

Delineation of Jurisdictional Wetlands and Waters

Spring Trails Specific Plan (Access Roads), San Bernardino County, California

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1.0 INTRODUCTION

This report presents the results of a jurisdictional wetland delineation for two proposed access road alignments (project site) associated with the Spring Trails Project. The project site is located in an unincorporated portion of San Bernardino County, within the Sphere of Influence of the City of San Bernardino. The project site is generally located northeast of Interstate 215, south of State Route 138, and southeast of the I-15/I-215 Interchange in southwestern San Bernardino County; specifically, within Sections 35 and 36, Township 2 North, Range 5 West and portions of the Muscupiabe Land Grant on the Devore and San Bernardino North, California, United States Geological Survey (USGS) 7.5-minute topographic quadrangle maps. Figures 1 and 2 provide the regional and vicinity locations of the proposed project.

The primary access road begins as an extension of Little League Drive from the south and from Perrin Drive from the east. The primary access road alignment is located in hilly terrain, ranging from 2,040 feet above mean sea level (AMSL) to approximately 2,400 feet AMSL. This access road would traverse through several tributaries that drain into an unnamed blue-line stream emerging from Meyers Canyon.

The secondary access road originates at the frontage road of the I-215 freeway (Frontage Road) and travels northeasterly to the proposed Spring Trails site with a connection at West Meyers Road. The secondary access road is located approximately 2,800 feet AMSL at the entrance of the Spring Trails site, and descends towards its terminus at Frontage Road to approximately 1,700 feet AMSL. A southern section of this alignment traverses through Cable Creek, which is shown as a blue-line stream according to USGS 7.5-minute topographic map.

Both Cable Creek and the unnamed stream emerging from Meyers Canyon are shown as blue-line streams that flow into the Cajon Creek Wash, the Santa Ana River, and ultimately the Pacific Ocean (Figure 1).

Project Description

The proposed alignment of the primary access road is the extension of the Little League Drive northerly, intersecting with the new Verdmont Drive (previously Perrin Drive). Both sections of road are included in approved tract 17329 immediately southeast of the project site, and include approximately 5,224 linear feet of newly constructed access roads through hilly terrain. At the intersection of the extension of Little League and Verdmont Drive, project traffic would turn left onto Verdmont Drive, then right onto a currently unnamed street, the extension of which would be the main access into the Spring Trails site.

Alternative 1 of the proposed secondary access road is approximately 12,400 linear feet in length and would begin at Frontage Road, southwesterly of the project site, traveling northerly and crossing the Cable Creek and West Meyers Road. At the secondary access road/Frontage Road intersection, project traffic would then travel southeast for one mile to access the I-215 freeway at Palm Avenue. Alternative 2 of the secondary access road is approximately the same distance, but would begin at Frontage Road approximately one mile southeast of Alternative 1, traveling northerly and crossing the narrower section of Cable Creek farther downstream from where Alternative 1 would traverse Cable Creek.

2.0 METHODOLOGY

This wetland delineation was conducted in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, and this report was prepared in accordance with the September 2008

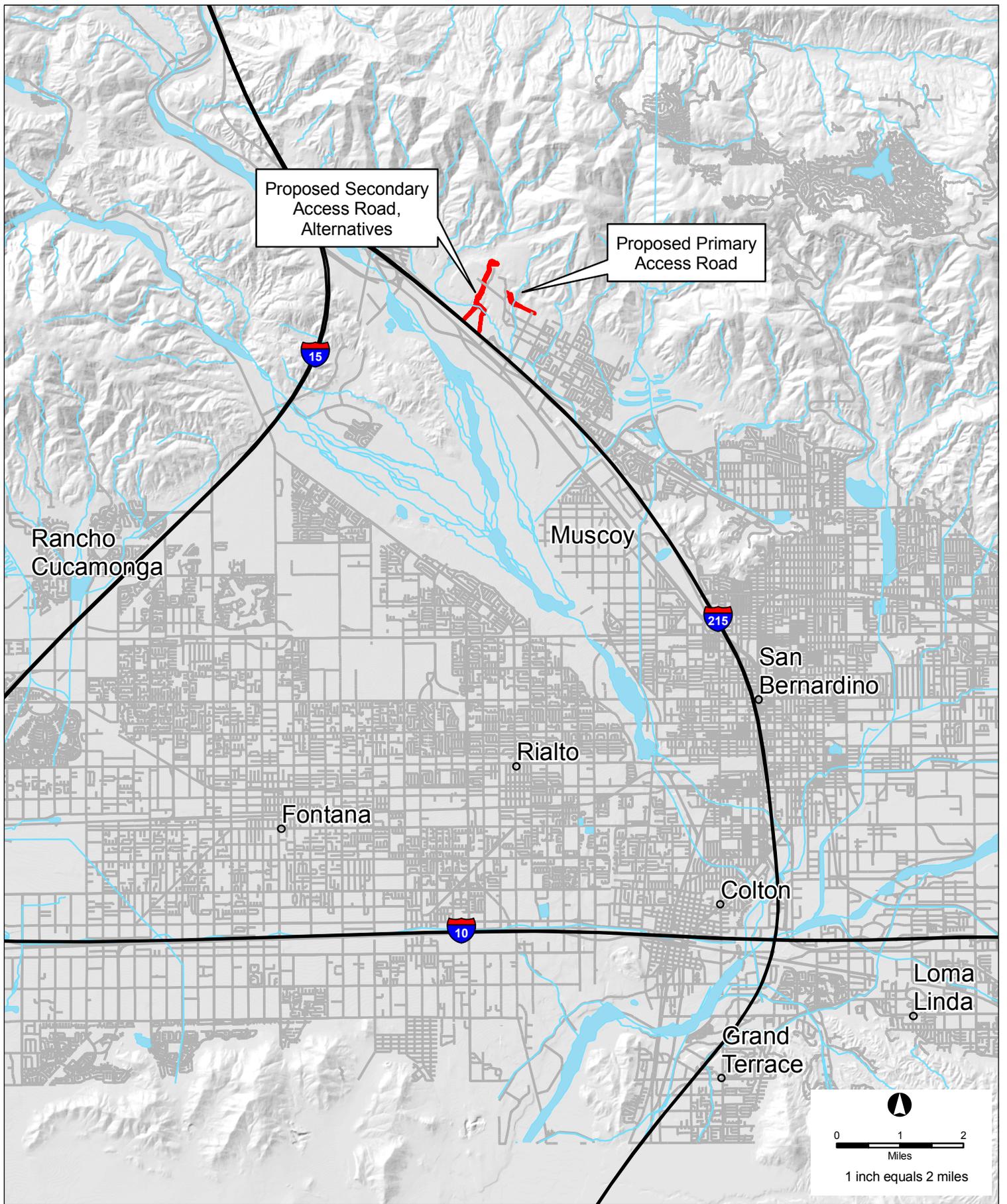


FIGURE 1
Regional Location

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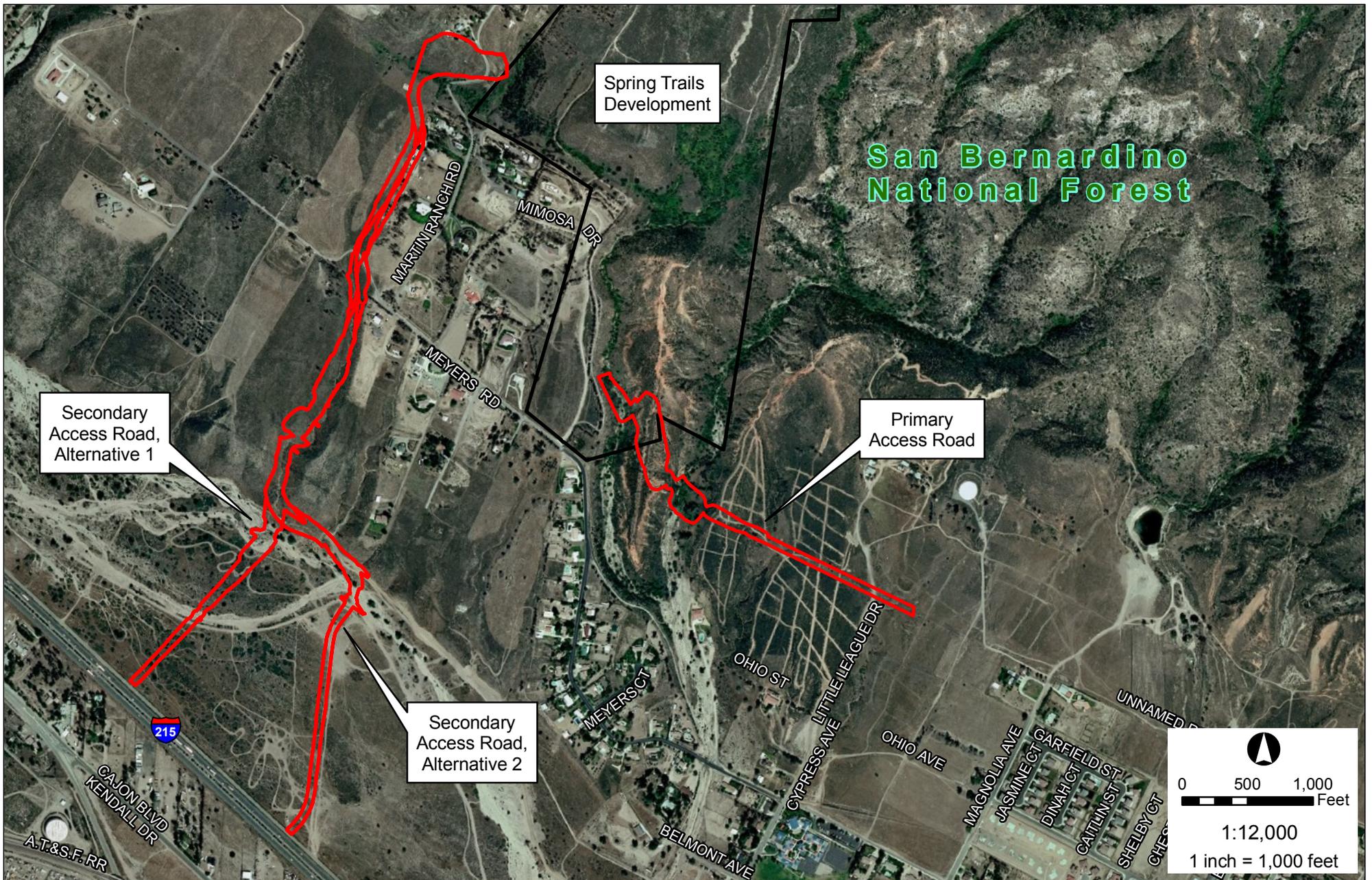


FIGURE 2
Project Vicinity



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Spring Trails Wetland Delineation

Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). A Level 2 Onsite Inspection was conducted (as defined in the *Wetland Delineation Manual*), evaluating three parameters that identify and delineate the boundaries of jurisdictional wetlands, including (1) the dominance of wetland vegetation; (2) the presence of hydric soils; and (3) the presence of hydrologic conditions that result in periods of inundation or saturation on the surface from flooding or ponding. The *National List of Plant Species That Occur in Wetlands: California (Region 0)* was used to determine the wetland indicator status of plants observed within the project site. The *United States Department of Agriculture's soil survey for San Bernardino County, California* and the *National List of Hydric Soils* were used to identify soil types within the project site.

On January 15th and 16th 2009, PBS&J biologists delineated the boundaries of and collected field data from the eight drainage features located within the project boundary. Arid West Data Sheets were prepared for sample sites within drainage features that exhibited potential wetland features, which are located in Appendix A. Representative photographs of the drainage features are located in Appendix B.

Data on vegetation, soils, and hydrology characteristics were recorded in the field and sampling points were located in areas considered to be potential wetland habitat. In addition, bed and bank features and adjacent riparian vegetation were also recorded to determine potential California Department of Fish and Game (CDFG) jurisdiction. All sample locations were examined for the presence of positive hydrologic indicators (e.g., direct evidence of inundation, sediment deposits, saturated soils, oxidized rhizospheres). Soils were examined (via soil test pits) to determine composition, matrix color, and the presence of reducing conditions (e.g., mottles). The percent dominance by hydrophytic vegetation was also recorded at each sample location. Coordinates of each sample location and measurement location were recorded in the field with a Trimble GEO-XT hand-held GPS.

Waters of the U.S. Boundary Justification

The definition of "Waters of the U.S." encompasses both wetland and non-wetland aquatic habitats. Wetlands are "those areas that are inundated or saturated by surface or groundwater 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." Non-wetland waters include streams, rivers, lakes, and ponds and are collectively referred to as "Other Waters of the U.S."

The Waters of the U.S boundary was defined by the ordinary high water mark (OHWM) within a potentially jurisdictional feature, which is defined as that line on the shore that is established by the fluctuations of water. The OHWM is 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.

Destruction of vegetation, distinct shelving, and presence of litter and debris were the most distinct features encountered in the field when trying to establish the OHWM for this project.

The eight drainages within the project site would be classified as Other Waters of the U.S. since they all drain into the Cajon Creek Wash, the Santa Ana River, and ultimately the Pacific Ocean.

3.0 VEGETATION

Plant communities were mapped using 7.5-minute USGS topographic base maps and recent aerial photography. Sensitive or unusual biological resources identified during the literature review were ground-truthed during the wetland delineation performed by PBS&J (January 2009). Plant communities within the access road alignments were classified according to Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986 and 1996 update) and cross-referenced with California Department of Fish and Game's (CDFG) List of Terrestrial Natural Communities (2003).

The proposed access roads support disturbed Riversidean sage scrub, Riversidean alluvial fan sage scrub, sycamore alluvial woodland, non-native grassland, eucalyptus woodland, agriculture, and disturbed vegetation communities. Figure 3 shows the location of the vegetation classifications within the project site. Riversidean alluvial fan sage scrub, Riversidean sage scrub, and non-native grassland were the predominant vegetation communities found within or along the drainage features, and are further described below.

Riversidean Alluvial Fan Sage Scrub

The CDFG lists Riversidean alluvial fan sage scrub (RAFSS) as rare and it is considered a sensitive plant community because it is often believed to be suitable habitat for a number of sensitive plant and wildlife species. RAFSS is an open plant community adapted to the harsh conditions of flooding. It grows on sandy, rocky alluvium deposited by streams that experience infrequent episodes of flooding. RAFSS is composed of an assortment of drought-tolerant deciduous sub-shrubs and large, evergreen, woody shrubs that are adapted to the periodic and intense episodes of flooding and erosion that occurs along the alluvial fans. Scalegroom (*Lepidospartum squamatum*) is a typical component of RAFSS and is located throughout this plant community. Additional species common to RAFSS and located on site include spiny redberry (*Rhamnus crocea*), chaparral yucca (*Yucca whipplei*), California croton (*Croton californicus*), birch-leaf mountain mahogany (*Cercocarpus betuloides*), yerba santa (*Eriogonum trichocalyx*), and deer weed (*Lotus scoparius*). Cable Creek has a number of riparian species growing along its margins, including California sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii* ssp. *fremontii*), blue elderberry (*Sambucus mexicana*), southern California black walnut (*Juglans californica* var. *californica*), and California wild grape (*Vitis californica*). There are currently five acres of RAFSS habitat within the secondary access road alignment. No RAFSS was observed within the primary access road alignment.

Riversidean Sage Scrub

Riversidean sage scrub (RSS) is the most xeric (dry, desert-like) expression of coastal sage scrub in southern California and has adapted to periodic occurrence of fire and other forms of disturbance. The majority of RSS on site has a history of disturbance. Much of the area currently supporting RSS was dryland farmed or grazed in the past. Previous fire events have greatly influenced RSS within the access road alignments. Today, the RSS has substantially recovered and is currently in an intermediate phase of succession within the access road alignments. This community is dominated by California buckwheat (*Eriogonum fasciculatum*), deer weed, white sage (*Salvia apiana*), yerba santa, and black sage (*Salvia mellifera*). There is currently 11.92 acres of RSS within both access road alignments. RSS is the predominate community on the primary access road alignment (mostly within the central portion of the alignment), and is also the predominate community on the secondary access road alignment.

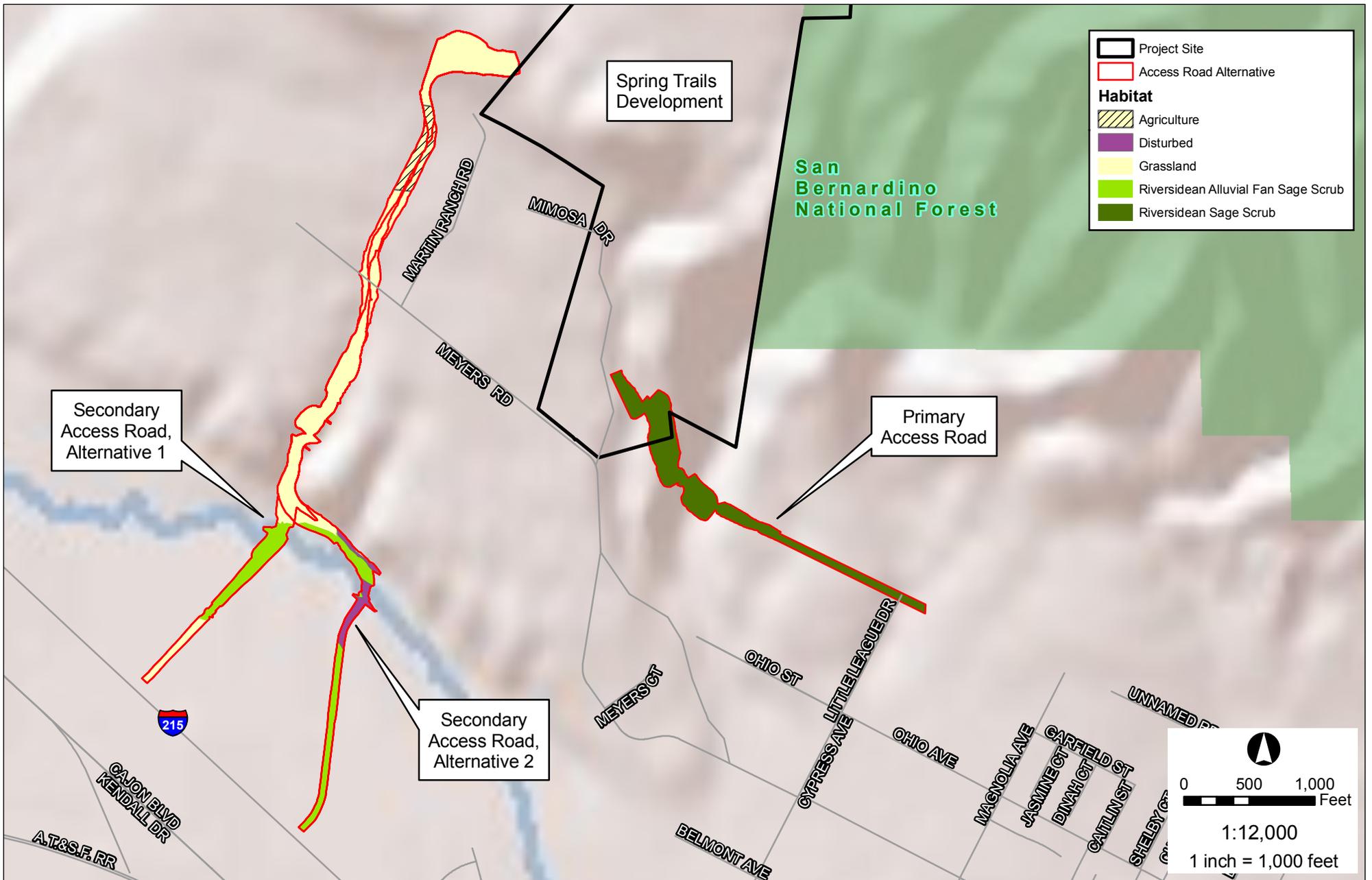


FIGURE 3

Vegetation Communities within Project Site

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Spring Trails Wetland Delineation



Non-native Annual Grassland

Non-native annual grassland is a dense to sparse cover of annual grasses, often associated with numerous species of showy-flowered native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Dominant species include wild oat (*Avena fatua*), slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), barley (*Hordeum vulgare*), fescue (*Vulpia myuros*), black mustard (*Brassica nigra*), red-stemmed filaree (*Erodium cicutarium*), and cheeseweed (*Malva parviflora*). Non-native grassland is typically one of the first plant communities to reestablish a disturbed area following a fire. This community comprises 11.72 acres, the majority of which is within the northern and central portion of the secondary access road alignment.

4.0 SOILS

The United States Department of Agriculture (USDA) has published soil surveys that describe the soil series that occur within a particular area. A soil series is a group of soils with similar profiles. These profiles include major horizons with similar thickness, arrangement, and other important characteristics. These series are further subdivided into soil mapping units, which provide specific information regarding soil characteristics.

Based on the Natural Resources Conservation Service (NRCS) Soil Surveys for San Bernardino County, Southwestern Part and San Bernardino National Forest (USDA 2008), the access road alignments contain eleven distinct soil mapping units: Ramona family, Soboba-Hanford family, Osito-Modesto family, Cieneba-Rock outcrop complex, Greenfield fine sandy loam, Hanford coarse sandy loam, Ramona sandy loam, Saugus sandy loam, Soboba gravelly loamy sand, Soboba stony loamy sand, and Tujung gravelly loamy sand (Figure 4). General characteristics associated with these soils types are described below.

ChDE—Ramona family-Typic Xerorthents, warm association, 2 to 30 percent slopes (ChDE)

This association is about 60 percent Ramona family soils and 20 percent Typic xerorthents, warm, and similar soils. It occurs on uplands at elevations of 2,000 to 4,000 feet. These soils are well drained and runoff is low. This soil is not listed as hydric soil on the NRCS Soil Survey for San Bernardino National Forest.

Soboba-Hanford families association, 2 to 15 percent slopes (AbD)

This association is about 50 percent Soboba family soils and 30 percent Hanford family soils. It occurs on floodplains at elevations of 1,600 to 4,000 feet. These soils are well to excessively drained, and runoff is moderate. This soil is not listed as hydric soil on the NRCS Soil Survey for San Bernardino National Forest.

Osito-Modesto families association, 30 to 50 percent slopes (CmF)

This association is about 40 percent Osito family soils and 30 percent Modesto family soils. It occurs on hills at elevations of 1,800 to 4,200 feet. These soils are well drained, and runoff is moderate. This soil is not listed as hydric soil on the NRCS Soil Survey for San Bernardino National Forest.

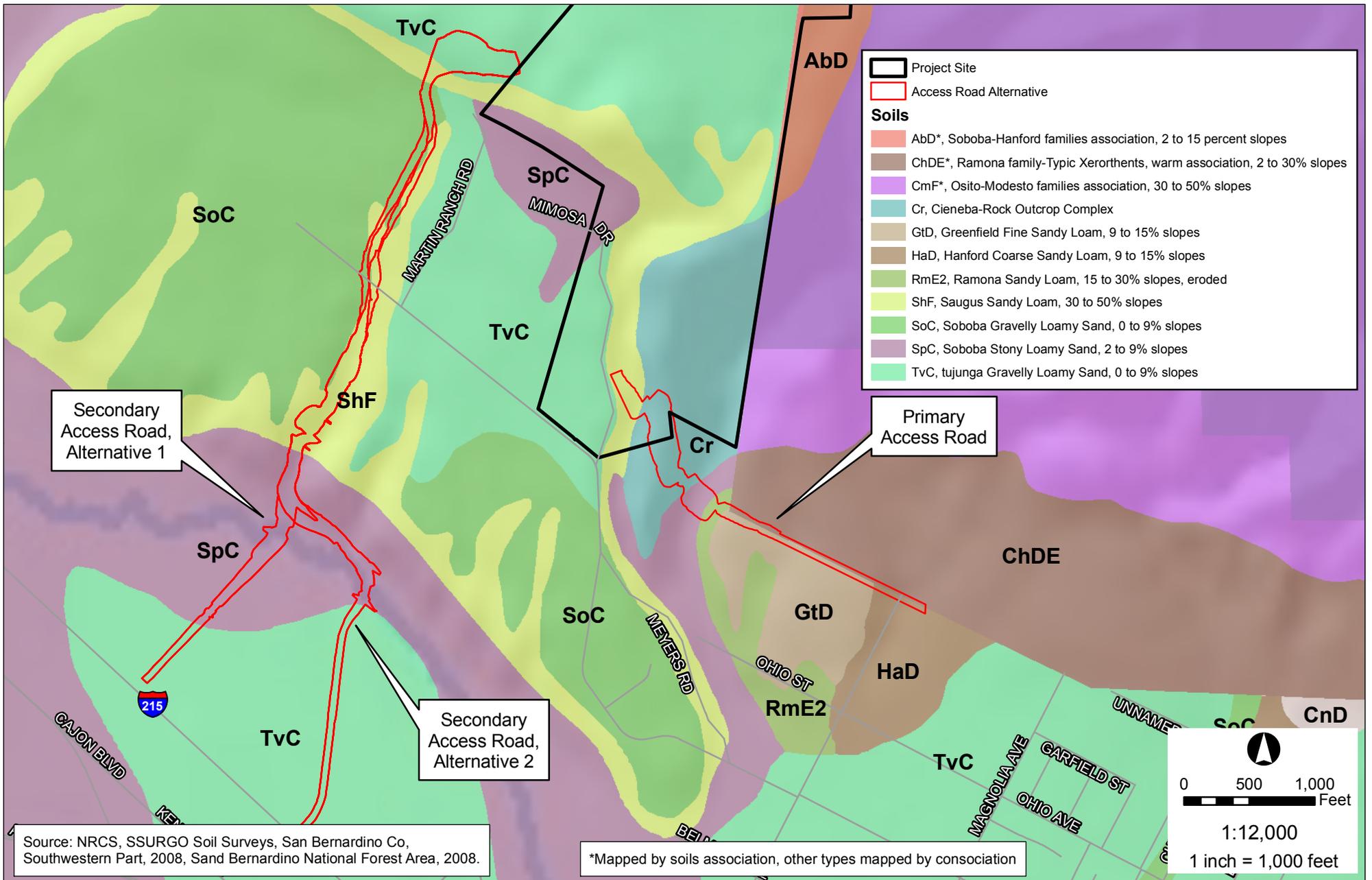


FIGURE 4
Soil types

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Spring Trails Wetland Delineation



Cieneba-Rock outcrop complex, 30 to 50 percent slopes (CmF)

This complex is about 60 percent Cieneba and similar soils and 30 percent rock outcrop. It occurs on hills at elevations of 500 to 4,000 feet. These soils are somewhat excessively drained, and runoff is high. This soil is not listed as hydric soil on the NRCS Soil Survey for San Bernardino County, Southwestern Part.

Greenfield fine sandy loam, 9 to 15 percent slopes (GtD)

This soil type is about 85 percent Greenfield and similar soils. It occurs on alluvial fans at elevations of 100 to 3,500 feet. These soils are well drained, and runoff is moderate. This soil is not listed as hydric soil on the NRCS Soil Survey for San Bernardino County, Southwestern Part.

Hanford coarse sandy loam, 9 to 15 percent slopes (HaD)

This soil type is about 85 percent Hanford and similar soils. It occurs on alluvial fans at elevations of 150 to 900 feet. These soils are well drained, and runoff is low. This soil is not listed as hydric soil on the NRCS Soil Survey for San Bernardino County, Southwestern Part.

Ramona sandy loam, 15 to 30 percent slopes, eroded (RmE2)

This soil type is about 85 percent Ramona and similar soils. It occurs on terraces at elevations of 250 to 3,500 feet. These soils are well drained, and runoff is low. This soil is not listed as hydric soil on the NRCS Soil Survey for San Bernardino County, Southwestern Part.

Saugus sandy loam, 30 to 50 percent slopes (ShF)

This soil type is about 85 percent Saugus and similar soils. It occurs on hills at elevations of 600 to 2,500 feet. These soils are well drained, and runoff is low. This soil is not listed as hydric soil on the NRCS Soil Survey for San Bernardino County, Southwestern Part.

Soboba gravelly loamy sand, 0 to 9 percent slopes (SoC)

This soil type is about 85 percent Soboba and similar soils. It occurs on alluvial fans at elevations of 30 to 4,200 feet. These soils are excessively drained, and runoff is high. This soil is listed as partially hydric on the NRCS Soil Survey for San Bernardino County, Southwestern Part.

Soboba stony loamy sand, 2 to 9 percent slopes (SpC)

This soil type is about 85 percent Soboba and similar soils. It occurs on alluvial fans at elevations of 30 to 4,200 feet. These soils are excessively drained, and runoff is very high. This soil is not listed as hydric soil on the NRCS Soil Survey for San Bernardino County, Southwestern Part.

Tujunga gravelly loamy sand, 0 to 9 percent slopes (TvC)

This soil type is about 85 percent Tujunga and similar soils. It occurs on alluvial fans at elevations of 10 to 1,500 feet. These soils are somewhat excessively drained, and runoff is high. This soil is listed as partially hydric on the NRCS Soil Survey for San Bernardino County, Southwestern Part.

5.0 HYDROLOGY

Several drainage features are located throughout the project site. The main hydrologic feature within the project site is Cable Creek. There are five unnamed drainages that have been delineated within the road access alignments, these all eventually flow into Cable Creek. The hydrology of Cable Creek and its tributaries is discussed below and shown in Figure 5 (Potential Corps and RWQCB Jurisdictional Areas within Project Site), Figures 6a through 6g (Wetland Delineation), and Figure 7 (Potential CDFG Jurisdictional Areas within Project Site). Representative photographs of the project site are provided in Appendix B.

Cable Creek

Cable Creek is an intermittent stream that flows from west to east. It is tributary to Cajon Creek, Lytle Creek, and the Santa Ana River, a perennial Relatively Permanent Water (RPW) that flows to the Pacific Ocean, a traditional navigable water (TNW). The majority of surface flows originate from the San Bernardino Mountains, outside the Bunker Hill and Lytle Creek basins. Both Alternatives 1 and 2 of the secondary access road alignments cross Cable Creek. Also, Alternative I, of the secondary access road, receives storm water runoff directly from Highway 215 via a concrete culvert (see Figure 6f and Photo 1).

Cable Creek is an earthen-bottom feature comprised of RAFSS habitat. Dominant vegetation observed within the proposed secondary road alignments includes scalebroom (*Lepidospartum squamatum*), common ragweed (*Ambrosia artemisiifolia*), and yerba santa (*Eriodictyon glutinosum*). Other species observed included mountain mahogany (*Cercocarpus betuloides*), tree tobacco (*Nicotiana glauca*), coastal prickly pear (*Opuntia littoralis*), California sagebrush (*Artemisia californica*) and limited herbaceous vegetation, such as small forbs and grasses.

The OHWM for the active channel measures approximately 924 feet wide (for the secondary access road, Alternative 2) to 118 feet wide (for the secondary access road, Alternative 1). A soil pit was dug within the secondary access road alignment (Figure 5 and Photo 3). The data sheet for this soil pit (available in Appendix A) concluded no hydrophytic vegetation and no hydric soils, while wetland hydrology was present. The reason this data point was taken was to document the hydrophytic vegetation within Cable Creek stream bed, and not to determine this area functions as a seasonal wetland. The top of the western bank extends an additional five feet south of the OHWM for Alternative 1, and extends an additional one foot on each side of the bank for Alternative 2.

In summary, within Cable Creek approximately 2.304 acres of the proposed secondary access road alignment (Alternative 1) and 0.228 acre along Alternative 2 could fall under the jurisdiction of the United States Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) because these drainage areas within Cable Creek exhibit downstream connectivity to a navigable waterway. Cable Creek also exhibits distinct bed and bank features with a stream bed that is comprised of gravel and cobbles and is scoured. Approximately 2.311 acres of Alternative 1 and 0.736 acre along Alternative 2 could fall under the jurisdiction of the CDFG.

Tributary 1

Tributary 1 is a drainage feature that is a tributary to Cable Creek and is located in the central portion of the secondary access road alignment (Figures 5, 6a, and 6b). The source of water into Tributary 1 is anticipated to be from off-site urban runoff and local topography. The dominant vegetation along the

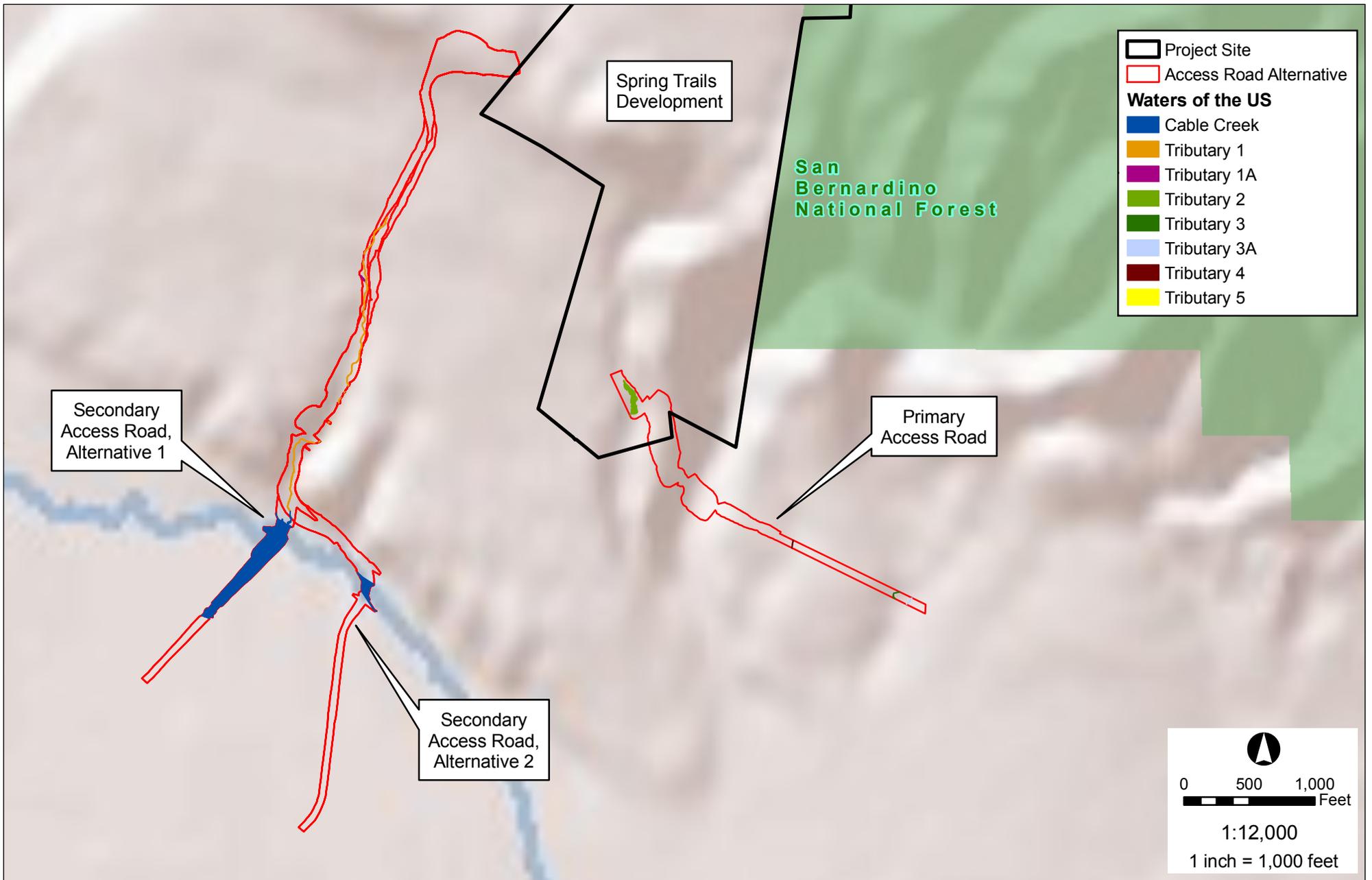


FIGURE 5

Potential Corps and RWQCB Jurisdictional Areas within the Project Site



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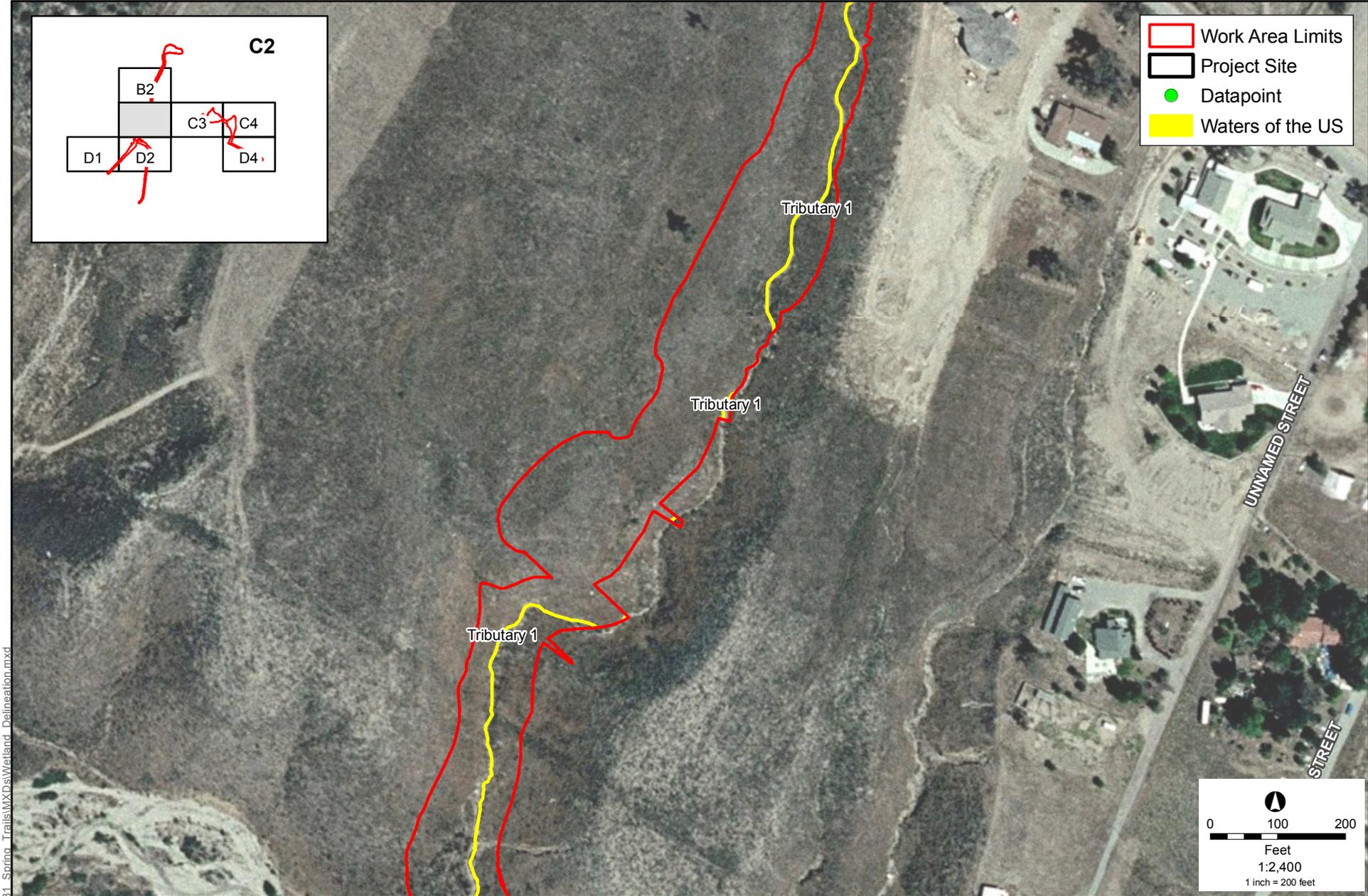
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Figure 6a
Wetland Delineation

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Spring Trails Wetland Delineation



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Figure 6b
Wetland Delineation

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Spring Trails Wetland Delineation

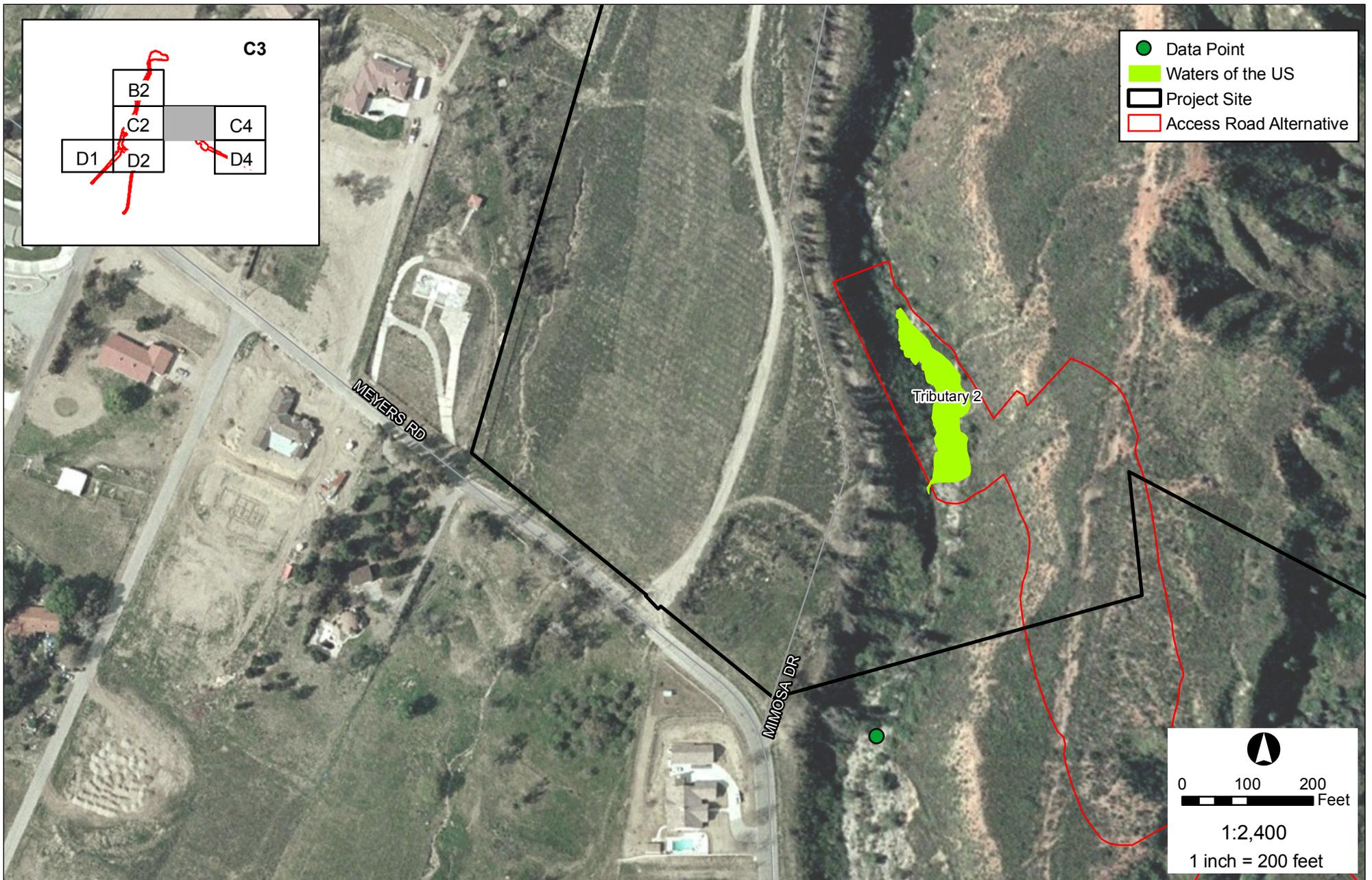


FIGURE 6c

Wetland Delineation

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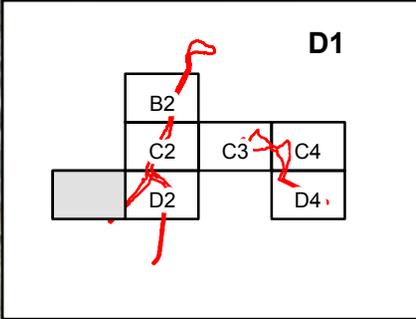
FIGURE 6d

Wetland Delineation

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Spring Trails Wetland Delineation





- Work Area Limits
- Project Site
- Datapoint
- Waters of the US

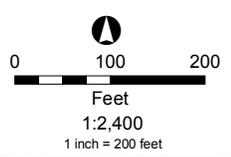


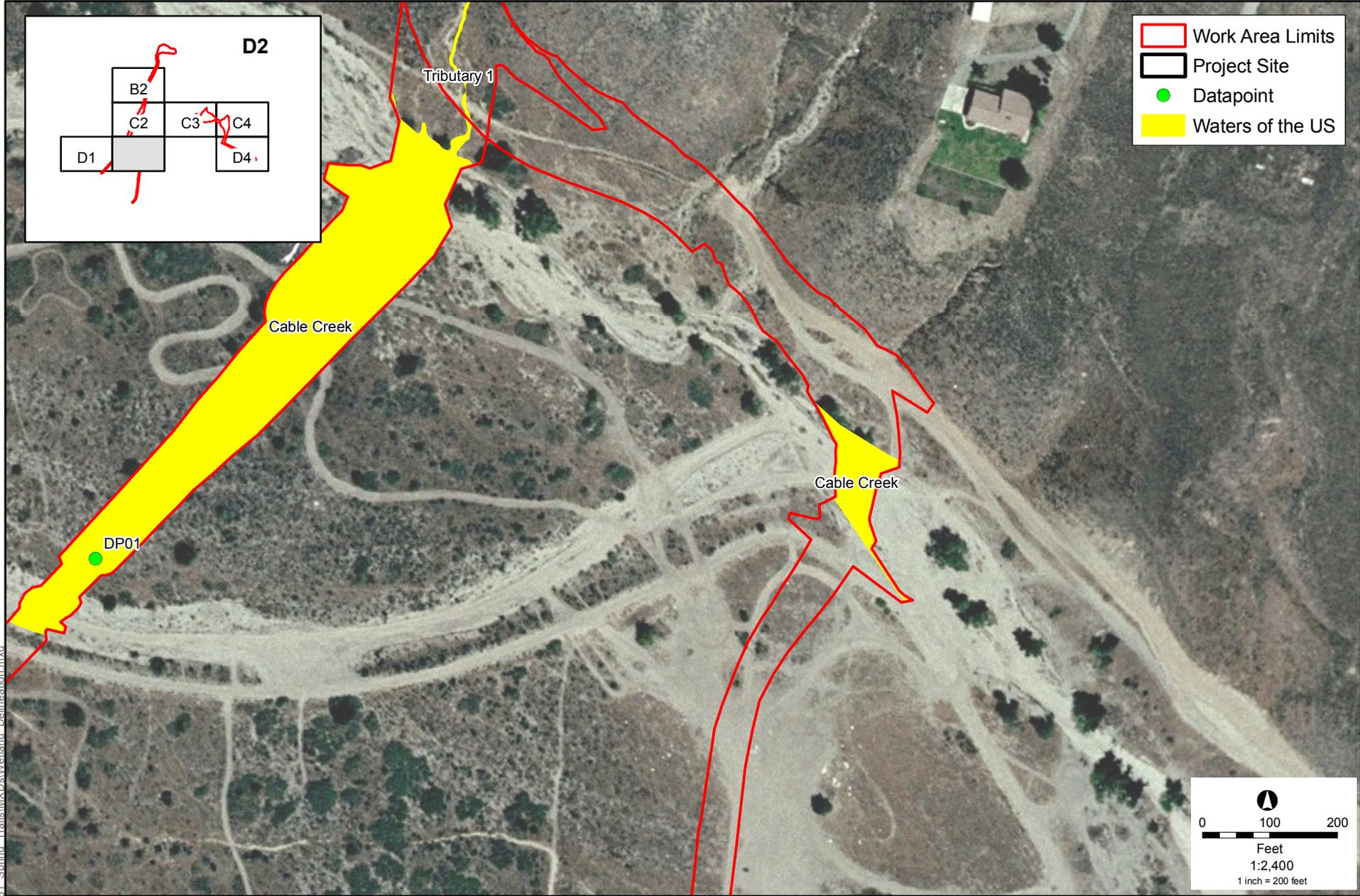
Figure 6e
Wetland Delineation



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Spring Trails Wetland Delineation

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Figure 6f
Wetland Delineation

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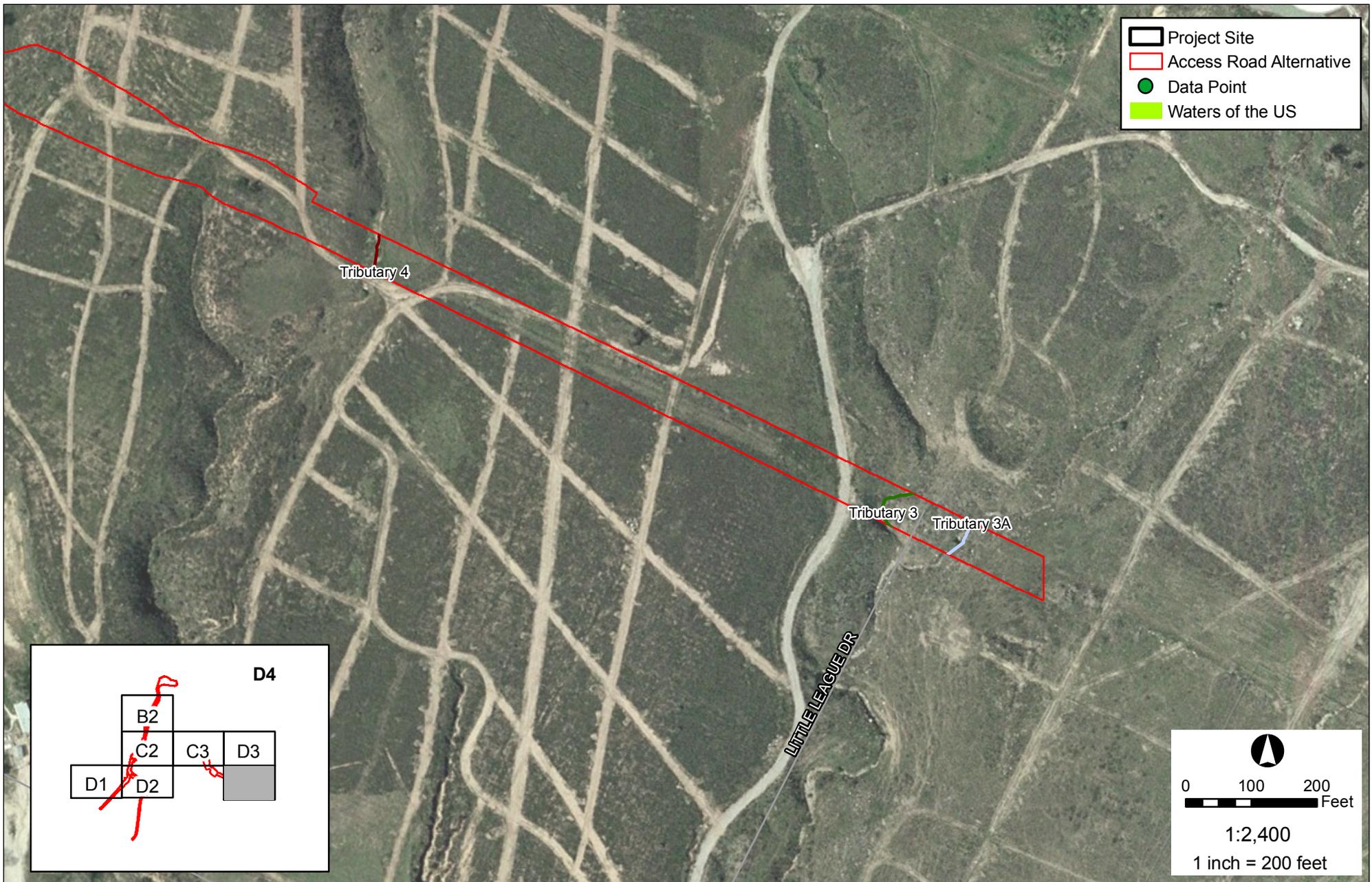


FIGURE 6g

Wetland Delineation

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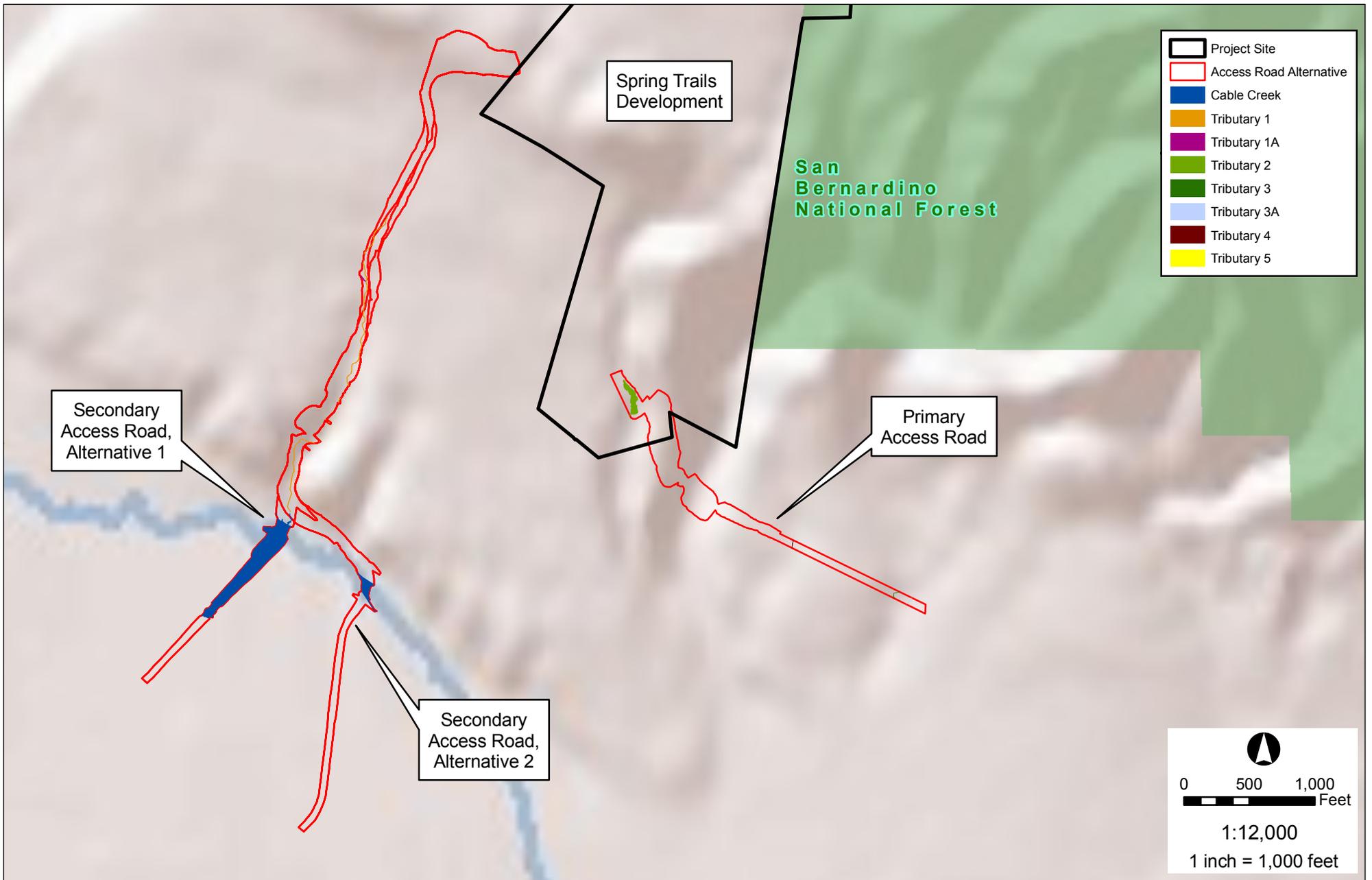


FIGURE 7

Potential CDFG Jurisdictional Areas within the Project Site



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Spring Trails Wetland Delineation

banks consists of non-native grassland, the dominant species observed being California sunflower, California sagebrush, and cheeseweed (Photos 4 through 8).

The OHWM for the active channel measures approximately three feet to 15 feet wide, with an average width of approximately five feet. Approximately 0.254 acre within the proposed secondary access road alignments could fall under the jurisdiction of the USACE and RWQCB. The top of the banks extend an additional one foot on each side of the OHWM. Approximately 0.355 acre of this tributary could fall under CDFG jurisdiction.

Tributary 1A

Tributary 1A is a small drainage feature that flows in a southeasterly direction into Tributary 1, and is located in the upper central portion of the secondary access road alignment, just south of Meyers Road (Figure 5 and Figure 6b). Similar to Tributary 1, the source of water into Tributary 1A is anticipated to be from off-site urban runoff and local topography. The streambed is mostly unvegetated, although there are some dispersed non-native grasses along the banks, and a small eucalyptus woodland community farther upstream that is outside of the proposed road alignment (Photos 9 through 11).

The OHWM for the active channel measures approximately four feet wide, with an average width of approximately 4.25 feet. Approximately 0.006 acre within the proposed secondary access road alignments could fall under the jurisdiction of the USACE and RWQCB. The top of the banks extend an additional 2.5 feet on each side of the OHWM. Approximately 0.013 acre of this tributary could fall under CDFG jurisdiction.

Tributary 2

Tributary 2 is a drainage feature that is a tributary to Cable Creek, and is located in the western portion of the primary access road alignment (Figure 5 and Figure 6c). The source of water into Tributary 2 appears to be the upstream watershed directly north of the tributary, it may receive a small amount of urban runoff. The vegetation within the active channel consists of a Sycamore alluvial woodland community. The dominant species observed include willows, western sycamore, and tree tobacco. Other species present included mulefat (*Baccharis salidifolia*) and curly dock (*Rumex crispus*) (Photos 12 through 14). Approximately 0-1 inch of surface water was present during the wetland delineation survey, in small channels within the banks of the wash area.

The OHWM for the active channel measures approximately three to four feet wide, with an average width of approximately 3.5 feet. Approximately 0.251 acre within the proposed primary access road alignment could fall under the jurisdiction of the USACE and RWQCB. The top of the banks extend an additional 2.5 feet on each side of the OHWM. Approximately 0.281 acre of this tributary could fall under CDFG jurisdiction.

Tributary 3

Tributary 3 is a drainage feature that emerges from Meyers Canyon, flows southerly through the eastern portion of the primary access road alignment, and then drains into Cable Creek (Figure 5 and Figure 6g). The source of water into Tributary 3 appears to be from local topography and off-site urban runoff. The vegetation along the banks of this tributary consists of poor-quality Riversidean sage scrub, the dominant

species observed being black mustard, yellow starthistle (*Centaurea solstitialis*), and California sagebrush (Photos 14 and 15).

The OHWM for the active channel measures approximately three feet wide, and approximately 0.006 acre within the proposed primary access road alignment could fall under the jurisdiction of the USACE and RWQCB. The top of the banks extend an additional one foot on each side of the OHWM. Approximately 0.010 acre of this tributary could fall under CDFG jurisdiction.

Tributary 3A

Tributary 3A is a small drainage feature that flows in a southerly direction into Tributary 3, and is located in the eastern portion of the primary access road alignment (Figure 5 and Figure 6g). Similar to Tributary 3, the source of water into Tributary 3A is anticipated to be from local topography and off-site urban runoff. The vegetation along the banks of this tributary consists of similar Riversidean sage scrub species as Tributary 3 (Photos 16 and 17).

The OHWM for the active channel measures approximately three feet wide, and approximately 0.005 acre within the proposed primary access road alignment could fall under the jurisdiction of the USACE and RWQCB. The top of the banks extend an additional one foot on each side of the OHWM. Approximately 0.008 acre of this tributary could fall under CDFG jurisdiction.

Tributary 4

Tributary 4 is another drainage feature that emerges from Meyers Canyon, flows southerly through the central portion of the primary access road alignment, and then drains into Cable Creek (Figures 5, 6d, and 6g). The source of water into Tributary 4 is local topography and a small amount from off-site urban runoff. The vegetation along the banks of this tributary consists of Riversidean sage scrub, the dominant species observed being black mustard, California sunflower, yellow star thistle and California sagebrush (Photos 18 and 19).

The OHWM for the active channel measures approximately 2.5 feet wide, and approximately 0.028 acre within the proposed primary access road alignment could fall under the jurisdiction of the USACE and RWQCB. The top of the banks extend an additional one foot on each side of the OHWM. Approximately 0.050 acre of this tributary could fall under CDFG jurisdiction.

Tributary 5

Tributary 5 is a drainage feature that flows southerly to Cable Creek, and is located in the central portion of the primary access road alignment (Figure 5 and Figure 6d). The source of water into Tributary 5 is from the up-stream watershed that is directly north of the creek channel. The vegetation within the active channel consists of a Sycamore Alluvial Woodland community. The dominant species observed include eucalyptus, western sycamore, and mulefat. Other species present included black mustard, erodium, and cheat grass (Photos 20 through 22).

The OHWM for the active channel measures approximately 16 to 62 feet wide, with an average width of approximately 39 feet. Approximately 0.108 acre within the proposed primary access road alignment could fall under the jurisdiction of the USACE and RWQCB. The top of the banks extend an additional two feet on each side of the OHWM. Approximately 0.121 acre of this tributary could fall under CDFG jurisdiction.

6.0 SUMMARY OF FINDINGS

The jurisdictional delineation field survey results conclude that approximately 3.19 acres within the proposed primary and secondary access road alignments could be under the jurisdiction of the USACE and RWQCB. These results are summarized in Table 1.

Table 1 Acreages of Jurisdictional Waters of the U.S.

Drainage Feature	USACE Jurisdiction (acres)	RWQCB Jurisdiction (acres)
Cable Creek, Alternative 1	2.304	2.304
Cable Creek, Alternative 2	0.228	0.228
Tributary 1	0.254	0.254
Tributary 1A	0.006	0.006
Tributary 2	0.251	0.251
Tributary 3	0.006	0.006
Tributary 3A	0.005	0.005
Tributary 4	0.028	0.028
Tributary 5	0.108	0.108
Total Area	3.19	3.19

The project site could support approximately 3.89 acres of streambed and bank that could fall under the regulatory authority of CDFG (Table 2). In addition, CDFG could assert jurisdiction over approximately 11.85 acres of Riversidean sage scrub and 3.18 acres of RAFSS communities that are considered sensitive by CDFG; however, these vegetation communities are upland from the streambeds and banks and thus will not be subject to Section 1602 of the California Fish and Game Code, but would be considered under the California Environmental Quality Act (CEQA). As such, for regulatory permitting purposes, these acreages are not included in Table 2.

Table 2 Acreages within CDFG Jurisdiction

Drainage Feature	CDFG Jurisdiction (acres)
Cable Creek, Alternative 1	2.311
Cable Creek, Alternative 2	0.736
Tributary 1	0.355
Tributary 1A	0.013

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Biological Report 88 (26.10). May 1988. National Ecology Research Center, Wetlands Inventory,
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Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov>.

U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Geographic
(SSURGO) database for San Bernardino County, Southwestern Part, California, 2008.

_____. NRCS, Soil Survey Geographic (SSURGO) database for San Bernardino National Forest Area,
California, 2008.

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Appendix A

Data Sheet

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Spring Trails (Access Roads) City/County: San Bernardino Sampling Date: 01-15-2009
 Applicant/Owner: Montecito Equities, Ltd State: CA Sampling Point: DP01
 Investigator(s): Ron Walker, May Lau Section, Township, Range: T2N, R5W – Sections 35 +36
 Landform (hillslope, terrace, etc.): alluvial wash Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Soboba stony loamy sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
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Remarks: Sampled area within the wash (Cable Creek) is a waters of the U.S. Average widths of tributaries to Cable Creek:
 Tributary 01: 3-4 feet; ~ 3.5 foot average
 Tributary 01A: 4.25 feet
 Tributary 01B: 3-4 feet; ~ 3.5 foot average

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30' x 30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Cercocarpus betuloides</u>	5	N	UPL	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15' x 15'</u>)				
1. <u>Yucca whipplei</u>	5	N	UPL	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u>Lepidospartum squamatum</u>	8	N	UPL	
3. <u>Salvia apiana</u>	10	N	UPL	
4. <u>Opuntia littoralis</u>	2	N	UPL	
5. <u>Ambrosia sp.</u>	25	Y	_____	
50 = Total Cover				
Herb Stratum (Plot size: <u>1m x 1m</u>)				
1. <u>Erodium sp.</u>	25	Y	UPL	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Bromus diandrus</u>	10	N	UPL	
3. <u>Bromus tectorum</u>	10	N	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
45 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
100 = Total Cover				
% Bare Ground in Herb Stratum <u>40</u>		% Cover of Biotic Crust _____		

Remarks:

Appendix B

Photographs



Photo 1: Urban Runoff Draining To Relevant Reach of Cable Creek



Photo 2: Looking North Across Cable Creek



Photo 3: Datapoint 1 within Secondary Access Road Alignment, Alternative 1, Cable Creek



Photo 4: Looking Downstream Tributary 1 at Convergence with Cable Creek



Photo 5: Looking Upstream Tributary 1 at Canyon Bottom



Photo 6: Looking Downstream Tributary 1 from Meyers Road



Photo 7: Looking Downstream Tributary 1, North of Meyers Road



Photo 8: Looking Upstream Tributary 1, North of Meyers Road



Photo 9: Convergence of Tributary 1A and Tributary 1



Photo 10: Looking Upstream Tributary 1A



Photo 11: Looking Downstream Tributary 1A



Photo 12: Looking Upstream Tributary 2



Photo 13: Looking Downstream Tributary 2



Photo 14: Eastern Bank of Tributary 2



Photo 14: Looking Upstream Tributary 3



Photo 15: Looking Downstream Tributary 3



Photo 16: Looking Upstream Tributary 3A



Photo 17: Looking Downstream Tributary 3A



Photo 18: Looking Upstream Tributary 4 from West Slope



Photo 19: Bed and Bank features of Upper Segment of Tributary 4



Photo 20: Looking Upstream Tributary 5



Photo 21: Looking Downstream Tributary 5



Photo 22: Scouring on East Bank of Tributary 5