

**MURRIETA WHITEWOOD AT LEE LANE  
MULTI-FAMILY RESIDENTIAL PROJECT  
ASSESSOR'S PARCEL NUMBER 392-320-014  
DELINEATION OF JURISDICTIONAL WATERS**



**City of Murrieta, San Diego County, California**

**Submitted to:  
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## ACRONYMS AND ABBREVIATIONS

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AMSL	above mean sea level
BSA	Biological Survey Area
CEQA	California Environmental Quality Act
CDFW	California Department of Fish and Wildlife
CWA	Clean Water Act
EPA	Environmental Protection Agency
FAC	facultative
FACU	facultative upland
FACW	facultative wetland
ft.	Feet
GIS	Geographic Information System
HUC	Hydrologic Cataloging Unit
I-10	Interstate 10
IP	Individual Permit
M	Meters
NL	not listed
NOAA	National Oceanic and Atmospheric Administration
NWI	National Wetlands Inventory
NWP	Nationwide Permit
OBL	obligate
OHWM	ordinary high-water mark
Rapanos	Rapanos v. U.S. and Carabell v. U.S.
RPW	relatively permanent waterway
RWQCB	Regional Water Quality Control Board
SWANCC	Solid Waste Agency of Northern Cook County v. USACE
TNW	traditionally navigable waterway
UPL	upland
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture, Natural Resources Conservation Service
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
WSC	Waters of the State of California
WUS	Waters of the United States

## **1.0 INTRODUCTION**

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Wood Environment & Infrastructure Solutions, Inc. (Wood) was contracted by Murrieta Whitewood Multi-Family LLC (applicant/client) to conduct a jurisdictional delineation and report for four components of the Murrieta Whitewood at Lee Lane Multi-Family Residential Project. This report presents regulatory framework, methods, and results of a delineation of jurisdictional waters, wetlands, and associated riparian habitat potentially impacted by the Project.

### **1.1 Purpose**

The purpose of the delineation is to determine the extent of state and federal jurisdiction within the project area potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, and California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code.

### **1.2 Project Description**

The 18.08-acre project is Assessor's Parcel Number (APN) 392-320-014. Exact impact acreages are still to be determined, but most of the upland site will be developed. Approximately 0.03 acres of riverine/riparian resources are to be impacted; and the remaining 1.87 acres will be set aside along with some uplands as a "natural open space mitigation area". No off-site staging areas or off-site improvements are planned. It is likely that a weed abatement plan and/or fuel modification zones will be required, but these have not yet been prepared.

The project consists of a 324-unit multi-family development to include one-, two-, and three-story residential buildings. Additionally, there will be an associated recreation and leasing building, pool area, and miscellaneous amenities. Two detention basins are planned as part of the drainage system of the development.

### **1.3 Project Location**

The proposed project site is generally located immediately east of Whitewood Road, south of Lee Lane, north of Greenberg Place, and approximately 650 feet west of Epple Street. The project site is in the City of Murrieta, Riverside County, California. It is mapped on the U.S. Geological Survey 7.5-minute *Murrieta*, California quadrangle, within Township 6 South, Range 3 West, Section 35 (Figure 3).

Project elevations range from approximately 1,465 to 1,510 feet (445-460 meters). Surrounding land uses include residential subdivisions to the west, rural residences to the north, south, and west, and undeveloped open space in selective areas around the project site. The project site is undeveloped, but all accessible upland areas appear to have been mowed at some point in the past year as part of a weed abatement program. An unnamed, riparian-vegetated drainage and a tributary to it are present within the proposed project site.

## **2.0 REGULATORY FRAMEWORK**

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### **2.1 U.S. Army Corps of Engineers**

The USACE regulates the discharge of dredged or fill material in waters of the United States (WOTUS) pursuant to Section 404 of the CWA.

#### **2.1.1 Waters of the U.S.**

CWA regulations (33 CFR 328.3(a)) previously defined WOTUS as follows:

All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

All interstate waters including interstate wetlands;

All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) Which are or could be used by interstate or foreign travellers for recreational or other purposes; or (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) Which are used or could be used for industrial purpose by industries in interstate commerce;

All impoundments of waters otherwise defined as WOTUS under the definition;

Tributaries of WOTUS;

The territorial seas;

Wetlands adjacent to WOTUS (other than waters that are themselves wetlands).

The USACE delineates non-wetland waters in the Arid West Region by identifying the ordinary high-water mark (OHWM) in ephemeral and intermittent channels (USACE 2008a). The OHWM is defined in 33 CFR 328.3(e) as:

“...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses 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.”

Identification of OHWM involves assessments of stream geomorphology and vegetation response to the dominant stream discharge. Determining whether any non-wetland water is a jurisdictional WOTUS involves further assessment in accordance with the regulations, case law, and clarifying guidance.

## **2.1.2 Wetlands and Other Special Aquatic Sites**

Wetlands are defined at 33 CFR 328.3(c) as "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." 33 C.F.R. § 328.3 (c) (16) (2020)

Special aquatic sites are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. Special aquatic sites include sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, and riffle and pool complexes. They are defined in 40 CFR 230 Subpart E.

## **2.1.3 Supreme Court Decisions**

### **2.1.3.1 Solid Waste Agency of Northern Cook County**

On January 9, 2001, the Supreme Court of the United States issued a decision on Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (2001) 531 U.S. 159, with respect to whether the USACE could assert jurisdiction over isolated waters. The Solid Waste Agency of North Cook County (SWANCC) ruling stated that the USACE does not have jurisdiction over "non-navigable, isolated, intrastate" waters. The Court held that: "nonnavigable, isolated, intrastate waters, which . . . did not actually abut on a navigable waterway, were not included as "waters of the United States." 531 U.S., at 167, 171; Rapanos v. U.S. (2006) 547 U.S. 715, 726.

### **2.1.3.2 Rapanos/Carabell**

In the next Supreme Court case Rapanos v. U.S. (2006) 547 U.S. 715 the Court clarified the extent of USACE jurisdiction under the CWA by interpreting the phrase "the Waters of The United States". The Court held that: "term "navigable waters," under CWA, includes only relatively permanent, standing or flowing bodies of water, not intermittent or ephemeral flows of water, and only those wetlands with a continuous surface connection to bodies that are waters of the United States in their own right are adjacent to such waters and covered by the CWA." Rapanos v. U.S. (2006) 547 U.S. 715. The Court interpreted that: "[T]he phrase "the waters of the United States" [which defines term "navigable waters" in the Clean Water Act], includes only those relatively permanent, standing or continuously flowing bodies of water "forming geographic features" that are described . . . as "streams, oceans, rivers, and lakes." [T]he phrase does not include channels through which water flows intermittently or



ephemerally, or channels that periodically provide drainage for rainfall.” Id. at 739. “[Only] those wetlands with a continuous surface connection to bodies that are “waters of the United States” in their own right, so that there is no clear demarcation between “waters” and wetlands, are “adjacent to” such waters and covered by the Act.” Id. at 742. [E]stablishing that wetlands are covered by the Clean Water Act requires two findings: first, that the adjacent channel contains a “water” of the United States, [that is,] a relatively permanent body of water connected to traditional interstate navigable waters, and second, that the wetland has a continuous surface connection with that water, making it difficult to determine where the “water” ends and the “wetland” begins. Id.

In light of the Rapanos decision, the USACE will assert jurisdiction over a traditional navigable waterway (TNW), wetlands adjacent to TNWs, non-navigable tributaries of TNWs that are a relatively permanent waterway (RPW) where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months) and wetlands that directly abut such tributaries. The USACE will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW: non-navigable tributaries that are not relatively permanent, wetlands adjacent to non-navigable tributaries that are not RPWs, and wetlands adjacent to but that do not directly abut a non-navigable RPW.

Flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary indicate whether they significantly affect the chemical, physical and biological integrity of downstream TNWs. Analysis of potentially jurisdictional streams includes consideration of hydrologic and ecologic factors. The consideration of hydrological factors includes volume, duration, and frequency of flow, proximity to traditional navigable waters, size of watershed, average annual rainfall, and average annual winter snow pack. The consideration of ecological factors also includes the ability for tributaries to carry pollutants and flood waters to a TNW, the ability of a tributary to provide aquatic habitat that supports a TNW, the ability of wetlands to trap and filter pollutants or store flood waters, and maintenance of water quality.

#### **2.1.4 2015 Clean Water Rule**

The federal government issued the Clean Water Rule in 2015 in order to resolve jurisdictional ambiguity resulting from previous Supreme Court decisions (i.e. SWANNC, Rapanos). On June 22, 2015, the USACE and EPA published the Clean Water Rule: Definition of “Waters of the United States”; Final Rule (40 CFR Parts 110, 112, 116, 117, 122, 230, 232, 300, 302, and 401). The Clean Water Rule was put on hold by federal injunction in 2015 but was reinstated in California in August 2018. The Clean Water Rule was again put on hold by federal injunction in September 2019. The Clean Water Rule finds waters to be jurisdictional under the CWA as summarized below:

Jurisdictional by Rule: TNWs, Interstate Waters, Territorial Seas, and Impoundments of Jurisdictional Waters.

**Tributaries:** Waters characterized by the presence of physical indicators of flow, including bed and bank and OHWM, that contribute flow directly or indirectly to a waters listed in 1) above.

**Connected Waters:** Adjacent or neighbouring waters that have a significant nexus to waters listed in 1) above.

**Other Waters:** waters that, individually or as a group, significantly affect the chemical, physical, or biological integrity of waters listed in 1) above.

### **2.1.5 2020 The Navigable Waters Protection Rule**

On January 23, 2020, the Environmental Protection Agency (EPA) and the Department of the Army published a final rule called The Navigable Water Protection Rule: Definition of "Waters of the United States". This final rule was developed consistently with decision in Rapanos v. U.S. (2006) 547 U.S. 715 and superseded all previous rules. This rule was published in the Federal Register on April 21, 2020 and went into effect 60 days after that date, on June 22, 2020, and was codified under 33 C.F.R. § 328.3 Definitions (2020), effective June 22, 2020.

In this final rule, the definition of WOTUS for the purposes of CWA encompasses:

- The territorial seas and traditional navigable waters;
- Perennial and intermittent tributaries that contribute surface water flow to such waters;
- Certain lakes, ponds, and impoundments of jurisdictional waters; and
- Wetlands adjacent to other jurisdictional waters.

The final rule excludes from the definition of WOTUS all waters or features not mentioned above, specifically clarifying that WOTUS do not include the following:

- groundwater, including groundwater drained through subsurface drainage systems;
- ephemeral features that flow only in direct response to precipitation, including ephemeral streams, swales, gullies, rills, and pools;
- diffuse stormwater runoff and directional sheet flow over upland;
- ditches that are not traditional navigable waters, tributaries, or that are not constructed in adjacent wetlands, subject to certain limitations;
- prior converted cropland;
- artificially irrigated areas that would revert to upland if artificial irrigation ceases;
- artificial lakes and ponds that are not jurisdictional impoundments and that are constructed or excavated in upland or non-jurisdictional waters;
- water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;
- stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off;
- groundwater recharge, water reuse, and wastewater recycling structures constructed or excavated in upland or in non-jurisdictional waters; and
- waste treatment systems.

## 2.2 Regional Water Quality Control Board

The RWQCB regulates activities pursuant to Section 401(a)(1) of the CWA. Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit including a Section 404 permit. Through the Porter Cologne Water Quality Control Act, the RWQCB asserts jurisdiction over Waters of the State of California (WSC) which is generally the same as WOTUS but may also include waters not in federal jurisdiction.

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State was adopted in April 2020 and put into effect statewide on May 28, 2020 (State Water Resources Control Board, 2020).

The Water Boards define an area as wetland as follows:

*An area is 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.*

The Water Code defines WSC broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." WSC include all WOTUS but also includes waters not in federal jurisdiction.

The following wetlands are waters of the state:

1. Natural wetlands,
2. Wetlands created by modification of a surface water of the state, and
3. Artificial wetlands that meet any of the following criteria:
  - a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
  - b. Specifically identified in a water quality control plan as a wetland or other water of the state;
  - c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
  - d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):
    - i. Industrial or municipal wastewater treatment or disposal,
    - ii. Settling of sediment,
    - iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,

- iv. Treatment of surface waters,
- v. Agricultural crop irrigation or stock watering,
- vi. Fire suppression,
- vii. Industrial processing or cooling,
- viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
- ix. Log storage,
- x. Treatment, storage, or distribution of recycled water, or
- xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
- xii. Fields flooded for rice growing.

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not WSC.

## **2.3 California Department of Fish and Wildlife**

The CDFW regulates water resources under Section 1600-1616 of the California Fish and Game Code. Section 1602 states:

“An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake (CDFW, 2015).”

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and A Review of Stream Processes and Forms in Dryland Watersheds. In general, under 1602 of the Fish and Game Code, CDFW jurisdiction extends to the maximum extent or expression of a stream on the landscape (CDFW, 2010). It has been the practice of CDFW to define a stream as “a body of water that flows perennially or episodically and that is defined by the area in a channel which water currently flows, or has flowed over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators” (Brady and Vyverberg, 2013). Thus, a channel is not defined by a specific flow event, nor by the path of surface water as this path might vary seasonally. Rather, it is CDFW's practice to define the channel based on the topography or elevations of land that confine the water to a definite course when the waters of a creek rise to their highest point.

CDFW follows definition of a stream under California Code of Regulations as: “A stream is 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 a surface or subsurface flow that supports or has supported riparian vegetation.” Cal. Code Regs., tit. 14, § 1.72

### 3.0 METHODS

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Prior to conducting delineation fieldwork, the following literature and materials were reviewed:

- Aerial photographs of the survey area at a scale of 1:1800 to determine the potential locations of jurisdictional waters or wetlands;
- USGS topographic map (Appendix A - Figure 2) to determine the presence of any “blue line” drainages or other mapped water features.
- USDA soil mapping data (Appendix A - Figure 3); and
- USFWS National Wetlands Inventory map to identify areas mapped as wetland features (Appendix A - Figure 4 ).

A field survey of the project site was conducted by Wood delineators Dale Hameister and Alec Williams 29 March 2021. The survey consisted of walking the entire survey area and identifying potentially jurisdictional water features. All accessible portions of the survey areas were walked to determine if any topographic low-spots meet the minimum criteria to be considered under the jurisdiction of USACE, RWQCB, and CDFW. Visual observations of vegetation types and changes in hydrology and soil texture, and culvert locations were used to locate areas for evaluation. Weather conditions during delineation fieldwork was conducive for surveying with clear skies.

USACE regulated WUS, including wetlands, and RWQCB WSC were delineated according to the methods outlined in *A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE, 2008a). The extent of WUS was determined based on indicators of an OHWM. The OHWM width was measured at points wherever clear changes in width occurred.

Potential federally regulated wetlands were identified based on the *Wetlands Delineation Manual* (USACE, 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE, 2008b). Additional data was recorded to determine if an area fulfilled the wetland criteria parameters. Three criteria must be fulfilled in order to classify an area as a wetland under the jurisdiction of the USACE: 1) a predominance of hydrophytic vegetation, 2) the presence of hydric soils, and 3) the presence of wetland hydrology.

CDFW jurisdiction is delineated by measuring the elevations of land that confine a stream to a definite course when its waters rise to their highest level and to the extent of associated riparian vegetation. WSC/CDFW jurisdictional areas were determined by the bankfull channel edge and RWQCB jurisdictional areas were determined by the edge of the OHWM. In some areas the eroded banks were vertical, so these areas shared the same jurisdictional boundary lines.

To determine jurisdictional boundaries, the surveyor walked the length of the drainage within the project area and recorded the centerline with a Trimble GeoXH global positioning system. The width of the drainage was determined by the OHWM and bankfull width measurements at locations where transitions were apparent. Other data recorded included bank height and

morphology, substrate type, and all vegetation within the streambed and riparian vegetation adjacent to the streambed. Areas that lacked evidence of hydrophytic vegetation, lacked evidence of wetland hydrology, and had no recent disturbance, did not require a soil pit since the other wetland indicators were not present. Upon completion of fieldwork, all data collected in the field were incorporated into a Geographic Information System (GIS) along with basemap data. The GIS was then used to quantify the extent of jurisdictional waters and prepare graphical representations of that data.

## **4.0 ENVIRONMENTAL SETTING**

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### **4.1 Existing Conditions**

The site consists of mostly mowed non-native grasslands and native scrub areas with a swath of riparian habitat through the center of the property. There are piles of rubbish and a homeless encampment within the riparian.

### **4.2 Hydrology**

The average rainfall for the area is 13.03 inches per year (Western Regional Climate Center). Weather data was recorded in the City of Temecula. The delineation survey was conducted following a year of above average rainfall in the 2019-2020 rain season. The rainfall total for the 2019-2020 season was 19.33 inches.

Flows enter the site from the west via two culverts under Whitewood road. Water entering through the southern culvert do not connect hydrologically with the main drainage on-site. The waters pool under the canopy of the riparian and there is no channel connection. Flows enter through the northern culvert and flow through the site to the southeast. Waters exit the site via the drainage and flow east and south for approximately 2.1 miles where it flows into Warm Springs Creek and then approximately 5.3 miles to the southwest where it flows into Murrieta Creek. Waters then flow 3 miles to the southwest to the Santa Margarita River, and then 35.6 miles to the Pacific Ocean (TNW).

### **4.3 Vegetation**

A review of aerial photography dating back to 1996 and reports from 2004 shows that the project site originally had chaparral cover similar to the extant undeveloped property to the immediate north. Since then, site vegetation has been cleared periodically through bulldozing, discing, and mowing. On at least one occasion some 20 years ago, even the riparian areas were cleared of all but the largest trees. After each clearing, chaparral and riparian vegetation has regrown significantly. Riparian vegetation cover is now similar to what it was originally, but chaparral has never recovered to its' original stature, and it was mowed again sometime in the past year for weed abatement purposes. Each successive clearing event has converted the upland native chaparral vegetation more towards a non-native grassland, but it still contains a large percentage of shrubs. At early stages of recovery/regrowth the shrub cover that is extant or regrowing from seed / rootstock resembles coastal sage scrub more than chaparral, which is the natural succession for this type of habitat.

Following the 2012 vegetation classification from Western Riverside County Regional Conservation Authority ("WRCRCA" 2021a) we have designated the vegetation onsite as follows:

### **Non-native Grassland / Coastal Sage Scrub/ Chaparral**

Chaparral is a shrub-dominated habitat composed largely of evergreen species that range from one to four meters in height. Chamise (*Adenostoma fasciculatum*) dominated chaparral was the original cover onsite, but large chamise shrubs are now very scarce with scattered individuals regrowing from mowing. Other chamise chaparral associates remaining onsite include spiny redberry (*Rhamnus crocea*), black sage (*Salvia mellifera*), California buckwheat (*Eriogonum fasciculatum*), and California sagebrush (*Artemisia californica*).

Coastal sage scrub is dominated by a characteristic suite of low-statured, aromatic, drought-deciduous shrubs and subshrub species. Most coastal sage scrub in Riverside County is designated as the subcategory: Riversidean sage scrub. California sagebrush and California buckwheat are dominants in this community. Other characteristic sage scrub species present onsite include brittlebush (*Encelia farinosa*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), and cholla (*Opuntia* sp.). Recovering chaparral resembles coastal sage scrub in stature.

Non-native grasslands primarily are composed of annual grass species introduced from Mediterranean-climate regions with variable presence of non-native and native herbaceous species. Non-native grasslands are generally dominated by several species of grasses and an array of annual forbs from the Mediterranean-climate regions. Many annual species were at the seedling stage during our site visit but species such as Mediterranean grass (*Schismus* sp.), red-stemmed filaree (*Erodium cicutarium*), shortpod mustard (*Hirschfeldia incana*), Tocalote (*Centaurea melitensis*), blue dicks (*Dipterostemon capitatus*); and tarplant (*Deinandra* sp.) were identifiable in the patchy areas where shrub growth has been eliminated.

### **Riparian Scrub, Woodland, Forest**

Riparian communities typically consist of one or more deciduous tree species with an assorted understory of shrubs and herbs. Onsite riparian vegetation includes several old trees such as coast live oak (*Quercus agrifolia*) (NI), Fremont cottonwood (*Populus fremontii*) (FACW), and Goodding's black willow (*Salix gooddingii*) (FACW). Younger willows, black elderberry (FACU), and poison-oak (*Toxicodendron diversilobum*) (FACU) and mule fat (*Baccharis salicifolia*) (FAC) occur in the regrown portions of the drainages. One large non-native tamarisk (*Tamarix* spp.) is present at the east end of the drainage. Algae was also present in some area that had been inundated with standing water.

## **4.4 National Wetlands Inventory**

The United States Fish and Wildlife Service (USFWS) is the principal Federal agency that provides information to the public on the extent and status of the Nation's wetlands. The USFWS has developed a series of maps, known as the National Wetlands Inventory (NWI) to show wetlands and deep-water habitat. This geospatial information is used by Federal, State, and local agencies, academic institutions, and private industry for management, research, policy development, education, and planning activities. The NWI program was neither designed nor intended to produce legal or regulatory products; therefore, wetlands identified by the NWI program are not the same as wetlands defined by the USACE.



The NWI Mapper (USFWS, 2021) was accessed on-line to review mapped wetlands within the project study area.

The NWI mapper (Figure 4, Appendix A) shows one drainage through the site classified as Riverine, Intermittent, Streambed, Seasonally Flooded (R4SBC) (Cowardin, et. al., 1979). The drainage aligns with the drainages mapped in the field in 2021.

#### **4.5 Soils**

The soils on-site consist of the Cajalco series. The Cajalco soils are well drained, moderately permeable and occur on gently sloping to steep uplands in areas of deeply weathered, basic igneous rocks.

Several soil pits were dug within the site. Only one soil pit within the riparian area had a very slight scent of methane. No redox or other signs of hydric soils were observed.

## 5.0 RESULTS

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The Project Site contains a total of 1 jurisdictional drainage. The riparian area has a side arm connected to the southern culvert, but it does not contain any bed and bank or OHWM connecting to the main channel. That is the reason there is only CDFW jurisdiction and not USACE in that area (Figure 5 JD Map). The CDFW jurisdiction was mapped to the extent of the riparian vegetation which included willows, coast live oak, cottonwoods, and mulefat. Vegetation with the USACE jurisdictional areas was very sparse under the canopy of the riparian with some patches of poison oak (FACU) and giant wild rye (*Leymus condensatus*) (FACU) and algal growth on the mud surface in other areas.

Table 1. Summary of Jurisdictional Areas

Drainage ID /Survey Area	Watershed	Waters of the US Length (feet)	Waters of the US (acre)	RWQCB Length (Feet)	RWQCB (acre)	CDFW Length (Feet)	CDFW (acre)	Latitude	Longitude	Cowardin Class	Class of Aquatic Resource
D1	Warm Springs Creek	741	0.06	741	0.06	741	1.9	33.603906	-116.161581	R4SBC	non-section10-non wetland

R4SBC – Riverine, Intermittent, Streambed, Seasonally Flooded based on Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et. al., 1979).

## **6.0 IMPACTS TO JURISDICTIONAL AREAS**

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The project was designed to avoid impacts to jurisdictional areas as much as possible. The proposed project will impact 0.03 acres CDFW jurisdictional area and will not impact any USACE or RWQCB jurisdictional areas. It is not known at this time if the impacts will require the removal of any additional trees, of just the trimming of limbs and brush. The areas to be impacted will be required to build the retaining walls and access areas which will make it possible to avoid impacts to all other areas of the drainage.

## **6.1 Permitting Requirements**

The proposed project requires impacts to jurisdictional areas and therefore, authorizations from CDFW are required as described below.

### **6.1.1 U.S. Army Corps of Engineers**

As of June 22, 2020, under the new 2020 USACE ruling, ephemeral drainages would not be considered WUS. USACE would likely not assert jurisdiction over the onsite ephemeral drainages. If the USACE did assert jurisdiction over the on-site drainages, or if the applicant decided to use a preliminary determination of jurisdictional status, and permit as jurisdictional status, then a 404 permit may be required as described below.

The two most common types of permits issued by USACE under Section 404 of the CWA to authorize the discharge of dredged or fill material into WUS are: a nation-wide permit (NWP) or an individual permit (IP).

NWPs are general permits for specific categories of activities that result in minimal impacts to aquatic resources.

However, no impacts to USACE areas are anticipated at this time.

### **6.1.2 Regional Water Quality Control Board**

The project areas occur in the San Diego RWQCB (Region 9). Under Section 401 of the CWA, the RWQCB must certify that the discharge of dredged or fill material into WUS does not violate state water quality standards.

The RWQCB also regulates impacts to WSC under the Porter Cologne Water Quality Control Act through issuance of a Construction General Permit, State General Waste Discharge Order, or Waste Discharge Requirements, depending upon the level of impact and the properties of the waterway.

No impacts to RWQCB areas are anticipated at this time.

If impacts were to occur, the project proponent would need to obtain a Water Quality Certification. In addition to the formal application materials and fee (based on area of impact), a copy of the appropriate California Environmental Quality Act (CEQA) documentation must be included with the application.

### **6.1.3 California Department of Fish and Wildlife**

A 1602 Streambed Alteration Agreement is required for all activities that alter streams and lakes and their associated riparian habitat, regardless of the extent of impacts. In addition to the formal application materials and fee (based on cost of the project), a copy of the appropriate CEQA documentation must be included with the application.

## 7.0 REFERENCES

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- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. *The Jepson manual: vascular plants of California*, second edition. University of California Press, Berkeley.
- Brady, Roland H. III, Kris Vyverberg. 2013. *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants*. California Energy Commission. Publication Number: CEC-500-2014-013.
- California Department of Fish and Wildlife (CDFW). 2010. *A Review of Stream Processes and Forms in Dryland Watersheds*. Prepared by Kris Vyverberg, Conservation Engineering. 32 p.
- CDFW. 2018. *Fish and Game Code of California*. <http://www.leginfo.ca.gov/calaw.html>.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Department of the Interior.
- Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations (22250)
- Gretag/Macbeth. 2000. *Munsell color*. New Windsor, NY.
- Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner. 2014. *The National Wetland Plant List: 2014 Update of Wetland Ratings*. Phytoneuron 2014-41: 1-42.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>. Accessed March 2020.
- U.S. Army Corps of Engineers (USACE). 1987. *Wetlands Delineation Manual, Technical Report Y-8*. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi. 100 pp. + append.
- USACE. 2008a. *A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States. A Delineation Manual*. Lichvar and McColley. August.
- USACE. 2008b. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. September.
- United States Department of Agriculture, Natural Resources Conservation Service (USDA). 2019a. *The PLANTS Database*. (<http://plants.usda.gov>, 15 June 2019). National Plant Data Team, Greensboro, NC 27401-4901 USA.
- USDA. 2020. *List of Hydric Soils*. Available online at: [http://www.nrcs.usda.gov/wps/PA\\_NRCSCconsumption/download?cid=stelprdb1248596&ext=xlsx](http://www.nrcs.usda.gov/wps/PA_NRCSCconsumption/download?cid=stelprdb1248596&ext=xlsx)

Whitewood  
Jurisdictional Delineation  
April 2021

U.S. Fish and Wildlife Service. 2020. National Wetlands Inventory Mapper. Available online at:  
<http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed March 2020.

United States Geological Survey (USGS). 1996. 7.5-Minute Series, Murrieta, California,  
Topographic Quadrangle. Reston, VA.

## **APPENDIX A**

### **JURISDICTIONAL MAPS**



## **APPENDIX E**

### **SITE PHOTOGRAPHS**



**Photo 1.** View of Drainage across the channel where lows enter the site at the southern culvert.



**Photo 2.** View of Drainage (downstream) from the southern culvert



**Photo 3.** Looking upstream within the channel showing poison oak understory.



**Photo 4.** Looking west (upstream) at the Drainage under the large coast live oak showing impacts from the homeless camp.





**Photo 5.** View of the Drainage looking downstream at the eastern portion of the property.



**Photo 6.** View of soil sample showing lack of hydric indicators but the presence of surface algae.



**Photo 7.** View of the southern riparian area that is not connected hydrologically to the main channel.

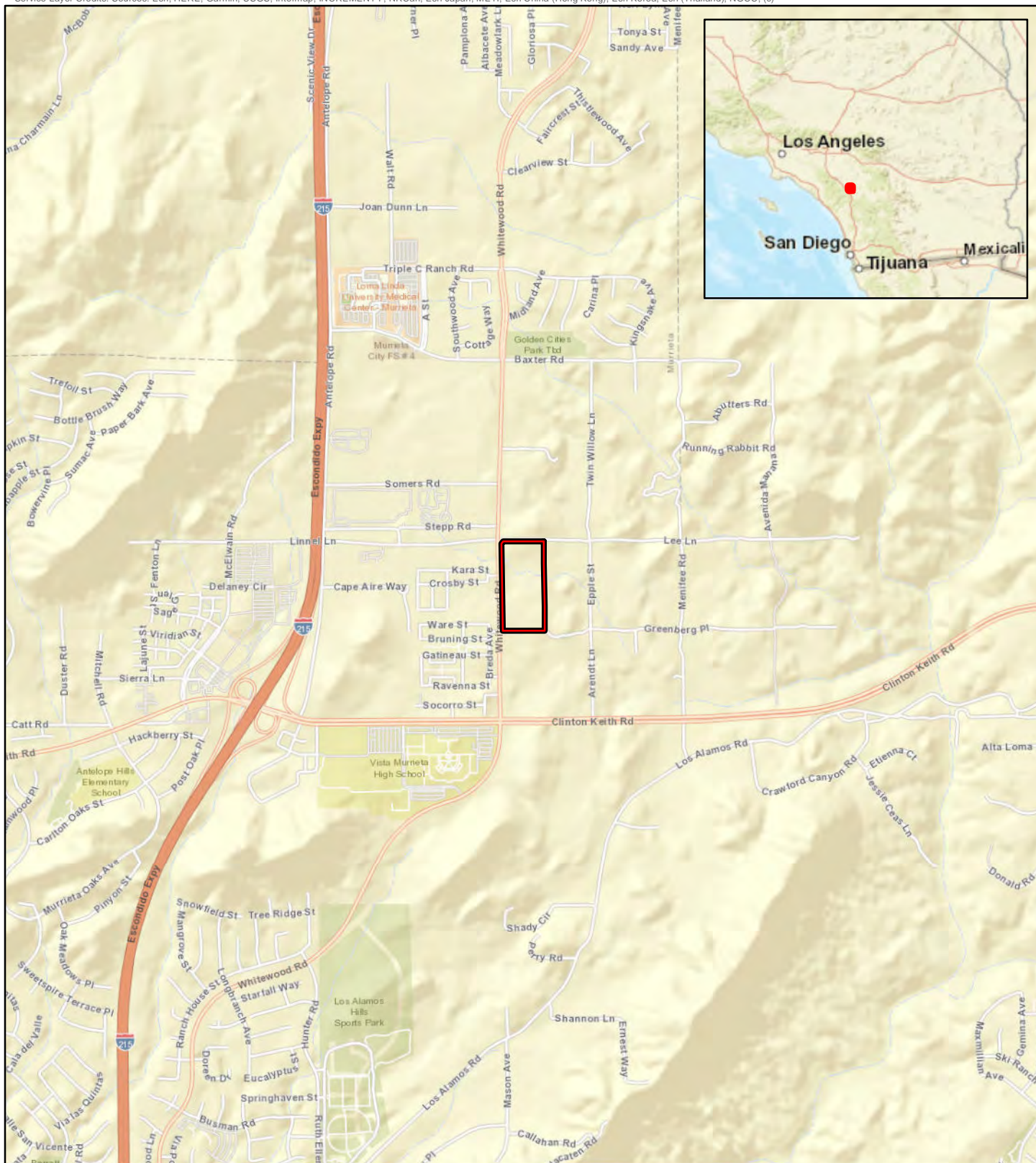


**Photo 8.** Looking southwest (downstream) southern culvert showing pooled water.

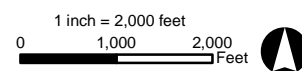
## **APPENDIX C**


### **JURISDICTIONAL DELINEATION FORMS**





Path: \\sdg1-fs1\GIS\3554\_NaturalResources\Whitewood\_APN392320014\MXD\Report-Figures\Fig1\_Regional.mxd, catharine.narwin 3/12/2021

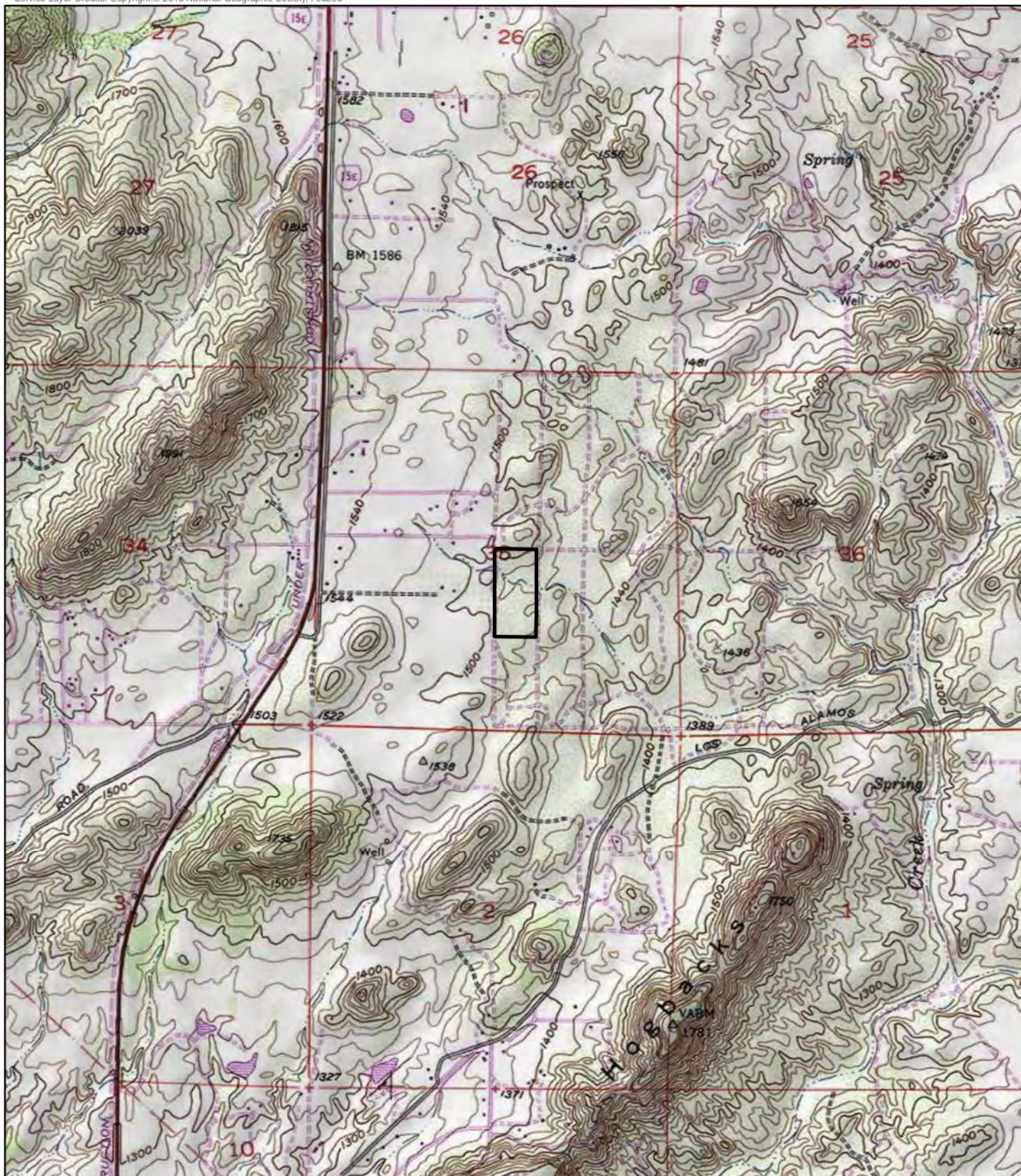


 Project Boundary

**FIGURE 1**  
Regional Location  
Jurisdictional Delineation  
APN 392-320-014  
Whitewood Road at Lee Lane  
Murrieta, CA







Path: \\sdg1-fs1\GIS\3554\_NaturalResources\Whitewood\_APN392320014\MXD\ReportFigures\Fig3\_USGS.mxd, catharine.harwin 3/29/2021

1 inch = 2,000 feet  
0 1,000 2,000 Feet



wood.

 Project Boundary

## FIGURE 2

USGS 7.5' Topo: Murrieta  
Jurisdictional Delineation  
APN 392-320-014  
Whitewood Rd at Lee Lane  
Murrieta, CA









- Project Boundary
- Watershed Boundary (HUC 12)
- NWI Wetlands**
- Riverine



1 inch = 500 feet  
0 500 Feet

**FIGURE 3**  
Watersheds and NWI Wetlands  
Jurisdictional Delineation  
APN 392-320-014  
Whitewood Road at Lee Lane  
Murrieta, CA

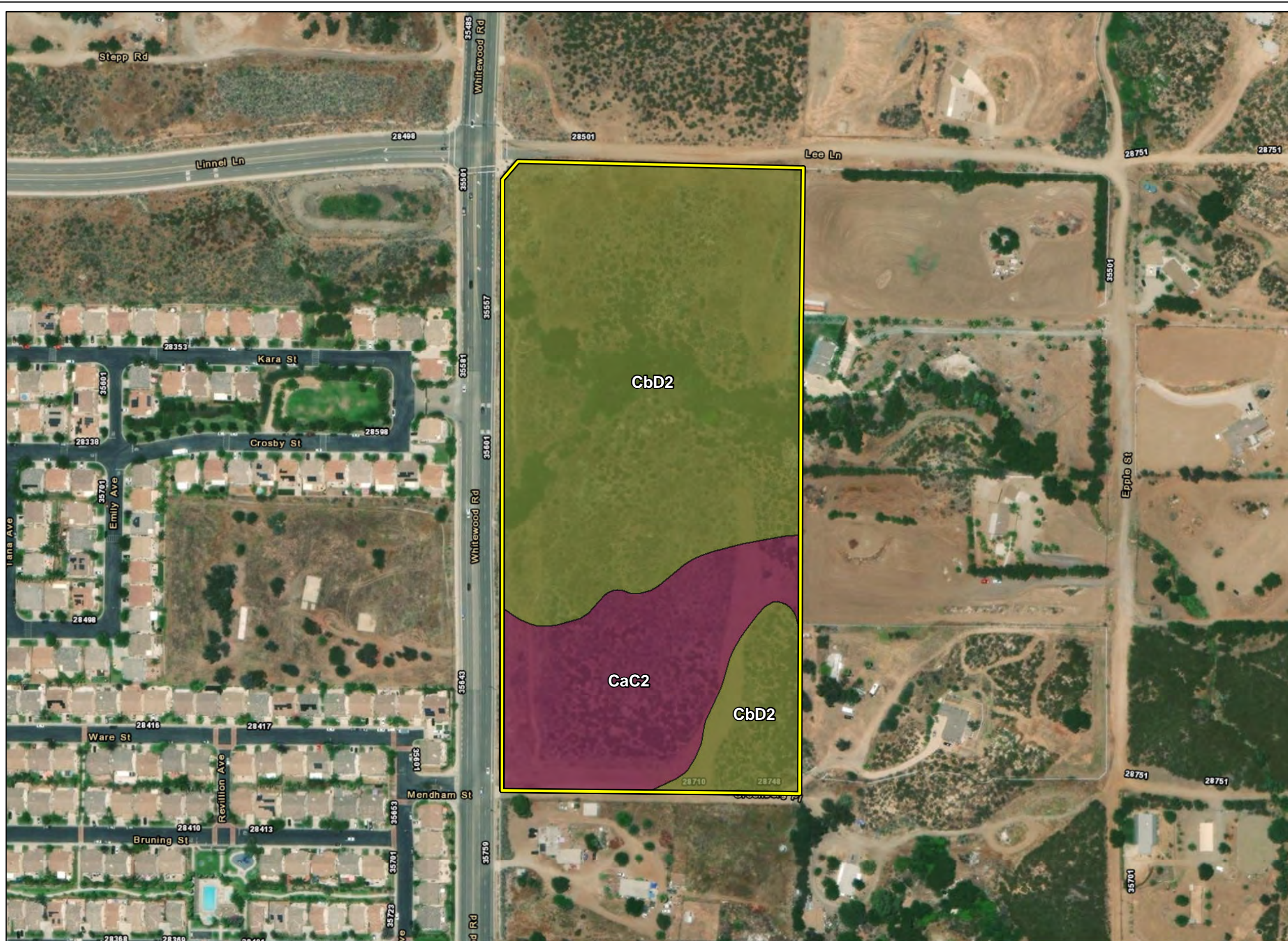
**wood.**

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar  
Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the  
GIS User Community  
Esri, HERE, Garmin, (c) OpenStreetMap contributors

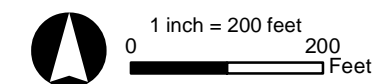








- Project Boundary
- Cajalco fine sandy loam, 2 to 8 percent slopes, eroded
- Cajalco rocky fine sandy loam, 5 to 15 percent slopes, eroded



**FIGURE 4**

Soil Types  
Jurisdictional Delineation  
APN 392-320-014  
Whitewood Road at Lee Lane  
Murrieta, CA



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community  
Esri, HERE, Garmin, (c) OpenStreetMap contributors









- Project Boundary
- CDFW Jurisdiction
- USACE Jurisdiction
- Flow Line



1 inch = 200 feet  
 0 200 Feet

**FIGURE 5**  
 Jurisdictional Delineation  
 APN 392-320-014  
 Whitewood Road at Lee Lane  
 Murrieta, CA

**wood.**

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar  
 Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the  
 GIS User Community  
 Esri, HERE, Garmin, (c) OpenStreetMap contributors



