

**Appendix G**  
**Wetland Delineation Report**

**Jurisdictional Waters and Wetland Delineation  
Bautista Canyon Road Project  
California Forest Highway 224  
Riverside County, California**

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Prepared for  
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Transportation Department  
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## **1.0 EXECUTIVE SUMMARY**

**Project:** Bautista Canyon Road Project

**Project Proponent:** County of Riverside  
Transportation Department  
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AMEC Earth & Environmental, Inc. (AMEC) conducted a Clean Water Act (CWA), Section 404 jurisdictional waters and wetland delineation of the 8.2-mile Bautista Canyon Road Project study corridor. Within the corridor, approximately 23.05 acres of waters of the U.S. were identified, including 21.19 acres of wetlands. This report will be used to request a Jurisdictional Determination for waters of the U.S. from the U.S. Army Corps of Engineers (Corps). A verification of this delineation was conducted in the field on 27 January 2003 with the Corps, AMEC, the County of Riverside, and the Federal Highway Administration (FHWA). This document has been updated to reflect the minor revisions made during the verification. An impact analysis was not conducted. The location and extent of jurisdictional areas within the study corridor will be used to design the road improvements to maximize avoidance of wetlands. Based on the presence of jurisdictional areas within the study corridor, the project will likely require a Section 404 permit and a Section 401 water quality certification.

## **2.0 INTRODUCTION**

AMEC) conducted a CWA, Section 404, jurisdictional waters and wetland delineation of the Bautista Canyon Road Project corridor in western Riverside County, California (Figure 1). The project proposes to reconstruct an approximately 8.2-mile section of the existing Bautista Canyon Road between the Hemet and Anza. The northern terminus of the project is at the Bautista Conservation Camp at a point 10.3 miles southeast of Valle Vista and the southern

Figure 1

terminus is at a point 3.2 miles northwest of SH 371 in the Anza Valley. This investigation included an approximately 400-foot wide corridor along the existing Bautista Canyon Road. The purpose of this assessment was to quantify the areas within the project study corridor that are subject to the jurisdiction of the Corps and to describe the wetlands and non-wetland waters of the U.S. within this area.

## **2.1 Project Setting**

The Bautista Canyon Road project corridor is located in the canyon between Hemet and Anza in Riverside County, California. Bautista Canyon Road is an approximately 20-foot-wide dirt road that is proposed for reconstruction along 8.2 miles to meet standard design specifications. Alternative road alignments are being investigated that vary based on design speeds and avoidance of sensitive resources.

The predominate land owner along the 8.2-mile section is the U.S. Forest Service (USFS). In the southern section of the corridor near Anza, the road right-of-way passes through private land characterized by large lot, rural residential development with grazing. Aside from the private land in the Anza Valley, a majority of the land adjacent the existing dirt road is native vegetation. Bautista Creek flows from south to north down the canyon, from Anza towards Hemet. The existing Bautista Canyon Road crosses numerous tributaries to Bautista Creek and one main crossing of Bautista Creek. The upland vegetation in the northern section of the project corridor includes mixed chaparral and redshank chaparral and in the southern section includes sagebrush scrub. The major drainages, including Bautista Creek, are characterized by southern willow scrub with patches of cottonwood willow riparian forest. All vegetation communities, except where disturbed by development or grazing on the private lands, are undisturbed.

The project study corridor slopes generally southeast to northwest, with the southern terminus at approximately 4,120 feet above mean sea level and the northern terminus at approximately 2,800 feet above mean sea level. The existing roadway lies at generally the same elevation as Bautista Creek in the northern and southern sections of the project corridor. In the middle section of the project corridor, the roadway climbs as much as approximately 200 feet out of the canyon along the canyon slopes. The underlying material of a majority of the study corridor is

decomposed granite. This fragmented rock and sand are highly erosive and easily transported during rain events. No soils survey is available for this portion of Riverside County.

### **3.0 METHODOLOGY**

The Corps regulates the discharge of fill material into waters of the U.S. Waters of the U.S. include wetlands and non-wetland water bodies meeting specific criteria. Non-wetland waters of the U.S. are typically regulated as jurisdictional by the Corps if the drainage exhibits at least intermittent flow. Evidence of intermittent flow typically includes the formation of bed and bank, debris deposits, and scoured channels. Corps jurisdiction over non-wetland waters of the U.S. extends to the ordinary high water mark (OHWM) of the feature. As defined by Corps regulations, waters of the U.S. include these traditional drainage features, as well as a range of other waters, as follows:

- All interstate waters, including interstate wetlands,
- All other waters, including intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, for which the use, degradation or destruction of could affect interstate or foreign commerce,
- All impoundments of waters that fit the description,
- Tributaries to any defined waters,
- Territorial seas, and
- Wetlands adjacent to waters.

The Corps defines wetlands as:

those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstance do support, a prevalence or vegetation typically adapted to life in saturated soil conditions.

Section 404 of the CWA defines an area as a jurisdictional wetland if it possesses all three of the following wetland attributes:

1. Hydrophytic Vegetation,
2. Wetland Hydrology, and
3. Hydric Soils.

Areas were evaluated in the field for these wetland characteristics according to the methods defined in the 1987 *Corps of Engineers Wetland Delineation Manual*. Hydrophytic vegetation are defined as plant species that grow and are adapted to the conditions of permanently or periodically saturated soils. The presence or absence of hydrophytic vegetation was determined by developing a list of plant species present within the area in question, determining the dominance of each species within each strata (tree, shrub, and herb), and determining the wetland plant indicator status of each species. Wetland plant indicator status was obtained from the U.S. Fish and Wildlife Service (USFWS) *National List of Plant Species That Occur in Wetlands: California* (Reed 1988). If more than 50 percent of the dominant vegetation species were classified as obligate, facultative wet, or facultative, then hydrophytic vegetation was determined to be present.

Wetland hydrology was determined by several factors, including the presence of water in the soil pit, presence of saturated soils, presence of ponded surface water, drift lines, sediment deposits, and drainage patterns within a wetland. Secondary hydrology indicators include oxidized root channels, water stained leaves, and local soils survey data. No recorded flow data was available for the site, but aerial photos were used as an indication of wetland hydrology.

Hydric soils are flooded, ponded, or saturated for a period during the growing season sufficient to develop anaerobic conditions in the upper layers, favoring the growth of hydrophytic vegetation. Soils must meet at least one of the following criteria to be considered hydric:

1. Classified as organic soils (Histosols, except the Folists),
2. Exhibits a histic epipedon,
3. Contains sulfidic materials,
4. Exhibits a moisture regime that is aquic or peraquic,
5. Exhibits reducing soil conditions,
6. Exhibits the gleyed soil color or low matrix color,
7. Listed on a hydric soils list.

For sandy soils, hydric soils can sometimes be determined by the presence of high organic matter in the surface horizon or streaking of organic matter in the subsurface layers.

In many cases, soil color is the most diagnostic field tool for determining the presence of hydric soils. Soil color was determined by digging a soil pit to a depth of 16 inches and determining the matrix, chroma, and hue of the soil sample of each horizon with Munsell® Soil Color Charts. If the soil was gleyed, had no mottles and a chroma of one or less, or if mottles were present and the chroma was two or less, the soil was determined to be hydric. In cases where the soils were sand or recently deposited river sand, a problem area or natural atypical situation occurs where it is not possible to determine soil color. In these cases, the 1987 Corps manual does not require soils pits and jurisdictional wetlands were delineated based on other indicators of hydric soils, the indicators of hydrophytic vegetation and wetland hydrology, and professional judgment.

AMEC scientists Mike Wilcox, Nathan Moorhatch, and Mike Howard conducted a survey of jurisdictional wetlands and waters of the U.S. for the Bautista Canyon Road Project. Preliminary surveys of the jurisdictional areas were conducted during the spring and fall of 2001. Mike Howard conducted drainage specific investigations on 21 February, 27 February, and 5 March, 2002. Prior to field surveys, topographic maps, current aerial photographs, and information from the preliminary surveys were consulted to identify potential wetland areas. Wetland delineations were conducted according to the 1987 Corps Manual, as described above. A determination of wetland functions and values was not completed, however information was collected that could facilitate a qualitative assessment of functions and values. A routine wetland determination was conducted because the wetland areas were less than 5 acres in size and occurred in small patches. Data sheets collected during the investigation are included as Appendix B, and photographs are included in Appendix C.

In addition to performing jurisdictional wetland determinations, non-wetland waters of the U.S. were also mapped. Non-wetland waters of the U.S. are defined as primarily unvegetated channels that are currently used, were used, or may potentially be used in interstate or foreign commerce, including intermittent streams. Length and width (measured as the width of the ordinary high water mark) data for non-wetland waters of the U.S. within the project study area were recorded and mapped.

Drainages and wetlands were numbered consecutively north to south. Data sheets were completed for wetlands and non-wetland waters within the survey corridor. Data sheets were not completed for wetlands or drainages that would not be impacted, or for those areas that appeared similar in vegetation, hydrology, and soils to wetlands or drainages for which data sheets has already been completed. Wetland boundaries and drainages were mapped on 1:200 scale orthorectified aerial photography. All wetlands and potential waters of the U.S. observed within the approximately 400-foot-wide survey corridor were mapped.

All wetland areas identified in the study corridor were grouped into wetland types based on the dominant species in the wetland and the structure of the community. The Holland classification system was used to characterize the various wetland communities in the study corridor (Holland, 1986).

## **4.0 RESULTS**

A total of 44 drainages exhibiting bed and bank and 15 jurisdictional wetland areas were identified within the study corridor. The limits of jurisdictional waters and wetlands mapped are shown in Appendix A, Figures 1 through 8. Table 1 lists the jurisdictional determination for all areas within the Bautista Canyon Road Project. Dataforms of wetlands and non-wetland waters areas within the study corridor are provided in Appendix B and photographs are included in Appendix C. The results of this delineation were verified in the field by the Corps on 27 January 2003. All revisions made during the field verification have been incorporated into the results in this document.

### **Drainage 1**

Drainage 1, known as Horse Creek, is a wide ephemeral non-wetland waters at the northernmost end of the survey corridor. This dry wash is characterized by upland vegetation species and sandy substrate. Only a portion of the drainage occurs within the study area. The average width is 35 feet, the length within the corridor is 198.6 feet, and the acreage within the corridor is 0.18 acres.

**Table 1  
Corps Jurisdictional Determination  
For The Bautista Canyon Road Project<sup>1</sup>**

Feature	Length (ft)	Width (ft)	Type <sup>2</sup>	Waters (acres)	Wetland Type <sup>3</sup> (Polygon Number)	Wetlands (acres)
Drainage 1	198.6	35	E	0.18	--	0
Drainage 2	274.9	6	E	0.04	--	0
Drainage 2a	156.5	2	E	0.01	--	0
Drainage 3	223.4	6	E	0.04	--	0
Drainage 4	603.4	6	E	0.09	--	0
Drainage 5	410.8	6	E	0.06	--	0
Drainage 6	1,003.3	3	E	0.17	--	0
Drainage 7	535.3	6	E	0.07	--	0
Drainage 8 <sup>4</sup>	170.4	27	I	0.12	--	0
Drainage 9 <sup>4</sup>	52.4	8	I	0.015	CWR/SWS (1)	1.16
					CWR (2, 3)	0.28
					SWS (5)	0.02
Drainage 10	145.1	6	I	0.03	CWR/SWS (4)	0.29
Drainage 11	1,105.9	4	E	0.024	--	0
Drainage 12	576.9	2	E	0.03	--	0
Drainage 13	1,304.9	8	E	0.25	CWR/SWS (6)	0.11
Drainage 14	1,682.2	2	E	0.08	--	0
Drainage 15	337.3	2	E	0.02	--	0
Drainage 16	392.7	2	E	0.02	--	0
Drainage 17	375.7	2	E	0.02	--	0
Drainage 18	241.6	2	E	0.01	--	0
Drainage 19	500.6	2	E	0.02	--	0
Drainage 20	637.4	2	E	0.03	--	0
Drainage 21	338.8	2	E	0.02	--	0
Drainage 22	335.4	3	E	0.02	--	0
Drainage 23	374.8	3	E	0.03	--	0
Drainage 24	312.0	2	E	0.02	--	0
Drainage 25	179.2	3	E	0.01	--	0
Drainage 26	324.1	2	E	0.02	--	0
Drainage 27	408.7	3	E	0.03	--	0
Drainage 28	743.7	2	E	0.03	--	0
Drainage 29	226.4	2	E	0.01	--	0
Drainage 30	146.5	3	E	0.01	--	0
Drainage 31	339.7	2	E	0.02	--	0
Drainage 32	268.6	3	E	0.02	--	0
Drainage 33 <sup>4</sup>	459.8	8	I	0.09	CWR (7)	18.02
					SWS (8, 9, 10)	0.91
					FWS (S1, S2, S3, S4, S5)	0.41
Drainage 34	419.7	8	E	0.07	--	0
Drainage 35	83.1	3	E	0.01	--	0
Drainage 36	347.1	4	E	0.03	--	0
Drainage 37	274.7	3	E	0.02	--	0
Drainage 38	336.6	10	E	0.06	--	0
Drainage 38a	259.9	6	E	0.06	--	0
Drainage 39	300.7	2	E	0.01	--	0
Drainage 40	56.4	2	E	0.003	--	0
Drainage 41	311.0	3	E	0.02	--	0
Drainage 42	1,093.9	3	E	0.08	--	0
<b>Total<sup>5</sup></b>				<b>2.02</b>		<b>21.19</b>

<sup>1</sup> Acreages reflect the jurisdictional areas shown on Figures 1-8 and have been verified by the U.S. Army Corps of Engineers during a site visit on 27 January 2003.

<sup>2</sup> E=Ephemeral, I=Intermittent

<sup>3</sup> SWS=Southern Willow Scrub, CWR=Cottonwood Willow Riparian, FWS=Freshwater Seep

<sup>4</sup> Bautista Creek

<sup>5</sup> Totals may not sum due to rounding

## **Drainage 2**

Drainage 2 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 274.9 feet, and the acreage within the survey is 0.04 acres.

## **Drainage 2a**

Drainage 2a is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 156.5 feet, and the acreage within the corridor is 0.01 acres.

## **Drainage 3**

Drainage 3 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 223.4 feet, and the acreage within the corridor is 0.04 acres.

## **Drainage 4**

Drainage 4 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 603.4 feet, and the acreage within the corridor is 0.09 acres.

## **Drainage 5**

Drainage 5 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 410.8 feet, and the acreage within the corridor is 0.06 acres.

## **Drainage 6**

Drainage 6 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 1,003.3 feet, and the acreage within the corridor is 0.17 acres.

### **Drainage 7**

Drainage 7 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 535.3 feet, and the acreage within the corridor is 0.07 acres.

### **Drainage 8**

Drainage 8 is a short bend of Bautista Creek that falls within the survey corridor. The existing roadway does not cross the creek at this location. The creek at this location is classified as an intermittent non-wetland waters of the U.S. The average width is 27 feet, the length within the survey corridor is 170.4, and the acreage within the corridor is 0.12 acres.

### **Drainage 9**

Drainage 9 is a section of Bautista Creek within the survey corridor. An unculverted crossing is located where the existing roadway crosses the creek at this location. This section of Bautista Creek is a jurisdictional wetland classified as a mature cottonwood-willow riparian forest (wetland polygon 1). Dominant species of the riparian wetland include *Salix lasiolepis*, *Baccharis salicifolia*, and *Artemisia douglasiana*. Scattered *Populus fremontii*, *Platanus racemosa*, and *Juncus textilis* also occur within the floodplain. The acreage of jurisdictional wetland within the corridor at this location is 1.16 acres. In addition, two large jurisdictional wetlands (wetland polygons 2 and 3) occur within the floodplain of the creek in this section. These wetlands are characterized by an understory of nearly pure stands of *J. textilis*, with *A. douglasiana* and *Muhlenbergia rigens* beneath a canopy of *P. fremontii*. The acreage of these two wetlands is 0.28 acres.

### **Drainage 10**

Drainage 10 is an intermittent waters of the U.S. with a small patch of southern willow scrub (wetland polygon 5). The average width of the drainage is 6 feet, the length within the survey corridor is 145.1 feet, and the acreage of non-wetland waters is 0.03 acres. The jurisdictional wetland is composed of *B. salicifolia* and *A. douglasiana* with a few scattered *Salix* individuals. The jurisdictional wetland acreage is 0.02 acres.

### **Drainage 11**

Drainage 11 is an ephemeral non-wetland waters characterized upland vegetation species and sandy substrate. The average width is 4 feet, the length within the survey corridor is 1,105.9 feet, and the acreage within the corridor is 0.02 acres. This drainage feeds into Bautista Creek and approximately 0.29 acres of jurisdictional wetland classified as cottonwood willow riparian forest (wetland polygon 4) occurs near the confluence area within the survey corridor.

### **Drainage 12**

Drainage 12 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 576.9 feet, and the acreage within the corridor is 0.03 acres.

### **Drainage 13**

Drainage 13 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 8 feet, the length within the survey corridor is 1,304.9 feet, and the acreage within the corridor is 0.25 acres. A small area of jurisdictional wetland (wetland polygon 6) associated with Bautista Creek occurs within the survey corridor near Drainage 13 and covers 0.11 acres.

### **Drainage 14**

Drainage 14 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 1,682.2 feet, and the acreage within the corridor is 0.08 acres.

### **Drainage 15**

Drainage 15 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 337.3 feet, and the acreage within the corridor is 0.02 acres.

### **Drainage 16**

Drainage 16 is an ephemeral not-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 392.7 feet, and the acreage within the corridor is 0.02 acres.

### **Drainage 17**

Drainage 17 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 375.7 feet, and the acreage within the corridor is 0.02 acres.

### **Drainage 18**

Drainage 18 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 241.6 feet, and the acreage within the corridor is 0.01 acres.

### **Drainage 19**

Drainage 19 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 500.6 feet, and the acreage within the corridor is 0.02 acres.

### **Drainage 20**

Drainage 20 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 637.4 feet, and the acreage within the corridor is 0.03 acres.

### **Drainage 21**

Drainage 21 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 338.8 feet, and the acreage within the corridor is 0.02 acres.

## **Drainage 22**

Drainage 22 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 335.4 feet, and the acreage within the corridor is 0.02 acres.

## **Drainage 23**

Drainage 23 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 374.8 feet, and the acreage within the corridor is 0.03 acres.

## **Drainage 24**

Drainage 24 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 312.0 feet, and the acreage within the corridor is 0.02 acres.

## **Drainage 25**

Drainage 25 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 179.2 feet, and the acreage within the corridor is 0.01 acres.

## **Drainage 26**

Drainage 26 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 324.1 feet, and the acreage within the corridor is 0.02 acres.

## **Drainage 27**

Drainage 27 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 408.7 feet, and the acreage within the corridor is 0.03 acres.

### **Drainage 28**

Drainage 28 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 743.7 feet, and the acreage within the corridor is 0.03 acres.

### **Drainage 29**

Drainage 29 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 226.4 feet, and the acreage within the corridor is 0.01 acres.

### **Drainage 30**

Drainage 30 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 146.5 feet, and the acreage within the corridor is 0.01 acres.

### **Drainage 31**

Drainage 31 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 339.7 feet, and the acreage within the corridor is 0.02 acres.

### **Drainage 32**

Drainage 32 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 268.6 feet, and the acreage within the corridor is 0.02 acres.

### **Drainage 33**

Drainage 33 is a section of Bautista Creek within the survey corridor. An unculverted crossing is located where the existing roadway crosses one fork of the creek at the intersection with the road leading to Tripp Flats. The upstream northern fork of the creek at this location is considered an intermittent non-wetland waters with an average width of 8 feet, a length of 459.8 feet, and an acreage of 0.09 acres. The upstream southern fork is a jurisdictional wetland classified as southern willow scrub dominated by pure stands of *S. lasiolepis* (wetland polygon

9 and 10). This wetland area covers 0.81 acres. Another tributary considered a jurisdictional southern willow scrub wetland occurs just north of the Tripp Flats Road (wetland polygon 8). This area is a diverse assemblage of *S. lasiolepis*, *Scirpus microcarpus*, *Juncus* spp., and *Muhlenbergia rigens*. The total acreage of this patch is 0.10 acres. These upstream forks and tributaries feed into the main reach of Bautista Creek north of the Tripp Flats Road. This reach of the creek is a jurisdictional wetland classified as a mature cottonwood willow riparian forest similar to the riparian community found at the creek crossing of Drainage 9. The total acreage of jurisdictional wetland in this reach of the creek within the corridor is 18.02 acres (wetland polygon 7).

A series of five jurisdiction wetlands classified as freshwater seeps occur on the opposite side of the existing roadway from Bautista Creek at this location. These freshwater seeps receive hillside subsurface flows during the growing season sufficient to support a prevalence of hydrophytic vegetation. Dominant species in these seeps include *J. textilis*, *S. exigua*, and *A. douglasiana*. The total jurisdictional acreage of freshwater seep is 0.41 acres (wetland polygon S1 = 0.04 acres, wetland polygon S2 = 0.07 acres, wetland polygon S3 = 0.03 acres, wetland polygon S4 = 0.21 acres, and wetland polygon S5 = 0.06 acres).

#### **Drainage 34**

Drainage 34 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 8 feet, the length within the survey corridor is 419.7 feet, and the acreage within the corridor is 0.07 acres.

#### **Drainage 35**

Drainage 35 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 83.1 feet, and the acreage within the corridor is 0.01 acres.

#### **Drainage 36**

Drainage 36 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 4 feet, the length within the survey corridor is 347.1 feet, and the acreage within the corridor is 0.03 acres.

**Drainage 37**

Drainage 37 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 274.7 feet, and the acreage within the corridor is 0.02 acres.

**Drainage 38**

Drainage 38 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 10 feet, the length within the survey corridor is 336.6 feet, and the acreage within the corridor is 0.06 acres.

**Drainage 38a**

Drainage 38a is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 259.9 feet, and the acreage within the corridor is 0.06 acres.

**Drainage 39**

Drainage 39 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 300.7 feet, and the acreage within the corridor is 0.01 acres.

**Drainage 40**

Drainage 40 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 56.4 feet, and the acreage within the corridor is 0.003 acres.

**Drainage 41**

Drainage 41 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 311.0 feet, and the acreage within the corridor is 0.02 acres.

## Drainage 42

Drainage 42 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 1,093.9 feet, and the acreage within the corridor is 0.08 acres.

## 5.0 DISCUSSION/CONCLUSION

The Bautista Canyon project area is comprised of a 8.2-mile linear corridor that runs the length of Bautista Canyon, centered approximately on the existing dirt roadway. For this reason, the results of this jurisdictional waters and wetland delineation include numerous tributaries to Bautista Creek. The majority of these tributaries are narrow, ephemeral waters of the U.S. that carry flows only during and immediately following a rain event. These drainages generally exhibit a defined bed and bank and are unvegetated or have upland vegetation. Roadway crossings of these drainages were both culverted and uncultivated. Although the jurisdictional determination on these narrow ephemeral non-wetland waters remains at the discretion of the Corps, they are identified as jurisdictional in this report based on the presence of bed and bank, evidence of flow, and because they are immediate tributaries to Bautista Creek.

The wetland areas within the survey corridor occur in association with Bautista Creek or with intermittent tributaries to Bautista Creek. Bautista Creek, Drainage 9 and Drainage 33, is generally characterized as a mature riparian woodland with intermittently flowing water. The upstream forks and intermittent tributaries to Bautista Creek are generally less developed riparian wetlands dominated by *Salix* and *Baccharis* scrub.

The substrate of the drainages and the uplands in a majority of the study area was sand deposits and decomposed granite. Soil pits were dug in numerous locations during the wetland delineation that revealed sand at a depth greater than 18 inches. Sandy soils typically do not develop the chroma and hue required for determination of hydric conditions. In addition, little soil development or organic material accumulation was observed. Sandy soils occurred in most locations within the survey corridor. In these situations, soils were not used as a determining criterion, as specified under the problem area and natural atypical situation guidelines in the 1987 Corps Manual.

Project impacts have not been included in this report because the alternative road alignments are currently being designed. The location and extent of the wetlands reported here have been provided to the design team to ensure avoidance of wetlands, where practicable. The results of this delineation have been field verified by the Corps. The project proponent will consult with the Corps and other regulatory agencies during the permitting process for this project. The project will require regulatory permits under sections 401 and 404 of the CWA for any impacts to jurisdictional waters or wetlands.

## **6.0 REFERENCES**

Environmental Laboratory. 1987. Corps of Engineers wetland delineation manual. Technical Report Y-87-1. U.S. Army Engineers Waterways Experiment Station. Vicksburg, MS.

Holland, R.F. 1986. Preliminary description of the terrestrial natural communities of California. State of California, The Resources Agency.

Munsell. 1975. Munsell Soil Color Charts. Koll Morgen Corporation. Baltimore, MD.

Reed, P.B. 1988. National list of plant species that occur in wetlands: California. U.S. Fish and Wildlife Service, Biological Report 88 (26.10). 135 pp.