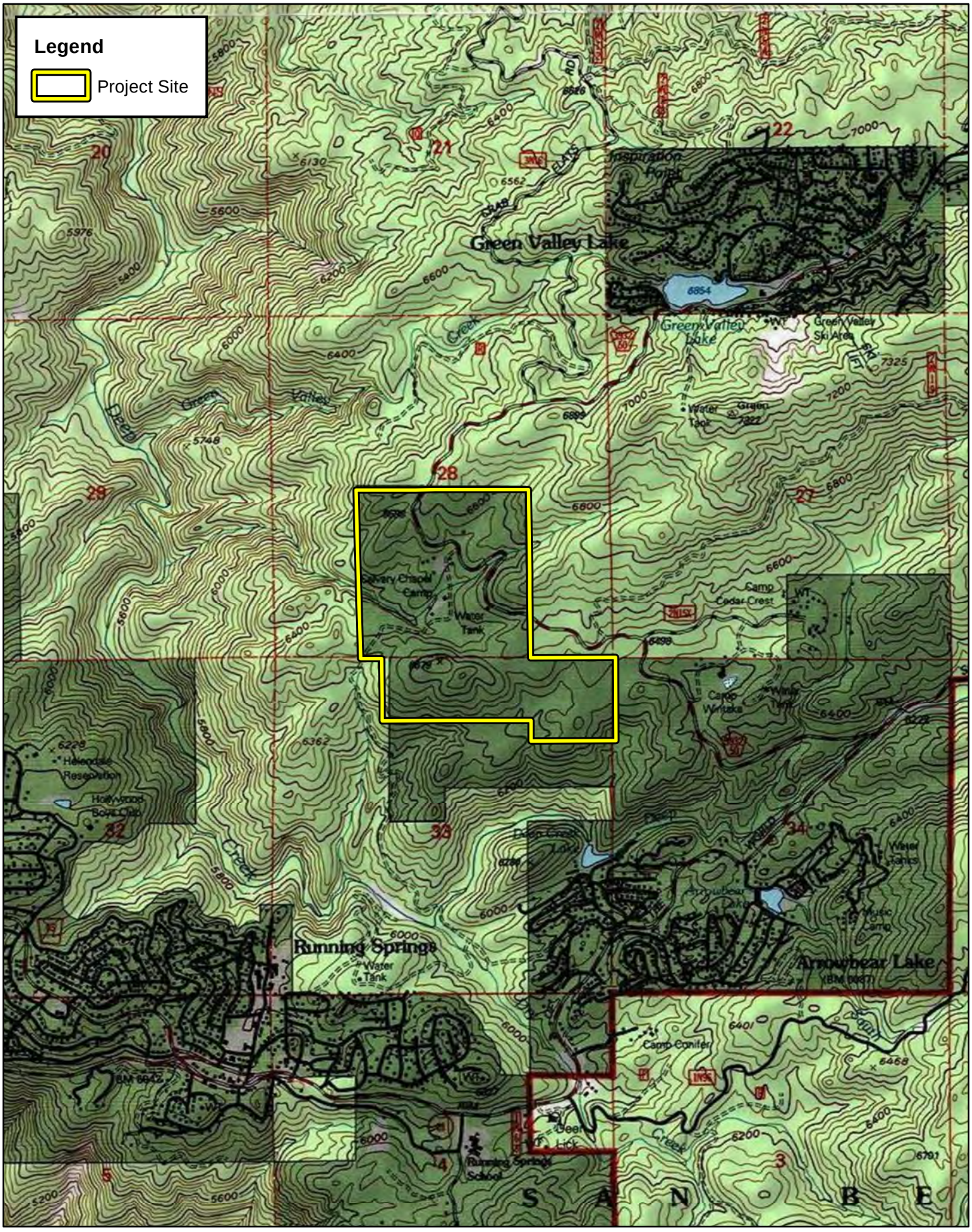
Phase 5 of the Project proposes the creation of a tent-based youth camp, Wildwood Camp. Residential structures proposed for this phase consist of semi-permanent insulated tent structures. Phase 5 also includes the development of restroom facilities with showers and an amphitheater. Outdoor recreation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



HUME SO CAL CAMPGROUND PROJECT

Regional Vicinity

Exhibit 1



ELMT CONSULTING

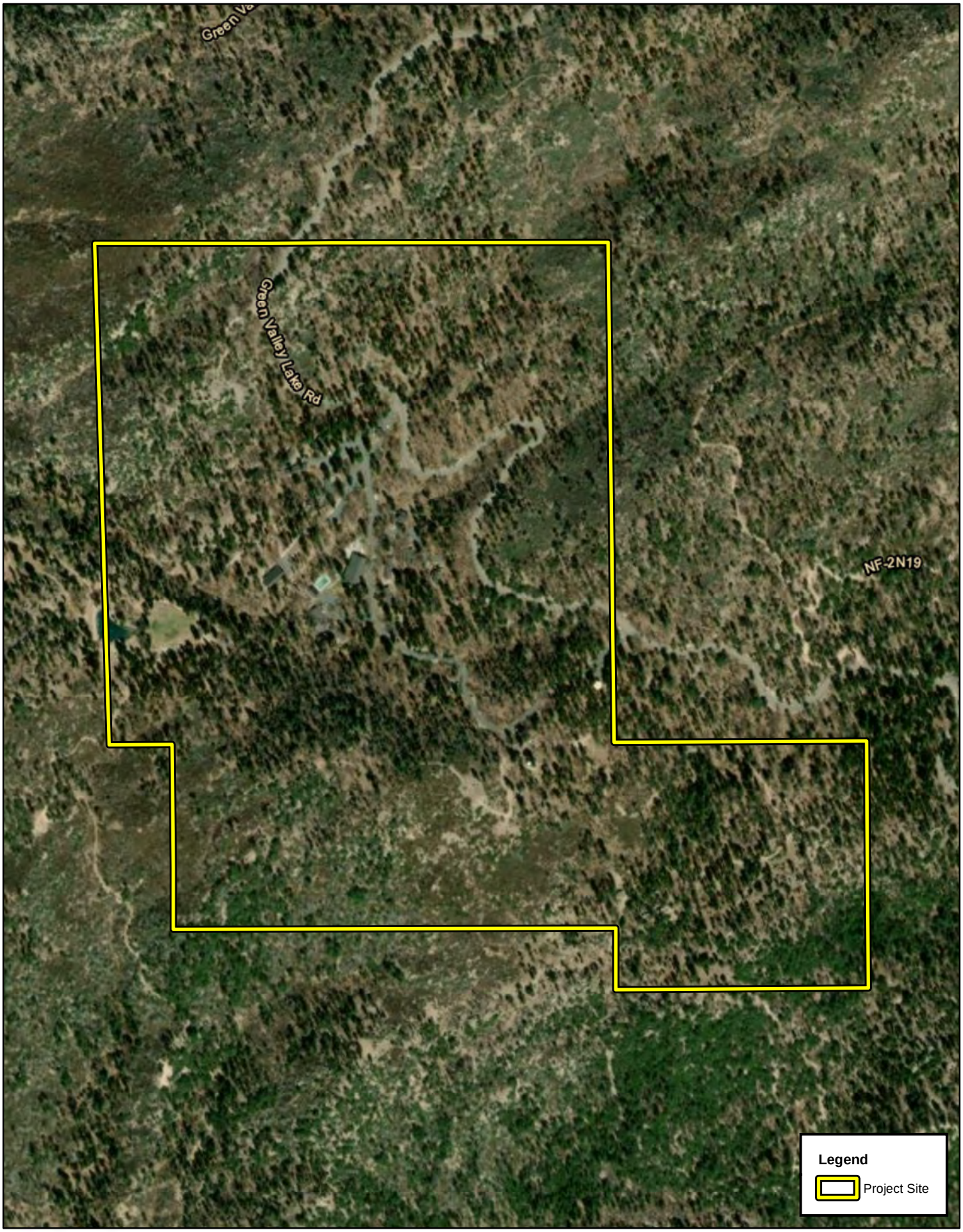
0 1,000 2,000 4,000 Feet

Source: USA Topographic Map, San Bernardino County

HUME SO CAL CAMPGROUND PROJECT

Site Vicinity

Exhibit 2



ELMT CONSULTING

0 500 1,000 2,000 Feet

HUME SO CAL CAMPGROUND PROJECT

Project Site

Source: ESRI Aerial Imagery, San Bernardino County

Exhibit 3

Section 2 Regulations

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Division regulates activities pursuant to Section 404 of the CWA, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research, and Sanctuaries Act. The Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act and the CDFW regulates activities under Sections 1600 *et seq*. of the California Fish and Game Code.

2.1 U.S. ARMY CORPS OF ENGINEERS

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the discharge of dredged or fill material into waters of the United States, including wetlands, pursuant to Section 404 of the CWA. The Corps and EPA define "fill material" to include any "material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States." Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and "materials used to create any structure or infrastructure in the waters of the United States."

2.2 REGIONAL WATER QUALITY CONTROL BOARD

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Boards that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board (SWRCB) assumes this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

Additionally, the California Porter-Cologne Water Quality Control Act gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Water Quality Control Act has become an important tool post *Solid Waste Agency of Northern Cook County vs. United States Corps of Engineers*[2] (SWANCC) and *Rapanos v. United States*[3] (Rapanos) court cases with respect to the State's regulatory authority over isolated and insignificant waters. Generally, any applicant proposing to discharge waste into a water body must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include discharge of dredged and fill material into water bodies.

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2 Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, 531 U.S. 159 (2001)
3 Rapanos v. United States, 547 U.S. 715 (2006)

Under the State Water Resources Control Board Sate Wetland Definition, an area is a wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

2.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Sections 1600 *et seq.* of the California Fish and Game Code establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not substantially adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided. Pursuant to Section 1602 of the California Fish and Game Code, a notification must be submitted to the CDFW for any activity that will divert or obstruct the natural flow or alter the bed, channel, or bank (which may include associated biological resources) of a river or stream or use material from a streambed. One CDFW guidance document, although not a formally adopted rule or policy, requires notification for activities taking place within rivers or streams that flow perennially or episodically and that are defined by the area in which surface water currently flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical and biological indicators. If the project will not "substantially adversely affect an existing fish or wildlife resource," following notification to CDFW, the project may commence without an agreement with CDFW. (Fish & G. Code, § 1602(a)(4)(A)(i).)

Section 3 Methodology

The analysis presented in this report is supported by field surveys and verification of site conditions conducted on July 31, 2023 and August 2, 2023. ELMT conducted a field delineation to determine the jurisdictional limits of "waters of the State" and jurisdictional streambed (including potential wetlands), located within the boundaries of the project site. While in the field, jurisdictional features were recorded on an aerial base map at a scale of 1" = 50' using topographic contours and visible landmarks as guidelines. Data points were obtained with a Garmin Map62 Global Positioning System to record and identify specific widths for ordinary high water mark (OHWM) indicators and the locations of photographs, soil pits, and other pertinent jurisdictional features, if present. This data was then transferred as a .shp file and added to the Project's jurisdictional exhibits. The jurisdictional exhibits were prepared using ESRI ArcInfo Version 10 software.

3.1 WATERS OF THE UNITED STATES

In the absence of adjacent wetlands, the limits of the Corps jurisdiction in non-tidal waters extend to the OHWM, which is defined as "*. . . that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*"[4] Indicators of an OHWM are defined in *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Corps 2008). An OHWM can be determined by the observation of a natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; presence of litter and debris; wracking; vegetation matted down, bent, or absent; sediment sorting; leaf litter disturbed or washed away; scour; deposition; multiple observed flow events; bed and banks; water staining; and/or change in plant community. The Regional Board shares the Corps' jurisdictional methodology, unless SWANCC or Rapanos conditions are present. In the latter case, the Regional Board considers such drainage features to be jurisdictional waters of the State.

In accordance with the Revised Definition of "Waters of the United States"; Conforming (September 8, 2023), "waters of the United Sates" are defined as follows:

(a) ***Waters of the United States*** means:

(1) Waters which are:
(i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
(ii) The territorial seas; or
(iii) Interstate waters;

[4] CWA regulations 33 CFR §328.3(e).

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:
(i) Waters identified in paragraph (a)(1) of this section; or
(ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section

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

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

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

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

(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;
(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

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

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

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

(1) ***Wetlands*** means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(2) ***Adjacent*** means having a continuous surface connection

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

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

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

Pursuant to the Corps Wetland Delineation Manual (Corps 1987), the identification of wetlands is based on a three-parameter approach involving indicators of hydrophytic vegetation, hydric soils, and wetland hydrology. In order to qualify as a wetland, a feature must exhibit at least minimal characteristics within each of these three parameters. It should also be noted that both the Regional Board and CDFW follow the methods utilized by the Corps to identify wetlands. For this project location, Corps jurisdictional wetlands are delineated using the methods outlined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Corps 2008).

3.2 WATERS OF THE STATE

3.2.1 REGIONAL WATER QUALITY CONTROL BOARD

The California *Porter-Cologne Water Quality Control Act* gives the Regional Board very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Regional Board shares the Corps' methodology for delineating the limits of jurisdiction based on the identification of OHWM indicators and utilizing the three parameter approach for wetlands.

3.2.2 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Sections 1600 *et seq*. of the California Fish and Game Code applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW Regulations define "stream" as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation." (14 Cal. Code Regs., § 1.72.) For this project location, CDFW jurisdictional limits were delineated using this definition of "stream."

Section 4 Literature Review

ELMT conducted a thorough review of relevant literature and materials to preliminarily identify areas that may fall under the jurisdiction of the regulatory agencies. A summary of materials utilized during ELMT's literature review is provided below and in Appendix A, *Documentation*. In addition, refer to Section 8 for a complete list of references used throughout the course of this delineation.

4.1 WATERSHED REVIEW

The project site is located near the southern limits of the Mojave Watershed (HUC 18090208). The Mojave Watershed is a large, closed basin in the western Mojave Desert that occurs within central and western San Bernardino County and drains approximately 4,500 square miles. The primary geographic and hydrologic feature of the Mojave Watershed is the Mojave River, which occurs approximately 11.2 miles to the northwest of the site. The headwaters of the Mojave River are in the San Bernardino Mountains, which annually receives greater than forty inches of precipitation at its highest elevations. Much of the winter precipitation in the San Bernardino Mountains falls in the form of snow, which provides spring recharge to the Mojave River system. This results in an annual recharge to the Mojave River of approximately 75,000 acre-feet. The Mojave River transects the watershed north and east to its terminus at Silver Lake, just north of the Community of Baker. Elevations within the watershed range from 8,500 feet above mean sea level at Butler Peak in the San Bernardino Mountains to 1,400 feet above mean sea level at Afton Canyon near the terminus of the Mojave River. There are multiple intermittent or ephemeral waterways in the eastern portion of the watershed which convey surface water runoff to Silver Lake during extreme rain events. Silver Lake remains dry most of the year. Aside from extreme rain events, the Mojave River channel is typically dry downstream of the Mojave Forks Dam, except in certain locations where groundwater is forced to the surface by geologic influences.

South of Mojave Forks Dam, the Mojave River is fed by the West Fork Mojave River to the west, which also forms the Mojave River Forks Reservoir, and Deep Creek to the east. The headwater tributaries of Deep Creek occur within the surrounding 2 to 3 miles surrounding the site, and the nearest portions of Deep Creek to the site occur approximately 0.22 miles to the south and 0.46 miles to the west, circling around the site along local topography before flowing northward.

4.2 LOCAL CLIMATE

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

(monthly average high 77.7° F) being the hottest month and February (monthly average lows 29.5° F) being the coldest. The temperature during both site visits was in the mid-70s ° F with clear skies and calm winds.

4.3 USGS TOPOGRAPHIC QUADRANGLE

The USGS 7.5 Minute Series Topographic Quadrangle maps show geological formations and their characteristics, describing the physical setting of an area through contour lines and major surface features including lakes, rivers, streams, buildings, landmarks, and other factors that may fall under an agency's jurisdiction. Additionally, the maps depict topography through color and contour lines, which are helpful in determining elevations and latitude and longitude within the project site.

The project site is depicted on the Keller Peak quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series within Sections 28 and 33 of Township 2 North, Range 2 West. According to the topographic map, the project site consists almost entirely of vacant/undeveloped land that supports natural plant communities with campground facilities and other infrastructure scattered throughout.

Elevation on project site ranges from to 6,280 to 6,760 feet above mean sea level and is highly variable, consisting of steep slopes and valleys generally sloping from north to south.

4.4 AERIAL PHOTOGRAPHS

Prior to conducting the field delineation, ELMT reviewed current and historical aerial photographs (1985-2022) of the project as available from Google Earth Pro Imaging. Aerial photographs can be useful during the delineation process, as they often indicate the presence of drainage features and riverine habitat within the boundaries of the project site, if any.

According to the 1995 through 2022 aerial photographs, the project site has supported the majority of existing campground facilities, roads, and infrastructure since 1995. The only major observable changes occurring on-site since 1995 are occasional paving/resurfacing of access roads and parking areas, and the installation of a paved parking are and adjoining facilities structures along the southern limits of the existing campground between 2015 and 2016.

Despite the presence of structures, access roads, and existing land uses associated with campground activities, undeveloped portions of the project site generally support natural plant communities consistent with nearby open spaces. Undeveloped portions of the site support sprawling forests and riparian woodlands are present along perennial waterways. In addition, the site supports two (2) land cover types that would be classified as disturbed and developed. Refer to Appendix B, *Site Photographs*.

4.5 SOILS

Soils within and adjacent to the Project site were researched prior to the field delineation using the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Custom Soil Resource Report for San Bernardino National Forest Area, California. Soil surveys furnish soil maps and

interpretations originally needed in providing technical assistance to farmers and ranchers; in guiding other decisions about soil selection, use, and management; and in planning, research, and disseminating the results of the research. In addition, soil surveys are now heavily utilized in order to obtain soil information with respect to potential wetland environments and jurisdictional areas (i.e., soil characteristics, drainage, and color).

Based on the NRCS USDA Web Soil Survey, the project site is underlain by Cedarpines-Plaskett-Stargazer complex (30 to 50 percent slopes), Cedarpines-Stargazer-Urban land complex (15 to 30 percent slopes), Rock outcrop-Cedarpines-Plaskett complex (15 to 35 percent slopes), Runningsprings-Cedarpines-Plaskett complex (15 to 35 percent slopes), and Urban land. Soils underlying the camp portions of the site have been disturbed and compacted by on-site and surrounding development, infrastructure, and dirt and paved roads.

4.6 HYDRIC SOILS LIST OF CALIFORNIA

ELMT reviewed the USDA NRCS Hydric Soils List of California in an effort to verify whether on-site soils are considered to be hydric[5]. It should be noted that lists of hydric soils along with soil survey maps provide off-site ancillary tools to assist in wetland determinations, but they are not a substitute for field investigations. The presence of hydric soils is initially investigated by comparing the mapped soil series for the site to the County list of hydric soils. According to the hydric soils list, none of the soil types mapped as underlying the project site have been listed as hydric in San Bernardino National Forest, California.

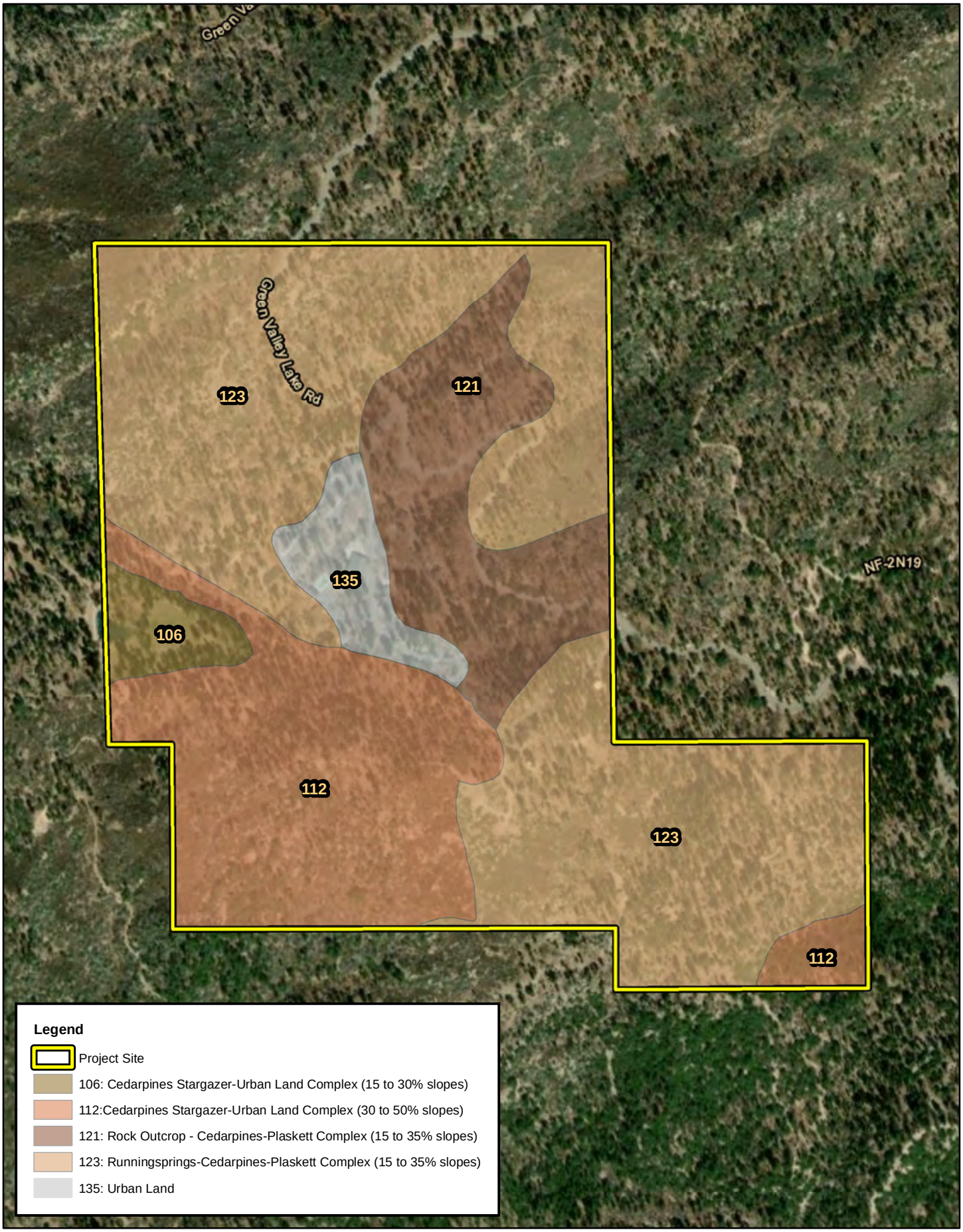
4.7 NATIONAL WETLANDS INVENTORY

ELMT reviewed the U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory maps. Based on this review, no wetland features have been mapped within the boundaries of the project site. One (1) riverine resource was mapped on-site, entering the northern portion of the eastern boundary and traversing southwest towards the western portion of the site, then veering northwest to exit the northern portion of the western boundary. This feature is mapped in association with a tributary of Deep Creek, the named portion of which flows westward out of the valleys to the east and south of the site before veering north to the west of the site. Refer to Appendix A, *Documentation*.

4.8 FLOOD ZONE

The Federal Emergency Management Act (FEMA) website was searched for flood data for the project site. Based on Flood Insurance Rate Map No. 06071C8000H, the project site is located within Zone D – areas with flood risk due to levees. Refer to Appendix A, *Documentation.*

[5] A hydric soil is a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part.



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HUME SO CAL CAMPGROUND PROJECT

Soils

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

Exhibit 4

Section 5 Site Conditions

ELMT biologists Jacob H. Lloyd Davies, Rachael A. Lyons, and Megan E. Peukert conducted a field delineation on July 31, 2023, and August 2, 2023 to verify existing site conditions and document the extent of potential jurisdictional areas within the boundaries of the project site. ELMT field staff encountered no limitations during the field delineation.

5.1 ON-SITE FEATURES

5.1.1 DRAINAGE FEATURES

Three (3) perennial drainage features and four (4) ephemeral drainage features were observed within the boundaries of the project site during the field delineation (refer to Exhibit 5, *Jurisdictional Areas*). ELMT carefully assessed the site for depressions, inundation, presence of hydrophytic vegetation, staining, cracked soil, ponding, and indicators of active surface flow and corresponding physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris. Suspected jurisdictional areas were checked for the presence of definable channels, soils, and hydrology. The drainage features mapped on-site are numbered from west to east as they occur within the project site.

Drainage 1

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

Two (2) plant communities occur along Drainage 1: Mixed Conifer Forest and Willow Riparian Woodland. The Mixed Conifer Forest plant community is co-dominated by conifer species such as Jeffrey pine (*Pinus jeffreyi*), sugar pine (*Pinus lambertiana*), and bigcone Douglas-fir (*Pseudotsuga macrocarpa*), and supports lesser dominance of oak species such as California black oak (*Quercus kelloggii*) and canyon live oak (*Quercus chrysolepis*). Understories are variable, with some areas supporting dense understories of shrubs and a dense herbaceous later, and some areas relatively lacking understories. Other common plant species observed in this plant community include bigberry manzanita (*Arctostaphylos glauca*), Sierra lotus (*Acmispon decumbens*), California false indigo (*Amorpha californica*, FAC), coffee berry (*Frangula californica*), diffuse groundsmoke (*Gayophytum diffusum*), California aster (*Corethrogyne filaginifolia*), woollypod milkweed (*Asclepias eriocarpa*), goldenstar (*Bloomeria crocea*), giant red Indian paintbrush

(*Castilleja miniate*, FAC), mountain gooseberry (*Ribes montigenum*), Grinnell's beardtongue (*Penstemon grinnellii*), Bridge's penstemon (*Penstemon rostriflorus*), snowplant (*Sarcodes sanguinea*), western wallflower (*Erysimum capitatum*), giant woollystar (*Eriastrum densifolium*), yarrow (*Achillea millefolium* FACU), common bracken fern (*Pteridium aquilinum*, FACU), woodland strawberry (*Fragaria vesca*, UPL), California fuchsia (*Epilobium canum*), and rainbow iris (*Iris hartwegii*, FACU).

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

Drainage 2

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

Drainage 3

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

Drainage 4

Drainage 4 is a perennial creek that originates off-site to the north. This drainage enters the eastern portion of the northern boundary of the project site and conveys flows to the southwest until converging with Drainage 1. Flows are conveyed beneath Green Valley Lake Road via a 4-foot-wide culvert into an earthen spillway, which also receives surface flows from Green Valley Lake Road. Flows within Drainage 4 are conveyed for approximately 1,622 linear feet before entering Drainage 1. Surface water was present

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

Drainage 5

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

Drainage 6

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

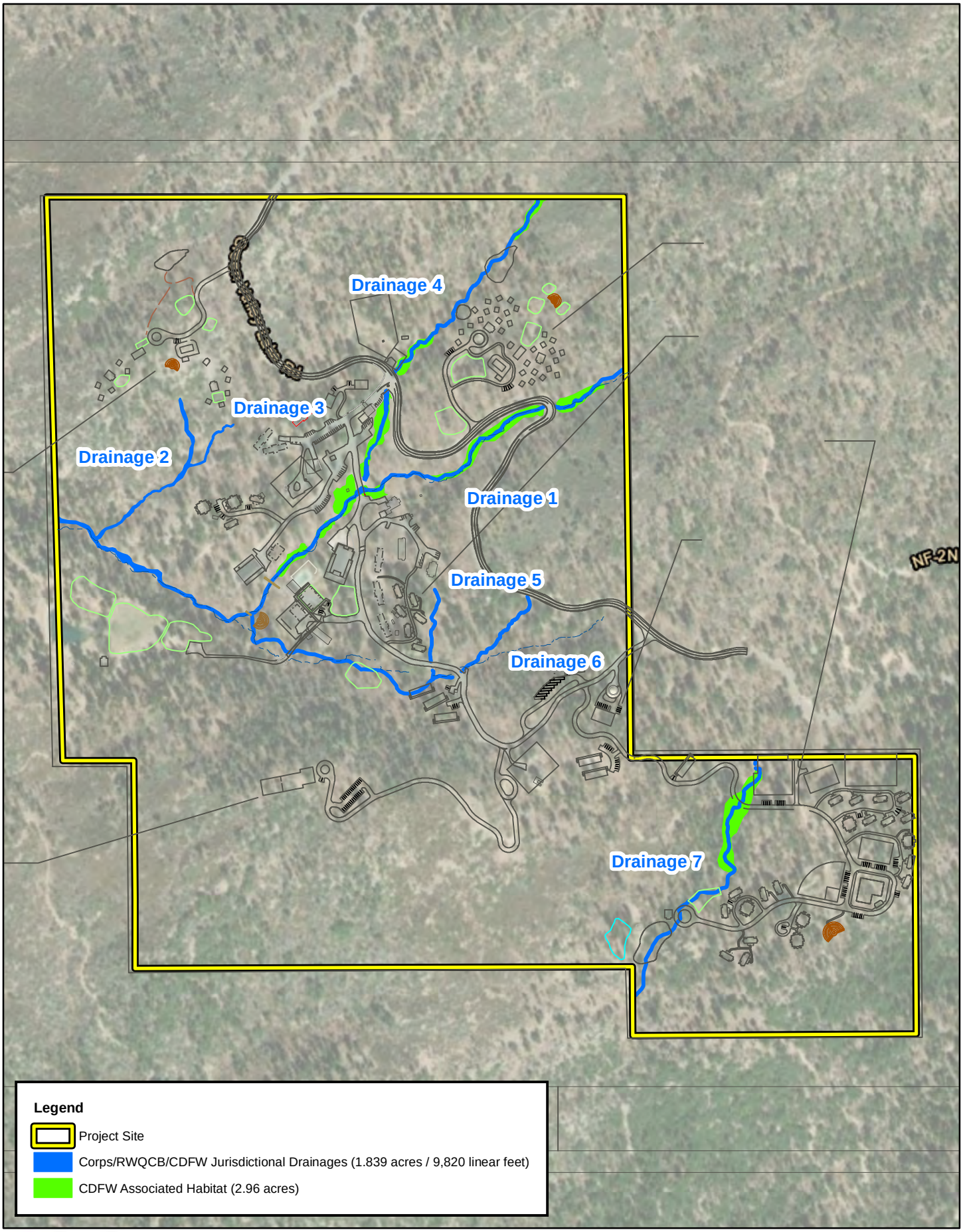
Drainage 7

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

5.1.2 WETLAND FEATURES

In order to qualify as a wetland, a feature must exhibit all three wetland parameters (i.e., vegetation, soils, and hydrology) described in the Corps Arid West Regional Supplement. Although evidence of hydrology

(i.e., scour, changes in substrate, shelving) and open water are present, no hydric soils have been mapped as occurring on-site and no anaerobic conditions were observed. While hydrophytic vegetation was observed in portions of Drainages 1, 4, 5, 6, and 7, flows within these drainage features remain sufficiently consistent to prevent the establishment of wetland conditions. Areas with open water tend to be underlain by exposed bedrock with limited, scattered pockets of silty deposits approximately 2 to 6 inches in depth, and surface flows constantly replace existing open water, preventing the development of hydric soil (anaerobic) conditions. As a result, no features on-site meet the Corps' or Regional Board's wetland definition to qualify as jurisdictional wetlands.



ELMT CONSULTING

Source: ESRI Aerial Imagery, San Bernardino County

HUME SO CAL CAMPGROUND PROJECT

Jurisdictional Areas

Exhibit 5

Section 6 Findings

This report presents ELMT's best effort at determining the extent of jurisdictional features using the most up-to-date regulations, written policy, and guidance from the regulatory agencies.

6.1 U.S. ARMY CORPS OF ENGINEERS DETERMINATION

6.1.1 WATERS OF THE UNITED STATES DETERMINATION

Prior to leaving the site, surface flows from Drainages 2 through 6 are conveyed to Drainage 1, which exits the western boundary of the site and conveys flows westward to Deep Creek. Drainage 7 also bears a direct connection to Deep Creek, conveying flows off-site to the south. Deep Creek conveys flows along local topography to the northwest until its confluence with Mojave Fork West at Mojave Forks Dam, which consolidates flows from these features and directs them northward within the Mojave River.

All of the onsite drainage features have a surface hydrologic connection to downstream waters of the United States. Approximately 1.839 acres (9,820 linear feet) of waters of the United States occur on-site.

6.1.2 FEDERAL WETLAND DETERMINATION

An area must exhibit all three wetland parameters described in the Corps Arid West Regional Supplement to be considered a jurisdictional wetland. Based on the results of the field delineation, it was determined that no areas within the project site met all three wetland parameters. Therefore, no jurisdictional wetland features exist within the project site.

6.2 REGIONAL WATER QUALITY CONTROL BOARD

6.2.1 WATERS OF THE STATE DETERMINATION

The on-site drainage feature exhibits characteristics consistent with the Regional Board's methodology and would likely be considered jurisdictional waters of the State. Approximately 1.839 acres (9,820 linear feet) of non-wetland waters of the State occur on-site.

6.2.2 STATE WETLAND DETERMINATION

Under the State Water Resources Control Board Sate Wetland Definition, an area is a wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

Based on the results of the field delineation, it was determined that no areas within the project site meet the State Wetland Definition. Therefore, no state wetland features exist within the project site.

6.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

The on-site drainage features exhibit characteristics consistent with CDFW's methodology and would be considered CDFW streambed. Approximately 4.8 acres (9,820 linear feet) of CDFW jurisdiction was mapped within boundaries of the Project site.

Section 7 Regulatory Approval Process

The following is a summary of the various permits, certifications, and agreements that may be necessary prior to construction and/or alteration within jurisdictional areas. Ultimately the regulatory agencies make the final determination of jurisdictional boundaries and permitting requirements.

7.1 UNITED STATES ARMY CORPS OF ENGINEERS

The Corps regulates discharges of dredged or fill materials into waters of the United States, including wetlands, pursuant to Section 404 of the CWA. If any impacts occur to the onsite drainage features, it will be necessary for the Applicant to acquire a CWA Section 404 permit prior to impacts occurring within Corps jurisdictional areas. If impacts from the proposed Project will result in the loss of less than 1/2-acre of Corps jurisdiction (non-wetland waters), the proposed Project can be authorized via a Nationwide Permit (NWP). However, if impacts will be greater than 1/2-acre, the proposed Project will need to be processed under a Standard Individual Permit.

Based on the proposed design plan, no impacts to Corps jurisdictional areas are expected to occur from project implementation.

7.2 REGIONAL WATER QUALITY CONTROL BOARD

The Regional Board regulates discharges to surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act. The Regional Board's jurisdiction extends to all waters of the State and U.S., including wetlands. A Section 401 Water Quality Certification from the Regional Board will be required for impacts to the onsite drainage features. The Regional Board also requires a Section 401 Certification Application Fee, which is dependent on the amount and type of impacts (i.e., acreage, linear feet, and project type). It should also be noted that the Regional Board requires that California Environmental Quality Act (CEQA) compliance be obtained prior to issuance of the water quality certification.

Based on the proposed design plan, no impacts to Regional Board jurisdictional areas are expected to occur from project implementation.

7.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Pursuant to Section 1602 of the California Fish and Game Code, the CDFW regulates any activity that will divert or obstruct the natural flow or alter the bed, channel, or bank (which may include associated biological resources) of a river or stream. Therefore, any impacts to the on-site jurisdictional areas will require a Section 1602 Streambed Alteration Agreement from the CDFW prior to project implementation, if the project will have a substantial adverse impact on an existing fish or wildlife resource. The notification fee is based on the term and cost of a project. The Section 1602 Streambed Alteration Agreement will not be issued until all fees are paid to the CDFW.

Based on the proposed design plan, no impacts to CDFW jurisdictional areas are expected to occur from project implementation.

7.4 RECOMMENDATIONS

It is recommended that this delineation be forwarded to the regulatory agencies for their review and concurrence. The concurrence/receipt would solidify findings noted within this report.

Section 8 References

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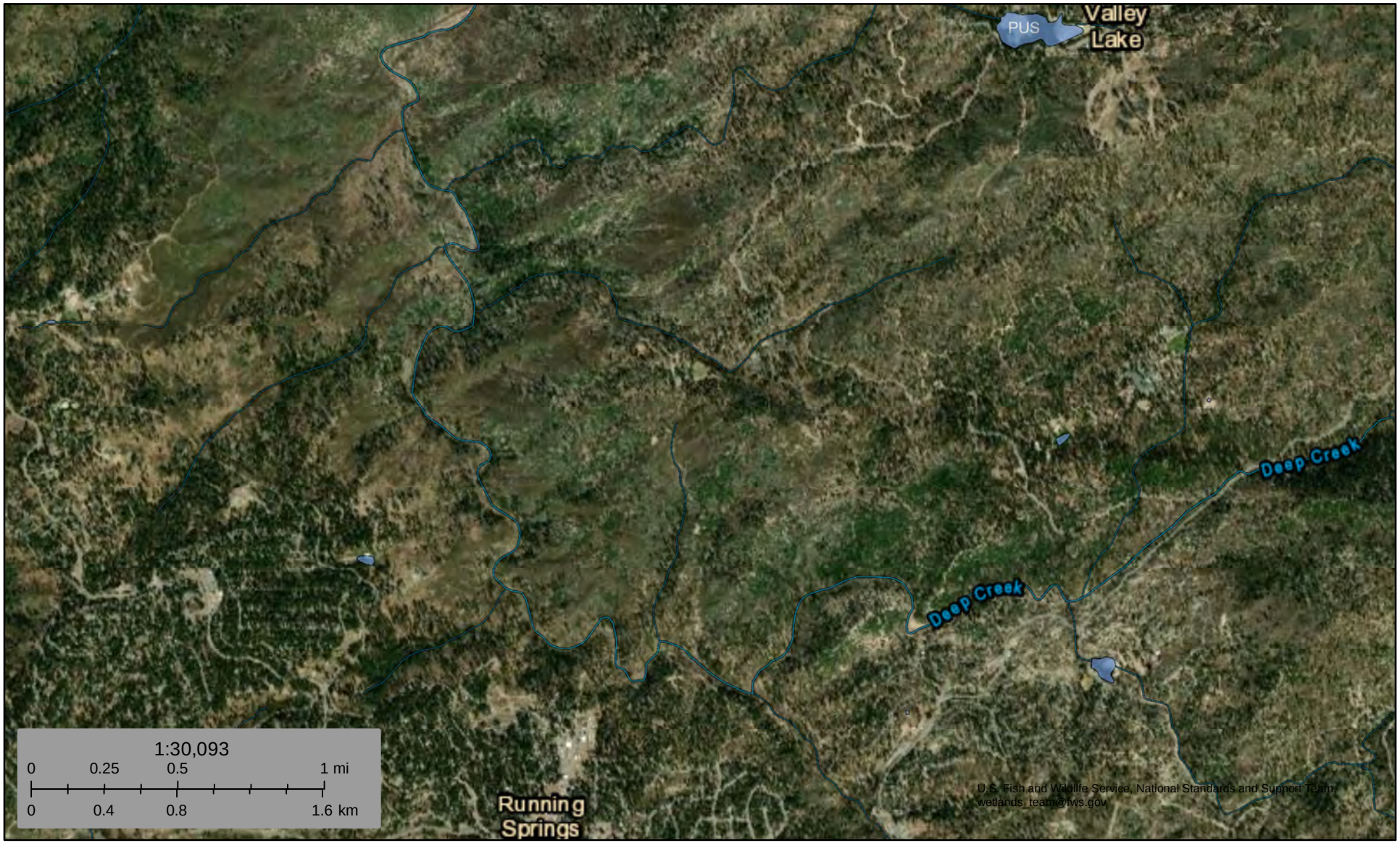
Appendix A Documentation

U.S. Fish and Wildlife Service
National Wetlands Inventory

Hume SoCal Campground



October 11, 2023

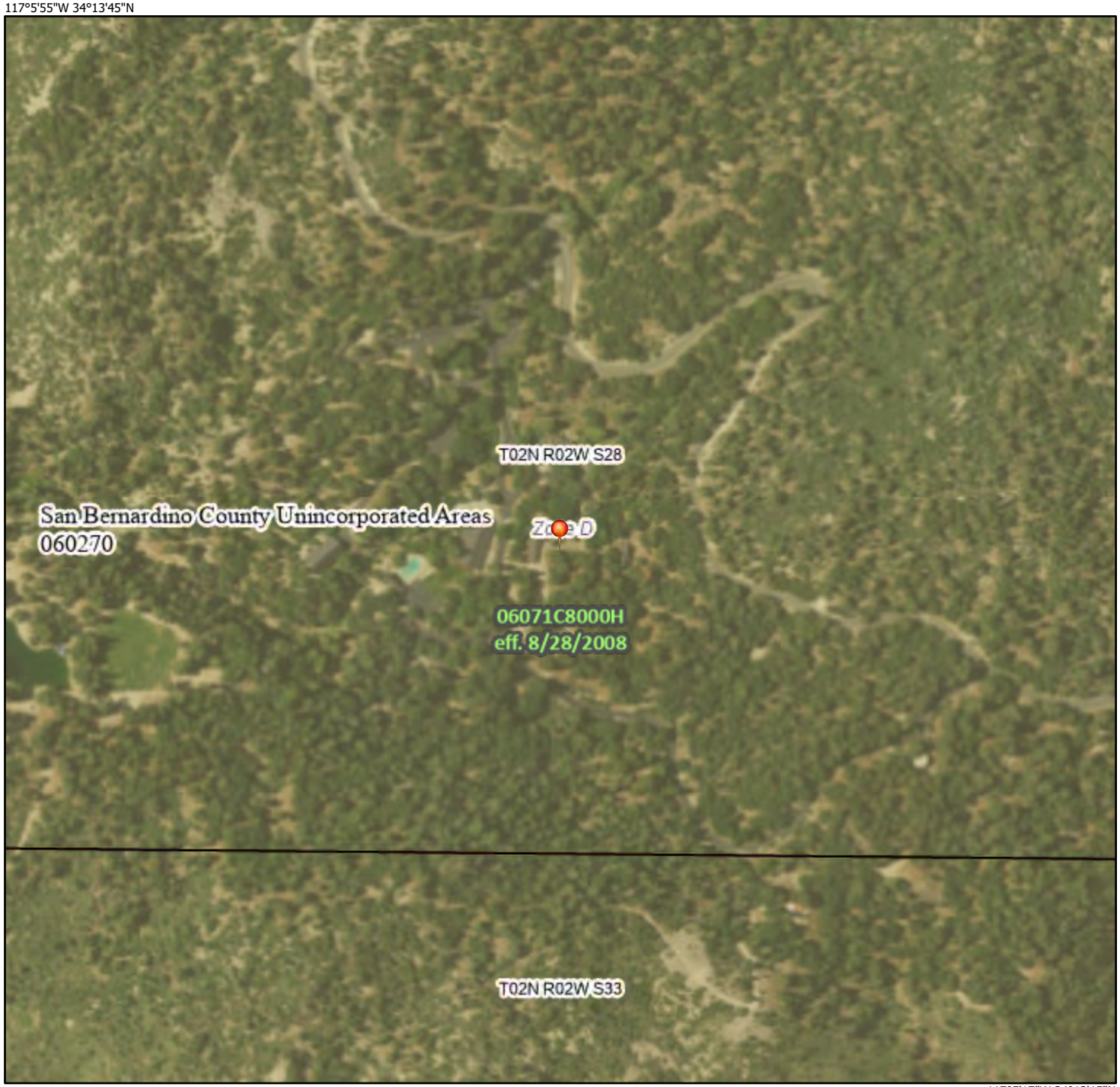
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Flood Hazard Layer FIRMette

FEMA



Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/31/2022 at 6:45 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix B Site Photographs

Photograph 1: From Green Valley Lake Road looking upstream (northeast) along Drainage 1.

Photograph 2: From Green Valley Lake Road looking south along Drainage 1.

Photograph 3: Looking upstream (north) along Drainage 2. Ephemeral drainages supported on-site are bounded by a Mixed Conifer Forest plant community.

Photograph 4: Looking upstream (northeast) along Drainage 3.

Photograph 5: Looking north along Drainage 4 near the entrance to the Hume SoCal Campground at Green Valley Lake Road. Upper portions of Drainage 4 are visible beyond Green Valley Lake Road.

Photograph 6: The confluence of Drainages 1 and 4 support a robust Willow Riparian Woodland plant community.

Photograph 7: Looking upstream (north) along the upper limits of Drainage 5.

Photograph 8: Looking upstream (north) along the upper limits of Drainage 6.

Photograph 9: Drainages 5 and 6 support narrow swathes of Willow Riparian Woodland immediately south of Smokey Way.

Photograph 10: Lower portions of Drainage 1, downstream of existing campground facilities, bear little to no surface water and are bounded by a Mixed Conifer Woodland plant community.

Photograph 11: Looking downstream (southwest) along the upper limits of Drainage 7, north of the access road.

Photograph 12: Looking downstream (southwest) along the middle portion of Drainage 7, where surface water is no longer present and supported vegetation shifts from a Willow Riparian plant community to Mixed Conifer Forest.

Appendix C Methodology

WATERS OF THE UNITED STATES

In accordance with the Revised Definition of "Waters of the United States"; Conforming (September 8, 2023), "waters of the United Sates" are defined as follows:

(a) ***Waters of the United States*** means:

(1) Waters which are:
(i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
(ii) The territorial seas; or
(iii) Interstate waters;

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:
(i) Waters identified in paragraph (a)(1) of this section; or
(ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section

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

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

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

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

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

(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

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

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

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

(1) ***Wetlands*** means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(2) ***Adjacent*** means having a continuous surface connection

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

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

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

WETLANDS

For this project location, Corps jurisdictional wetlands are delineated using the methods outlined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Corps 2008). This document is one of a series of Regional Supplements to the Corps Wetland Delineation Manual (Corps 1987). The identification of wetlands is based on a three-parameter approach involving indicators of hydrophytic vegetation, hydric soil, and wetland hydrology. In order to be considered a wetland, an area must exhibit at least minimal characteristics within these three (3) parameters. The Regional Supplement presents wetland indicators, delineation guidance, and other information that is specific to the Arid West Region. In the field, vegetation, soils, and evidence of hydrology are examined using the methodology listed below and documented on Corps wetland data sheets, when applicable. It should be noted that both the Regional Board and the CDFW jurisdictional wetlands encompass those of the Corps.

Vegetation

Nearly 5,000 plant types in the United States may occur in wetlands. These plants, often referred to as hydrophytic vegetation, are listed in regional publications by the U.S. Fish and Wildlife Service (USFWS). In general, hydrophytic vegetation is present when the plant community is dominated by species that can tolerate prolonged inundation or soil saturation during growing season. Hydrophytic vegetation decisions are based on the assemblage of plant species growing on a site, rather than the presence or absence of particular indicator species. Vegetation strata are sampled separately when evaluating indicators of hydrophytic vegetation. A stratum for sampling purposes is defined as having 5 percent or more total plant cover. The following vegetation strata are recommended for use across the Arid West:

- *Tree Stratum:* Consists of woody plants 3 inches or more in diameter at breast height (DBH), regardless of height;
- *Sapling/shrub stratum:* Consists of woody plants less than 3 inches DBH, regardless of height;
- *Herb stratum:* Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size; and,
- *Woody vines:* Consists of all woody vines, regardless of size.

The following indicator is applied per the test method below.[1] Hydrophytic vegetation is present if any of the indicators are satisfied.

[1] Although the Dominance Test is utilized in the majority of wetland delineations, other indicator tests may be employed. If one indicator of hydric soil and one primary or two secondary indicators of wetland hydrology are present, then the Prevalence Test (Indicator 2) may be performed. If the plant community satisfies the Prevalence Test, then the vegetation is hydric. If the Prevalence Test fails, then the Morphological Adaptation Test may be performed, where the delineator analyzes the vegetation for potential morphological features.

Indicator 1 – Dominance Test

Cover of vegetation is estimated and is ranked according to their dominance. Species that contribute to a cumulative total of 50% of the total dominant coverage, plus any species that comprise at least 20% (also known as the "50/20 rule") of the total dominant coverage, are recorded on a wetland data sheet. Wetland indicator status in California (Region 0) is assigned to each species using the *National Wetland Plant List, version 2.4.0* (Corps 2012). If greater than 50% of the dominant species from all strata were Obligate, Facultative-wetland, or Facultative species, the criteria for wetland vegetation is considered to be met. Plant indicator status categories are described below:

- *Obligate Wetland (OBL):* Plants that almost always occur in wetlands;
- *Facultative Wetland (FACW):* Plants that usually occur in wetlands, but may occur in non-wetlands;
- *Facultative (FAC):* Plants that occur in wetlands and non-wetlands;
- *Facultative Upland (FACU):* Plants that usually occur in non-wetlands, but may occur in wetlands; and,
- *Obligate Upland (UPL):* Plants that almost never occur in wetlands.

Hydrology

Wetland hydrology indicators are presented in four (4) groups, which include:

Group A – Observation of Surface Water or Saturated Soils

Group A is based on the direct observation of surface water or groundwater during the site visit.

Group B – Evidence of Recent Inundation

Group B consists of evidence that the site is subject to flooding or ponding, although it may not be inundated currently. These indicators include water marks, drift deposits, sediment deposits, and similar features.

Group C – Evidence of Recent Soil Saturation

Group C consists of indirect evidence that the soil was saturated recently. Some of these indicators, such as oxidized rhizospheres surrounding living roots and the presence of reduced iron or sulfur in the soil profile, indicate that the soil has been saturated for an extended period.

Group D – Evidence from Other Site Conditions or Data

Group D consists of vegetation and soil features that indicate contemporary rather than historical wet conditions, and include shallow aquitard and the FAC-neutral test.

If wetland vegetation criteria is met, the presence of wetland hydrology is evaluated at each transect by recording the extent of observed surface flows, depth of inundation, depth to saturated soils, and depth to free water in the soil test pits. The lateral extent of the hydrology indicators are used as a guide for locating soil pits for evaluation of hydric soils and jurisdictional areas. In portions of the stream where the flow is divided by multiple channels with intermediate sand bars, the entire area between the channels is considered within the OHWM and the wetland hydrology indicator is considered met for the entire area.

Soils

A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper 16-20 inches.[2] The concept of hydric soils includes soils developed under sufficiently wet conditions to support the growth and regeneration of hydrophytic vegetation. Soils that are sufficiently wet because of artificial measures are included in the concept of hydric soils. It should also be noted that the limits of wetland hydrology indicators are used as a guide for locating soil pits. If any hydric soil features are located, progressive pits are dug moving laterally away from the active channel until hydric features are no longer present within the top 20 inches of the soil profile.

Once in the field, soil characteristics are verified by digging soil pits along each transect to an excavation depth of 20 inches; in areas of high sediment deposition, soil pit depth may be increased. Soil pit locations are usually placed within the drainage invert or within adjoining vegetation. At each soil pit, the soil texture and color are recorded by comparison with standard plates within a *Munsell Soil Chart* (2009). Munsell Soil Charts aid in designating color labels to soils, based by degrees of three simple variables – hue, value, and chroma. Any indicators of hydric soils, such as organic accumulation, iron reduction, translocation, and accumulation, and sulfate reduction, are also recorded.

Hydric soil indicators are present in three groups, which include:

<u>All Soils</u>

"All soils" refers to soils with any United States Department of Agriculture (USDA) soil texture. Hydric soil indicators within this group include histosol, histic epipedon, black histic, hydrogen sulfide, stratified layers, 1 cm muck, depleted below dark surface, and thick dark surface.

<u>Sandy Soils</u>

"Sandy soils" refers to soil materials with a USDA soil texture of loamy fine sand and coarser. Hydric soil indicators within this group include sandy mucky mineral, sandy gleyed matrix, sandy redox, and stripped matrix.

[2] According to the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0 (Corps 2008), growing season dates are determined through on-site observations of the following indicators of biological activity in a given year: (1) above-ground growth and development of vascular plants, and/or (2) soil temperature.

Loamy and Clayey Soils

"Loamy and clayey soils" refers to soil materials with a USDA soil texture of loamy very fine sand and finer. Hydric soil indicators within this group include loamy mucky mineral, loamy gleyed matrix, depleted matrix, redox dark surface, depleted dark surface, redox depressions, and vernal pools.

SWANCC WATERS

The term "isolated waters" is generally applied to waters/wetlands that are not connected by surface water to a river, lake, ocean, or other body of water. In the presence of isolated conditions, the Regional Board and CDFW take jurisdiction through the application of the OHWM/streambed and/or the 3 parameter wetland methodology utilized by the Corps.