
Jurisdictional Delineation Report
for the
**Newtown Road Bridge (25C-0033) at South Fork Weber Creek
Replacement Project**
El Dorado County, CA

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September 2017

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El Dorado County, CA

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I. INTRODUCTION

A. Purpose

Sycamore Environmental Consultants, Inc., conducted a jurisdictional delineation of the Newtown Road Bridge (25C-0033) at South Fork Weber Creek biological study area (BSA) in El Dorado County, CA. The purpose of the delineation was to identify wetlands and waters in the BSA. Jurisdictional delineations are preliminary until verified by the U.S. Army Corps of Engineers (Corps).

B. Project Location

The 5.75-acre BSA is located on Newtown Road, approximately two miles south of the community of Camino in unincorporated El Dorado County, CA. The BSA includes a portion of assessor's parcel numbers (APNs) 077-431-14, 077-431-15, 077-431-17, 077-431-18, 077-431-57, and 077-431-62. The BSA is on the Camino USGS topographic quad (T10N, R12E, Section 20; Figure 1) and is in the South Fork American hydrologic unit (hydrologic unit code 18020129). The geographic coordinates of the BSA are 38.759468° north, 120.492233° west (WGS 84), and the UTM coordinates are 717,900 meters east, 4,293,070 meters north (Zone 10 North, WGS 84; Mt. Diablo Base and Meridian). Figure 2 is a 13 July 2010 aerial photo of the BSA and surrounding area.

To access the BSA from Sacramento, take U.S. Highway 50 east to the Point View Drive Exit. Head south on Point View Drive, and immediately turn east on Broadway for 0.7 mile. Broadway becomes Newtown Road. Continue on Newtown Road for 4.4 miles. The western end of BSA begins near the intersection of Paso Way.

C. Applicant

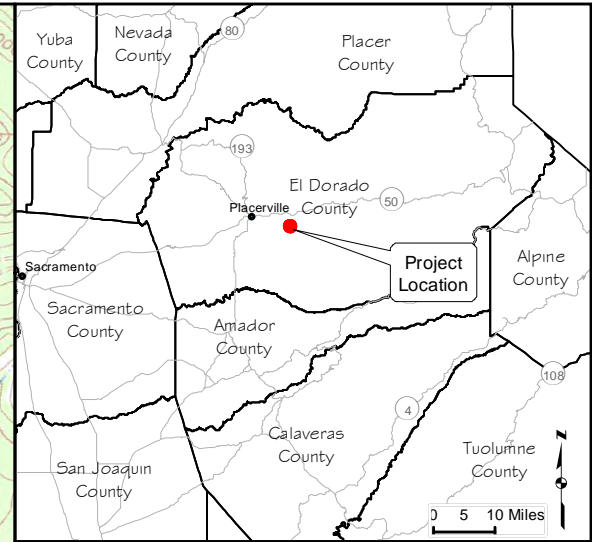
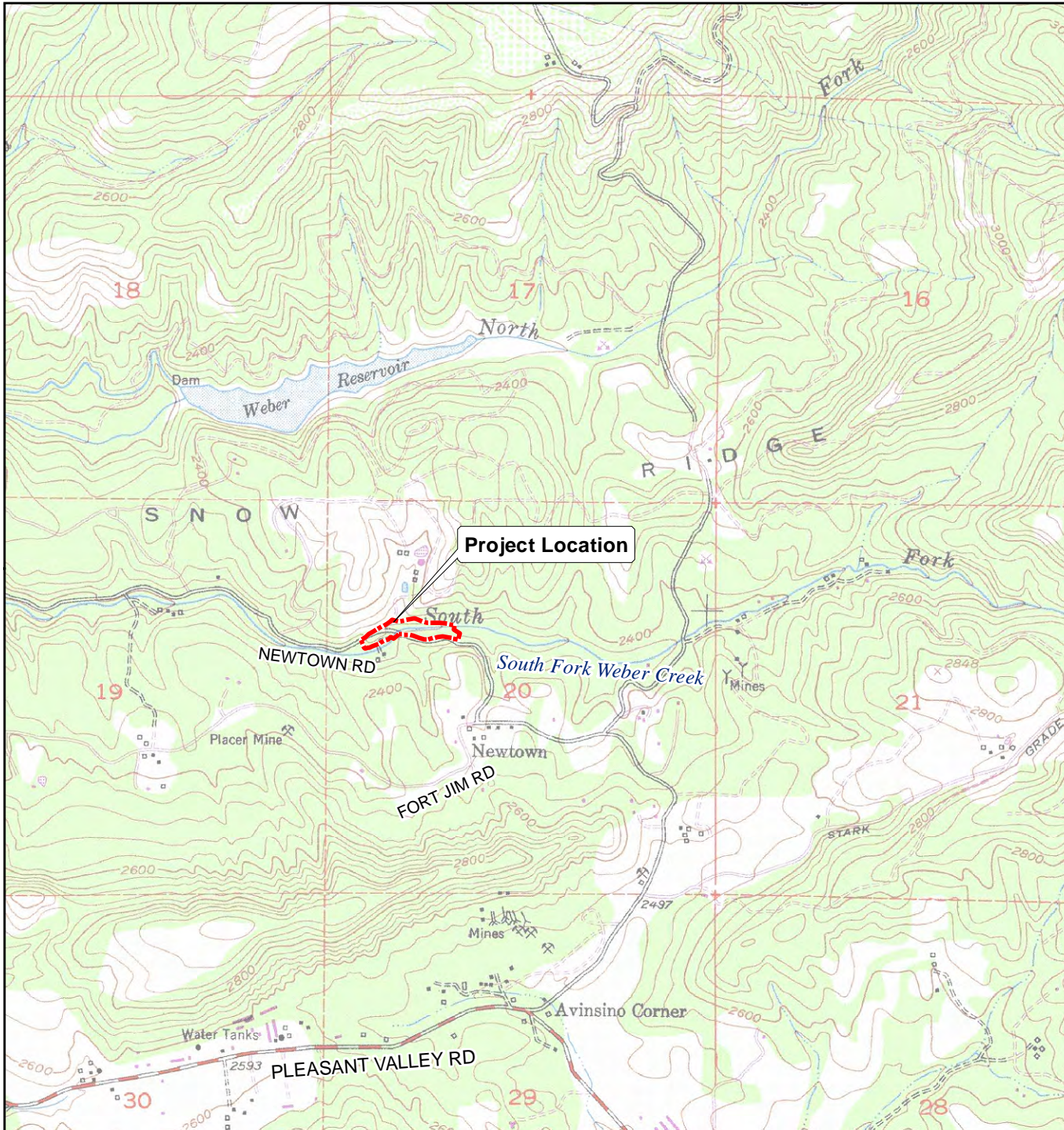
El Dorado County Dept. of Transportation
2411 Headington Road
Placerville, CA 95667
Phone: 530/ 621-5998
Contact: Chandra Ghimire, P.E., Senior Civil Engineer

D. Project Description

El Dorado County Department of Transportation, in conjunction with the California Department of Transportation (Caltrans), intends to replace the existing Newtown Road Bridge (25C-0033) at South Fork Weber Creek. The existing bridge is a 26.9-ft wide, 26.9-ft long single span reinforced concrete slab on concrete abutments.

The project is proposing to replace the existing bridge with a Conspan (or equivalent) precast bottomless arch structure or cast-in-place post-tensioned box girder bridge. The new bridge would be constructed on a similar alignment and would require realignment of South Fork Weber Creek. The project is funded with federal funds through the Federal Highway Bridge Program (HBP). The new bridge will be constructed to meet current American Association of State Highway and Transportation Officials (AASHTO) guidelines.

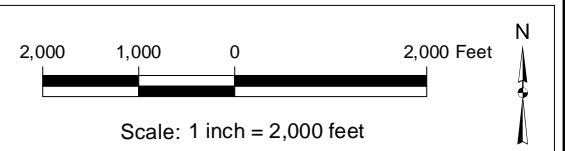
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Newtown Road at
 South Fork Weber Creek
 Bridge (25C-0033)
 Replacement Project
 El Dorado County, CA
 24 February 2017

Figure 1. Project Location Map

 Project Location



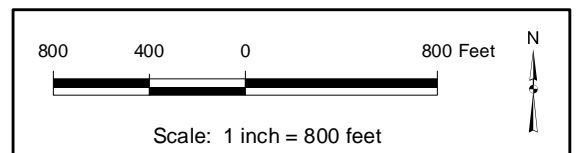
Camino, CA (Photorevised 1973)
 CASIL California USGS Digital Raster Graphics (DRG),
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Newtown Road at
 South Fork Weber Creek
 Bridge (25C-0033)
 Replacement Project
 El Dorado County, CA
 24 February 2017

 Project Location



Aerial Photograph: 13 July 2014
 2014 NAIP Imagery, USDA FSA Imagery
 ArcGIS Imagery Basemap Layer

El Dorado County GIS Roads layer

Figure 2. Aerial Photograph

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II. STUDY METHODS

A. Data Sources

Table 1 is a list of data sources used for report preparation and itemized by the Corps and EPA (2007).

Table 1. Data Sources

Data Requested	Source
Maps, plans, plots or plat submitted by or on behalf of the applicant.	Figures 1-4
Data sheets prepared/submitted by or on behalf of the applicant.	See data sheets in Appendix A
Corps navigable waters' study.	Corps (2016b)
U.S. Geological Survey Hydrologic Atlas. 1. USGS NHD data 2. USGS 8 and 12 digit HUC maps	18020129 (South Fork American River) NOTE: South Fork Weber Creek divides 12-digit basin Northwest bank of creek: Brush Creek-South Fork American River (180201290502) Southeast bank of creek: South Fork Weber Creek-North Fork Weber Creek (180201290601)
U.S. Geological Survey map(s).	Camino USGS quad (See Figure 1)
USDA Natural Resources Conservation Service Soil Survey.	NRCS (1974), NRCS (2012)
National wetlands inventory map(s).	USFWS (2017)
State/Local wetland inventory map(s).	None known
FEMA/FIRM maps.	See Appendix D; effective 26 September 2008
100-year Floodplain Elevation is: (e.g. North American Vertical Datum of 1988)	Zone X: Area determined to be outside the 0.2% annual chance floodplain
Photographs: 1. Aerial (Name & Date): 2. Other (Name & Date):	Figure 2, Aerial Photograph, 13 July 2014 Appendix B, Photographs of BSA, 2012
Previous determination(s). File no. and date of response letter:	None known

B. Survey Dates and Personnel

A reconnaissance level survey was conducted on 4 May 2011 by Jeffery Little. Fieldwork for the jurisdictional delineation was conducted by Mike Bower, M.S., and Jessica Orsolini on 12 June 2012, and by Mr. Bower and Chuck Hughes, M.S., on 27 July 2012. A brief site visit to verify channel hydrology was conducted by Mr. Hughes on 8 October 2012.

C. Survey Methods

This jurisdictional delineation report has been prepared in accordance with the Sacramento District minimum standards (Corps 2016a), U.S. Army Corps of Engineers Wetland Delineation Manual (Corps 1987), Regulatory Guidance Letter 05-05 (Corps 2005), and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Corps 2010). The supplement is intended to bring the Corps Manual (Corps 1987) up to date with current knowledge and practice in the region. The Western Mountains, Valleys, and Coast Region

Supplement is applicable because the BSA is located in sub region Sierra Nevada Mountains Major Land Resource Area 22A (Corps 2010). All wetland and channel features were identified and mapped. Hydrophytic classifications of plants were determined from the National Wetland Plant List (Lichvar et al. 2016). Plant nomenclature follows Baldwin et al. (2012).

D. Jurisdictional Data

The jurisdictional delineation was conducted using the Routine On-Site Determination Method (Corps 1987). Jurisdictional data were recorded using the Wetland Determination Data Form for the Western Mountains, Valleys, and Coast Region (Corps 2010). Soil, vegetation, and hydrology data were recorded at the data points. Plant species were identified by Mike Bower and Chuck Hughes. Wetland data sheets are in Appendix A. Photographs are in Appendix B. Appendix C is a list of plant species recorded at the data points.

E. Mapping and Calculation of Acreages

Channels observed in the BSA by Sycamore Environmental were mapped using a sub-meter accurate global positioning system (GPS). The GPS data were exported to AutoCAD® and aligned with the topographic base map provided by El Dorado County Department of Transportation. Feature extent/boundaries were refined against available topographic contour data and aerial photos. Acreages were calculated using AutoCAD® functions.

F. Definitions

The Corps and EPA regulate the discharge of dredge and fill material into “waters of the United States” under Section 404 of the Clean Water Act (CWA; 33 U.S.C. 1344). The lateral limits of jurisdiction in waters of the U.S. may be divided into three categories. The categories are the territorial seas, tidal waters, and non-tidal waters [see 33 CFR 328.4 (a), (b), and (c), respectively]. The current regulations defining waters of the U.S. [33 CFR 328.3(a)] and defining features that are excluded [33 CFR 328.3(b)], became effective on 28 August 2015 (80 FR 37054), but was stayed by the U.S Sixth Circuit Court of Appeals on 9 October 2015. The definition of waters of the U.S. below, from prior to 28 August 2015, is the definition currently implemented by the Corps while the stay from the Circuit Court is in effect.

The term “waters of the U.S.” is defined at 33 CFR 328.3(a) as:

1. 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;
2. All interstate waters including interstate wetlands;
3. 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 travelers 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;
4. All impoundments of waters otherwise defined as waters of the United States under the definition;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial seas;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)-(6) of this section.
8. Waters of the United States do not include prior converted cropland. 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.

The term “adjacent” is defined at 33 CFR 328.3(c):

The term *adjacent* means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are “adjacent wetlands.”

The limits of jurisdiction are identified in 33 CFR 328.4 as:

- a. Territorial Seas. The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles. (See 33 CFR 329.12)
- b. Tidal Waters of the United States. The landward limits of jurisdiction in tidal waters:
 1. Extends to the high tide line, or
 2. When adjacent non-tidal waters of the United States are present, the jurisdiction extends to the limits identified in paragraph (c) of this section.
- c. Non-Tidal Waters of the United States. The limits of jurisdiction in non-tidal waters:
 1. In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or
 2. When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands.
 3. When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

The term “ordinary high water mark” is defined at 33 CFR 328.3(e):

The term *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.

Wetlands, as defined by the Corps for regulatory purposes, are identified using a three-parameter test that considers whether hydrophytic vegetation, hydric soils, and hydrology are present (Corps 1987). 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.” Wetlands generally include swamps, marshes, bogs, and similar areas (33 CFR 328.3, 40 CFR 230.3). Wetlands also include less conspicuous wetland types such as vernal pools and other seasonal wetlands.

An ephemeral stream has flowing water only during and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow. An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow. A perennial stream has flowing water year-round during a typical year (66 FR 42099).

III. SETTING

The BSA is in the western Sierra Nevada Mountains, approximately two miles south of the community of Camino in unincorporated El Dorado County. The primary features in the BSA are South Fork Weber Creek, Newtown Road, and Paso Way.

A. Topography

Elevation in the BSA ranges from approximately 2,270 to 2,355 feet above sea level. The BSA consists of relatively flat terraces near South Fork Weber Creek and moderate to steep, north or south facing slopes on adjacent hillsides. The entire BSA drains to South Fork Weber Creek.

B. Weather and Climate Conditions

The primary field work for the jurisdictional delineation was conducted on 12 June and 27 July 2012. Precipitation in California is typically reported for the period from 1 July through 30 June of the next calendar year in order to contain a single winter wet season. The historic annual average precipitation for the National Weather Service Placerville Gauge is 38.12 inches. From 1 July 2011 through 30 June 2012 the gauge received 33.47 inches of rain (CDWR 2012), or 88% of the average annual precipitation. The gauge did not receive any precipitation during July 2012. The Placerville gauge is approximately 7.5 miles west of the BSA at an elevation of 1,850 feet.

C. Vegetation

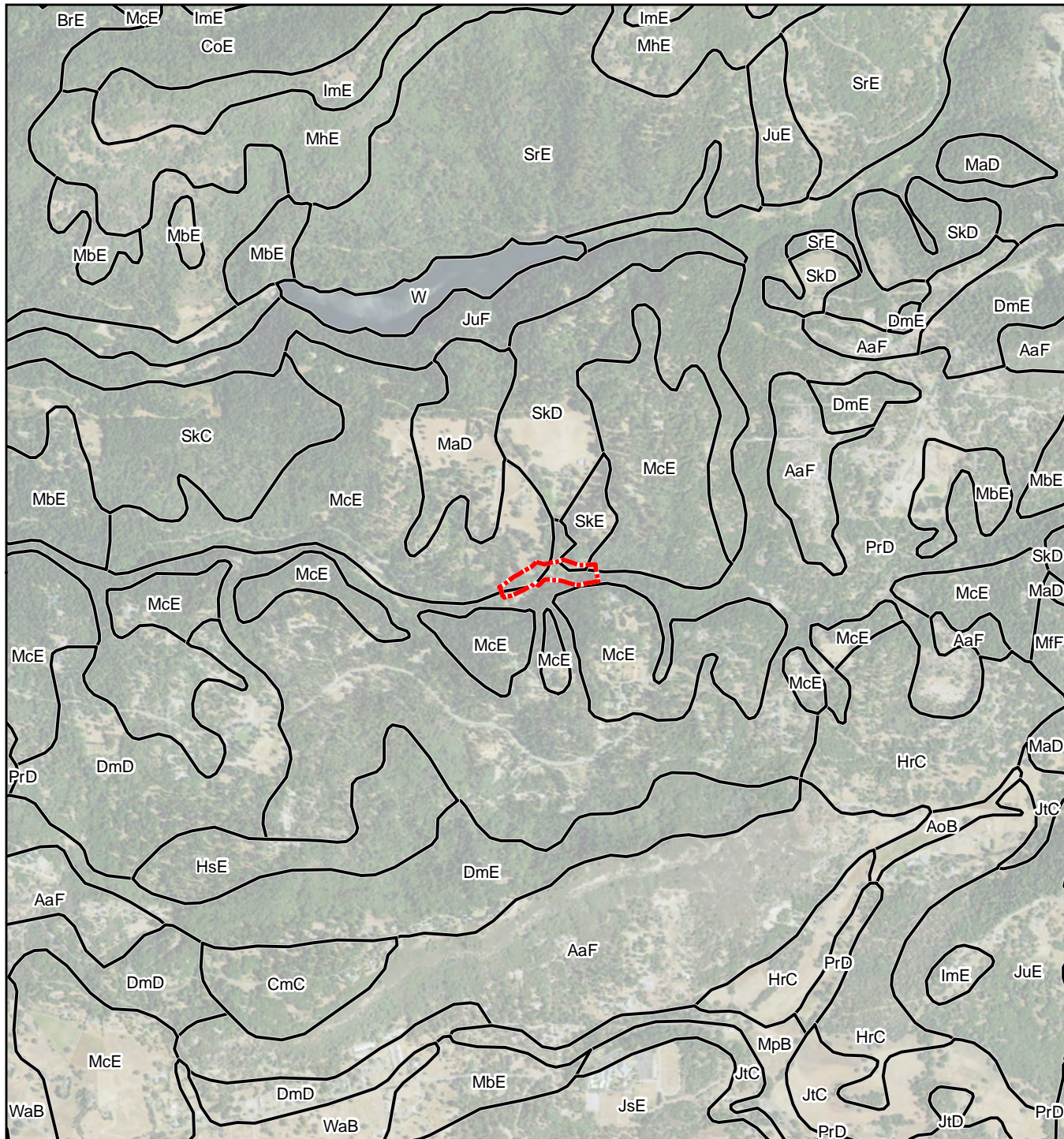
The BSA and surrounding area is characterized by a Ponderosa pine forest in the upland areas north of Newtown Road and Douglas fir forest in the upland areas south of Newtown Road. The riparian corridor on the bed and banks of South Fork Weber Creek consists of Oregon ash groves. California annual grassland occurs adjacent to a private residence southwest of the bridge, and around Paso Way northwest of the bridge.

D. Existing Level of Disturbance

Newtown Road is a paved two-lane road that travels roughly east-west through the BSA. Paso Way is a gravel single-lane road that travels northeast from the intersection with Newtown Road. An existing bridge on Newtown Road crosses over South Fork Weber Creek. A gravel residence driveway occurs just east of the bridge on the south side of Newtown Road. The driveway leads to a house just south of the BSA boundary. Vegetation on the terrace near the residence is mowed periodically. Soil berms have been constructed on both sides of Ephemeral Channel 2 below (north of) a culvert under the private driveway. These berms were part of a pond that was constructed for flood control as a requirement for a building permit and does not hold water (pers. comm., W. Nagel 2012).

E. Soils

Soil pits were dug to observe the chroma, texture, degree of saturation, and other characteristics. Mapped soil units in the BSA are Mariposa-Josephine Very Rocky Loams, 15-50% Slopes, Sites Loam, 30-50% Slopes, and Placer Diggings (Figure 3; NRCS 1974). Placer Diggings soil in the BSA is listed as hydric. Mariposa-Josephine and Sites Loam soils are not listed as hydric (NRCS 2012). The following descriptions are summarized from NRCS 1974. Reported colors are for moist soil. Figure 3 is a soils map.



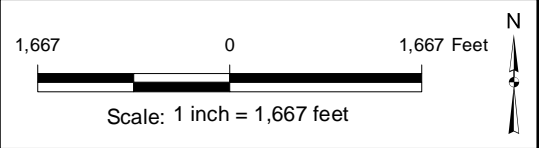
Newtown Road at
 South Fork Weber Creek
 Bridge (25C-0033)
 Replacement Project
 El Dorado County, CA
 24 February 2017

Figure 3. Soils Map

-  Project Location
-  Soil Boundary

Soil Types:

- McE Mariposa-Josephine very rocky loams,
15 to 50 percent slopes
- PrD Placer Diggings
- SkE Sites loam, 30 to 50 percent slopes



Soil Survey Geographic (SSURGO) database for
 El Dorado Area, California, USDA, NRCS
 URL: <http://SoilDataMart.nrcs.usda.gov/>

Aerial Photo: 13 July 2014, 2014 NAIP Imagery
 USDA FSA, ArcGIS Imagery Basemap layer

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Mariposa-Josephine Very Rocky Loams (15 to 50% slopes): These soils are very steep on mountainous uplands. Surface runoff is rapid, and the erosion hazard is high. This complex is approximately 55% Mariposa Very Rocky Loam, 35% Josephine Very Rocky Silt Loam, and 10% inclusions.

The Mariposa series consists of well drained soils that are underlain at a depth of 15 to 30 inches by vertically tilted schists and slate and contact metamorphic rock. A typical profile has 1 inch of pine needles, duff and partially decomposed litter above the mineral soil, reddish brown (5YR 4/4) medium acidic gravelly silt loam from 0 to 8 inches, yellowish red (5YR 4/6) moderately acidic gravelly silt loam from 8 to 15 inches, yellowish red (5YR 4/6) strongly acidic gravelly heavy silt loam from 15 to 26 inches, and yellowish brown (10YR 5/4, 5/6, and 5/8) weathered slate below 26 inches.

The Josephine series consists of well drained soils formed in material weathered formed in colluvium and residuum weathered from altered sedimentary and extrusive igneous rocks. Josephine soils are on broad ridgetops, toeslopes, footslopes, and side slopes of mountains. A typical profile has 2 inches of decomposed litter of needles and leaves above the mineral soil, dark brown (7.5YR 3/2) moderately acidic gravelly loam from 0 to 3 inches, brown (7.5YR 4/4) slightly acidic gravelly loam from 3 to 9 inches, reddish brown (5YR 5/4) slightly acidic clay loam from 9 to 16 inches, yellowish red (5YR 5/6) strongly acidic clay loam, yellowish red (5YR 4/6) very strongly acidic clay loam from 32 to 42 inches, yellowish red (5YR 4/6) very strongly acidic gravelly clay loam from 42 to 51 inches, yellowish red (5YR 4/6) very strongly acidic gravelly clay loam from 51 to 59 inches, and very strongly acidic saprolitic siltstone below 59 inches.

Sites Loam, 30 to 50% Slopes: These soils are rolling to very steep on mountainous upland slopes. The surface runoff of this soil is medium to rapid, and the erosion hazard is high. The Sites series consists of well-drained soils that are underlain by vertically tilted metasedimentary and metabasic rocks at a depth of 40 inches to more than 60 inches. A typical profile of Sites Loam, 15 to 30% Slopes, has 3 inches of pine needles, duff and partially decomposed litter above the mineral soil, dark brown (7.5YR 3/3) slightly acidic loam from 0 to 7 inches, medium acidic dark reddish brown (5YR 3/3) loam from 7 to 14 inches, medium acidic reddish brown (5YR 4/4) clay loam from 14 to 21 inches, strongly acidic red (2.5YR 4/6) clay from 21 to 29 inches, strongly acidic red (2.5YR 4/8) clay from 29 to 53 inches, very strongly acidic red (2.5YR 4/8) clay loam from 53 to 69 inches, and weathered slate or schist below 69 inches.

Placer Diggings: This series consists of areas of stony, cobbly, and gravelly material, commonly in beds of creeks and other streams, or of areas that have been placer mined and contain enough fine sand or silt to support some grass for grazing. The soil material is derived from a mixture of rocks and commonly is stratified or poorly sorted. In some areas where slopes are steep, the material consists of fines from stamp mills or tailings from placer mining. Depth is variable, ranging from 6 inches to greater than 5 feet. Soils in streambeds are frequently flooded during the rainy season. Natural drainage and vegetation varies.

F. National Wetlands Inventory Map

South Fork Weber Creek is mapped as a perennial stream on the USGS Camino quad map, and as riverine, upper perennial, unconsolidated bottom, permanently flooded (R3UBH) on the online National Wetlands Inventory (NWI) mapper (USFWS 2017). No other features are mapped in the BSA. Two freshwater ponds are mapped north of the BSA.

IV. WETLANDS AND WATERS

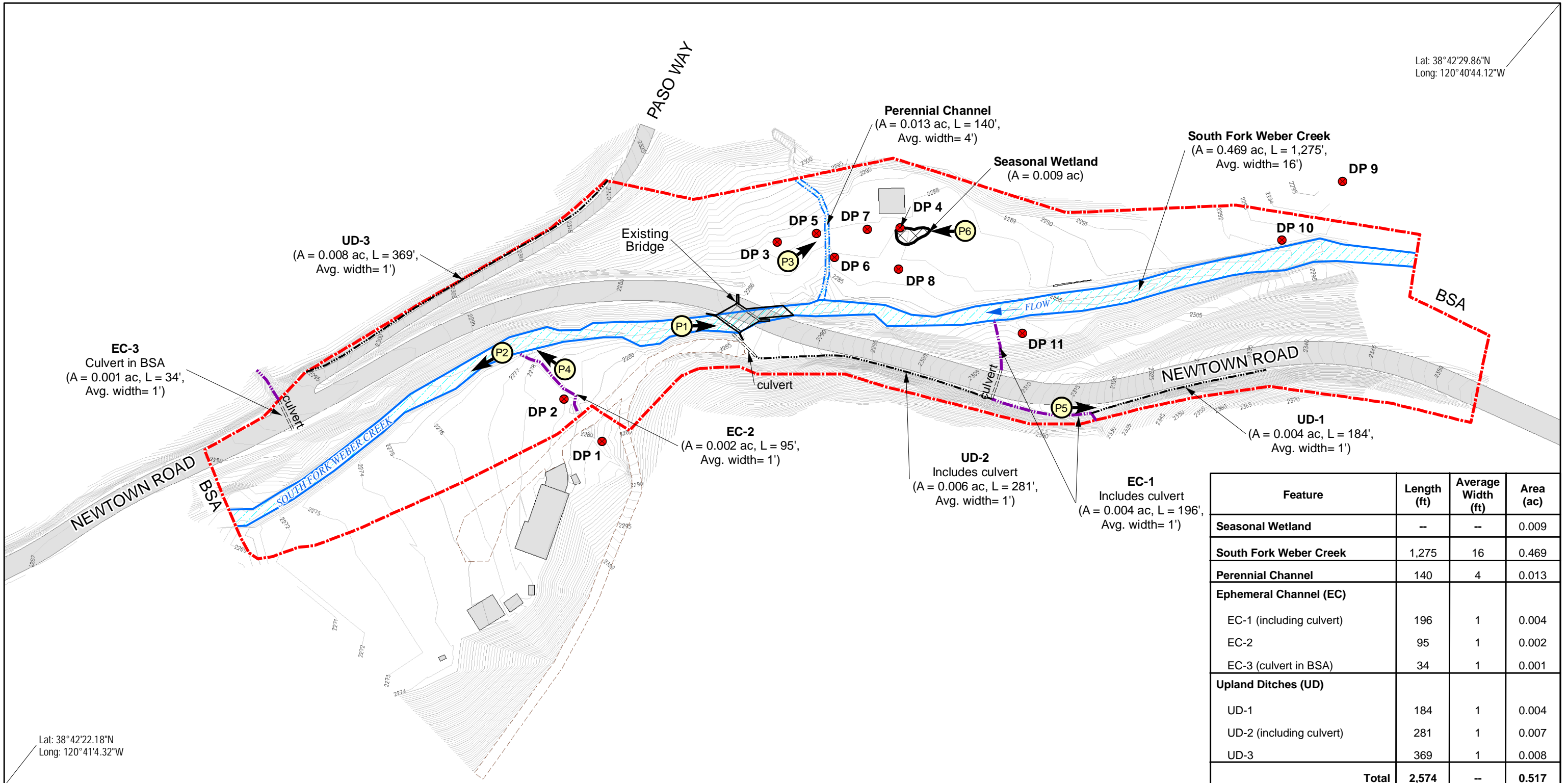
On 2 December 2008, the Corps and EPA issued a memorandum providing guidance on implementation of the Supreme Court’s decision in the consolidated cases of *Rapanos v. United States and Carabell v. United States* (Corps and EPA 2008). An evaluation of features relative to their potential jurisdiction under Section 404 of the Clean Water Act (33 U.S.C. 1344) in light of the December 2008 Rapanos guidance is in Section V. Figure 4 is a Jurisdictional Delineation Map and their acreages are in Table 2.

Table 2. Summary of Waters and Wetlands

Feature	Hydrology/ Cowardin Classification	Length (ft)	Avg. Width (ft)	Area (ac)
Waters				
South Fork Weber Creek	Perennial/ R3UBH	1,275	16	0.469
Perennial Channel	Perennial/ R3UBH	140	4	0.013
Ephemeral Channel 1 (including culvert)	Ephemeral/ R4SBA	196	1	0.004
Ephemeral Channel 2	Ephemeral/ R4SBA	95	1	0.002
Ephemeral Channel 3 (located entirely in culvert in BSA)	Ephemeral/ R4SBA	34	1	0.001
Subtotal Waters		1,740	--	0.489
Wetlands				
Seasonal Wetland	--/ PEM1C	--	--	0.009
Subtotal Wetlands		--	--	0.009
Ditches				
Upland Ditch 1	Ephemeral/ Ux	184	1	0.004
Upland Ditch 2 (including culvert)	Ephemeral/ Ux	281	1	0.007
Upland Ditch 3	Ephemeral/ Ux	369	1	0.008
Subtotal Ditches		834	--	0.019
Grand Total:		2,574	--	0.517

¹ Acreages calculated with AutoCAD® functions.

Lat: 38°42'29.86"N
 Long: 120°40'44.12"W

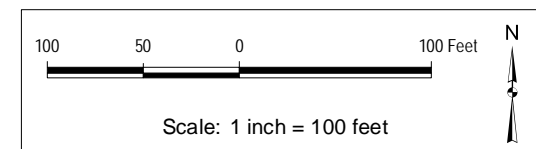


Lat: 38°42'22.18"N
 Long: 120°41'4.32"W

Feature	Length (ft)	Average Width (ft)	Area (ac)
Seasonal Wetland	--	--	0.009
South Fork Weber Creek	1,275	16	0.469
Perennial Channel	140	4	0.013
Ephemeral Channel (EC)			
EC-1 (including culvert)	196	1	0.004
EC-2	95	1	0.002
EC-3 (culvert in BSA)	34	1	0.001
Upland Ditches (UD)			
UD-1	184	1	0.004
UD-2 (including culvert)	281	1	0.007
UD-3	369	1	0.008
Total	2,574	--	0.517

Newtown Road at
 South Fork Weber Creek
 Bridge (25C-0033)
 Replacement Project
 El Dorado County, CA
 6 July 2017

- Biological Study Area (BSA; 5.75 ac)
- Data Point Location and Number (DP)
- Existing Bridge Location
- P1 → Photopoint Location and Direction
- South Fork Weber Creek
- Perennial Channel
- Seasonal Wetland (SW)
- Ephemeral Channel (EC)
- Upland Ditch (UD)
- Existing Culvert



Date	Submittal	Delineators	Agency/Company
6 Jul 17	Original	C. Hughes, M. Bower, J. Orsolini	Sycamore Environmental

Figure 4.
 Jurisdictional Delineation Map

Topographic basemap: XSurface.dwg (10 Nov 2015) by El Dorado County DOT
 Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

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A. Waters

South Fork Weber Creek: South Fork (SF) Weber Creek is a perennial channel that flows west through the BSA, passing underneath an existing bridge at Newtown Road (Appendix B, photo 1 and 2). SF Weber Creek is shown as a perennial channel on the Camino quad map, and is mapped as riverine, upper perennial, unconsolidated bottom, permanently flooded (R3UBH) on the online NWI mapper (USFWS 2017). Hydrology for SF Weber Creek is primarily provided by flow originating outside and east of the BSA. The perennial channel in the BSA also contributes a small amount of water to the flow in SF Weber Creek. Water was flowing in SF Weber Creek in the BSA during the 4 May 2011 and 12 June 2012 surveys. No water was flowing in SF Weber Creek in the BSA during the 8 October 2012 survey; only moist sand and gravel was present in the creek. During the 27 July 2012 survey, SF Weber Creek was flowing only downstream (west) of the confluence of the perennial channel, located north and east of the existing bridge. Above this confluence, SF Weber Creek contained small pools approximately 4 inches deep, but no flowing water. SF Weber Creek transitions from intermittent to perennial at the confluence with the perennial channel in the BSA. The ordinary high watermark (OHWM) determination was based on the presence of natural line impressed on the bank, destruction of terrestrial vegetation, wracking, leaf litter disturbed or washed away, scour, bed and banks, water straining, and change in plant community. An Oregon ash groves riparian community occurs along the length of SF Weber Creek in the BSA.

Perennial Channel: An unnamed perennial channel flows south through the BSA into SF Weber Creek east of the existing bridge (Appendix B, photo 3). The channel is not shown on the Camino USGS quad map or the online NWI mapper (USFWS 2017). The channel was flowing on 12 June, 27 July 2012, and 8 October 2012. The online NWI mapper (USFWS 2017) identifies two impoundments upstream of the BSA. The hydrology of the perennial channel is altered by these impoundments. Without the artificial impoundments, the perennial channel would likely be intermittent or ephemeral. There is no contiguous riparian corridor associated with the perennial channel. The perennial channel is mostly unvegetated, although Himalayan blackberry (*Rubus armeniacus*) surrounds and conceals much of the channel in the BSA.

Ephemeral Channel 1: Ephemeral Channel 1 is located in the southeast part of the BSA (Appendix B, photo 5). Hydrology for Ephemeral Channel 1 is provided by flow originating outside and south of the BSA. The channel originates in a well-defined natural drainage on the hillside south of Newtown Road. It then flows north into the BSA, west at the confluence with Upland Ditch 1, north again through a culvert underneath Newtown Road, and then into SF Weber Creek. Ephemeral Channel 1 is not shown on the Camino quad map or the online NWI mapper (USFWS 2017). Ephemeral Channel 1 was not flowing on 12 June or 27 July 2012. The OHWM determination for Ephemeral Channel 1 was based on a natural line impressed on the bank, destruction of terrestrial vegetation, scour, bed and banks, and change in plant community. Ephemeral Channel 1 does not have a riparian corridor and is generally unvegetated.

Ephemeral Channel 2: Ephemeral Channel 2 is located in the southwest part of the BSA (Appendix B, photo 4). Ephemeral Channel 2 originates on the hillside in the Douglas fir forest south of a private driveway. It then flows north through a culvert under the private driveway just southeast of the BSA, through the California annual grassland, and into SF Weber Creek. Ephemeral Channel 2 drains through the remnants of a small, dry, human-made pond between the private driveway and SF Weber Creek. The earthen banks of the pond have eroded. The pond was originally constructed for flood control as a requirement for a building permit (pers. comm., W. Nagel 2012). Ephemeral Channel 2 is

not shown on the Camino USGS quad map or the online NWI mapper (USFWS 2017). Ephemeral Channel 2 was not flowing on 12 June or 27 July 2012. The OHWM determination for Ephemeral Channel 2 was based on a natural line impressed on the bank, destruction of terrestrial vegetation, scour, bed and banks, and change in plant community. Ephemeral Channel 2 does not have a riparian corridor, although a couple willows (*Salix* spp.) occur along its bank.

Ephemeral Channel 3: Ephemeral Channel 3 is located in the northwest part of the BSA. Ephemeral Channel 3 is entirely culverted in the BSA. Hydrology for Ephemeral Channel 3 is provided by flow originating outside and north of the BSA and from Upland Ditch 3. Ephemeral Channel 3 flows into a culvert underneath Newtown Road near the intersection of Paso Way, but does not retain an OHWM indicator below the culvert outfall. Water travels from the culvert outfall to SF Weber Creek via sheet flow. Ephemeral Channel 3 is not shown on the Camino USGS quad map or the online NWI mapper (USFWS 2017). Ephemeral Channel 3 was not flowing during the delineation on 12 June or 27 July. The OHWM determination for Ephemeral Channel 3 was based on bed and banks. Ephemeral Channel 3 does not have a riparian corridor.

Upland Ditch 1 (UD-1): UD-1 is a human-made roadside ditch located in the southeast part of the BSA, parallel to the south side of Newtown Road (Appendix B, photo 5). Hydrology for UD-1 is provided by road runoff and runoff from surrounding uplands. UD-1 flows into Ephemeral Channel 1.

Upland Ditch 2 (UD-2): UD-2 is a human-made roadside ditch located on the south side of Newtown Road. UD-2 originates west of the culvert in Ephemeral Channel 1. A berm located between the upstream end of UD-2 and Ephemeral Channel 1 blocks flow between these two features. UD-2 flows west to a culvert underneath the private driveway located southeast of the bridge. The culvert underneath the driveway empties into SF Weber Creek at the southwest corner of the existing bridge. Hydrology for UD-2 is provided by road runoff and runoff from surrounding uplands.

Upland Ditch 3 (UD-3): UD-3 is a human-made roadside ditch located on the north side of Paso Way. UD-3 originates east of the BSA, and flows west outside of the BSA. Hydrology for UD-3 is provided by road runoff and runoff from surrounding uplands.

B. Wetlands

Seasonal Wetland (SW-1): SW-1 is an isolated wetland located north of SF Weber Creek and east of the perennial channel on the topographically level plain (Appendix B, photo 6). Hydrology for SW-1 is provided by runoff from surrounding uplands. The dominant hydrophytic species are blue grass (*Poa pratensis* ssp. *pratensis*) and clustered field sedge (*Carex praegracilis*). The wetland hydrology determination was based on oxidized rhizospheres along living roots (C3). Hydric soils are characterized by a dark brown (7.5YR 3/3) loose crumbly loam surface horizon from 0 to 5 inches, and a dark brown (7.5YR 3/3) silty loam with faint redox concentrations in the matrix and along pore linings from 5 to 12 inches. The hydric soils determination was based on red parent material (TF2), an indicator for problematic hydric soils. Indicator TF2 requires that hydrophytic vegetation and wetland hydrology also be present.

V. REGULATORY ANALYSIS AND DISCUSSION

On 2 December 2008, the Corps and EPA issued a memorandum providing guidance on implementation of the Supreme Court’s decision in the consolidated cases of *Rapanos v. United States and Carabell v. United States* (2008). These two cases address the scope of the Corps’ jurisdiction over waters of the United States under the Clean Water Act. The guidance distinguishes among traditional navigable waters (TNW), relatively permanent waters (RPW), and non-relatively permanent waters (non-RPW). The Corps will routinely exercise jurisdiction over TNWs, RPWs, wetlands abutting these waters, and wetlands adjacent to TNWs. The jurisdictional determination for non-relatively permanent waters, their adjacent wetlands (if any), and wetlands adjacent to RPWs not considered traditionally navigable will be based on whether there exists a significant nexus with a TNW. Factors evaluated by the Corps during the significant nexus evaluation will include ecology, hydrology, and the influence of the water on the “chemical, physical, and biological integrity of downstream traditional navigable waters” (Corps 2008). The Corps may exert jurisdiction if the findings of the significant nexus evaluation indicate that “the tributary and its adjacent wetlands are likely to have an effect [on downstream traditional navigable waters] that is more than speculative or insubstantial” (Corps and EPA 2008). Finally, the guidance provides that the Corps will not generally assert jurisdiction over ditches (including roadside ditches) which are excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water. The guidance recognizes that these features, by their very nature, do not have a significant nexus to downstream traditional navigable waters.

The Rapanos memorandum (Corps and EPA 2008) does not affect the Court’s decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, No. 99-1178 (January, 2001; “SWANCC”) which involved statutory and constitutional challenges to the assertion of CWA jurisdiction over isolated, non-navigable, intrastate waters used as habitat by migratory birds. Isolated wetlands and waters are not subject to Clean Water Act jurisdiction.

Wetland and/or channel features not subject to the Corps’ jurisdiction may come under the jurisdiction of the California Department of Fish and Wildlife (CDFW) and/or the Regional Water Quality Control Board (RWQCB). For example, “isolated” wetlands not subject to Section 404 in accordance with the SWANCC decision are subject to regulation by the RWQCB.

The following is an assessment of Corps jurisdiction over the features identified within the BSA in Section IV, pursuant to the Corps/EPA guidance memorandum:

Table 3. Rapanos Guidance Correlation of Wetlands and Waters

Feature	Rapanos Guidance Correlation	Significant Nexus	Jurisdictional Acreage	Non-Jurisdictional Acreage
South Fork Weber Creek	RPW that flows indirectly into TNW	-- ¹	0.469	--
Perennial Channel	RPW that flows indirectly into TNW	-- ¹	0.013	--
Ephemeral Channel 1	Non-RPW that flows indirectly into a TNW	No	--	0.004
Ephemeral Channel 2	Non-RPW that flows indirectly into a TNW	No	--	0.002

Feature	Rapanos Guidance Correlation	Significant Nexus	Jurisdictional Acreage	Non-Jurisdictional Acreage
Ephemeral Channel 3	Non-RPW that flows indirectly into a TNW	No	--	0.001
Seasonal Wetland	Isolated	No	--	0.009
Upland Ditch 1	N/A ²	--	--	0.004
Upland Ditch 2	N/A ²	--	--	0.007
Upland Ditch 3	N/A ²	--	--	0.008
Total:			0.482	0.035

¹ The Corps (2007) has determined that RPWs that are tributaries of TNWs and the wetlands that directly abut them are jurisdictional.

² Ditches excavated wholly in and draining only uplands and which do not carry a relatively permanent flow of water are generally not considered jurisdictional by the Corps (2007).

A. TNWs and Adjacent Wetlands

No TNWs or wetlands adjacent to TNWs occur in the BSA (Corps 2016b).

B. RPWs that flow directly or indirectly into TNWs

SF Weber Creek and the perennial channel in the BSA are RPWs that flow indirectly into a TNW (American River). The perennial channel is tributary to SF Weber Creek, which is tributary to Weber Creek, which is tributary to the South Fork of the American River, which is tributary to Folsom Lake, which flows into the American River, a TNW (Corps 2016b). The distance from the BSA to the TNW portion of the American River is approximately 34.5 river miles or 25.5 air miles. SF Weber Creek and the perennial channel are RPWs because they flow for more than three continuous months during normal precipitation years.

C. Non-RPWs that flow directly or indirectly into TNWs

The three ephemeral channels are non-RPWs that do not flow for more than three continuous months during normal precipitation years. These channels flow into SF Weber Creek, which ultimately drains to the American River below Folsom Lake (TNW).

The jurisdictional determination for non-RPWs that flow directly or indirectly into TNWs is based on whether there exists a “significant nexus” with the nearest downstream TNW. To aid the evaluation of whether the three ephemeral channels in the BSA have significant nexuses to the American River (at Folsom Dam), the percentage of the American River’s watershed in, or draining through the three ephemeral channels were calculated based on topographic and watershed maps. The approximate size of the watershed of the American River at Folsom Dam is 1,378,851 acres. The approximate watersheds of Ephemeral Channels 1, 2, and 3 are 2.7, 25.7, and 3.0 acres, respectively. Thus, the relative percentages of the TNW watershed contributed by Ephemeral Channels 1, 2, and 3 are 0.0002%, 0.0019%, and 0.0002% respectively.

The capacity of Ephemeral Channels 1, 2, and 3 to carry or reduce pollutants, flood waters, nutrients, or organic carbon is insubstantial relative to the nearest TNW. None of these features provide habitat or lifecycle support functions for fish or other aquatic species present in the nearest TNW. None of these features have sufficient volume, duration, or frequency of flow to have a significant nexus to the chemical, physical, or biological integrity of the nearest TNW based on the distance of the BSA from

the navigable segment of the American River, the negligible contribution of the watershed, and the lack of a relatively permanent hydrologic connection.

D. Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

No wetlands directly abutting RPWs occur in the BSA.

E. Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

No wetlands adjacent but not directly abutting RPWs occur in the BSA.

F. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

No wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs occur in the BSA.

G. Impoundments of waters

There are no impoundments of water in the BSA.

H. Isolated (interstate or intrastate) waters, including isolated wetlands

Wetlands that are isolated and lacking an interstate or foreign commerce connection, but that otherwise meet the 3-parameter test for wetlands, are considered “isolated wetlands” and are not regulated by the Corps. SW-1 is over 50 feet from SF Weber Creek and the perennial channel and there are no swales, ditches, or culverts draining SW-1, and no evidence that it inundates enough to overflow into other features. SW-1 is isolated from the nearest RPW by dry grassland. SW-1 is an isolated wetland in the BSA.

I. Ditches

UD 1, 2, and 3 are man-made roadside ditches excavated wholly in and draining only uplands. These ditches contain flowing water only during and immediately after precipitation events. They do not carry a relatively permanent flow of water. Ditches excavated wholly in and draining only uplands and which do not carry a relatively permanent flow of water are generally not considered jurisdictional by the Corps (2007).

J. Non-jurisdictional waters

There are 0.035 acre of non-jurisdictional features in the BSA consisting of UD 1, 2, and 3; Ephemeral Channels 1, 2, and 3; and SW-1.

K. Summary of Jurisdictional Acreages

A total of 0.482 acre of potential jurisdictional waters occur in the BSA. There are no jurisdictional wetlands in the BSA.

VI. LITERATURE CITED

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Personal Communications:

- Nagel, Wanda. 2012. Owner and resident at APN 077-431-62 on Newtown Road in the BSA. Conversations regarding her property.

VII. REPORT PREPARERS

Chuck Hughes, M.S., Plant Biology, Michigan State University, East Lansing, MI. Over 15 years of experience preparing biological/botanical resource evaluations, wetland delineations, arborist reports, impact analyses, and mitigation and restoration plans. He is a Professional Wetland Scientist (#2029), an ISA Certified Arborist (WE-6885A), holds a California Department of Fish and Wildlife Rare, Threatened and Endangered Plant Voucher Collecting Permit (2081(a)-14-072-V), is a Principal Scientific Investigator on the CDFW Scientific Collecting Permit (SC-7617), and is an authorized individual on a USFWS recovery permit for listed vernal pool branchiopods (TE799564-4). His bachelor's degree from UC Davis is in environmental horticulture and urban forestry, with an emphasis in plant biodiversity.

Responsibilities: Fieldwork and plant identification.

Michael Bower, M.S., Ecology, University of California, Davis, CA. Over 8 years of experience as a professional biologist. Performs wetland delineations and conducts surveys for special-status plants and wildlife. Prepares reports used in the CEQA/NEPA process that document resources, identify impacts, and recommend mitigation measures. Prepares restoration, weed management, and monitoring plans. Leads public plant identification workshops at UC Davis. He holds a California Department of Fish and Wildlife Rare, Threatened and Endangered Plant Voucher Collecting Permit (2081(a)-15-006-V), and is an authorized individual on the CDFW Scientific Collecting Permit (SC-7617). He is a certified Ecologist (Ecological Society of America) and a Professional Wetland Scientist (2230). His B.S. degree from Saint Mary's College of California is in environmental science. Responsibilities: Fieldwork and plant identification.

Jessica Orsolini, B.S., Wildlife Biology, University of Montana, Missoula, MT. Over 11 years of experience as a professional biologist. She conducts plant and wildlife surveys, CA red-legged frog protocol surveys, jurisdictional delineations, biological resource evaluations, worker awareness training, and construction monitoring; prepares impact/mitigation analyses, and assists with permit application preparation. She prepares reports used in the CEQA/NEPA process that document resources, identify impacts, recommends mitigation measures, and assists with permit application preparation. She is an ISA Certified Arborist, holds a USFWS recovery permit for listed California tiger salamander, a CDFW Rare, Threatened and Endangered Plant Voucher Collecting Permit, and is an authorized individual on the CDFW Scientific Collecting Permit (SC-7617). She has received advanced training in the biology and survey techniques for CA red-legged frog, CA tiger salamander, bats, southwestern willow flycatcher, and San Joaquin kit fox.

Responsibilities: Fieldwork and report preparation.

Aramis Respoll, GIS Analyst/ CAD Operator. Over 20 years of experience in drafting and spatial analysis using AutoCAD map and ArcGIS for public and private projects. Prepares figures for biological and permitting documents such as project location maps, biological resource maps, wetlands/waters delineation maps, impact analysis maps, and other supporting graphics. Primary experience evolved from surveying and civil engineering practices to advanced GPS/GIS technology. Responsibilities: Figure preparation and spatial analysis.

Jeffery Little, Vice President, Sycamore Environmental.

Responsibilities: Principal in charge.

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Appendix A.

Wetland Data Sheets

Newtown Road Bridge (23C-0033) at South Fork Weber Creek Replacement Project
El Dorado County, CA

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WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Newtown Rd at SF Weber Creek City/County: El Dorado County Sampling Date: 12 June 2012
 Applicant/Owner: El Dorado County State: CA Sampling Point: 1
 Investigator(s): Mike Bower, Jessica Orsolini Section, Township, Range: T10N, R12E, Section 2 and 3
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 1%
 Subregion (LRR): MLRA 22A Lat: 38.745532° N Long: 120.631007° W Datum: WGS84
 Soil Map Unit Name: Placer Diggings NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of the 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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the sampled area
Wetland hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Data Point located in low area next to creek.			

VEGETATION - Use Scientific names of plants.

<u>Tree Stratum</u> (Plot size: 10 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW or FAC: <u>2</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>100%</u> (A/B)
1. <u>Salix exigua</u>	<u>25%</u>	<u>D</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>25%</u>	<u>= Total Cover</u>		
<u>Sapling/Shrub Stratum:</u> (Plot size: 10 ft radius)				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 = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	<u>= Total Cover</u>		
<u>Herb Stratum:</u> (Plot size: 10 ft radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of Hydric soil and wetland hydrology must be present.
1. <u>Festuca arundinacea</u>	<u>75%</u>	<u>D</u>	<u>FAC</u>	
2. <u>Taraxacum officinale</u>	<u>3%</u>	_____	<u>FACU</u>	
3. <u>Salix exigua</u> (seedlings)	<u>3%</u>	_____	<u>FACW</u>	
4. <u>Cirsium vulgare</u>	<u>1%</u>	_____	<u>FACU</u>	
5. <u>Mentha spicata</u>	<u>1%</u>	_____	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>83%</u>	<u>= Total Cover</u>		
<u>Woody Vine Stratum:</u> (Plot size: 10 ft radius)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum _____				
Remarks:				

Profile Description: (Describe the depth needed to document the Indicator or confirm the absence of Indicators.)								
Depth Inches	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	7.5YR3/2	100%					Silt loam	
8-10	7.5YR3/2	100%					Silt loam	20% gravel
¹ Type : C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining, M=Matrix								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)						Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)						³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Restrictive Layer (if present): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: No redox observed								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface water (A1) <input type="checkbox"/> High water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible-Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, if available):		
Remarks:		

WETLAND DETERMINATION DATA FORM – **Western Mountains, Valleys, and Coast Region**

Project/Site: Newtown Rd at SF Weber Creek City/County: El Dorado County Sampling Date: 12 June 2012
 Applicant/Owner: El Dorado County State: CA Sampling Point: 2
 Investigator(s): Mike Bower, Jessica Orsolini Section, Township, Range: T10N, R12E, Section 2 and 3
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0%
 Subregion (LRR): MLRA 22A Lat: 38.745532° N Long: 120.631007° W Datum: WGS84
 Soil Map Unit Name: Mariposa-Josephine very rocky loams, 15-50% slopes NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of the 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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the sampled area
Wetland hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Data point located in low area adjacent to creek.			

VEGETATION - Use Scientific names of plants.

Tree Stratum (Plot size: <u>10 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Salix lasiolepis</u>	<u>60%</u>	<u>D</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW or FAC:	<u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100%</u> (A/B)
4. _____	_____	_____	_____		
	<u>60%</u>	= Total Cover			
Sapling/Shrub Stratum: (Plot size: <u>10 ft radius</u>)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL Species:	_____ x 1 = _____
3. _____	_____	_____	_____	FACW Species	_____ x 2 = _____
4. _____	_____	_____	_____	FAC Species	_____ x 3 = _____
5. _____	_____	_____	_____	FACU Species	_____ x 4 = _____
	_____	= Total Cover		UPL Species	_____ x 5 = _____
Herb Stratum: (Plot size: <u>10 ft radius</u>)				Column Totals:	_____ (A) _____ (B)
1. <u>Festuca arundinacea</u>	<u>60%</u>	<u>D</u>	<u>FAC</u>	Prevalence Index = B/A = _____	
2. <u>Barbarea verna</u>	<u>1%</u>	_____	<u>--</u>	Hydrophytic Vegetation Indicators:	
3. <u>Rubus armeniacus</u>	<u>1%</u>	_____	<u>FACU</u>	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation	
4. <u>Rumex crispus</u>	<u>3%</u>	_____	<u>FAC</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
5. <u>Verbascum thapsus</u>	<u>1%</u>	_____	<u>FACU</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
6. <u>Prunella vulgaris</u>	<u>1%</u>	_____	<u>FACU</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
7. <u>Geranium dissectum</u>	<u>1%</u>	_____	<u>--</u>	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹	
8. <u>Plantago lanceolata</u>	<u>1%</u>	_____	<u>FACU</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
9. <u>Stachys sp. (assumed FACW)</u>	<u>3%</u>	_____	<u>FACW</u>	¹ Indicators of Hydric soil and wetland hydrology must be present.	
	<u>72%</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Woody Vine Stratum: (Plot size: <u>10 ft radius</u>)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
	_____	= Total Cover			
% Bare Ground in Herb Stratum _____					
Remarks: _____					

Profile Description: (Describe the depth needed to document the Indicator or confirm the absence of Indicators.)								
Depth Inches	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR3/3	100%					Loam	
5-14	10YR3/3	100%					Sandy loam	5 cm gravel present
¹ Type : C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining, M=Matrix								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)						Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)						³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Restrictive Layer (if present): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: No redox observed.								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface water (A1) <input type="checkbox"/> High water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible-Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, if available):		
Remarks:		

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Newtown Rd at SF Weber Creek City/County: El Dorado County Sampling Date: 12 June 2012
 Applicant/Owner: El Dorado County State: CA Sampling Point: 3
 Investigator(s): Mike Bower, Jessica Orsolini Section, Township, Range: T10N, R12E, Section 2 and 3
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): MLRA 22A Lat: 38.745532° N Long: 120.631007° W Datum: WGS84
 Soil Map Unit Name: Placer Diggings NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of the 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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the sampled area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks:			

VEGETATION - Use Scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum: (Plot size: <u>10 ft radius</u>)				Prevalence Index worksheet:
1. <u>Salix lasiolepis</u>	<u>10%</u>	<u>D</u>	<u>FACW</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL Species: _____ x 1 = _____
3. _____	_____	_____	_____	FACW Species <u>10%</u> x 2 = <u>20%</u>
4. _____	_____	_____	_____	FAC Species _____ x 3 = _____
5. _____	_____	_____	_____	FACU Species <u>100%</u> x 4 = <u>400%</u>
<u>10%</u> = Total Cover				UPL Species _____ x 5 = _____
				Column Totals: <u>110%</u> (A) <u>420%</u> (B)
				Prevalence Index = B/A = <u>3.8</u>
Herb Stratum: (Plot size: <u>10 ft radius</u>)				Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____	<input type="checkbox"/> 2 - Dominance Test is >50%
3. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____	_____	_____	_____	¹ Indicators of Hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum: (Plot size: _____)				
1. <u>Rubus armeniacus</u>	<u>100%</u>	<u>D</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
<u>100%</u> = Total Cover				
% Bare Ground in Herb Stratum				
Remarks:				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

WETLAND DETERMINATION DATA FORM – **Western Mountains, Valleys, and Coast Region**

Project/Site: Newtown Rd at SF Weber Creek City/County: El Dorado County Sampling Date: 12 June 2012
 Applicant/Owner: El Dorado County State: CA Sampling Point: 4
 Investigator(s): Mike Bower, Jessica Orsolini Section, Township, Range: T10N, R12E, Section 2 and 3
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): MLRA 22A Lat: 38.745532° N Long: 120.631007° W Datum: WGS84
 Soil Map Unit Name: Placer Diggings NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of the 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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the sampled area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Wetland hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: Data point located in low/flat area on north side of creek.			

VEGETATION - Use Scientific names of plants.

Tree Stratum (Plot size: <u>10 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum: (Plot size: <u>10 ft radius</u>)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL Species: _____ x 1 = _____
3. _____	_____	_____	_____	FACW Species _____ x 2 = _____
4. _____	_____	_____	_____	FAC Species _____ x 3 = _____
5. _____	_____	_____	_____	FACU Species _____ x 4 = _____
_____ = Total Cover				UPL Species _____ x 5 = _____
Herb Stratum: (Plot size: <u>10 ft radius</u>)				Column Totals: _____ (A) _____ (B)
1. <u>Bromus hordeaceus</u>	25%	D	FACU	Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of Hydric soil and wetland hydrology must be present.
2. <u>Poa pratensis ssp. pratensis</u>	25%	D	FAC	
3. <u>Carex praegracilis</u>	20%	D	FACW	
4. <u>Elymus glaucus</u>	15%		FACU	
5. <u>Equisetum hyemale ssp. affine</u>	7%		FACW	
6. <u>Torilis nodosa</u>	1%		--	
7. <u>Cirsium vulgare</u>	1%		FACU	
8. _____	_____	_____	_____	
_____ 94% = Total Cover				
Woody Vine Stratum: (Plot size: <u>10 ft radius</u>)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks:				

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Newtown Rd at SF Weber Creek City/County: El Dorado County Sampling Date: 27 June 2012
 Applicant/Owner: El Dorado County State: CA Sampling Point: 5
 Investigator(s): Mike Bower, Chuck Hughes Section, Township, Range: T10N, R12E, Section 2 and 3
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Linear-Linear Slope (%): 3
 Subregion (LRR): MLRA 22A Lat: 38.745532° N Long: 120.631007° W Datum: WGS84
 Soil Map Unit Name: Placer Diggings NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of the 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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the sampled area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks:			

VEGETATION - Use Scientific names of plants.

Tree Stratum (Plot size: <u>2 m radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum: (Plot size: <u>2 m radius</u>)				
1. <u>Rubus armeniacus</u>	<u>100%</u>	_____	<u>FACU</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL Species: _____ x 1 = _____ FACW Species _____ x 2 = _____ FAC Species _____ x 3 = _____ FACU Species <u>100%</u> x 4 = <u>400%</u> UPL Species _____ x 5 = _____ Column Totals: <u>100%</u> (A) <u>400%</u> (B) Prevalence Index = B/A = <u>4</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>100%</u> = Total Cover				
Herb Stratum: (Plot size: <u>2 m radius</u>)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of Hydric soil and wetland hydrology must be present.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum: (Plot size: <u>10 ft radius</u>)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks:				

Profile Description: (Describe the depth needed to document the Indicator or confirm the absence of Indicators.)								
Depth Inches	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	7.5YR 3/3	100%					Silt loam	
6-10	7.5YR 3/3	98%	5YR 4/6	2%	C	M	Silt loam	Contrast = prominent
10-20+	7.5YR 4/4	90%	7.5YR 4/2	5%	D	M	Silt loam	Contrast = distinct
			2.5YR 4/6	5%	C	M		Contrast = prominent
¹ Type : C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining, M=Matrix								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)						Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)						³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Restrictive Layer (if present): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Redox boundaries diffuse								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface water (A1) <input type="checkbox"/> High water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible-Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, if available):		
Remarks:		

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Newtown Rd at SF Weber Creek City/County: El Dorado County Sampling Date: 27 June 2012
 Applicant/Owner: El Dorado County State: CA Sampling Point: 6
 Investigator(s): Mike Bower, Chuck Hughes Section, Township, Range: T10N, R12E, Section 2 and 3
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Linear-Linear Slope (%): 3%
 Subregion (LRR): MLRA 22A Lat: 38.745532° N Long: 120.631007° W Datum: WGS84
 Soil Map Unit Name: Placer Diggings NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of the 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 <input type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the sampled area within a Wetland? Yes <input type="checkbox"/> No <input type="checkbox"/>
Wetland hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks:			

VEGETATION – Use Scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>2 m radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	<u>30%</u>	<u>D</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. <u>Pinus ponderosa</u>	<u>20%</u>	<u>D</u>	<u>FACU</u>	
3. _____				
4. _____				
	<u>50%</u>	= Total Cover		
<u>Sapling/Shrub Stratum:</u> (Plot size: <u>2 m radius</u>)				Prevalence Index worksheet:
1. <u>Rubus armeniacus</u>	<u>90%</u>	<u>D</u>	<u>FACU</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL Species: _____ x 1 = _____
3. _____				FACW Species <u>30%</u> x 2 = <u>60%</u>
4. _____				FAC Species <u>2%</u> x 3 = <u>6%</u>
5. _____				FACU Species <u>110%</u> x 4 = <u>440%</u>
	<u>90%</u>	= Total Cover		UPL Species _____ x 5 = _____
<u>Herb Stratum:</u> (Plot size: <u>2 m radius</u>)				Column Totals: <u>142%</u> (A) <u>506%</u> (B)
1. _____				Prevalence Index = B/A = <u>3.56</u>
2. _____				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 – Dominance Test is >50% <input type="checkbox"/> 3 – Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 – Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 – Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of Hydric soil and wetland hydrology must be present.
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
<u>Woody Vine Stratum:</u> (Plot size: <u>2 m radius</u>)				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. <u>Clematis ligusticifolia</u>	<u>2%</u>	<u>D</u>	<u>FAC</u>	
2. _____				
	<u>2%</u>	= Total Cover		
% Bare Ground in Herb Stratum				
Remarks:				

WETLAND DETERMINATION DATA FORM – **Western Mountains, Valleys, and Coast Region**

Project/Site: Newtown Rd at SF Weber Creek City/County: El Dorado County Sampling Date: 27 June 2012
 Applicant/Owner: El Dorado County State: CA Sampling Point: 7
 Investigator(s): Mike Bower, Chuck Hughes Section, Township, Range: T10N, R12E, Section 2 and 3
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Linear-Linear Slope (%): 0%
 Subregion (LRR): MLRA 22A Lat: 38.745532° N Long: 120.631007° W Datum: WGS84
 Soil Map Unit Name: Placer Diggings NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of the 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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the sampled area
Wetland hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:			

VEGETATION - Use Scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW or FAC:	<u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>50%</u> (A/B)
4. _____	_____	_____	_____		
	_____ = Total Cover				
<u>Sapling/Shrub Stratum:</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:	
1. <u>Rubus armeniacus</u>	<u>98%</u>	<u>D</u>	<u>FACU</u>	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL Species: _____ x 1 = _____	
3. _____	_____	_____	_____	FACW Species <u>2%</u> x 2 = <u>4%</u>	
4. _____	_____	_____	_____	FAC Species _____ x 3 = _____	
5. _____	_____	_____	_____	FACU Species <u>98%</u> x 4 = <u>392%</u>	
	<u>98%</u> = Total Cover			UPL Species _____ x 5 = _____	
				Column Totals: <u>100%</u> (A) <u>396%</u> (B)	
				Prevalence Index = B/A	<u>3.96</u>
<u>Herb Stratum:</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:	
1. <u>Equisetum hyemale ssp. affine</u>	<u>2%</u>	<u>D</u>	<u>FACW</u>	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
2. _____	_____	_____	_____	¹ Indicators of Hydric soil and wetland hydrology must be present.	
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
	<u>2%</u> = Total Cover			Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<u>Woody Vine Stratum:</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
	_____ = Total Cover				
% Bare Ground in Herb Stratum					
Remarks:					

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Newtown Rd at SF Weber Creek City/County: El Dorado County Sampling Date: 27 June 2012
 Applicant/Owner: El Dorado County State: CA Sampling Point: 8
 Investigator(s): Mike Bower, Chuck Hughes Section, Township, Range: T10N, R12E, Section 2 and 3
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): Linear-Linear Slope (%): 1%
 Subregion (LRR): MLRA 22A Lat: 38.745532° N Long: 120.631007° W Datum: WGS84
 Soil Map Unit Name: Placer Diggings NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of the 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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the sampled area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks:			

VEGETATION - Use Scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>5 m radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW or FAC: <u>0</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>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
<u>Sapling/Shrub Stratum:</u> (Plot size: <u>5 m radius</u>)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by:
2. _____	_____	_____	_____	OBL Species: _____ x 1 = _____
3. _____	_____	_____	_____	FACW Species <u>9%</u> x 2 = <u>18%</u>
4. _____	_____	_____	_____	FAC Species <u>8%</u> x 3 = <u>24%</u>
5. _____	_____	_____	_____	FACU Species <u>30%</u> x 4 = <u>120%</u>
_____ = Total Cover				UPL Species _____ x 5 = _____
				Column Totals: <u>47%</u> (A) <u>162%</u> (B)
				Prevalence Index = B/A = <u>3.45%</u>
<u>Herb Stratum:</u> (Plot size: <u>5 m radius</u>)				Hydrophytic Vegetation Indicators:
1. <u>Dactylis glomerata</u>	<u>30%</u>	<u>D</u>	<u>FACU</u>	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation
2. <u>Lathyrus latifolius</u>	<u>20%</u>	<u>D</u>	<u>--</u>	<input type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Bromus sterilis</u>	<u>9%</u>	_____	<u>--</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Poa pratensis ssp. pratensis</u>	<u>8%</u>	_____	<u>FAC</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Carex praegracilis</u>	<u>8%</u>	_____	<u>FACW</u>	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. <u>Equisetum hyemale ssp. affine</u>	<u>1%</u>	_____	<u>FACW</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. <u>Convolvulus arvensis</u>	<u>1%</u>	_____	<u>--</u>	¹ Indicators of Hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____	
_____ = Total Cover				
<u>Woody Vine Stratum:</u> (Plot size: <u>5 m radius</u>)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum				
Remarks:				

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Newtown Rd at SF Weber Creek City/County: El Dorado County Sampling Date: 27 June 2012
 Applicant/Owner: El Dorado County State: CA Sampling Point: 9
 Investigator(s): Mike Bower, Chuck Hughes Section, Township, Range: T10N, R12E, Section 2 and 3
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave-Linear Slope (%): 3%
 Subregion (LRR): MLRA 22A Lat: 38.745532° N Long: 120.631007° W Datum: WGS84
 Soil Map Unit Name: Mariposa-Josephine very rocky loams, 15-50% slopes NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of the 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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the sampled area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks:			

VEGETATION - Use Scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>5m radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum: (Plot size: <u>5m radius</u>)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by:
2. _____	_____	_____	_____	OBL Species: _____ x 1 = _____
3. _____	_____	_____	_____	FACW Species _____ x 2 = _____
4. _____	_____	_____	_____	FAC Species _____ x 3 = _____
5. _____	_____	_____	_____	FACU Species _____ x 4 = _____
_____ = Total Cover				UPL Species _____ x 5 = _____
Herb Stratum: (Plot size: <u>5m radius</u>)				Column Totals: _____ (A) _____ (B)
1. <u>Artemisia douglasiana</u>	<u>85%</u>	<u>D</u>	<u>FACW</u>	Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of Hydric soil and wetland hydrology must be present.
2. <u>Elymus glaucus</u>	<u>3%</u>		<u>FACU</u>	
3. <u>Dactylis glomerata</u>	<u>1%</u>		<u>FACU</u>	
4. <u>Bromus diandrus</u>	<u>1%</u>		<u>--</u>	
5. <u>Torilis arvensis</u>	<u>1%</u>		<u>--</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>91%</u> = Total Cover				
Woody Vine Stratum: (Plot size: <u>5m radius</u>)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>5%</u>				
Remarks:				

Profile Description: (Describe the depth needed to document the Indicator or confirm the absence of Indicators.)										
Depth Inches	Matrix		Redox Features				Texture	Remarks		
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²				
0-6	7.5YR 3/2	100					Silt loam			
6-14	7.5YR 3/3	90	7.5YR 3/2	10	D	M	Fine sandy loam			
¹ Type : C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining, M=Matrix										
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)						<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)	
Restrictive Layer (if present): Type: _____ Depth (inches): _____						³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				
						Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
Remarks: Soil appears mixed at 10+ inches depth										

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface water (A1) <input type="checkbox"/> High water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible-Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, if available):		
Remarks:		

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Newtown Rd at SF Weber Creek City/County: El Dorado County Sampling Date: 27 June 2012
 Applicant/Owner: El Dorado County State: CA Sampling Point: 10
 Investigator(s): Mike Bower, Chuck Hughes Section, Township, Range: T10N, R12E, Section 2 and 3
 Landform (hillslope, terrace, etc.): Terrance Local relief (concave, convex, none): Linear-Linear Slope (%): 2%
 Subregion (LRR): MLRA 22A Lat: 38.745532° N Long: 120.631007° W Datum: WGS84
 Soil Map Unit Name: Mariposa-Josephine very rocky loams, 15-50% slopes NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of the 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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the sampled area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks:			

VEGETATION - Use Scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>5 m radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
_____ = Total Cover				
<u>Sapling/Shrub Stratum:</u> (Plot size: <u>5 m radius</u>)				
1. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL Species: _____ x 1 = _____ FACW Species <u>25%</u> x 2 = <u>50%</u> FAC Species _____ x 3 = _____ FACU Species <u>105%</u> x 4 = <u>420%</u> UPL Species _____ x 5 = _____ Column Totals: <u>130%</u> (A) <u>470%</u> (B) Prevalence Index = B/A = <u>3.61</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Herb Stratum:</u> (Plot size: <u>5 m radius</u>)				
1. <u>Vitis californica</u>	<u>80%</u>	<u>D</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of Hydric soil and wetland hydrology must be present.
2. <u>Artemisia douglasiana</u>	<u>25%</u>	<u>D</u>	<u>FACW</u>	
3. <u>Rubus armeniacus</u>	<u>20%</u>		<u>FACU</u>	
4. <u>Lathyrus latifolius</u>	<u>4%</u>		<u>--</u>	
5. <u>Elymus glaucus</u>	<u>3%</u>		<u>FACU</u>	
6. <u>Cirsium vulgare</u>	<u>2%</u>		<u>FACU</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>134%</u> = Total Cover				
<u>Woody Vine Stratum:</u> (Plot size: <u>5 m radius</u>)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks:				

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Newtown Rd at SF Weber Creek City/County: El Dorado County Sampling Date: 27 June 2012
 Applicant/Owner: El Dorado County State: CA Sampling Point: 11
 Investigator(s): Mike Bower, Chuck Hughes Section, Township, Range: T10N, R12E, Section 2 and 3
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Linear-Concave Slope (%): 1%
 Subregion (LRR): MLRA 22A Lat: 38.745532° N Long: 120.631007° W Datum: WGS84
 Soil Map Unit Name: Placer Diggings NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of the 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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the sampled area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks:			

VEGETATION - Use Scientific names of plants.

Tree Stratum (Plot size: <u>2 m radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	<u>10%</u>	<u>D</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>10%</u>	= Total Cover		
Sapling/Shrub Stratum: (Plot size: <u>2 m radius</u>)				Prevalence Index worksheet:
1. <u>Rubus armeniacus</u>	<u>20%</u>	<u>D</u>	<u>FACU</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL Species: _____ x 1 = _____
3. _____	_____	_____	_____	FACW Species <u>10%</u> x 2 = <u>20%</u>
4. _____	_____	_____	_____	FAC Species <u>5%</u> x 3 = <u>15%</u>
5. _____	_____	_____	_____	FACU Species <u>25%</u> x 4 = <u>100%</u>
	<u>20%</u>	= Total Cover		UPL Species <u>30%</u> x 5 = <u>150%</u>
Herb Stratum: (Plot size: <u>2 m radius</u>)				Column Totals: <u>70%</u> (A) <u>285%</u> (B)
1. <u>Melica subulata</u>	<u>30%</u>	<u>D</u>	<u>--</u>	Prevalence Index = B/A = <u>4.07</u>
2. <u>Osmorhiza berteroi</u>	<u>5%</u>	_____	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of Hydric soil and wetland hydrology must be present.
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>35%</u>	= Total Cover		
Woody Vine Stratum: (Plot size: <u>2 m radius</u>)				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. <u>Clematis ligusticifolia</u>	<u>5%</u>	<u>D</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
	<u>5%</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>70%</u>				
Remarks:				

Profile Description: (Describe the depth needed to document the Indicator or confirm the absence of Indicators.)								
Depth Inches	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	7.5YR 3/3	100					Silt loam	50% gravel
>8							Gravel	
¹ Type : C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining, M=Matrix								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)						Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)						³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Restrictive Layer (if present): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface water (A1) <input type="checkbox"/> High water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible-Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, if available):		
Remarks:		

Appendix B.

Photographs

Newtown Road Bridge (23C-0033) at South Fork Weber Creek Replacement Project
El Dorado County, CA

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Photo 1. View east (looking upstream) toward Newtown Road Bridge over South Fork Weber Creek. 12 May 2012.



Photo 2. View west (looking downstream) toward South Fork Weber Creek downstream of Newtown Road Bridge. 12 May 2012.



Photo 3. View northeast toward DP 5 (white arrow). The perennial channel is obscured by Himalayan blackberry (approximate location at dotted white line). 27 July 2012.



Photo 4. View northwest (looking downstream) along ephemeral channel 2. South Fork Weber Creek is in the background. 12 May 2012.



Photo 5. View east along ephemeral channel 1 (dotted white line) at its confluence with UD-1 (dotted black line). Newtown Road is visible on the left. 12 May 2012.



Photo 6. View west toward SW-1. DP 4 shown at white arrow. 12 May 2012.

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Appendix C.

Plant Species Recorded at Data Points

Newtown Road Bridge (25C-0033) at South Fork Weber Creek Replacement Project
 El Dorado County, CA

Species	Common Name	Stratum ¹	Indicator
<i>Artemisia douglasiana</i>	Douglas' wormwood	H	FACW
<i>Barbarea verna</i>	Early winter cress	H	FACW
<i>Bromus diandrus</i>	Ripgut grass	H	--
<i>Bromus hordeaceus</i>	Soft brome	H	FACU
<i>Bromus sterilis</i>	Poverty brome	H	--
<i>Carex praegracilis</i>	Clustered field sedge	H	FACW
<i>Cirsium vulgare</i>	Bull thistle	H	FACU
<i>Clematis ligusticifolia</i>	Deciduous Traveler's-Joy	V	FAC
<i>Convolvulus arvensis</i>	Bindweed	H	--
<i>Dactylis glomerata</i>	Orchard grass	H	FACU
<i>Elymus glaucus</i>	Blue wild rye	H	FACU
<i>Equisetum hyemale</i> ssp. <i>affine</i>	Common scouring rush	H	FACW
<i>Festuca arundinacea</i>	Tall fescue	H	FAC
<i>Fraxinus latifolia</i>	Oregon Ash	T	FACW
<i>Geranium dissectum</i>	Geranium	H	--
<i>Lathyrus latifolius</i>	Perennial sweet pea	H	--
<i>Melica subulata</i>	Alaskan Oniongrass	H	--
<i>Mentha spicata</i>	Spearmint	H	FACW
<i>Osmorhiza berteroi</i>	Mountain Sweet-Cicely	H	FACU
<i>Pinus ponderosa</i>	Ponderosa pine	T	FACU
<i>Plantago lanceolata</i>	English plantain	H	FACU
<i>Poa pratensis</i> ssp. <i>pratensis</i>	Blue grass	H	FAC
<i>Prunella vulgaris</i>	Common selfheal	H	FACU
<i>Rubus armeniacus</i>	Himalayan blackberry	H, S, V	FACU
<i>Rumex crispus</i>	Curly dock	H	FAC
<i>Salix exigua</i>	Narrow-leaf willow	T, H	FACW
<i>Salix lasiolepis</i>	Arroyo willow	T, S	FACW
<i>Stachys</i> sp.	Hedge-nettle	H	FACW
<i>Taraxacum officinale</i>	Common dandelion	H	FACU
<i>Torilis arvensis</i>	Tall sock-destroyer	H	--
<i>Torilis nodosa</i>	Short sock-destroyer	H	--
<i>Verbascum thapsus</i>	Great mullein	H	FACU
<i>Vitis californica</i>	California grape	H	FACU

¹ T = Tree, S = Sapling/Shrub, H = Herb, V = Woody Vine.

² *Carex* sp. assumed FACW.

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Appendix D.

FEMA/FIRM Map

Newtown Road Bridge (23C-0033) at South Fork Weber Creek Replacement Project
El Dorado County, CA

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Appendix E.

Aquatic Resources Excel Spreadsheet

Newtown Road Bridge (23C-0033) at South Fork Weber Creek Replacement Project
El Dorado County, CA

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Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
South Fork Weber Creek	CALIFORNIA	R3UB	RIVERINE	Area	0.469	ACRE	RPW	38.70748600	-120.68169900	
Perennial Channel	CALIFORNIA	R3UB	RIVERINE	Area	0.013	ACRE	RPW	38.70765600	-120.68160100	
Seasonal Wetland	CALIFORNIA	PEM1	DEPRESS	Area	0.009	ACRE	ISOLATE	38.70765800	-120.68120200	
Ephemeral Channel 1	CALIFORNIA	R4SB	RIVERINE	Area	0.004	ACRE	NRPW	38.70728700	-120.68090700	
Ephemeral Channel 2	CALIFORNIA	R4SB	RIVERINE	Area	0.002	ACRE	NRPW	38.70726200	-120.68254000	
Ephemeral Channel 3	CALIFORNIA	R4SB	RIVERINE	Area	0.001	ACRE	NRPW	38.70722600	-120.68353800	