Jurisdictional Delineation

State Route 85 Express Lanes Project

State of California
Department of Transportation
District 04
Santa Clara County, CA
No. 0400001163/EA 4A7900

SR 85 PM 0.0–24.1
US 101 PM 23.1–28.6
US 101 PM 47.9–52.0

October 2013

Caltrans

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Summary

This jurisdictional delineation report presents the results of a survey for wetlands and other waters of the United States performed at the biological study area (BSA) for the State Route 85 (SR 85) Express Lanes Project in Santa Clara County, California. Wetland scientists formally delineated potential wetlands and other waters of the United States using the routine on-site methodology described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008).

Within the 1,439-acre BSA, 7.98 acres of potential jurisdictional waters of the United States were identified. Of the total identified acreage of potential waters of the U.S., 7.29 acres are potential other waters of the U.S., and 0.69 acre are potential wetlands. The results of this jurisdictional delineation are presented in order to request an approved jurisdictional determination from the United States Army Corps of Engineers (USACE) on waters of the U.S. found within the BSA of the SR 85 Express Lanes Project.

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Contents

Figures and Graphs

Tables

Abbreviated Terms

BSA	biological study area
Caltrans	California Department of Transportation
C.F.R.	Code of Federal Regulations
CWA	Clean Water Act of 1977
CWUS	Culverted water of the United States
EPA	United States Environmental Protection Agency
FAC	facultative
FACW	facultative wetland
HOT	high-occupancy toll
HOV	high-occupancy vehicle
HWUS	Historic Waters of the United States
NRCS	Natural Resources Conservation Service
OBL	obligate wetland
OW	other waters of the United States
PM	post mile
project	SR 85 Express Lanes Project
ROW	right-of-way
RPW	relatively permanent water
RWQCB	Regional Water Quality Control Board
SCL	Santa Clara
SM	San Mateo
SOV	single-occupant vehicle
SR 85	State Route 85
SWANCC	Solid Waste Agency of Northern Cook County
TNW	traditional navigable water
US 101	United States Highway 101
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey

WUS	Other water of the United States
WWUS	Wetland

1 Introduction

This report describes the methods and results of a jurisdictional delineation of waters of the United States (waters of the U.S.), including wetlands and other waters of the U.S., for the State Route (SR) 85 Express Lanes Project (project) in Santa Clara County, California (Figure 1). URS conducted the jurisdictional delineation on behalf of the California Department of Transportation (Caltrans), in cooperation with the Santa Clara Valley Transportation Authority (VTA). The project limits consist of the entire length of SR 85 (PM 0.0 to R24.1) and adjacent segments of United States Highway (US 101) from the SR 85 interchange in San Jose to Bailey Avenue (PM 23.1 to 28.6) and from the SR 85 interchange in Mountain View to just north of Embarcadero Road in Palo Alto (PM 47.9 to 52.0 on US 101). A larger biological study area (BSA) surrounds the project limits on SR 85 and US 101 and was evaluated in this jurisdictional delineation.

The objective of the delineation was to define, record, and map the portions of the project BSA that qualify as waters of the U.S. under federal jurisdiction, pursuant to Section 404 of the Clean Water Act of 1977 (CWA) in order to request an approved jurisdictional determination from the United States Army Corps of Engineers (USACE) for waters of the U.S. in the project area.

1.1 Project Description

The SR 85 Express Lanes Project proposes to convert the existing High-Occupancy Vehicle (HOV) lanes on SR 85 to High-Occupancy Toll (HOT) lanes (hereafter known as express lanes). The express lanes would allow HOVs to continue to use the lanes without cost and eligible single-occupant vehicles (SOVs) to pay a toll. The express lanes would be implemented on northbound and southbound SR 85 from US 101 in southern San Jose to US 101 in Mountain View in Santa Clara County. The express lanes would continue for 3.3 miles of a 5.5-mile segment on US 101 in southern San Jose. Express lane advance notification signage would also be added in a 4.1-mile segment of US 101 in Palo Alto and Mountain View, for a total project length of 33.7 miles. Work on the US 101 segments would mainly include striping and signing and would not include widening or a change in system or HOV lane access. The project would not require any right-of-way acquisition.

Project construction is scheduled to begin in fall 2015 and be completed by summer 2017.

1.2 Biological Study Area

The BSA consists of 1,439.38 acres and extends beyond the physical limits of proposed project construction. The jurisdictional delineation covered the entire BSA in order to address potentially jurisdictional features within and adjacent to project construction areas (Appendix A, Sheets 1–35).

1.3 Definitions

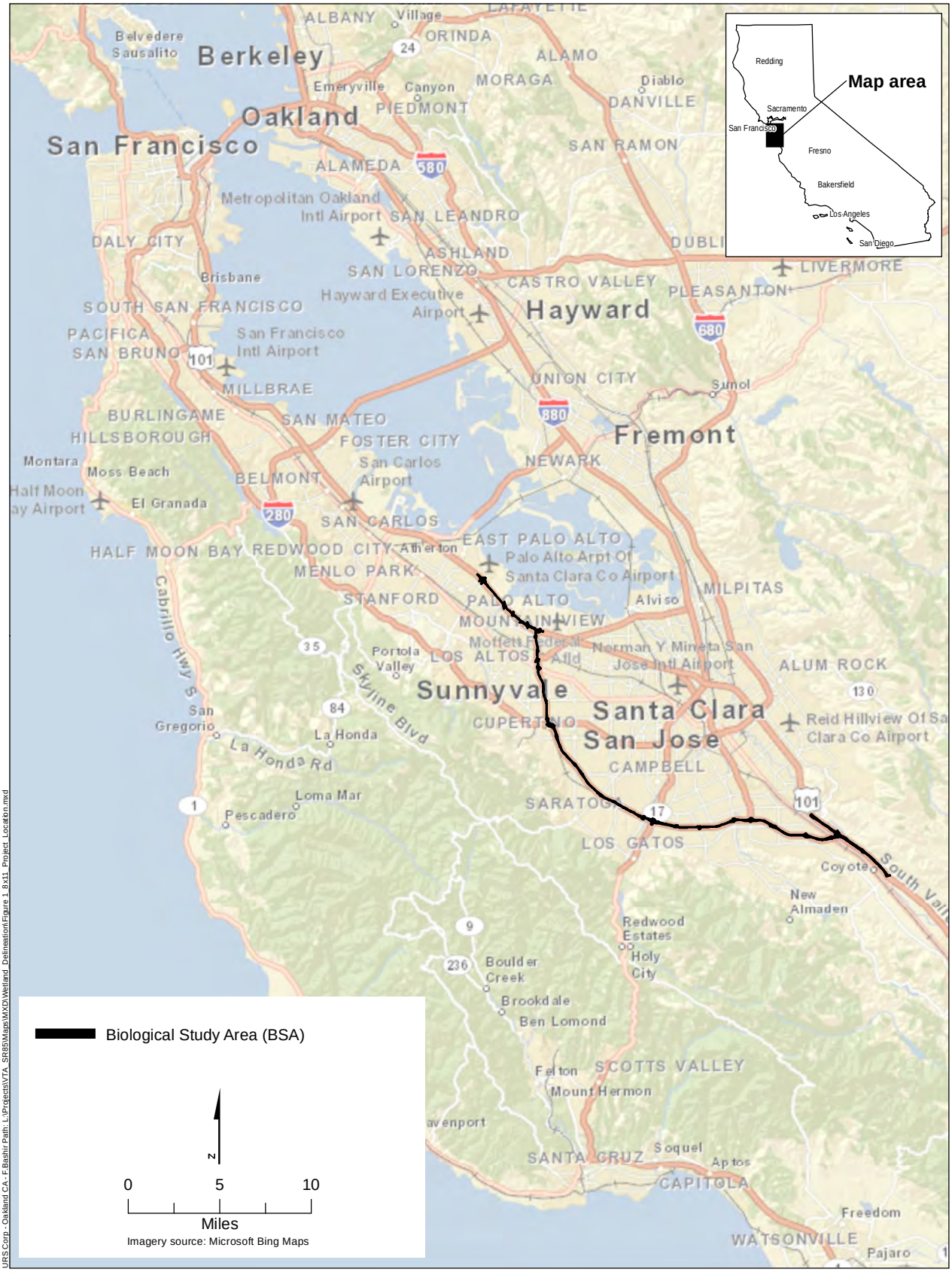
This section provides the legal definition of wetlands and other waters of the U.S.; changes to the definition of waters of the U.S., wetlands, and other waters potentially exempt from USACE jurisdiction; and waters of the state under the regulatory discretion of the Regional Water Quality Control Boards.

1.3.1 Wetlands and Other Waters of the United States

Wetlands and other waters of the U.S. (e.g., rivers and streams) are a subset of "waters of the United States" and receive protection under Section 404 of the CWA. The USACE is granted primary federal responsibility for administering regulations that concern waters and wetlands under two statutory authorities, the Rivers and Harbors Act (Sections 9 and 10), which governs specified activities in "navigable waters," and the CWA (Section 404), which governs specified activities in "waters of the United States," including wetlands.

As defined in the Code of Federal Regulations (33 C.F.R. 328.3[a]; 40 C.F.R. 230.3[s]), *waters of the United States* refers to:

> "(1) All waters which are currently used, 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), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural basins, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters which are or could be used by interstate or foreign travelers for recreational or other purposes; or from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or which are used or could be used for industrial purposes 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 (1) through (4); (6) Territorial seas; and (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6)."



Caltrans
State Route 85 Express Lanes

Figure 1
Project Location and Regional Setting

The USACE and the U.S. Environmental Protection Agency (EPA) define wetlands as, "Those areas that are saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for the life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

The term *other waters of the United States* is used to characterize flowing waterbodies (e.g., streams, rivers, creeks, and channels) that exhibit an ordinary high water mark and evidence of hydrology but that are not wetlands.

1.3.2 Rapanos v. United States and Carabell v. Army Corps of Engineers

Two cases brought before the U.S. Supreme Court, *Rapanos v. United States* (No. 04-1034) and *Carabell v. Army Corps of Engineers* (No. 04-1384) (hereafter referred to together as *Rapanos*), challenged the USACE's interpretation of waters of the United States (USACE 2007). USACE had interpreted 33 U.S.C. 1362(7) of the CWA to regulate wetland areas that are separated from a tributary of a navigable water by a narrow, constructed berm, where evidence of an occasional hydrologic connection existed between the wetland and the tributary.

On June 19, 2006, the court ruling in *Rapanos* tightened the definition of waters of the United States. The decision stated that a water or wetland constitutes "navigable waters" under the CWA if it possesses a "significant nexus" to waters that are currently navigable or could feasibly be made navigable. On June 5, 2007, USACE and the EPA, in response to the ruling, issued a joint memorandum that put forth new guidelines for establishing whether wetlands or other waters of the United States fall within USACE jurisdiction (USACE 2007a). In the guidelines, the agencies assert jurisdiction over traditional navigable waters (TNWs), wetlands adjacent to TNWs, non-navigable tributaries to TNWs that are relatively permanent waters (RPWs), and wetlands that abut RPWs. The agencies may take jurisdiction over non-navigable tributaries that are not RPWs, wetlands that are adjacent to non-RPWs, and wetlands adjacent to but not directly abutting a relatively permanent non-navigable tributary. The agencies will generally not assert jurisdiction over swales, erosional features, or ditches excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

1.3.3 Wetlands and Other Waters Potentially Exempt from USACE Jurisdiction

A number of exemptions from CWA regulations exist for areas that would otherwise qualify as waters of the United States. These exemptions are classified as either discretionary or non-discretionary exemptions. The ruling in *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*, described below, created another type of exemption.

1.3.3.1 Discretionary Exemptions

Exemption Criteria. As described in the preamble discussion of USACE regulations in the November 13, 1986, *Federal Register*, certain areas that meet the technical definition of wetlands generally are not considered waters of the United States (33 C.F.R. 328.3[a]). However, USACE and EPA reserve the right to determine that a particular waterbody within the categories listed below is a water of the United States on a case-by-case basis. These categories are:

- Non-tidal drainage and irrigation ditches excavated on dry land
- Artificially irrigated areas that would revert to upland, if the irrigation ceased
- Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and that are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing
- Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons
- Water filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States.

Determination of Exemption. The technical definition of a wetland or non-wetland water of the United States that does not meet the USACE criteria for jurisdiction on the basis of *Rapanos* is briefly summarized below.

Features such as roadside ditches, drainage ditches, or irrigation canals that appear to have been excavated in uplands and do not convey or connect to other waters of the United States are considered non-jurisdictional waters under the new USACE methodology. Many of these features are in areas with little or no topography indicative of a flow path to a seasonal stream (a stream that flows approximately 3 months a year) that eventually discharges to a TNW. Canals and ditches that do not

maintain a flow connection with a TNW are considered isolated. Canals that transport water from a RPW that do not reconnect or recirculate water back to a RPW draining to a TNW are not considered jurisdictional. Likewise, any man-made drainage ditch that drains uplands to a RPW is not jurisdictional. An exception to this exemption may be a flood-irrigated field that is watered by a jurisdictional canal that is found to drain to a ditch leading to a RPW connected to a TNW. Several features meeting criteria for an exemption were identified in the BSA along the SR 85 ROW.

1.3.3.2 Non-Discretionary Exemptions

Exemption Criteria. In addition to the discretionary exemptions described above, USACE regulations contain a non-discretionary exemption for waste treatment systems designed to meet the requirements of the CWA (33 C.F.R. 328.3[a][7]). Such areas, which include treatment ponds and lagoons, are not considered waters of the United States.

Determination of Exemption. No areas were found in the BSA that met the criteria for a non-discretionary exemption.

1.3.3.3 Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers

Exemption Criteria. On January 9, 2001, the U.S. Supreme Court issued a decision in *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*. The case involved the filling of hydrologically isolated waters that had formed from remnant excavation ditches on a 533-acre parcel. In the decision, the court denied USACE jurisdiction over isolated waterbodies, which USACE had previously regulated using the "Migratory Bird Rule," which was established in 1986. The court defined isolated waters as any body of water that is non-navigable, intrastate, and lacking any significant nexus to navigable bodies of water (Pooley 2002).

Determination of Exemption. No wetlands or non-wetland waters of the United States are present in the project area that were designated as jurisdictional solely on the basis of the Migratory Bird Rule. Therefore, this ruling does not apply to the BSA.

1.3.4 Waters of the State and the Regional Water Quality Control Boards

Acting under the leadership of the State Water Resources Control Board, the Regional Water Quality Control Boards (RWQCBs) protect the beneficial uses of

surface water and groundwater in California under the Porter-Cologne Water Quality Control Act, with a focus on water quality. The RWQCBs regulate all pollutant or nuisance discharges that may affect either surface waters or groundwaters of the state. In cases where the waters are excluded from regulation under the federal CWA, the RWQCBs may still exercise jurisdiction over discharges into waters of the state, pursuant to the Porter-Cologne Act in cases where the waters are excluded from regulation under the federal CWA. In the absence of a legally approved formal protocol for delineating waters of the state, all potential waters of the U.S. as well as all isolated waters are considered waters of the state.

2 Methods

This section describes the methods used to delineate jurisdictional wetlands and other waters of the U.S. in the BSA.

URS biologists formally delineated potential wetlands and other waters of the United States in July, August, and September 2010 (Table 1). Wetlands were formally delineated in accordance with the routine on-site methodology described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual (Version 2.0): Arid West Region* (USACE 2008).

Table 1: Survey Dates and Personnel

Survey Type and Date	Personnel
July 21, 2010	Casey Stewman, Joe Bandel
August 4, 2010	Casey Stewman, Joe Bandel
August 11,2010	Casey Stewman, Joe Bandel
August 26, 2010	Casey Stewman, Joe Bandel
September 1, 2010	Casey Stewman, Joe Bandel

2.1 Three-Parameter Approach to Wetlands

This USACE methodology for delineating wetlands relies on a three-parameter approach to determine if an area is a potential jurisdictional wetland. The three parameters are soil, hydrology, and vegetation. Under normal circumstances (undisturbed conditions), a potential jurisdictional wetland must have positive wetland indicators of hydric soils, wetland hydrology, and a dominance of hydrophytic vegetation. Positive wetland indicators include field indicators and published data (e.g., U.S. Department of Agriculture Natural Resources Conservation Service [NRCS] lists of hydric soils). The following sections describe the general diagnostic characteristics and some of the typical positive wetland indicators for each parameter.

2.1.1 Hydric Soils

Soils are considered hydric if the soil is classified as hydric by the NRCS or if field indicators associated with reducing soil conditions are present. The NRCS defines a hydric soil as a soil that formed where conditions of saturation, flooding, or ponding occurred long enough during the growing season to develop anaerobic conditions in the upper portion of the soil profile. Local and national soil surveys published by the NRCS are used to determine the types of soil present in an area. National and local hydric soil lists provide a checklist of soil types that are classified as hydric. Field

indicators of hydric soils are identified in the *Field Indicators of Hydric Soils in the United States*: *Guide for Identifying and Delineating Hydric Soils* (USDA-NRCS 2003). Field indicators may also include organic hydric soils (or histisols); histic epipedons; sulfidic material; aquic or peraquic moisture regimes; reduced soil conditions, as indicated by oxidized rhizospheres; soil color, including gleyed soils, soils with mottles, and/or low-matrix chroma; and iron and manganese concretions.

2.1.2 Wetland Hydrology

Wetland hydrology is defined as inundation or saturation in the upper 12 inches of the soil for at least 5 percent of the growing season in most years (Environmental Laboratory 1987). The growing season in the project area is approximately 254 days based on "frost-free days" (USDA 1995); 5 percent of the growing season is approximately 13 days. Factors that influence hydrology include precipitation, topography, soil permeability, and plant cover. Primary indicators of wetland hydrology include inundation or saturation in the upper 12 inches, drift lines, sediment deposits, and drainage patterns. Secondary indicators include oxidized rhizospheres, water-stained leaves, local soil survey data, and the facultative (FAC)-neutral test of the vegetation.

2.1.3 Hydrophytic Vegetation

Jurisdictional wetlands are typically dominated by hydrophytic plant species (e.g., more than 50 percent of the dominant plant species have an indicator status of FAC, facultative wetland [FACW], or obligate wetland [OBL]) (Reed 1988). As defined by the USACE (Environmental Laboratory 1987), hydrophytic vegetation is "the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present." Plant indicator status definitions are included in Table 2.

Table 2: Plant Indicator Status Categories

Indicator Category	Indicator Symbol	Definition
Obligate Wetland Plants	OBL	Plants that occur almost always (>99%) in wetlands under natural conditions, but which may also occur rarely (<1%) in non-wetlands.
Facultative Wetland Plants	FACW	Plants that occur usually (67%–99%) in wetlands but also occur (1–33%) in non-wetlands.
Facultative Plants	FAC	Plants with a similar likelihood (34%–66%) of occurring in wetlands or non-wetlands.
Facultative Upland Plants	FACU	Plants that occur sometimes (1%–33%) in wetlands, but occur more often (67%–99%) in non-wetlands.
Obligate Upland Plants	UPL	Plants that occur rarely (<1%) in wetlands, but occur almost always (>99%) in non-wetlands under natural conditions.

Source: Reed 1988.

2.2 Delineating Other Waters of the U.S.

The locations and positions of potential other waters of the U.S. were determined based upon a field verification of features shown within the BSA in the National Hydrography Dataset (NHD) (USGS 2008) and on topographic maps of the BSA. Potential other waters of the U.S. were delineated based upon the visible presence of an ordinary high water mark (OHWM), indicated by signs such as wrack lines, scour, debris build-up, and changes in plant community.

Waters that were contained within underground culverts for their entire extent within the BSA were not surveyed or delineated. Because underground culverts were inaccessible, they could not be sized accurately and therefore the approximate acreages occupied by these underground features were not estimated. The linear extent of each feature was estimated using the approximate position of the features as depicted in the NHD. The U.S. Geological Survey's National Map Viewer (USGS 2013) was used to determine if the culverts depicted in the NHD have connectivity to traditional navigable waters.

2.3 Field Data Collection

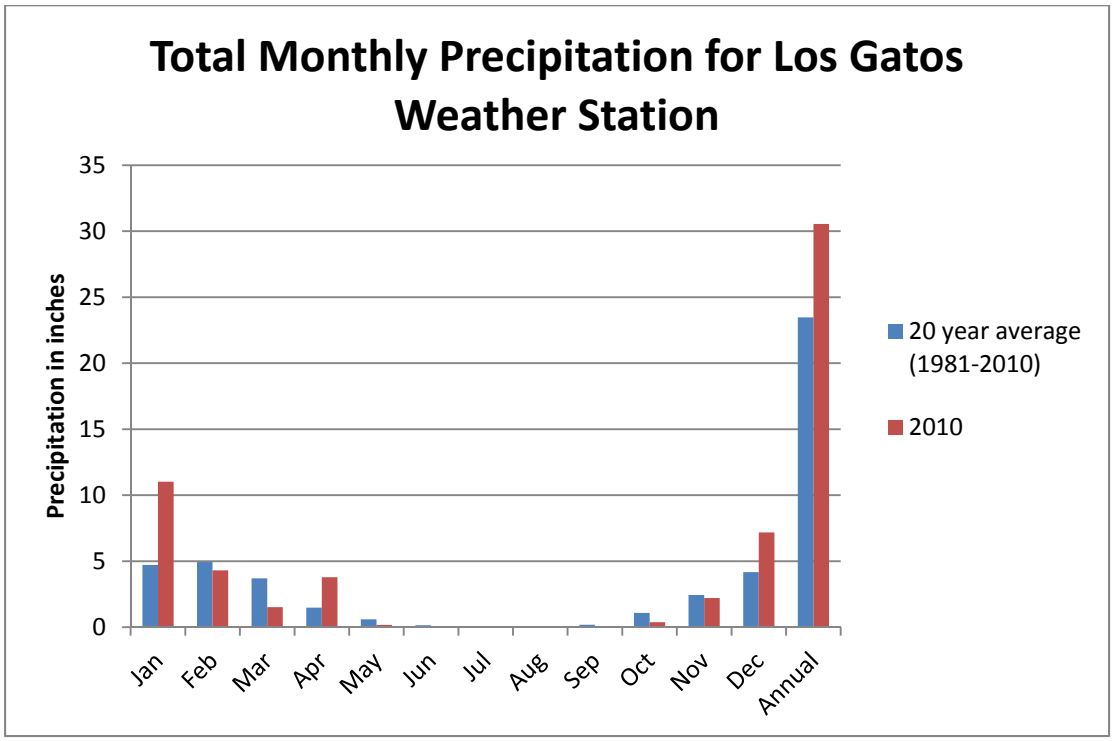
The boundaries of all waters, including wetlands, were mapped in the field using a sub-meter accuracy Trimble© backpack Global Positioning System unit. Where feasible, data points were recorded at representative locations in each of the wetlands in the BSA. Pairs of wetland and upland data points were recorded and the wetland boundaries were extrapolated based on similar variations in vegetation, hydrology, and topography. Maps depicting the waters of the U.S. within the BSA and wetland sample points are included in Appendix A. Copies of the delineation data forms and wetland determination forms are provided in Appendix B. Photographs of jurisdictional features are provided in Appendix C. A list of the vascular plants identified in the BSA is provided in Appendix D.

2.4 Climate

The jurisdictional delineation was conducted in the summer of 2010, at the end of the normal rainy season for this area. Precipitation during the 2009–2010 rainy seasons was approximately 7 inches above the 20-year average (Western Regional Climate Center 2010). This resulted in conditions that were slightly wetter than a normal year, as shown in Graph 1, below. Precipitation in 2010 occurred primarily during the normal wet season of November through April, with December and January being the wettest months. These wet months correspond with the wettest months for the 20-year

average. Therefore, it was assumed that the hydrology was relatively normal in the BSA for the time of year when the jurisdictional delineation was conducted. URS biologists Casey Stewman and Joe Bandel conducted the wetland delineation on July 21; August 4, 11, and 26; and September 1, 2010.

Graph 1: Total Monthly Precipitation for Los Gatos Weather Station



2.5 Soils in the Biological Study Area

Online soil surveys for Santa Clara County (NRCS 2010) were used to identify the soil series within the BSA. Twenty-one soil series and/or complexes occur along the project corridor. Fifteen of these soil units are composed of urban land complexes. Thirteen of these soils are listed as hydric soils in California (NRCS 1995). The soils are from alluvium derived from metamorphic and sedimentary or metavolcanic rock. Table 3 lists the soil series and selected characteristics in the BSA. The soil series within the BSA are depicted on Figure 2.

Table 3: Soils Series and Selected Characteristics

Symbol	Soil Type	Drainage	Permeability	Landscape Position	Principal Soil Textures	Hydric Soil
120	Aquic-xerorthents, bay mud substratum, 0 to 2 percent slopes	Poorly drained	Moderately low to Moderately High	Basins, estuaries	Gravelly sandy loam, silty clay	No
130	Urban land-Still complex, 0 to 2 percent slopes	Well drained	Moderately High to High	Alluvial fans and flood plains	Sandy loam, silt loam	No
131	Urban land-Elpaloalto complex, 0 to 2 percent slopes	Well drained	Moderately High	Alluvial fans	Clay loam, silty clay loam	Yes
135	Urban land-Stevens Creek complex, 0 to 2 percent slopes	Well drained	Moderately High	Alluvial fans	Sandy loam, silt loam, silty clay loam, clay loam	No
140	Urban land-Flaskan complex, 0 to 2 percent slopes	Well drained	Moderately High	Alluvial fans	Sandy loam, sandy clay loam, gravelly sandy clay loam	No
145	Urban land-Hangerone complex, 0 to 2 percent slopes, drained	Poorly drained	Moderately Low to Moderately High	Basin floors	Clay, clay loam, gravelly loam	Yes
146	Hangerone clay loam, drained, 0 to 2 percent slopes	Poorly drained	Moderately Low to Moderately High	Basin floors	Clay, clay loam, gravelly loam	Yes
150	Urban land-Embarcadero complex, 0 to 2 percent slopes, drained	Very poorly drained	Moderately Low to Moderately High	Basin floors	Clay loam, clay, silty clay	Yes
157	Novato Clay 0 to 1 percent slopes	Very poorly drained	Very Low or Moderately High	Marshes	Clay	Yes
160	Urban land - Clear Lake complex, 0 to 2 percent slopes	Moderately well drained	Moderately Low to Moderately High	Basin floors	Silty clay	Yes
161	Clear Lake silty clay, 0 to 2 percent slopes, drained	Poorly drained	Moderately Low to Moderately High	Basin floors	Silty clay	Yes
165	Urban land -Campbell complex, protected	Moderately well drained	Moderately Low to Moderately High	Alluvial fans	Silt loam, silty clay loam, silty clay	No
169	Urban land-Elder complex, 0 to 2 percent slopes, protected	Somewhat excessively drained	High	Alluvial fans and streams	Fine sandy loam	Yes

Table 3: Soils Series and Selected Characteristics, continued

Symbol	Soil Type	Drainage	Permeability	Landscape Position	Principal Soil Textures	Hydric Soil
170	Urban land-Landelspark complex, 0 to 2 percent slopes	Well drained	Moderately High	Alluvial fans	Sandy loam, sandy clay loam, gravelly sand, silty clay loam, clay loam	No
171	Elder fine sandy loam, 0 to 2 percent slopes, rarely flooded	Somewhat excessively drained	High	Streams	Fine sandy loam	Yes
173	Canine Creek-Elder complex, 0 to 2 percent slopes, rarely flooded	Well drained	High	Streams	Fine sandy loam, gravelly sandy loam	Yes
175	Urban land-Botella complex, 0 to 2 percent slopes	Well drained	Moderately High	Alluvial fans	Sandy clay loam, clay loam	No
180	Urban land-Newpark complex, 0 to 2 percent slopes	Moderately well drained	Moderately High	Alluvial fans	Silty clay loam, fine sandy loam	No
185	Urban land-Bayshore complex, 0 to 2 percent slopes, drained	Poorly drained	Moderately High	Alluvial fans and Basin floors	Loam, sandy clay loam, gravelly sandy loam	Yes
303	Montara-Santerhill Complex, 15 to 30 percent slopes	Somewhat excessively drained	Very Low or Moderately Low	Hills	Sandy loam, gravelly sandy loam, cobbly sandy loam	No
305	Alo-Altamont complex, 15 to 30 percent slopes	Well drained	Very Low to Moderately Low	Hills	Clay, silty clay loam, clay loam	No
309	Urban land-Altamont-Alo complex, 9 to 15 percent slopes	Well drained	Very Low to Moderately Low	Hills	Clay loam, silty clay, clay	No
315	Cropley clay, 0 to 2 percent slopes	Well drained	Moderately Low to Moderately High	Alluvial fans	Clay, sandy clay loam	No
317	Urban land-Cropley complex, 0 to 2 percent slopes	Well drained	Moderately Low to Moderately High	Alluvial fans	Clay, sandy clay, loam	No
CID	Climara clay, 9 to 30 percent slopes	Well drained	Very low	Mountain slopes	Clay	No
CoB	Cortina very gravelly loam, 0 to 5 percent slopes	Somewhat excessively drained	Moderately High or High	Floodplains , toeslope	Very gravelly loam	Yes
CrA	Cropley clay, 0 to 2 percent slopes	Well drained	Moderately Low or Moderately High	Alluvial fans, terraces	Clay	Yes

Table 3: Soils Series and Selected Characteristics, continued

Symbol	Soil Type	Drainage	Permeability	Landscape Position	Principal Soil Textures	Hydric Soil
GaA	Garretson loam, gravel substratum, 0 to 2 percent slopes	Well drained	Moderately High or High	Alluvial fans, stream terraces	Loam, very fine sandy loam	No
LrC	Los Robles clay loam, 2 to 9 percent slopes	Well drained	Moderately High	Alluvial fans	Clay loam, gravelly clay loam	No
McB	Maxwell clay, 0 to 5 percent slopes	Moderately well drained	Moderately Low or Moderately High	Alluvial fans	Clay, gravelly clay loam	No
MwF2	Montara rocky clay loam, 10 to 20 percent slopes	Somewhat excessively drained	Very Low	Mountain slopes	Clay loam	No
SbE2	San Benito clay loam, 15 to 30 percent slopes, eroded	Well drained	Very Low	Mountain slopes	Clay loam, silty clay loam	No
SbF3	San Benito clay loam, 30 to 50 percent slopes, severely eroded	Well drained	Very Low	Mountain slopes	Clay loam, silty clay loam	No
YaA	Yolo loam, 0 to 2 percent slopes	Well drained	Moderately High	Alluvial fans, flood plains	Loam, silty clay loam	No
YeC	Yolo silty clay loam, 2 to 9 percent slopes	Well drained	Moderately High	Flood plains, alluvial fans	Silty clay loam	No

Source: NRCS 2010, 2012

2.6 Hydrology

The SR 85 corridor traverses the Coyote Creek, Guadalupe River, and Palo Alto watersheds. The streams and watersheds in the BSA are depicted on Figure 3. All channelized surface water in the BSA flows either directly into San Francisco Bay or indirectly via Calabazas Creek, Coyote Creek, Guadalupe River, San Tomas Aquino Creek, Saratoga Creek, and Stevens Creek. San Francisco Bay is a traditional navigable water.

2.7 Limitations that May Influence Results

The jurisdictional delineation was conducted during the dry season (July through September 2010), when indicators of wetland hydrology are often the most difficult to detect or may be absent because of a long period without precipitation. Dry conditions can make assessing wetland hydrology difficult even when other wetland indicators are present, because areas that have hydrophytic vegetation and hydric soils

generally also have wetland hydrology unless the hydrologic regime has changed due to natural events or human activities (USACE 2008). However, despite the dry period prior to the delineation, no problematic areas were found that contained hydrophytic vegetation and hydric soils but lacked signs of hydrology. Urban development and engineered drainage features are prevalent in the BSA, and landscape irrigation and other urban water uses provide additional sources of freshwater in creeks, drainages, and wetlands during the driest periods. The seasonal wetlands and in-stream wetlands within other waters in the BSA had water tables within the top 16 inches of the soil profiles, and therefore neither soils nor hydrology were assessed beyond this depth.

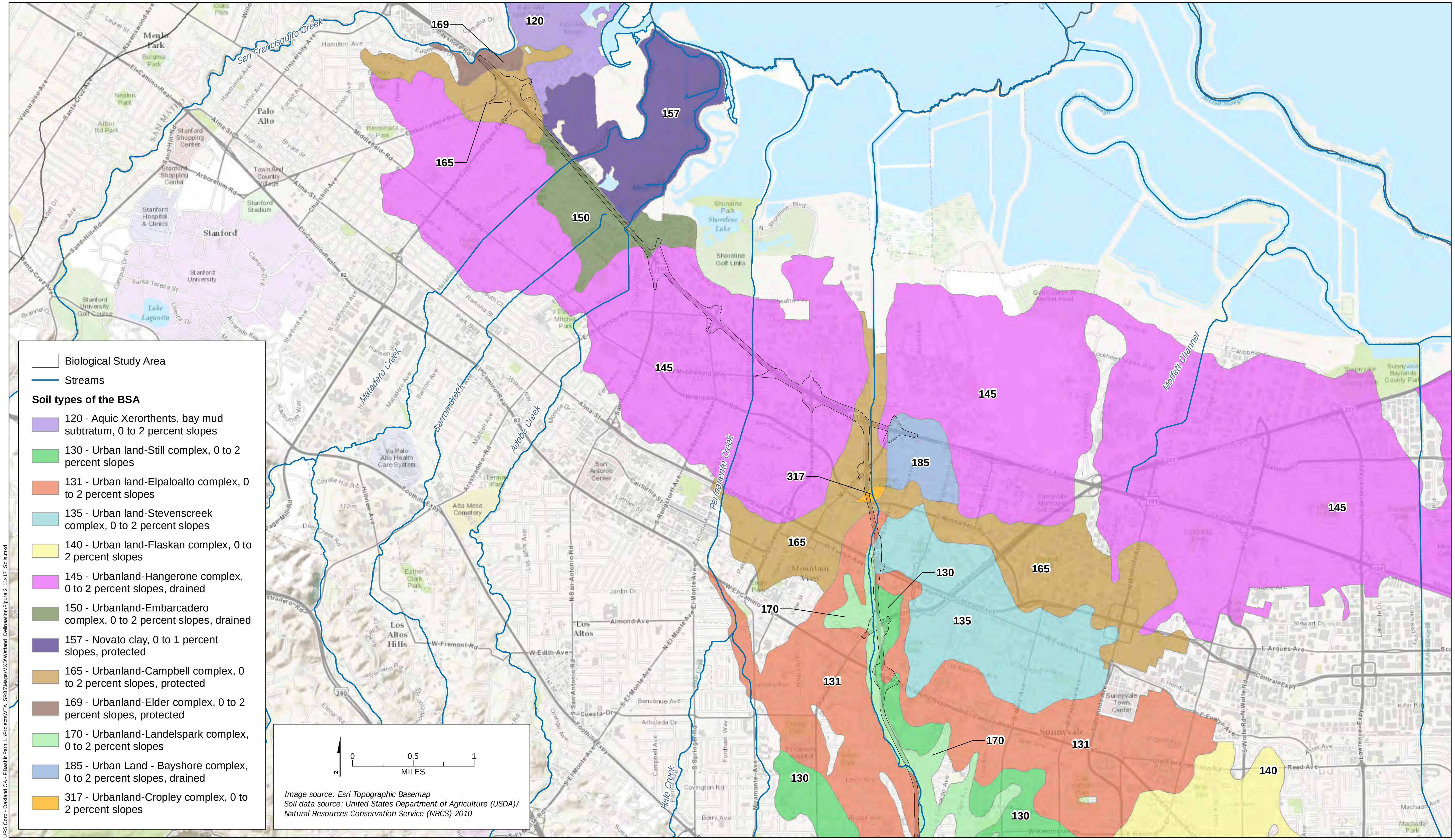
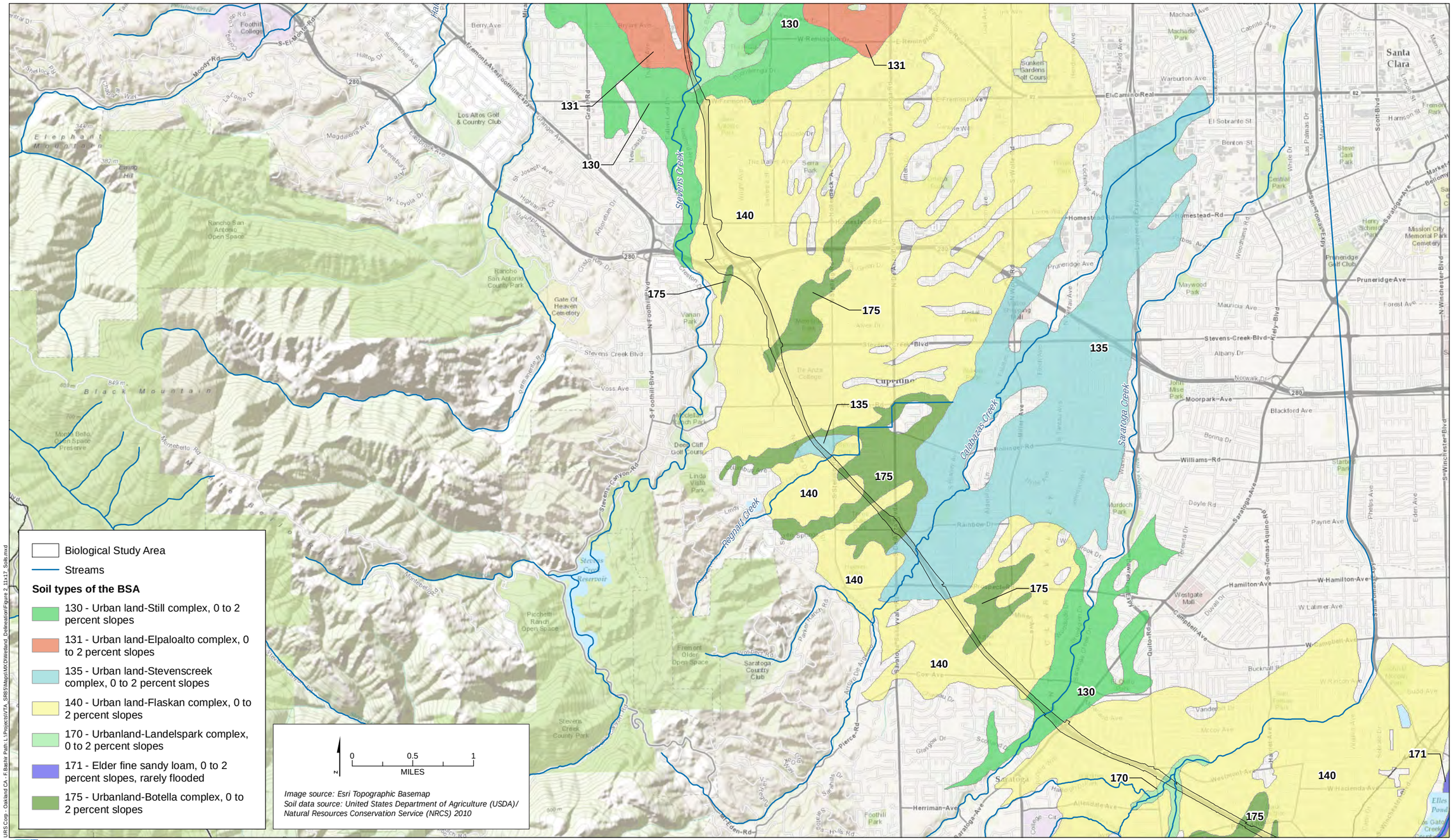


Figure 2, Sheet 1 of 4
Soils in the BSA



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Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 2 of 4
Soils in the BSA

Biological Study Area

Streams

Soil types of the BSA

- 131 - Urban land-Elpaloalto complex, 0 to 2 percent slopes
- 135 - Urban land-Stevenscreek complex, 0 to 2 percent slopes
- 140 - Urban land-Flaskan complex, 0 to 2 percent slopes
- 169 - Urbanland-Elder complex, 0 to 2 percent slopes, protected
- 170 - Urbanland-Landelspark complex, 0 to 2 percent slopes
- 171 - Elder fine sandy loam, 0 to 2 percent slopes, rarely flooded
- 175 - Urbanland-Botella complex, 0 to 2 percent slopes

0 0.5 1
MILES

Image source: Esri Topographic Basemap
Soil data source: United States Department of Agriculture (USDA)/ Natural Resources Conservation Service (NRCS) 2010

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Caltrans
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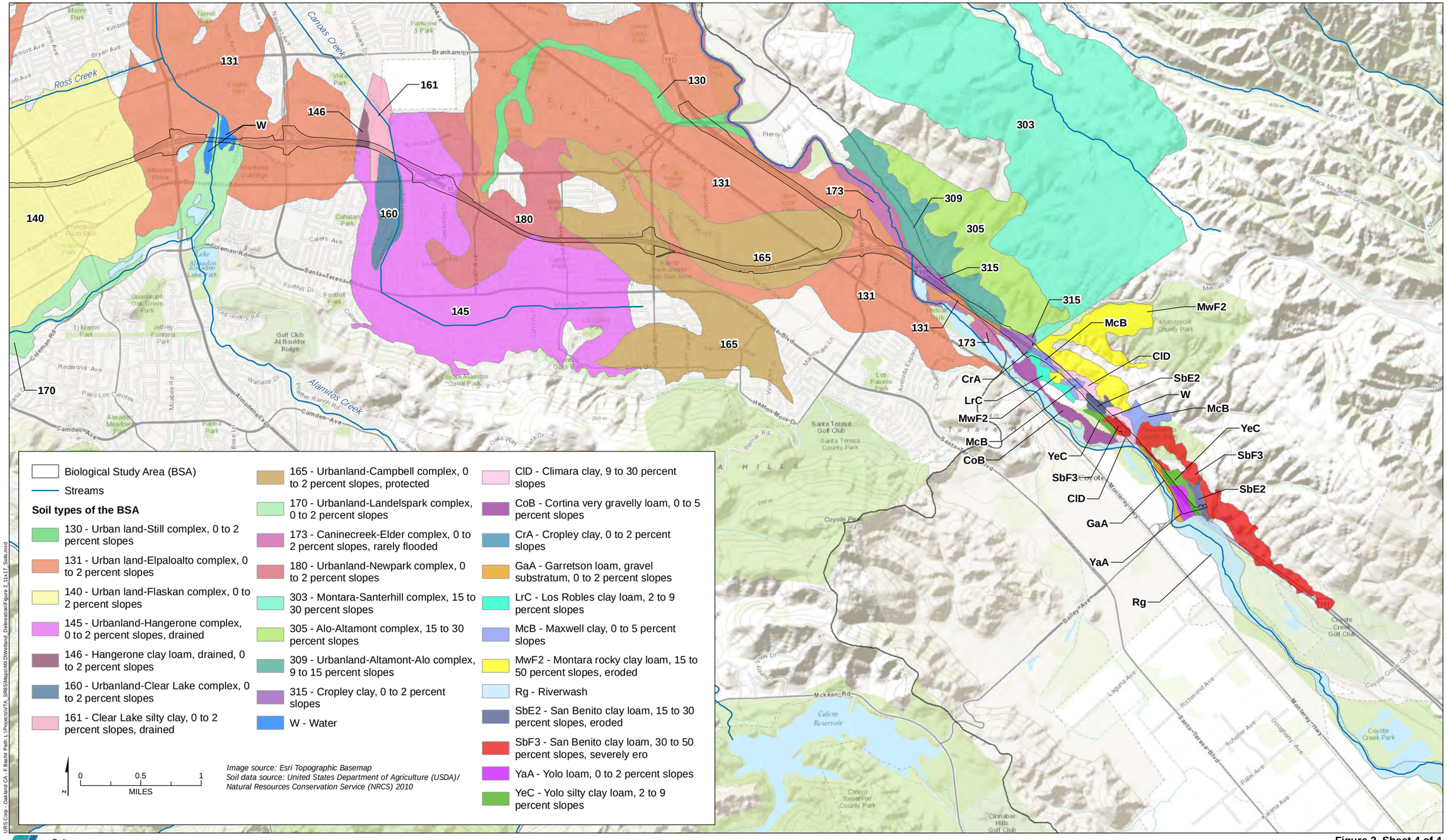
Figure 2, Sheet 3 of 4
Soils in the BSA



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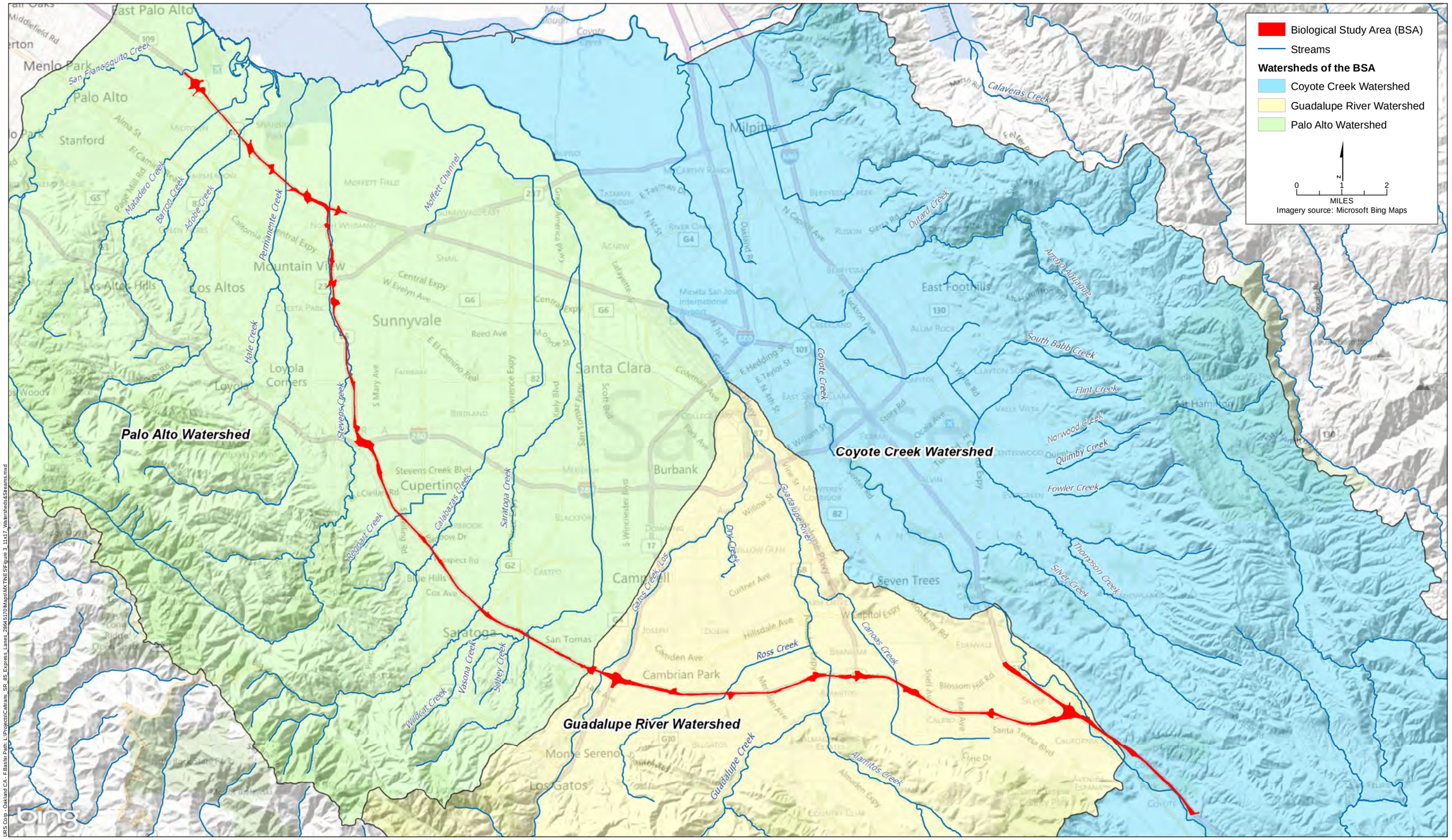
State Route 85 Express Lanes

Figure 2, Sheet 4 of 4
Soils in the BSA



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State Route 85 Express Lanes

Figure 3
Watersheds and Streams in the BSA

3 Results

3.1 Summary of Results

The total area of potential waters of the U.S. delineated within the BSA is 7.98 acres (347,721 square feet). Of this total delineated acreage, 7.29 acres (317,577 square feet) are potential other waters of the U.S., and 0.69 acre (30,144 square feet) are potential wetlands. Many of these wetlands are located within the active channel of potential waters of the U.S..

In addition, the BSA contains 2,398.70 linear feet of culverts or other engineered structures that are not daylighted within the BSA. These features were not delineated in the field due to lack of access (most extended far beyond the boundaries of the BSA) and lack of entry permission; however, they are also potential waters of the U.S..

Table 4 summarizes the area of each potential jurisdictional water of the U.S. delineated in the BSA. Wetland features are identified by the water feature in which they are found, where applicable. All waters of the U.S. are shown on aerial photo maps in Appendix A. Although features WUS-17, WWUS-1, and WWUS-3 were identified during the 2010 delineation, the BSA boundary has since changed and no longer includes these features. Consequently, these features are not included in Table 4.

Table 4: Potential Waters of the United States Delineated within the Biological Study Area

Feature Type and Label	Length (feet)	Square Feet[1]	Delineated Acres[2]	Appendix A Map Sheet Numbers[3]
Other Waters of the United States				
CWUS-1: Culverted Water – Permanente Creek	209	2,487	0.06	4 and 38
WUS-1: Stevens Creek	250	7,041	0.16	6 and 41
WUS-2: Stevens Creek	134	3,194	0.07	9 and 43
WUS-3: Stevens Creek	255	10,107	0.23	11 and 45
WUS-4: Calabazas Creek	589	7,473	0.17	16 and 48
WUS-5: Stormwater Drain	305	3,092	0.07	16 and 48
WUS-6: Coyote Creek	357	16,018	0.37	32 and 59-60
WUS-7: Saratoga Creek	272	8,872	0.20	18 and 50
WUS-8: Wildcat Creek	286	5,498	0.13	19 and 51
WUS-9: San Tomas Aquino Creek	257	4,828	0.11	19 and 51
WUS-10: Los Gatos Creek	256	17,871	0.41	21 and 55
WUS-11: Ross Creek	381	6,339	0.15	24 and 56
WUS-12: Guadalupe River	189	16,251	0.37	25 and 57
WUS-13: Open Water Recharge Basin	189	41,460	0.95	25 and 57
WUS-14: Open Water Recharge Basin	189	126,919	2.91	25 and 57
WUS-15: Canoas Creek	314	5,577	0.13	26 and 58
WUS-16: Ephemeral Drainage, Coyote	154	1,121	0.03	32 and 59
WUS-18: Matadero Creek	160	6,424	0.15	2 and 36

Table 4: Potential Waters of the United States Delineated within the Biological Study Area, continued

Feature Type and Label	Length (feet)	Square Feet[1]	Delineated Acres[2]	Appendix A Map Sheet Numbers[3]
Other Waters of the United States				
WUS-19: Adobe Creek	165	6,553	0.15	3 and 37
WUS-20: Permanente Creek	30	422	0.01	4 and 38
WUS-21: Stevens Creek	245	6,124	0.14	5 and 39
WUS-22: Permanente Creek	27	309	0.01	4 and 38
WUS-23: Stevens Creek	725	13,597	0.31	7-8 and 42
Other Waters of the United States Subtotal	*5,938*	*317,577*	*7.29*	–
Wetlands				
WWUS-2: Calabazas Creek	6	5	<0.01	16 and 48
WWUS-4: Los Gatos Creek	30	677	0.02	21 and 55
WWUS-5: Los Gatos Creek	65	515	0.01	21 and 55
WWUS-6: Guadalupe River	188	2,089	0.05	25 and 57
WWUS-7: Coyote Creek	0	1	<0.01	32 and 60
WWUS-8: Coyote Creek	593	18,770	0.43	32 and 59
WWUS-9: Perennial Freshwater Wetland	709	5,930	0.14	32 and 61
WWUS-10: Perennial Freshwater Wetland (cattail)	18	153	<0.01	32 and 61
WWUS-11: Guadalupe River	189	1,327	0.03	25 and 57
Wetlands Subtotal	*2,054*	*30,144*	*0.69*[4]	–
Total Waters of the United States	**7,992**	**347,721**	**7.98**	–

Source: URS Field Survey 2010

1. Square feet are rounded to the nearest foot.
2. Acres are rounded to the nearest hundredth of an acre.
3. In Appendix A, there are two sets of map sheets that show each feature; the first sheet number listed in Table 4 shows the feature at a scale of 1 inch equals 500 feet, and the second sheet number shows the feature at a scale of 1 inch equals 100 feet (a more detailed view).
4. Totals may vary slightly from the sum of acreages because of rounding.

CWUS = Culverted water of the United States
WUS = Other water of the United States
WWUS = Wetland

Table 5 provides the lengths of the potential culverted waters of the U.S. in the BSA that were not delineated. All culverted waters of the U.S. in the BSA are shown on the maps in Appendix A.

Table 5: Potential Culverted Waters of the United States within the Biological Study Area (Not Delineated)

Feature Type and Label	Length (feet)[1]	Appendix A Map Sheet Numbers[3]
CWUS-2: Culverted Water	213.13	6 and 40
CWUS-3: Culverted Water – Permanente Creek Diversion Canal	157.67	10 and 44
CWUS-4: Culverted Water – Regnart Creek	265.73	15 and 46
CWUS-5: Culverted Water – Rodeo Creek	155.85	16 and 47
CWUS-6: Culverted Water	228.02	17 and 49
CWUS-7: Culverted Water	257.57	19 and 52
CWUS-8: Culverted Water – Smith Creek	347.92	20 and 53
CWUS-9: Culverted Water – Smith Creek East Channel	342.96	20 and 54
CWUS-10: Culverted Water	260.73	34 and 63
CWUS-11: Culverted Water	169.12	35 and 64
Total Culverted Waters of the United States	**2,398.70**	–

Source: USGS 2008

1. The length in linear feet for each feature was estimated based on the NHD (2008).
2. In Appendix A, there are two sets of map sheets that show each feature; the first sheet number listed in Table 5 shows the feature at a scale of 1 inch equals 500 feet, and the second sheet number shows the feature at a scale of 1 inch equals 100 feet (a more detailed view).

CWUS = Culverted water of the United States

3.2 Potential Waters of the United States

Potential jurisdictional waters of the U.S. in the BSA include wetlands as well as perennial, intermittent, and ephemeral drainages. The estimated areas of the delineated potential waters of the U.S. are listed in Table 4. The estimated lengths of the potential culverted waters of the U.S. that were not delineated are listed in Table 5. All estimates of resources presented here are subject to change pending USACE official review and final jurisdictional determination.

3.2.1 Other Waters of the United States

3.2.1.1 Delineated Features

SR 85 crosses a total of 13 streams and two open-water recharge basins within the BSA. As a result, 7.29 acres of potential other waters of the United States (including culverted other waters that were measured in the field) were identified within the BSA.

Culverted Water – Permanente Creek (CWUS-1): CWUS-1 is the 209-foot portion of Permanente Creek that flows through a 12-foot-square box culvert under US 101 south of the Amphitheatre Parkway interchange. CWUS-1 covers 0.06 acre (2,487 square feet) in the BSA (see Appendix A, sheets 4 and 38; Appendix C, photograph 1).

Stevens Creek (WUS-1): This intermittent stream (0.16 acre, 7,041 square feet) is south of the SR 85/Moffett Boulevard interchange, one of three crossings of Stevens Creek within the BSA. This northernmost crossing consists of a concrete-lined channelized, fully decked overpass. The creek bed is composed of cobble and gravel and is shaded in the BSA except at either end of the overpass, where riparian vegetation dominated by black cottonwood (*Populus balsamifera* var. *trichocarpa*) trees is present (see Appendix A, sheets 6 and 41; Appendix C, photographs 2 and 3).

Stevens Creek (WUS-2): This perennial stream (0.07 acre, 3,194 square feet) flows within the concrete walls of the SR 85 overcrossing south of the El Camino Real interchange. The creek is shaded by the overpass in the BSA except for small areas on either side of the overpass where there is a riparian corridor dominated by red willow (*Salix laevigata*) (see Appendix A, sheets 9 and 43; Appendix C, photographs 4 and 5).

Stevens Creek (WUS-3): This perennial stream (0.23 acre, 10,107 square feet) flows within concrete walls of the SR 85 overcrossing just north of the Fremont Avenue interchange. The streambed is composed of cobble and gravel. The streambanks are armored with riprap but also have riparian trees such as red willow and black cottonwood (see Appendix A, sheets 11 and 45; Appendix C, photographs 6 and 7).

Calabazas Creek (WUS-4): This intermittent stream (0.17 acre, 7,473 square feet) flows under the northbound and southbound SR 85 bridges in a gravel streambed with armored abutments. Riparian vegetation along the stream banks on either side of the bridges included arroyo willow (*Salix lasiolepis*), California buckeye (*Aesculus californicus*), common horsetail (*Equisetum arvense*), and Himalayan blackberry (*Rubus discolor*) (see Appendix A, sheets 16 and 48; Appendix C, photograph 8).

Stormwater Drain (WUS-5): This engineered water feature (0.07 acre, 3,092 square feet) carries water within a rectangular concrete channel into Calabazas Creek (see Appendix A, sheets 16 and 48; Appendix C, photograph 9).

Coyote Creek (WUS-6): This perennial stream (0.37 acre, 16,018 square feet) flows under the three-span US 101 bridges and ramps to SR 85. The streambed is composed of cobble and gravel. The riparian vegetation along the creek is dominated by Fremont cottonwood (*Populus fremontii*) and arroyo willow (see Appendix A, sheets 32 and 59-60; Appendix C, photograph 10).

Saratoga Creek (WUS-7): This perennial stream (0.20 acre, 8,872 square feet) is armored with riprap for the entire section in the BSA. Sediment that had been

deposited between the riprap boulders supports vegetation, including riparian trees, where sunlight is available. On the west side of the northbound and southbound SR 85 bridges over Saratoga Creek, a white alder riparian forest community is present that includes white alder (*Alnus rhombifolia*), red willow, arroyo willow, shining willow (*Salix lucida*), Oregon ash (*Fraxinus latifolia*), and big leaf maple (*Acer macrophyllum*). On the east side of the SR 85 bridges is a California sycamore riparian forest community that includes California sycamore (*Platanus racemosa*), coast live oak (*Quercus agrifolia*), Oregon ash, and white alder (see Appendix A, sheets 18 and 50; Appendix C, photograph 11).

Wildcat Creek (WUS-8): This intermittent stream (0.13 acre, 5,498 square feet) flows entirely within a double box culvert in the BSA at the SR 85 overcrossing (see Appendix A, sheets 19 and 51; Appendix C, photograph 12).

San Tomas Aquino Creek (WUS-9): This intermittent stream (0.11 acre, 4,828 square feet) is armored on both banks with sack concrete and riprap, and the creek bed is cobble and sand. With the exception of a non-native blue gum eucalyptus (*Eucalyptus globulus*) on the upstream side of the bridge, there were no trees on or within the creek banks in the BSA (see Appendix A, sheets 19 and 51; Appendix C, photograph 13).

Los Gatos Creek (WUS-10): This perennial stream (0.41 acre, 17,871 square feet) flows under the two-span bridges of SR 85 and the ramps to SR 17. The streambed is composed of cobble, gravel and islands of emergent wetlands composed of common cattail (*Typha latifolia*), narrowleaf cattail (*Typha augustifolia*), redshank (*Polygonum persicaria*), and nutsedge (*Cyperus eragrostis*). The creek is bordered on the west side by the Los Gatos Creek Trail and on the east side by a dirt road. Both sides of the creek are armored with riprap (see Appendix A, sheets 21 and 55; Appendix C, photograph 14).

Ross Creek (WUS-11): This channelized intermittent stream (0.15 acre, 6,339 square feet) flows within a double box culvert at the SR 85 overcrossing. Outside of the box culvert, the stream flows through a concrete channel (see Appendix A, sheets 24 and 56; Appendix C, photographs 15 and 16).

Guadalupe River (WUS-12): This perennial stream (0.37 acre, 16,251 square feet) flows between two earthen levee dirt roads adjacent to recharge basins (WUS-13 and WUS-14) on either side. Riparian vegetation along the river includes Fremont

cottonwoods, red willow, arroyo willow, and narrowleaf willow (see Appendix A, sheets 25 and 57; Appendix C, photograph 17).

Open Water Recharge Basin (WUS-13): This engineered water body (0.95 acre, 41,460 square feet) is surrounded by earthen levees and lacks vegetation (see Appendix A, sheets 25 and 57; Appendix C, photograph 18).

Open Water Recharge Basin (WUS-14): This engineered water body (2.91 acres, 126,919 square feet) is surrounded by earthen levees and lacks vegetation (see Appendix A, sheets 25 and 57).

Canoas Creek (WUS-15): This channelized intermittent stream (0.13 acres, 5,577 square feet) flows within an engineered sack concrete trapezoidal channel underneath SR 85 (see Appendix A, sheets 26 and 58; Appendix C, photograph 19).

Ephemeral Drainage, Coyote (WUS-16): This feature (0.03 acre, 1,121 square feet) drains the west side of Coyote Creek at the US 101 overcrossing. The channel lies within the floodplain of Coyote Creek. A canopy of Fremont cottonwood trees and arroyo willows shade this drainage (see Appendix A, sheets 32 and 59; Appendix C, photograph 20).

Matadero Creek (WUS-18): This perennial stream (0.15 acre, 6,424 square feet) flows through the BSA in an armored channel south of the US 101/Embarcadero Road/Oregon Expressway interchange (see Appendix A, sheets 2 and 36; Appendix C, photograph 21).

Adobe Creek (WUS-19): This perennial stream (0.15 acre, 6,553 square feet) crosses the BSA in a concrete channel north of the US 101/San Antonio Road interchange (see Appendix A, sheets 3 and 37; Appendix C, photograph 22).

Permanente Creek (WUS-20): This channelized perennial stream (0.01 acre, 422 square feet) is on the north side of US 101, downstream of the culvert (CWUS-1) that crosses beneath the freeway (see Appendix A, sheets 4 and 38; Appendix C, photograph 23).

Stevens Creek (WUS-21): This perennial stream (0.14 acre, 6,124 square feet) crosses US 101 in a concrete channel just east of the SR 85 interchange in Mountain View (see Appendix A, sheets 5 and 39).

Permanente Creek (WUS-22): This channelized perennial stream (0.01 acre, 309 square feet) is on the south side of US 101, upstream of the culvert (CWUS-1) that crosses beneath the freeway (see Appendix A, sheets 4 and 38; Appendix C, photograph 24).

Stevens Creek (WUS-23): This perennial stream (0.31 acre, 13,597 square feet) crosses under SR 237, the southbound SR 85 ramp to westbound SR 237, and the eastbound and westbound SR 237 ramps to SR 85 (see Appendix A, sheets 7-8 and 42). Riparian black cottonwood and coast live oak trees are present between the SR 237 bridges and the interchange ramps.

3.2.1.2 Undelineated Features

Culverted Water (CWUS-2): CWUS-2 carries 213.13 feet of an unnamed water feature under SR 85 between Moffett Boulevard and Middlefield Road (see Appendix A, sheets 6 and 40).

Culverted Water – Permanente Creek Diversion Canal (CWUS-3): This culverted water (157.67 linear feet) conveys the Permanente Creek Diversion Canal under SR 85 between El Camino Real and Fremont Avenue (see Appendix A, sheets 10 and 44).

Culverted Water – Regnart Creek (CWUS-4): This perennial stream (265.73 linear feet) conveys Regnart Creek under SR 85 just north of the South Stelling Road overcrossing (see Appendix A, sheets 15 and 46).

Culverted Water – Rodeo Creek (CWUS-5): This culverted water (155.85 linear feet) flows under SR 85 at the South De Anza Boulevard overcrossing (see Appendix A, sheets 16 and 47).

Culverted Water (CWUS-6): This culverted water (228.02 linear feet) flows under SR 85 south of Prospect Road (see Appendix A, sheets 17 and 49).

Culverted Water (CWUS-7): This culverted water (257.57 linear feet) flows under SR 85 south of the Quinto Road overcrossing (see Appendix A, sheets 19 and 52).

Culverted Water – Smith Creek (CWUS-8): This culverted water (347.92 linear feet) flows under SR 85 south of the Pollard Road overcrossing (see Appendix A, sheets 20 and 53).

Culverted Water – Smith Creek East Channel (CWUS-9): This culverted water (342.96 linear feet) flows under SR 85 north of the Winchester Boulevard overcrossing (see Appendix A, sheets 20 and 54).

Culverted Water (CWUS-10): This culverted water (260.73 linear feet) flows under US 101 at Coyote Ranch Road (see Appendix A, sheets 34 and 63).

Culverted Water (CWUS-11): This culverted water (169.12 linear feet) is east of the Bailey Avenue overcrossing where an unnamed tributary to Coyote Creek flows along the east side of US 101 (see Appendix A, sheets 35 and 64).

3.2.2 Wetlands

Several freshwater wetlands are present in streams within the BSA. Wetland soils and hydrology for these in-stream wetlands were indicated based upon the presence of standing water within and around in-stream wetland vegetation. Additional wetlands are located in roadside areas just south of the SR 85/US 101 intersection in San Jose. Approximately 0.69 acres of potential jurisdictional wetlands occur in the BSA.

WWUS-2 (Calabazas Creek): This in-stream wetland (<0.01 acre, 5 square feet) is along the east side of the Calabazas Creek channel, north of SR 85. This wetland consists of arroyo willow, common horsetail, and Himalayan blackberry (see Appendix A, sheets 16 and 48; Appendix C, photograph 25).

WWUS-4 (Los Gatos Creek): This in-stream wetland (0.02 acre, 677 square feet) is in the middle of the Los Gatos Creek channel between the bridges for northbound and southbound SR 85. The wetland consists of plants including narrowleaf cattail, lady's thumb (*Polygonum persicaria*), dallis grass (*Paspalum dilatatum*), and Himalayan blackberry (see Appendix A, sheets 21 and 55; Appendix C, photograph 26).

WWUS-5 (Los Gatos Creek): This in-stream wetland (0.01 acre, 515 square feet) is along the east side of Las Gatos Creek between the bridges for northbound SR 85 and the northbound SR 85 on-ramp from SR 17. The wetland consists mostly of lady's thumb and nutsedge (see Appendix A, sheets 21 and 55; Appendix C, photograph 27).

WWUS-6 (Guadalupe River): This in-stream wetland (0.05 acre, 2,089 square feet) is on the west side of the Guadalupe River channel. The wetland consists of red willow, narrowleaf willow, arroyo willow, spearmint (*Mentha spicata*), and cattails (see Appendix A, sheets 25 and 57; Appendix C, photographs 28 and 29).

WWUS-7 (Coyote Creek): This in-stream wetland (<0.01 acre, 1 square foot) is on the south side of the southbound US 101 bridge at the SR 85 interchange in San Jose, on the east side of the channel. The wetland consists of narrowleaf willow, red willow, and arroyo willow (see Appendix A, sheets 32 and 60; Appendix C, photograph 30).

WWUS-8 (Coyote Creek): This in-stream wetland (0.43 acre, 18,770 square feet) is on the north side of the northbound US 101 bridge to northbound SR 85 over Coyote Creek. The wetland is composed of arroyo willow and nutsedge (see Appendix A, sheets 32 and 59; Appendix C, photograph 31).

WWUS-9 (Perennial freshwater wetland): This wetland (0.14 acre, 5,930 square feet) is in a roadside ditch along the west side of US 101 near the Coyote Creek Freshwater Wetland Project just south of the US 101/SR 85 interchange in San Jose. The wetland consisted of a few inches of water covered with aquatic plants including common duckweed (*Lemna minor*), creeping water primrose *(Ludwigia peploides*), watercress (*Rorippa nasturtium-aquaticum*), and water fern (*Azolla filicoides*). Along the edges of the wetland there is nutsedge. The wetland is fed by runoff from the residential development on the east side of US 101, which flows in a culvert under US 101 to connect with the wetland (see Appendix A, sheets 32 and 61; Appendix C, photograph 32).

WWUS-10 (Perennial freshwater wetland – cattail): This wetland (<0.01 acre, 153 square feet) is in a roadside ditch along the east side of US 101 north of Metcalf Road. The wetland is fed by a drainage culvert from the nearby residential development. The wetland is composed of cattails (see Appendix A, sheets 32 and 61; Appendix C, photograph 33).

WWUS-11 (Guadalupe River): This in-stream wetland (0.03 acre, 1,327 square feet) is on the east side of the Guadalupe River channel. This wetland is composed of willows, Fremont cottonwood trees, and cattails (see Appendix A, sheets 25 and 57).

3.3 Historic Water Features

Two historic waters of the United States (HWUS) were identified within the BSA. Historic waters are defined as water bodies that are depicted on historic topographic maps and the NHD but were not identifiable as such during field surveys.

HWUS-1 was originally located east of the SR 85/US 101 interchange in San Jose (see Appendix A, sheets 32 and 59-60). Based on the NHD, it appears that this feature

may have been an unnamed tributary to Coyote Creek. At present, there is no defined bed and bank at this location, and no indication of a channel. It appears that commercial development in the area may have altered topography and hydrology to such an extent that water no longer flows into or out of this area in a defined channel.

HWUS-2 was originally located northeast of the Metcalf Road overcrossing and flowed west through the BSA into Coyote Creek (see Appendix A, sheets 33 and 62). Based on an analysis of aerial photographs and the field survey, it appears this feature has been diverted outside of the BSA into a culvert, where it is conveyed southward and crosses under US 101 through CWUS-10.

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Appendix A Potentially Jurisdictional Wetlands and Waters of the United States in the Biological Study Area

This appendix contains the following maps:

- Potentially Jurisdictional Wetlands and Waters of the United States in the BSA: The Index and Sheets 1 through 35 show the entire BSA and all of the wetlands and other waters of the U.S. at a scale of 1 inch equals 500 feet.

- Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA: Sheets 36 through 64 show the wetlands and other waters of the U.S. in the BSA at a scale of 1 inch equals 100 feet.

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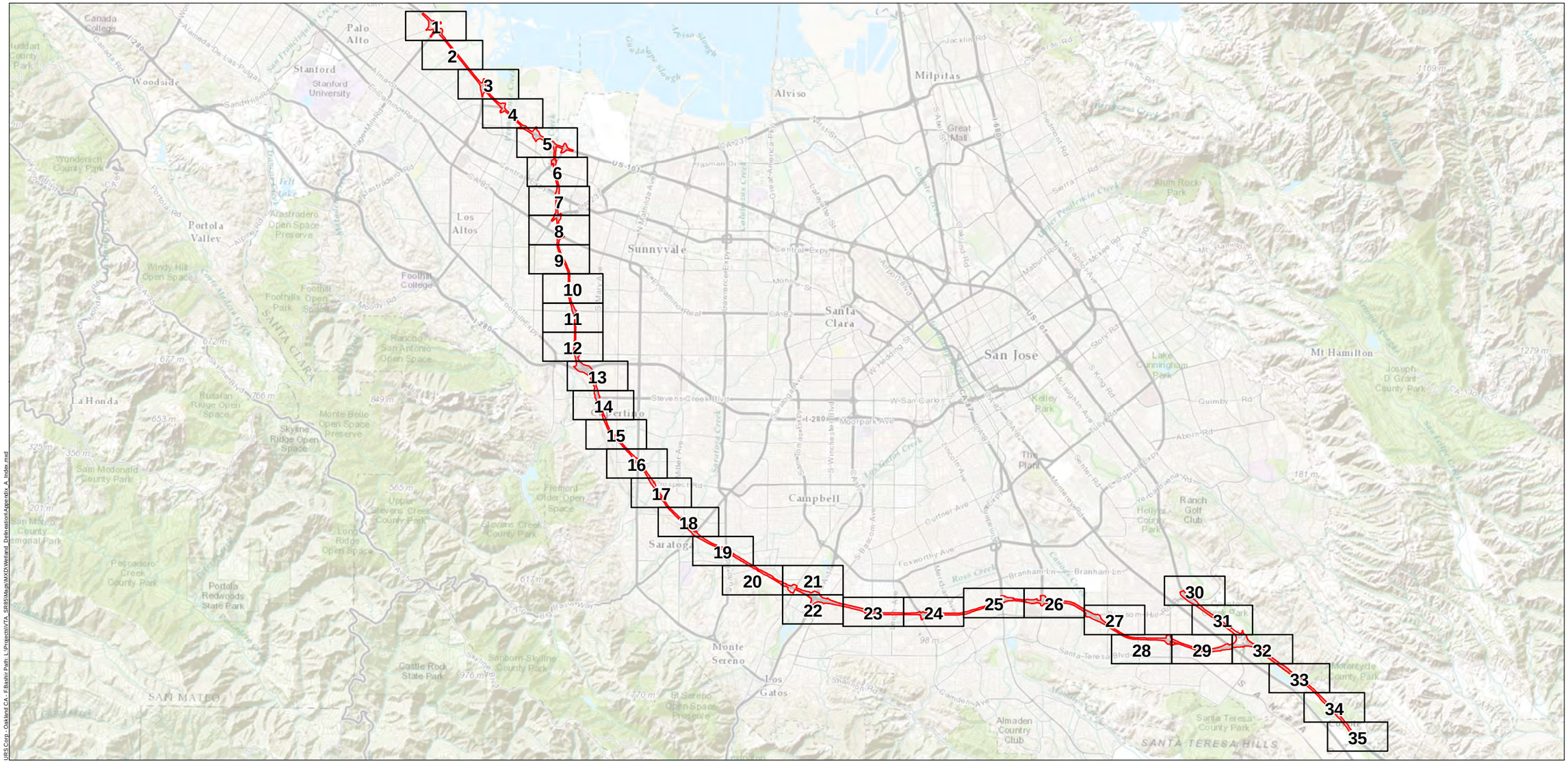

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Appendix A
Sheet Index
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 1
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

Project Area
Biological Study Area (BSA)
Other waters of the U.S.
Wetlands
Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 2
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Biehr Path: I:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix_A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 3
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Basin\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix A.mxd

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 4
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Bashir Path - L:\Projects\VTA_SR85\Maps\MXD\Wetland Delineation\Appendix A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 5
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

0 250 500
Feet
1 INCH = 500 FEET

Project Area
Biological Study Area (BSA)
Other waters of the U.S.
Wetlands
Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 6
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Baehr Path I-1\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix_A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 7
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 8
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Beahr Path: L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix_A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 9
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 10
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Biehl Path - L:\Projects\VTA - SR85\Maps\MXD\Wetland_Delineation\Appendix_A.mxd

Project Area

Biological Study Area (BSA)

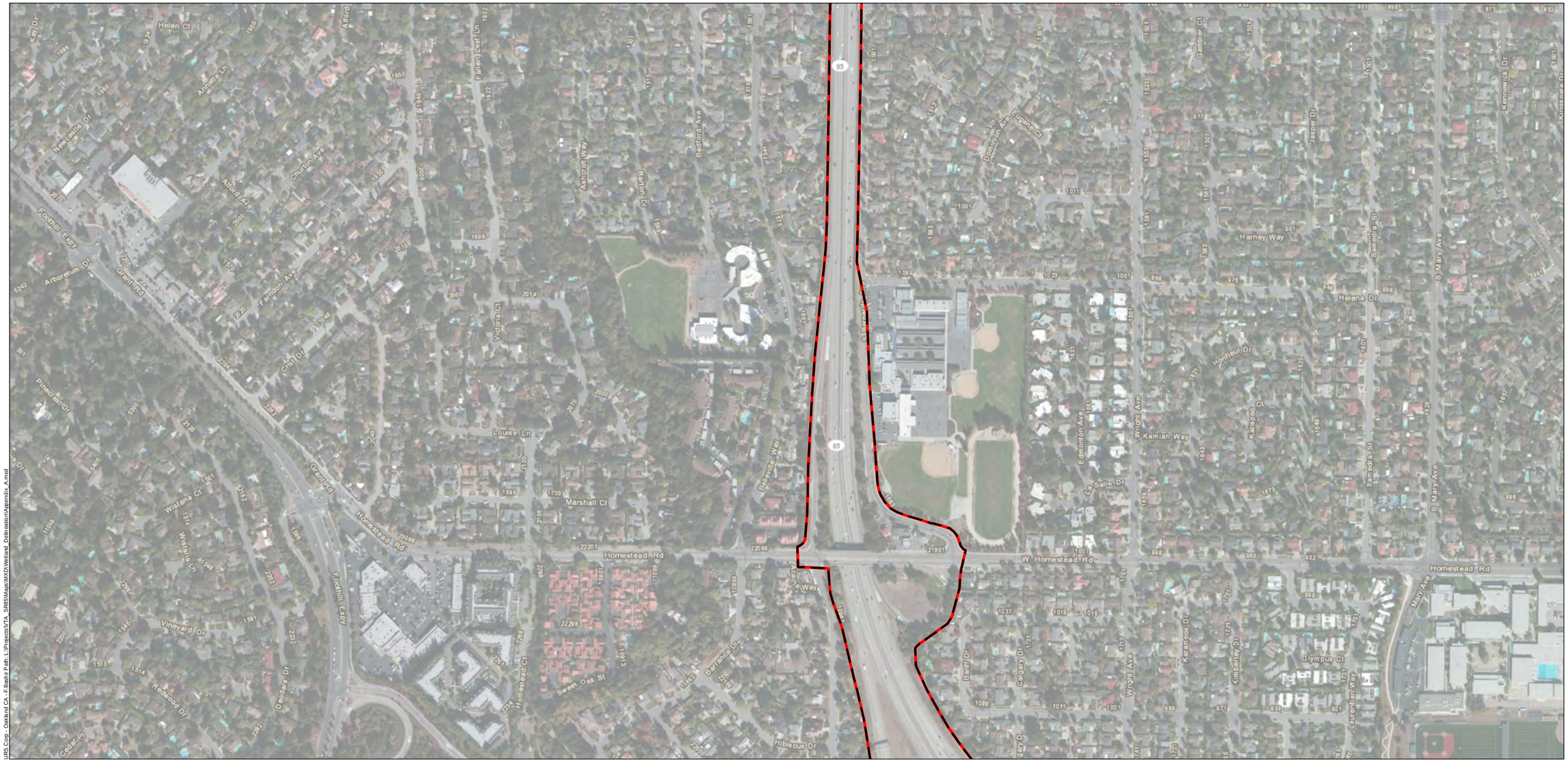
Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 11
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA



URS Corp - Oakland CA - F:\Bish\Path L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 12
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Bashir Path - L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix_A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 13
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

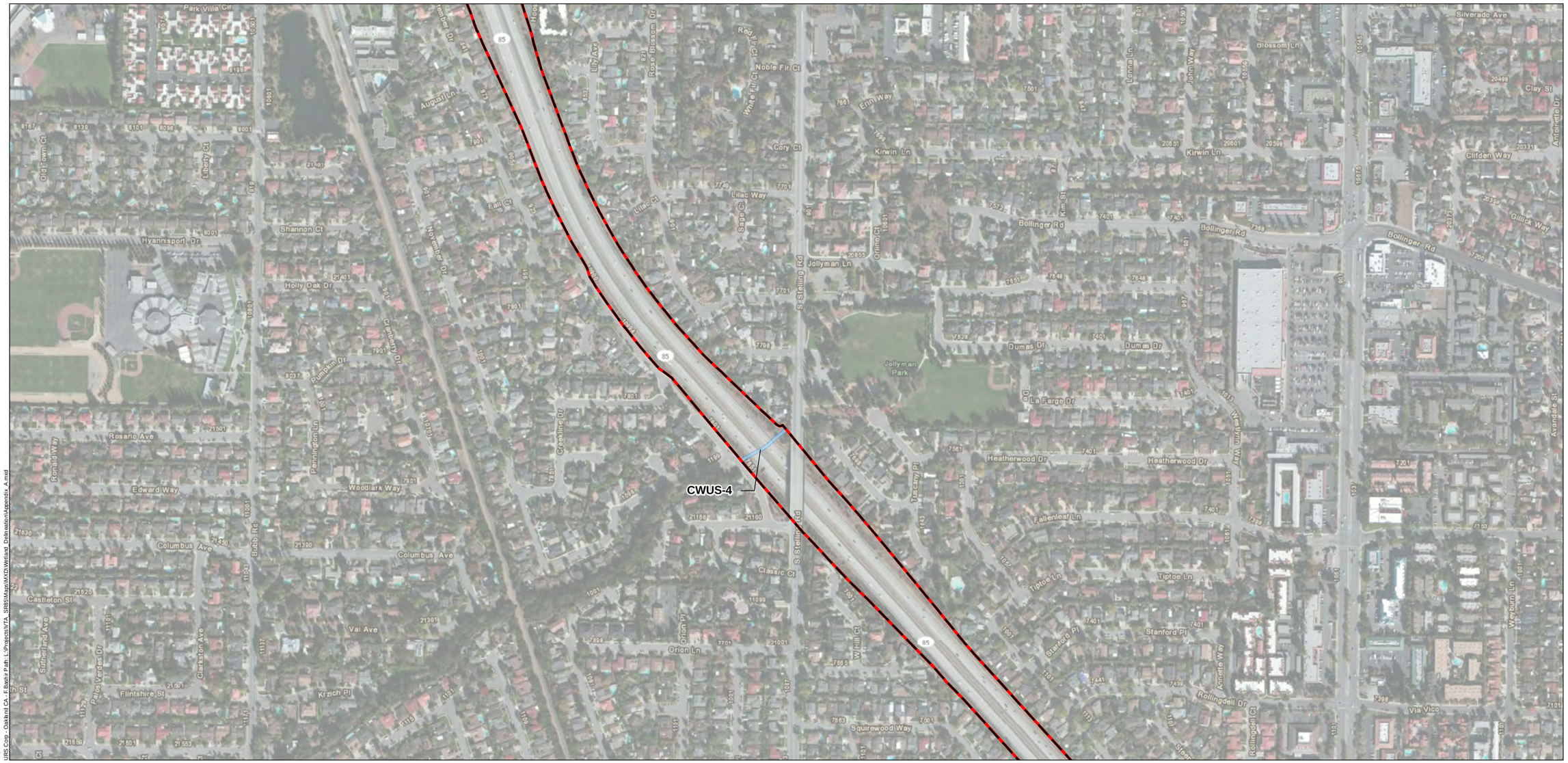
Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 14
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA



URS Corp - Oakland CA - F:\Batch Path: L:\Projects\71A_SR85\Maps\MXD\Wetland_Delineation\Appendix A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 15
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

0 250 500
Feet
1 INCH = 500 FEET

Project Area
Biological Study Area (BSA)
Other waters of the U.S.
Wetlands
Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 16
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Basin\Path: L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

- Project Area
- Biological Study Area (BSA)
- Other waters of the U.S.
- Wetlands
- Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 17
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Basin\Path - L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix_A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

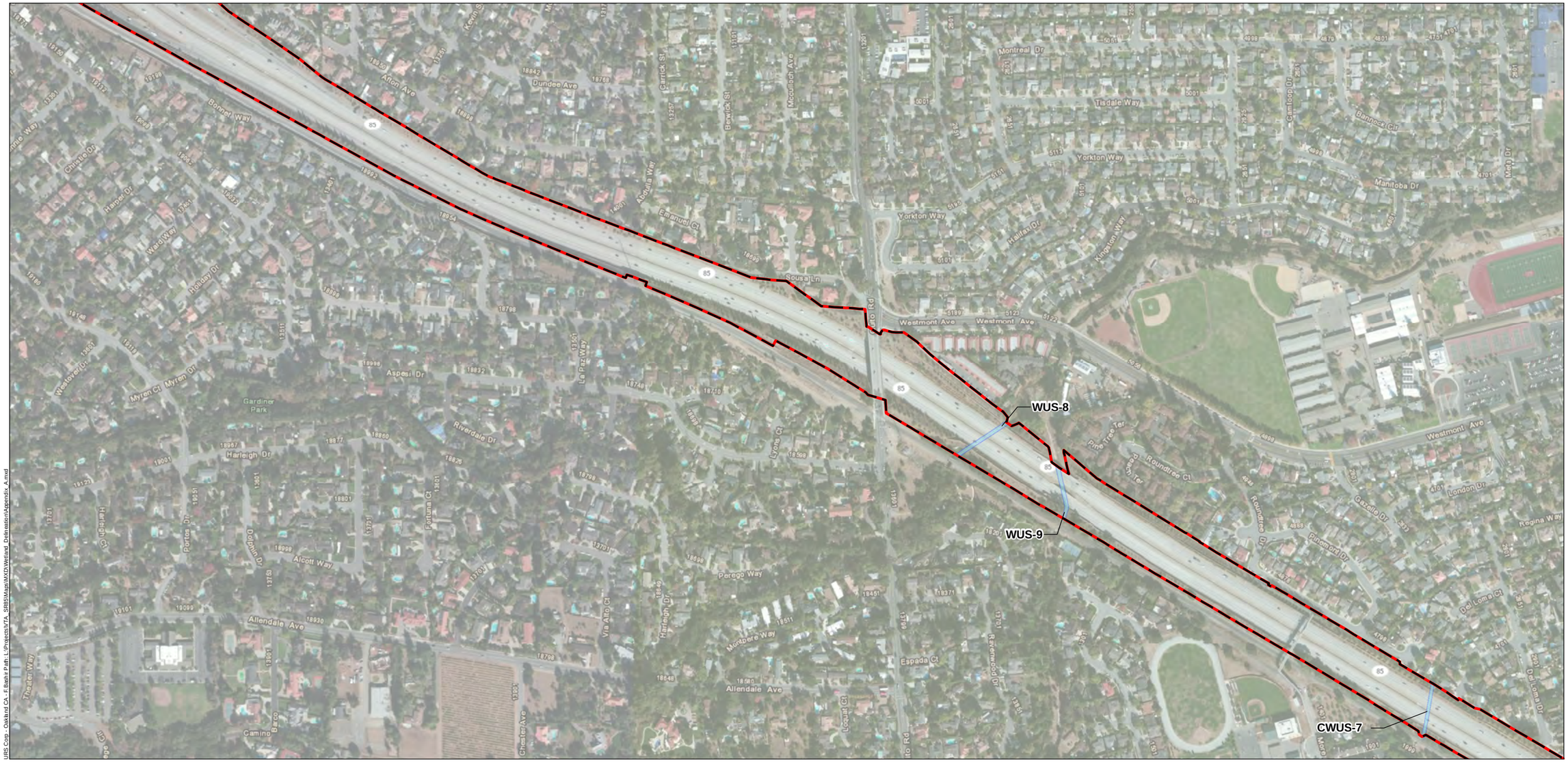
Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 18
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA



Project Area
Biological Study Area (BSA)
Other waters of the U.S.
Wetlands
Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 19
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

N

0 250 500
Feet
1 INCH = 500 FEET

Project Area
Biological Study Area (BSA)
Other waters of the U.S.
Wetlands
Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 20
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

N

0 250 500

Feet

1 INCH = 500 FEET

- Project Area
- Biological Study Area (BSA)
- Other waters of the U.S.
- Wetlands
- Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 21
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Bishr Path- L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix_A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

- Project Area
- Biological Study Area (BSA)
- Other waters of the U.S.
- Wetlands
- Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 22
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Bashir Path - L:\Projects\VTA_SR85\Maps\MXD\Wetland Delineation\Appendix A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

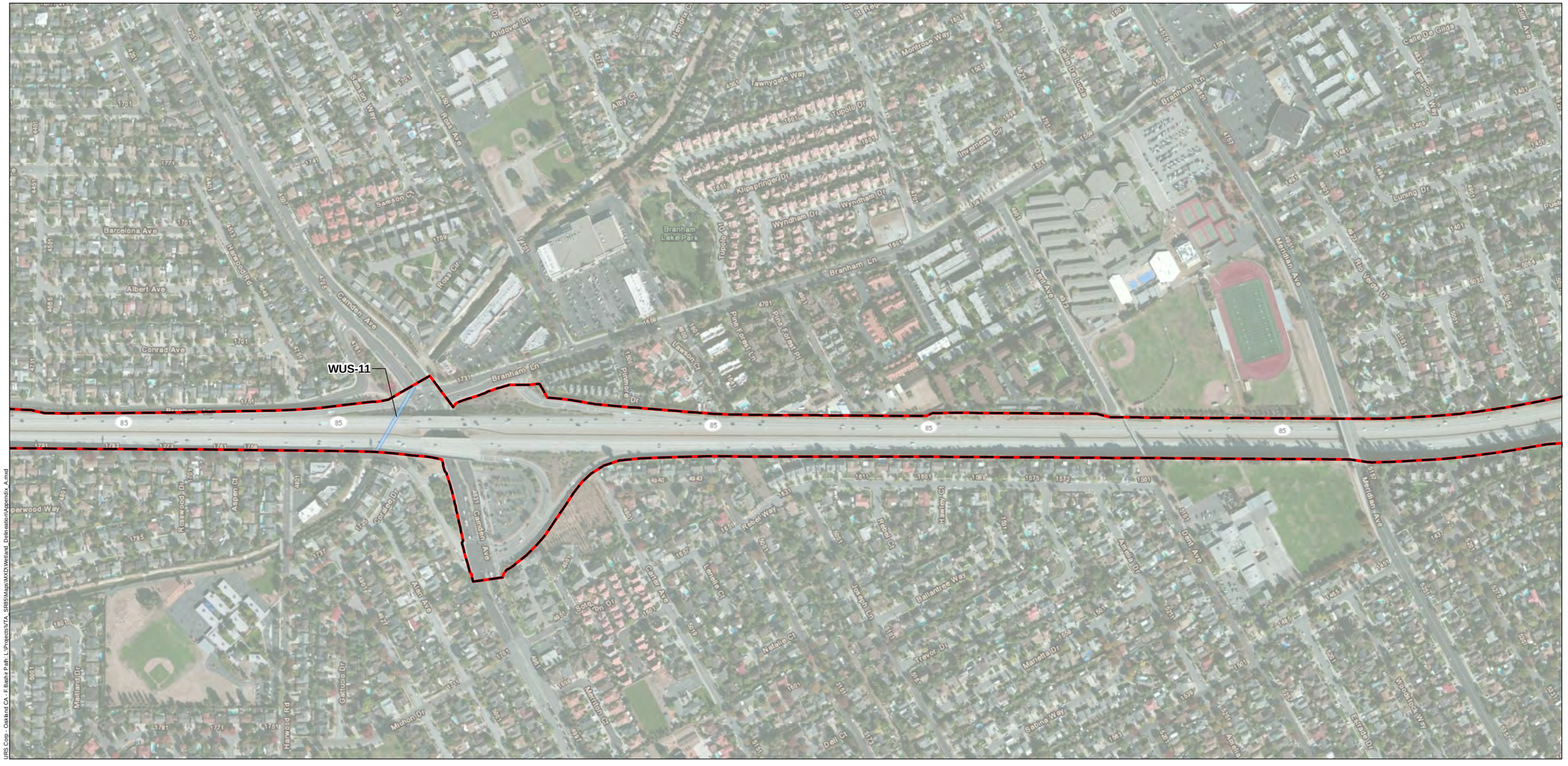
Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 23
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA



URS Corp - Oakland CA - F:\Basht Path - L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix_A.mxd

N

0 250 500

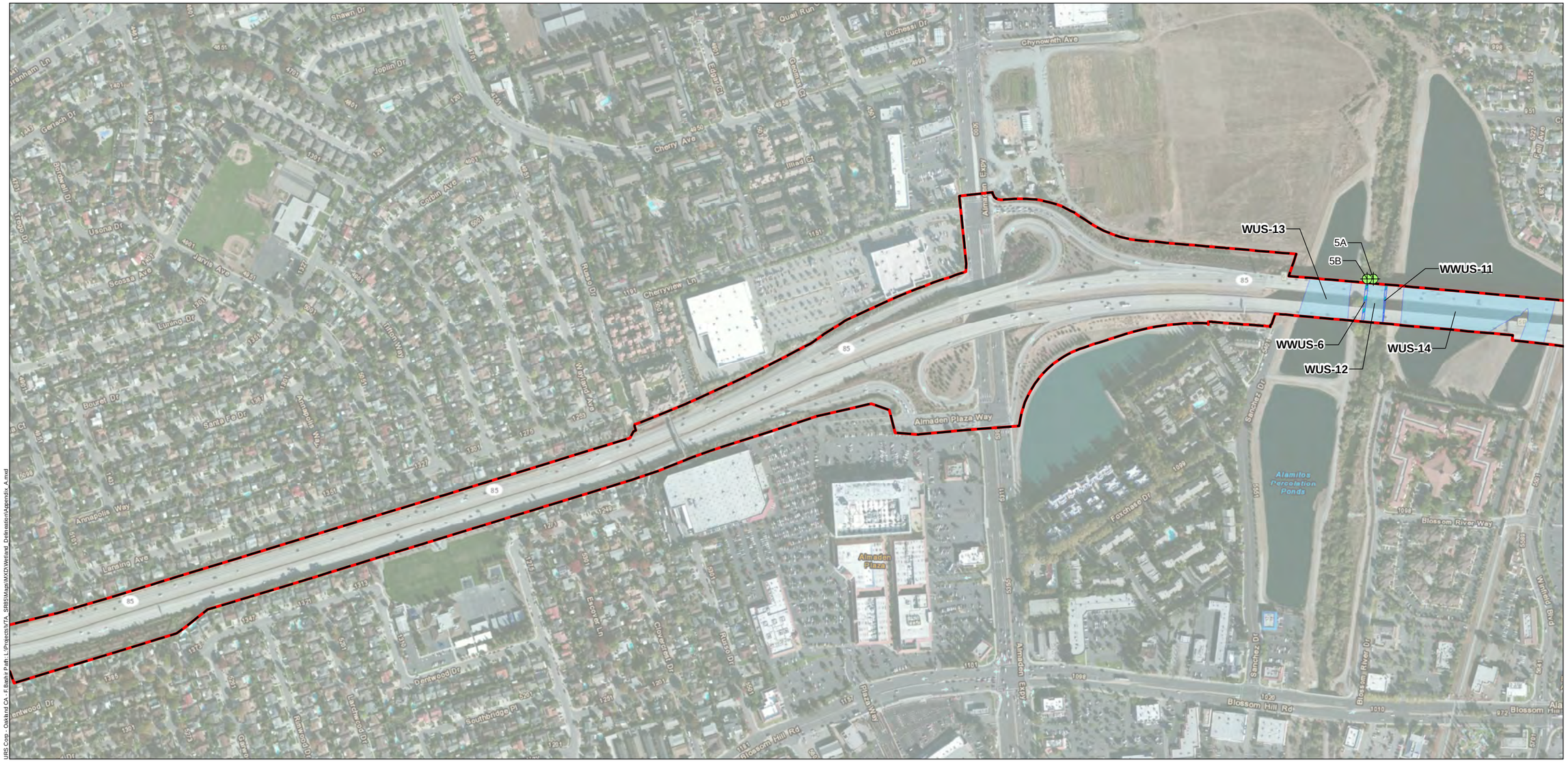
Feet

1 INCH = 500 FEET

- Project Area
- Biological Study Area (BSA)
- Other waters of the U.S.
- Wetlands
- Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 24
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA



N

0 250 500

Feet

1 INCH = 500 FEET

- Project Area
- Biological Study Area (BSA)
- Other waters of the U.S.
- Wetlands
- Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 25
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

N

0 250 500

Feet

1 INCH = 500 FEET

- Project Area
- Biological Study Area (BSA)
- Other waters of the U.S.
- Wetlands
- Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 26
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

UFRS Corp - Oakland CA - F:\Bash\Path L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix_A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

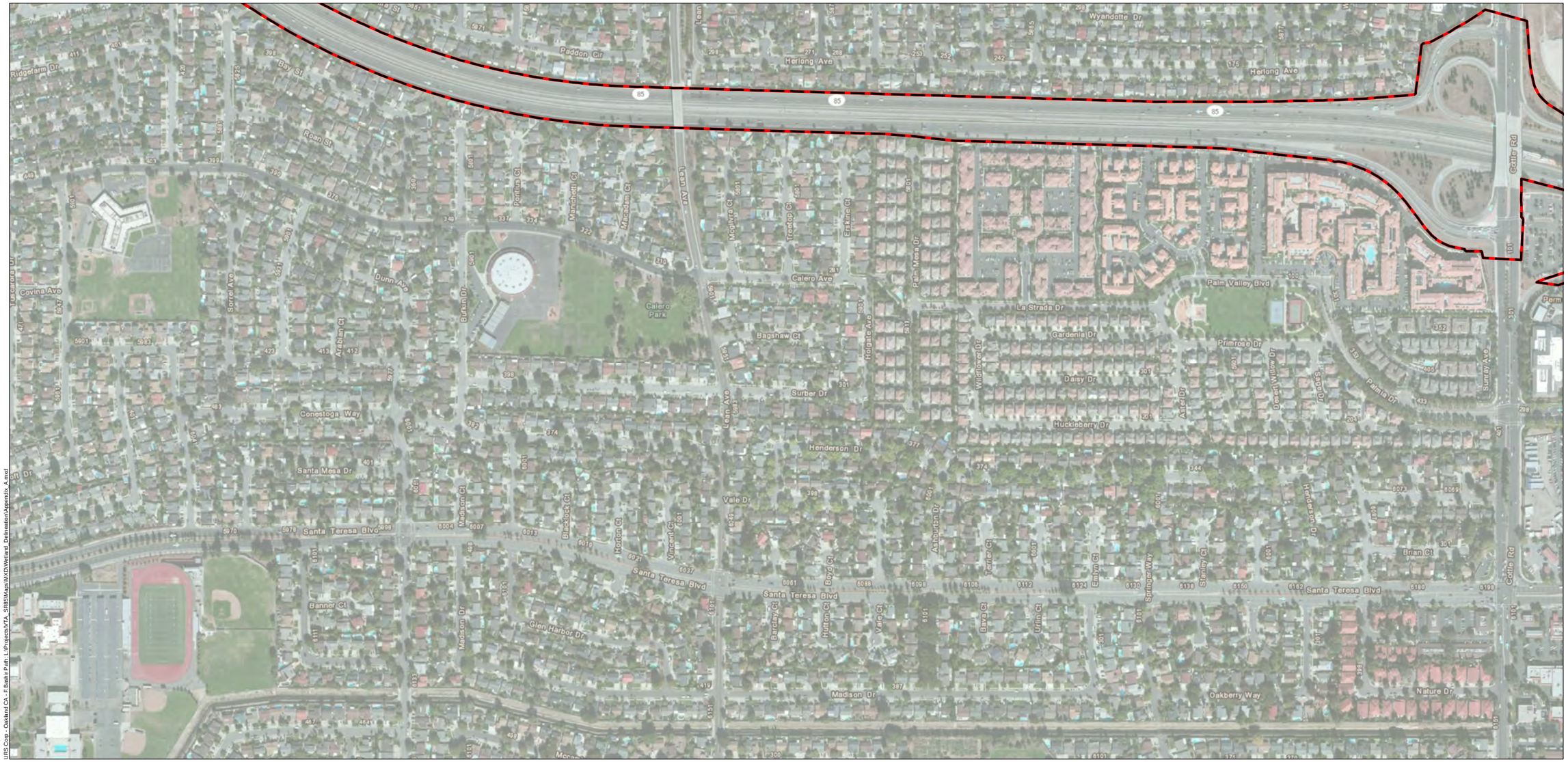
Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 27
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA



0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

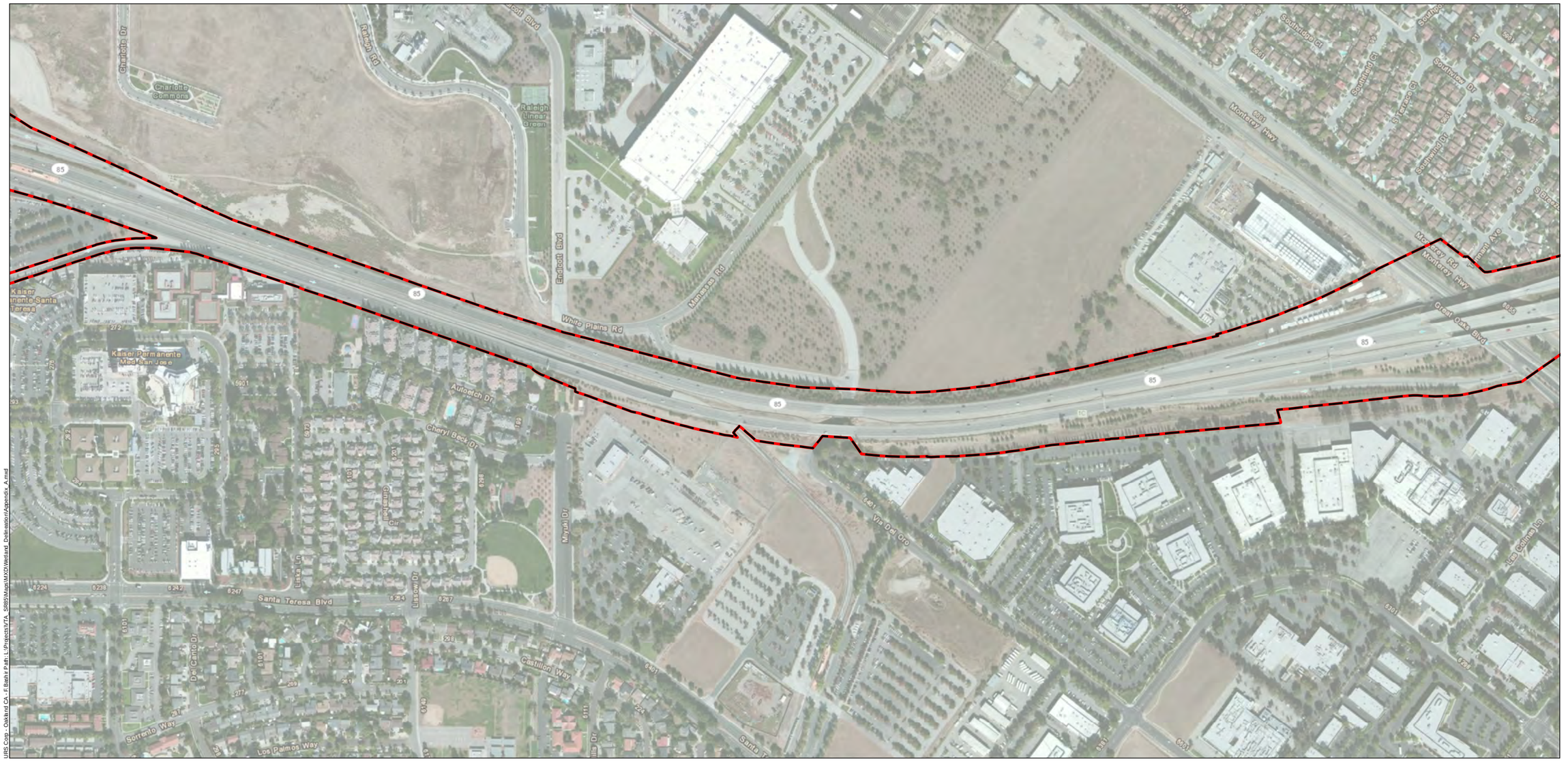
Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 28
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA



Project Area
Biological Study Area (BSA)
Other waters of the U.S.
Wetlands
Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 29
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

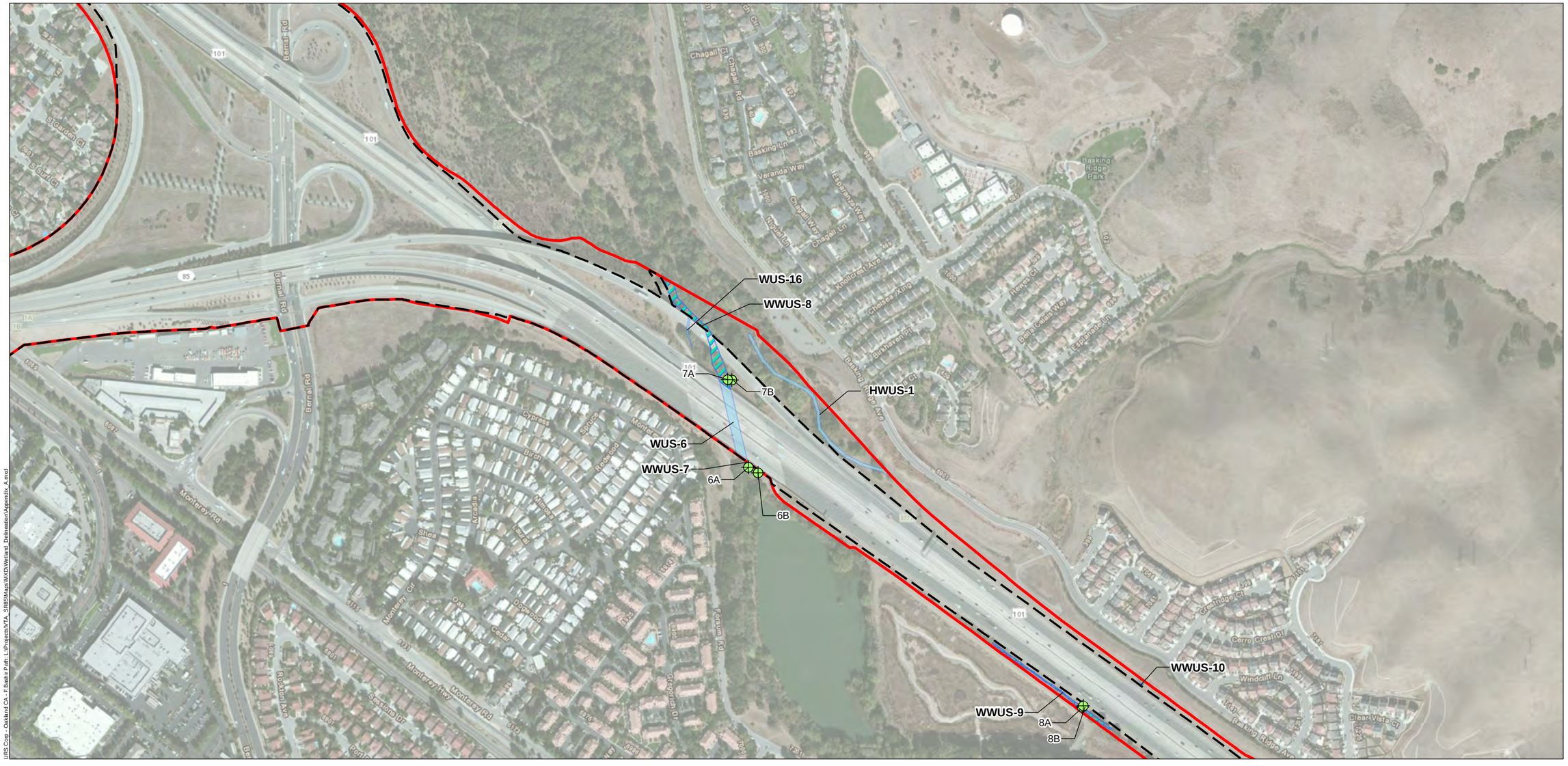
Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 30
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland,CA - F:\Bishr Path - L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix_A.mxd

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 31
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA



UFRS Corp - Oakland CA - E:\Bethl P\ath L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix A.mxd

0 250 500
Feet
1 INCH = 500 FEET

Project Area
Biological Study Area (BSA)
Other waters of the U.S.
Wetlands
Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 32
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

0 250 500
Feet
1 INCH = 500 FEET

Project Area
Biological Study Area (BSA)
Other waters of the U.S.
Wetlands
Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 33
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

URS Corp - Oakland CA - F:\Bashir Path - L:\Projects\VTA_SR85\Maps\MXD\Wetland_Delineation\Appendix_A.mxd

N

0 250 500

Feet

1 INCH = 500 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Caltrans
State Route 85 Express Lanes

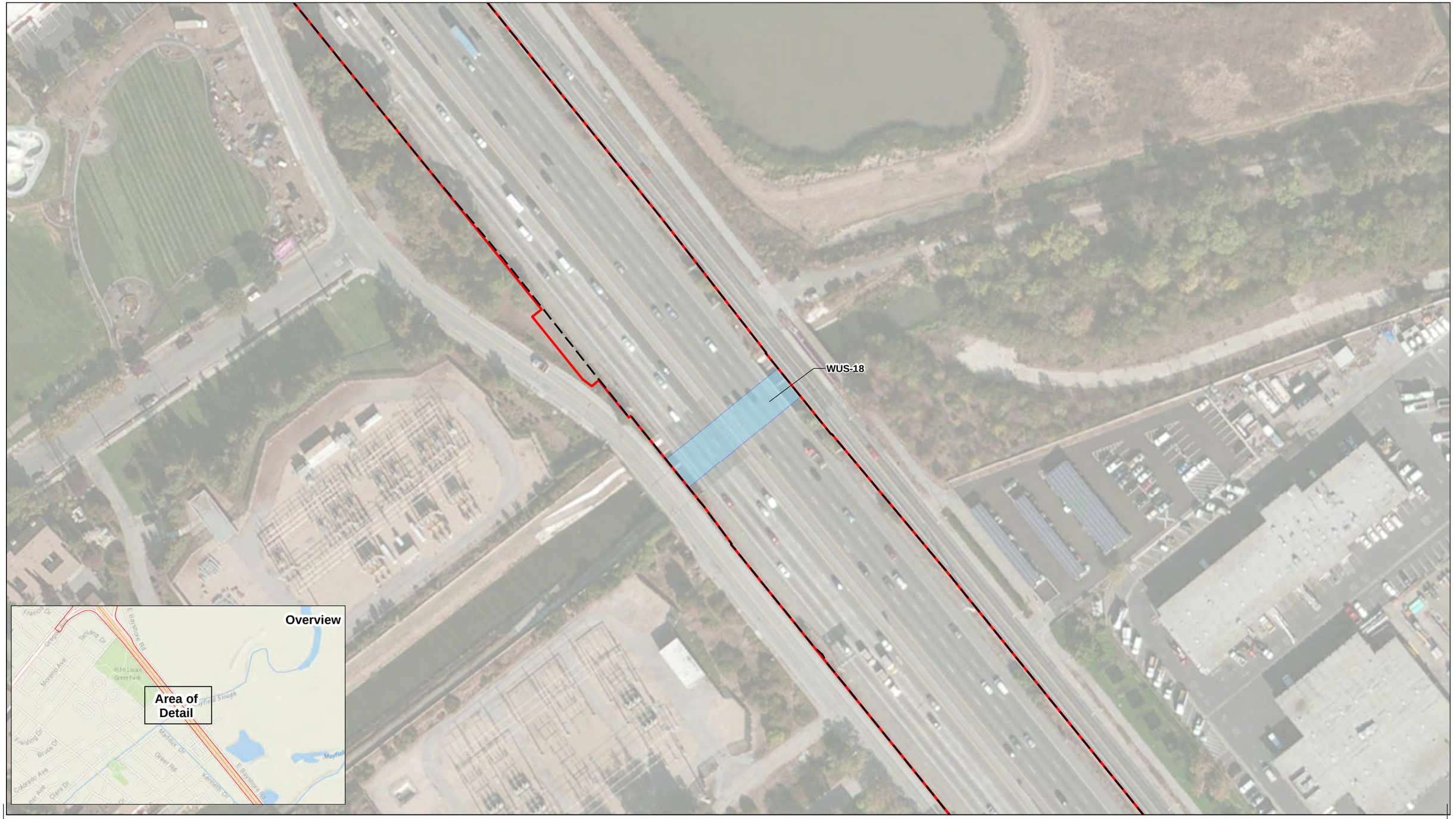
Appendix A
Sheet 34
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

0 250 500
Feet
1 INCH = 500 FEET

- Project Area
- Biological Study Area (BSA)
- Other waters of the U.S.
- Wetlands
- Sample Points

Caltrans
State Route 85 Express Lanes

Appendix A
Sheet 35
Potentially Jurisdictional Wetlands and Waters of the United States in the BSA



N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 36

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 37

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 38

WUS-21

Overview

Area of Detail

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 39

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 40

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 41

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 42

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 43

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

Caltrans

State Route 85
Express Lanes

APPENDIX A: SHEET 44

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 45

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 46

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

Caltrans

State Route 85
Express Lanes

APPENDIX A: SHEET 47

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 48

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

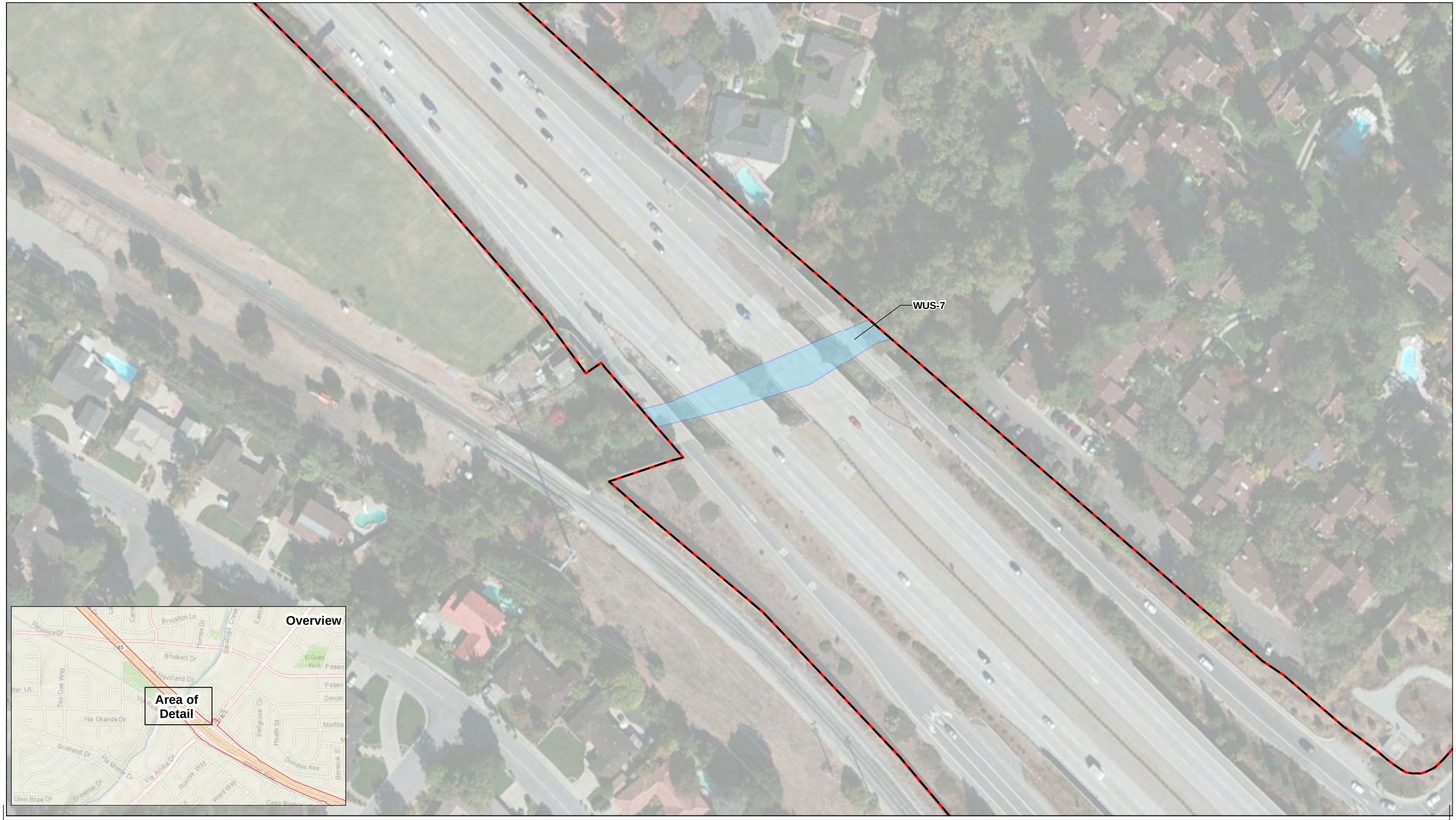
Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 49



N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 50

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 51

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 52

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

Caltrans

State Route 85
Express Lanes

APPENDIX A: SHEET 53

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

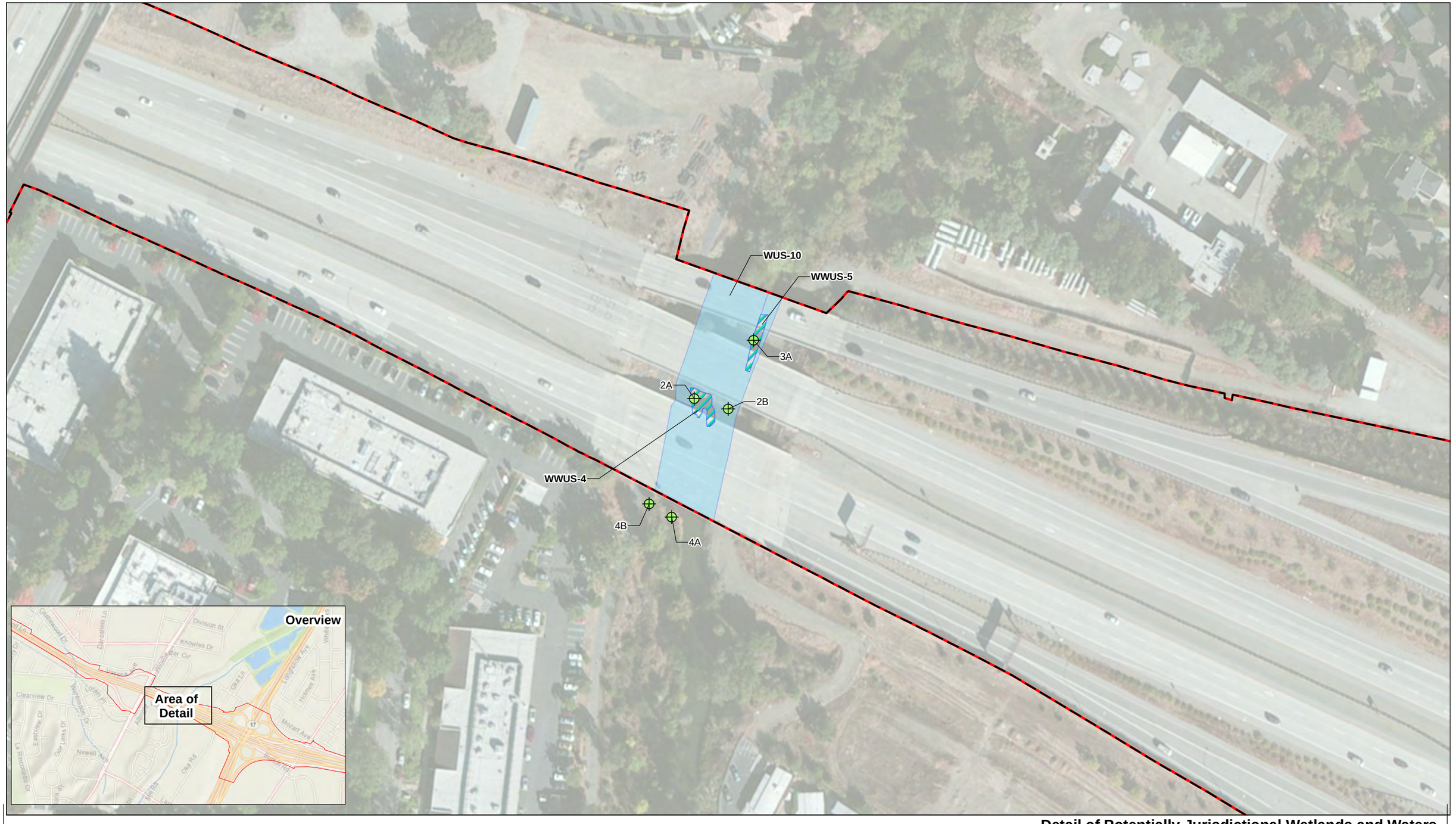
Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

Caltrans

State Route 85
Express Lanes

APPENDIX A: SHEET 54



N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

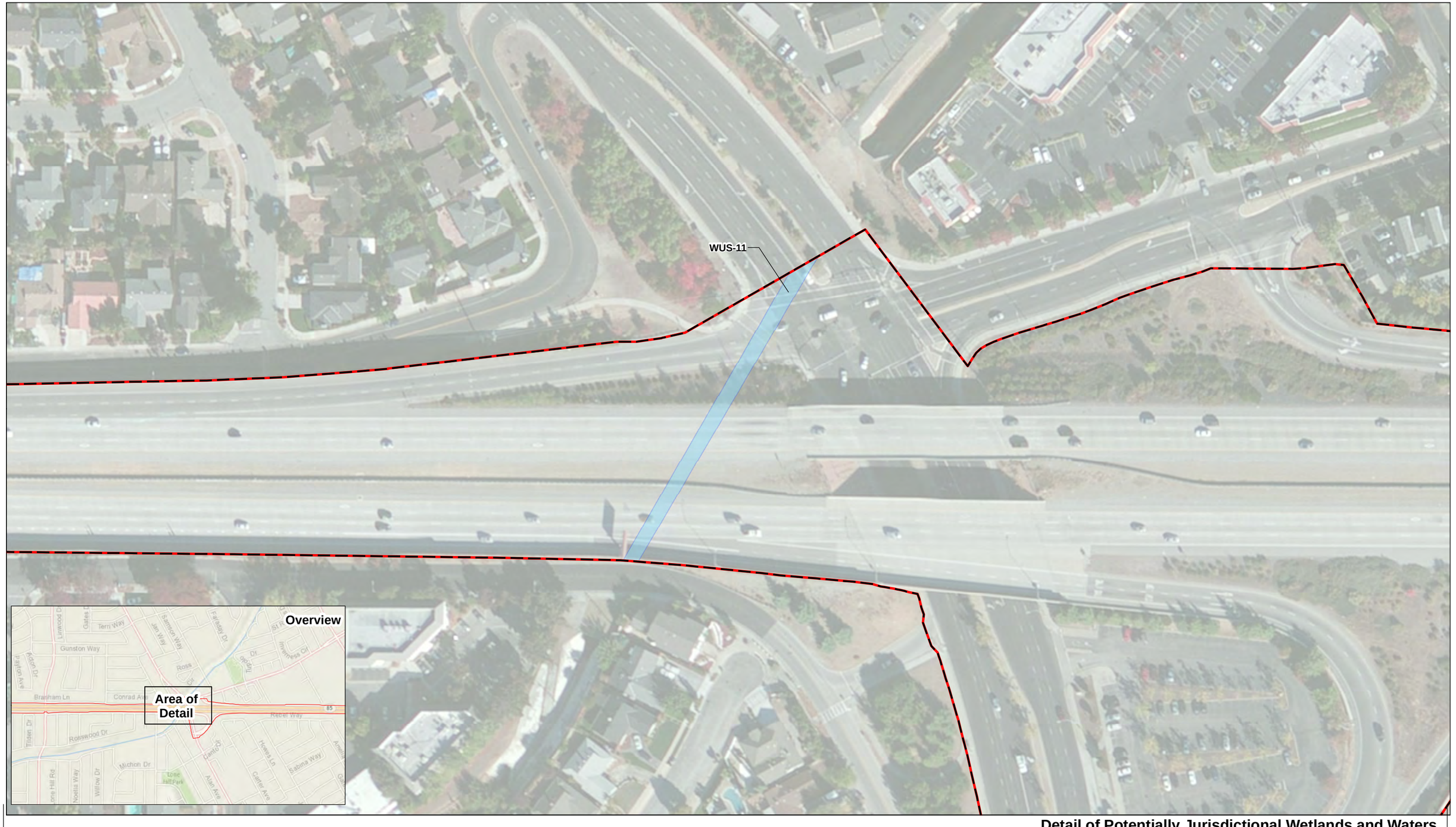
Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 55



N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 56

WWUS-6
5B
5A
WWUS-11
WUS-13
WUS-12
WUS-14
Overview
Area of Detail
N
0
100
200
Feet
1 INCH = 100 FEET
Project Area
Biological Study Area (BSA)
Other waters of the U.S.
Wetlands
Sample Points
Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA
State Route 85
Express Lanes
APPENDIX A: SHEET 57

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 58

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 59

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 60

WWUS-10

8B

8A

WWUS-9

Overview

Area of Detail

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 61

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 62

CWUS-10

Overview

Area of Detail

Ranch Rd
Monterey Rd
Coyote Ranch
Miller Dr
Field Sports County Park
Bloomfield Rd
Coyote

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 63

N

0 100 200

Feet

1 INCH = 100 FEET

Project Area

Biological Study Area (BSA)

Other waters of the U.S.

Wetlands

Sample Points

Detail of Potentially Jurisdictional Wetlands and Waters of the United States in the BSA

State Route 85
Express Lanes

APPENDIX A: SHEET 64

Appendix B Wetland Delineation Data Forms

Copies of the Arid West and Rapanos forms that were prepared to support the delineation of wetland areas and their boundaries are provided in the following pages.

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Calabazas Creek Rapanos Form

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APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: CA County/parish/borough: Santa Clara City: Mountain View, Cupertino, Saratoga, Los Gatos and San Jose
Center coordinates of site (lat/long in degree decimal format): Lat. 37.2765° **N**, Long. 122.0071° **W**.
Universal Transverse Mercator:
Name of nearest waterbody:
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: San Francisco Bay
Name of watershed or Hydrologic Unit Code (HUC): Palo Alto Watershed
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): July 21, 2010; August 4, 2010; August 11, 2010; August 26, 2010; September 1, 2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or 0.07 acres.
      Wetlands: <0.01 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 14 **square miles**
Drainage area: 14 **square miles**
Average annual rainfall: 15 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☒ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **10-15** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **10-15** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW[5]: Calabazas Creek flows under SR 85 in the Porject Area and then flows approximately 14 miles through urban Cupertino, Santa Clara and San Jose before confluencing with Guadalupe slough and then emptying into San Francisco Bay.
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Calabazas Creek as been altered by humans through channelization and flood control for residential and commercial development near the creek.

Tributary properties with respect to top of bank (estimate):
Average width: 17 feet
Average depth: 0-1 feet
Average side slopes: **2:1.**

Primary tributary substrate composition (check all that apply):
☐ Silts ☒ Sands ☒ Concrete
☒ Cobbles ☒ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☒ Other. Explain: concrete bricks.

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Fairly stable in channelized condition.
Presence of run/riffle/pool complexes. Explain: There are modified run/riffle, pool complexes.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: This stream has water through most of the year with the flow dependent on urban runoff, and water from the upper watershed in the Santa Cruz mountains.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: The creek is confined under the SR 85 underpass by bridge piers, abutments and by creek armoring.

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):
☒ clear, natural line impressed on the bank ☒ the presence of litter and debris
☐ changes in the character of soil ☐ destruction of terrestrial vegetation
☐ shelving ☒ the presence of wrack line
☒ vegetation matted down, bent, or absent ☐ sediment sorting
☐ leaf litter disturbed or washed away ☐ scour
☐ sediment deposition ☐ multiple observed or predicted flow events
☐ water staining ☐ abrupt change in plant community
☐ other (list):
☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☐ High Tide Line indicated by: ☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects ☐ survey to available datum;
☐ fine shell or debris deposits (foreshore) ☐ physical markings;
☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: The creek appeared clear and did not have visible pollutants other than some trash.

Identify specific pollutants, if known: Pollutants are present from urban runoff that finds its way into the creek. The creek is known to be impaired by diazinon.

(iv) Biological Characteristics. Channel supports (check all that apply):

☒ Riparian corridor. Characteristics (type, average width): coast live oak-California buckeye-arroyo willow riparian corridor; average width is approximately 220 feet.

☐ Wetland fringe. Characteristics: .

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: <0.01 acres

Wetland type. Explain: freshwater emergent wetland.

Wetland quality. Explain: A definitive wetland on the edges of the Calabazas Creek channel with a dominance of hydrophytes, a depleted matrix and saturated water conditions.

Project wetlands cross or serve as state boundaries. Explain: No.

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: .

Surface flow is**: Discrete and confined**

Characteristics: Flow from Calabazas Creek provides hydrology for this wetland that occurs in the slow or slack water areas of the stream.

Subsurface flow: **Yes**. Explain findings: No specific test performed, however presence of water in sample pit dug in wetland suggests that water is present in the wetland below the surface.

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☒ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **10-15** river miles from TNW.

Project waters are **10-15** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters.**

Estimate approximate location of wetland as within the **2-year or less** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: The water clor is clear, likely polluted from urban runoff and stormwater drains.

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .

☒ Vegetation type/percent cover. Explain: Arroyo willow (Salix lasiolepis) =50 percent cover; common horsetail (Equisetum arvense) = 40 percent cover; Himilayan blackberry (Rubus discolor) = 10 percent cover.

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
   All wetland(s) being considered in the cumulative analysis: **1**
   Approximately (0.01) acres in total are being considered in the cumulative analysis.

   For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
WWUS 2 Yes	0.01		

   Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   ☐ TNWs: linear feet width (ft), Or, acres.
   ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .

☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: The creek observed during August and Septemeber was dry at one of the crossings with SR 85. At the other three crossings the creek had water indicating that at most locations the creek is perennial but it drys out in certain spots in the dry season. The flow in the dry creek crossing could be subsurface under the gravel and cobble streambed substrate .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☒ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs[8] that flow directly or indirectly into TNWs.

☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: **.**

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **.**

☒ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: The freshwater emergent wetland is directly adjacent Calabazas Creek an intermittent stream.

Provide acreage estimates for jurisdictional wetlands in the review area: **0.01** acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

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

☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

[8]See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☒ Tributary waters: 825 linear feet 17 width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☒ Wetlands: 0.01 acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name: .
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
- ☐ National wetlands inventory map(s). Cite name: .
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): Microsoft Bing Maps, NAIP 2010.
  or ☒ Other (Name & Date):Site visit photographs August 2010.
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

Coyote Creek Rapanos Form

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APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: CA County/parish/borough: Santa Clara City: Mountain View, Cupertino, Saratoga, Los Gatos and San Jose
Center coordinates of site (lat/long in degree decimal format): Lat. 37.2765° **N**, Long. 122.0071° **W**.
Universal Transverse Mercator:
Name of nearest waterbody:
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: San Francisco Bay
Name of watershed or Hydrologic Unit Code (HUC): Palo Alto Watershed

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): July 21, 2010; August 4, 2010; August 11, 2010; August 26, 2010; September 1, 2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or 0.37 acres.
      Wetlands: 0.31 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 320 **square miles**
Drainage area: 320 **square miles**
Average annual rainfall: 15 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☒ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **25-30** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **20-25** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: No.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW[5]: Coyote Creek flows under SR 85/US 101 interchange in the Project study area and then flows more than 20 miles through San Jose before confluencing with Mud slough and then emptying into San Francisco Bay.
Tributary stream order, if known: Coyote Creek to Mud slough to San Francisco Bay.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Coyote Creek as been altered by humans for agricultural and development. In the project study area the creek is shaded by the SR 85/101 intersection overpass and is confined by the brdige abutments and piers .

Tributary properties with respect to top of bank (estimate):
Average width: 54 feet
Average depth: 10 feet
Average side slopes: **4:1 (or greater).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☒ Cobbles	☒ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Fairly stable in channelized condition.
Presence of run/riffle/pool complexes. Explain: There are riffle, run, pool complexes present.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: This stream is perennial with the flow regulated by upstream reservoirs (Anderson, Coyote).
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: The creek is confined under the SR 85 underpass by the levees and surrounding percolation ponds.

Subsurface flow: **Unknown**. Explain findings: Likely subsurface flow under streambed but no tests were performed.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☒ leaf litter disturbed or washed away	☐ scour
☒ sediment deposition	☐ multiple observed or predicted flow events
☒ water staining	☒ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: The creek color is clear.

Identify specific pollutants, if known: The creek is known to be impaired by mercury and diazinon and potentially for sediment.

(iv) Biological Characteristics. Channel supports (check all that apply):

☒ Riparian corridor. Characteristics (type, average width): Fremont cottonwood riparian corridor, approximately 200 feet wide.

☐ Wetland fringe. Characteristics: .

☒ Habitat for:

☒ Federally Listed species. Explain findings: Habitat for federally listed Central California Coast Steelhead.

☒ Fish/spawn areas. Explain findings: Fish habitat area.

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: 0.40 acres

Wetland type. Explain: Freshwater emergent wetlands.

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: No.

(b) General Flow Relationship with Non-TNW:

Flow is: **Perennial flow**. Explain: .

Surface flow is**: Discrete and confined**

Characteristics: Flow in wetlands occurs from overflow and subsurface flow of Los Gatos Creek.

Subsurface flow: **Yes**. Explain findings: Surbsurface flow in wetland as determined by examination of soil sample pit.

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☒ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **15-20** river miles from TNW.

Project waters are **10-15** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters.**

Estimate approximate location of wetland as within the **2-year or less** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water color is clear.

Identify specific pollutants, if known: Same pollutants as creek; mercury.

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .

☒ Vegetation type/percent cover. Explain: 30 % spearmint; 20% Fremont cottonwood; 10% arroyo willow; 10% Common cattail .

☐ Habitat for:

☒ Federally Listed species. Explain findings: Habitat for federally listed Central California Coast steelhead.

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☒ Aquatic/wildlife diversity. Explain findings: Fish, invertebrates, reptiles, mammals, amphibians and birds. .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
   All wetland(s) being considered in the cumulative analysis: **2**
   Approximately (0.40) acres in total are being considered in the cumulative analysis.

   For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
WWUS 6 Y	0.37		
WWUS1 Y	0.03		

   Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   ☐ TNWs: linear feet width (ft), Or, acres.
   ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .

☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: The creek was dry during surveys in August However there are physical indicators that show that the creek receives flow during the wet season.

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs[8] that flow directly or indirectly into TNWs.

☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: **.**

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☒ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Guadalupe River receives year round flow from upstream reservoirs.**

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: **0.03** acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

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

☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

[8]See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☐ National wetlands inventory map(s). Cite name: .

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[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Microsoft Bing Maps, NAIP 2010.
or ☒ Other (Name & Date):Site visit photographs August 2010.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

Guadalupe River Rapanos Form

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APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: CA County/parish/borough: Santa Clara City: Mountain View, Cupertino, Saratoga, Los Gatos and San Jose
Center coordinates of site (lat/long in degree decimal format): Lat. 37.2765° **N**, Long. 122.0071° **W**.
Universal Transverse Mercator:
Name of nearest waterbody:
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: San Francisco Bay
Name of watershed or Hydrologic Unit Code (HUC): Palo Alto Watershed
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): July 21, 2010; August 4, 2010; August 11, 2010; August 26, 2010; September 1, 2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or 0.05 acres.
      Wetlands: 0.40 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 170 **square miles**
Drainage area: 170 **square miles**
Average annual rainfall: 15 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☒ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **15-20** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **10-15** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: No.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW[5]: Guadalupe River flows under SR 85 in the Project study area and then flows approximately 16 miles through San Jose before confluencing with Alviso slough and then emptying into San Francisco Bay.
Tributary stream order, if known: Guadalupe River to Alviso slough to San Francisco Bay.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Guadalupe River as been altered by humans through channelization and flood control for residential and commercial development near the creek. The river is surrounded by levees and percolation ponds on either side.

Tributary properties with respect to top of bank (estimate):
Average width: 110 feet
Average depth: 10 feet
Average side slopes: **4:1 (or greater).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☒ Cobbles	☒ Gravel	☒ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Fairly stable in channelized condition.
Presence of run/riffle/pool complexes. Explain: There are riffle, run, pool complexes present.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: This stream is perennial with the flow coming from multiple tributaries (Gudalupe Creek, Los Alamitos Creek) dammed upstream in the watershed.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: The creek is confined under the SR 85 underpass by the levees and surrounding percolation ponds.

Subsurface flow: **Unknown**. Explain findings: Likely subsurface flow under streambed but no tests were performed.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☒ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☒ sediment deposition	☐ multiple observed or predicted flow events
☒ water staining	☒ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

☐ other (list):

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: The creek color is clear.

Identify specific pollutants, if known: The creek is known to be impaired by mercury and diazinon and potentially for sediment.

(iv) Biological Characteristics. Channel supports (check all that apply):

☒ Riparian corridor. Characteristics (type, average width): Fremont cottonwood riparian corridor, approximately 200 feet wide.

☐ Wetland fringe. Characteristics: .

☒ Habitat for:

☒ Federally Listed species. Explain findings: Habitat for federally listed Central California Coast Steelhead.

☒ Fish/spawn areas. Explain findings: Fish habitat area.

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: 0.40 acres

Wetland type. Explain: Freshwater emergent wetlands.

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: No.

(b) General Flow Relationship with Non-TNW:

Flow is: **Perennial flow**. Explain: .

Surface flow is**: Discrete and confined**

Characteristics: Flow in wetlands occurs from overflow and subsurface flow of Los Gatos Creek.

Subsurface flow: **Yes**. Explain findings: Surbsurface flow in wetland as determined by examination of soil sample pit.

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☒ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **15-20** river miles from TNW.

Project waters are **10-15** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters.**

Estimate approximate location of wetland as within the **2-year or less** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water color is clear.

Identify specific pollutants, if known: Same pollutants as creek; mercury.

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .

☒ Vegetation type/percent cover. Explain: 30 % spearmint; 20% Fremont cottonwood; 10% arroyo willow; 10% Common cattail .

☐ Habitat for:

☒ Federally Listed species. Explain findings: Habitat for federally listed Central California Coast steelhead.

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☒ Aquatic/wildlife diversity. Explain findings: Fish, invertebrates, reptiles, mammals, amphibians and birds. .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
   All wetland(s) being considered in the cumulative analysis: **2**
   Approximately (0.40) acres in total are being considered in the cumulative analysis.

   For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
WWUS 6 Y	0.37		
WWUS1 Y	0.03		

   Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   ☐ TNWs: linear feet width (ft), Or, acres.
   ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: The creek was dry during surveys in August However there are physical indicators that show that the creek receives flow during the wet season.

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☐ Tributary waters: linear feet width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   ☐ Tributary waters: linear feet width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
   ☒ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Guadalupe River receives year round flow from upstream reservoirs.**

   ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

   Provide acreage estimates for jurisdictional wetlands in the review area: **0.03** acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
   ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

   Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
   ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
   As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
   ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
   ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
   ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Microsoft Bing Maps, NAIP 2010.

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[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

or ☒ Other (Name & Date):Site visit photographs August 2010.

☐ Previous determination(s). File no. and date of response letter: .

☐ Applicable/supporting case law: .

☐ Applicable/supporting scientific literature: .

☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

Los Gatos Creek Rapanos Form

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APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: CA County/parish/borough: Santa Clara City: Mountain View, Cupertino, Saratoga, Los Gatos and San Jose
Center coordinates of site (lat/long in degree decimal format): Lat. 37.2765° **N**, Long. 122.0071° **W**.
Universal Transverse Mercator:
Name of nearest waterbody:
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: San Francisco Bay
Name of watershed or Hydrologic Unit Code (HUC): Palo Alto Watershed
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): July 21, 2010; August 4, 2010; August 11, 2010; August 26, 2010; September 1, 2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or 0.24 acres.
      Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 21 **square miles**
Drainage area: 21 **square miles**
Average annual rainfall: 15 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☒ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **15-20** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **10-15** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: No.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW[5]: Los Gatos Creek flows under ST 85 in the Project Area and flows approximately 5 miles through Campbell before confluencing with Guadalupe River.

Tributary stream order, if known: Los Gatos Creek to Guadalupe River to Alviso slough to San Francisco Bay. Bay.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Los Gatos Creek as been altered by humans through channelization and flood control for residential and commercial development near the creek. Trails and roads armored with rip rap border the stream at both stream banks.

Tributary properties with respect to top of bank (estimate):
Average width: 100 feet
Average depth: 10 feet
Average side slopes: **4:1 (or greater).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☒ Cobbles	☒ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Fairly stable in channelized condition.
Presence of run/riffle/pool complexes. Explain: There are riffle, run, pool complexes present.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: This stream is perennial with the flow dependent on releases from Lexington Reservoir and Vasona Lake upstream of the SR 85 crossing.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: The creek is confined under the SR 85 underpass by bridge abutments, trails and rip-rap armoring the stream banks.

Subsurface flow: **Unknown**. Explain findings: Likely subsurface flow under streambed but no tests were performed.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☒ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☒ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: The creek color is clear.

Identify specific pollutants, if known: The creek is known to be impaired by diazinon and potentially for sediment.

(iv) Biological Characteristics. Channel supports (check all that apply):

☒ Riparian corridor. Characteristics (type, average width): California Sycamore-Arroyo willow riparian corridor, approximately 110 feet wide.

☐ Wetland fringe. Characteristics: .

☒ Habitat for:

☒ Federally Listed species. Explain findings: Habitat for federally listed Central California Coast Steelhead.

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: 0.03 acres

Wetland type. Explain: Freshwater emergent wetland.

Wetland quality. Explain: Small definitive wetlands bordering an urban stream crossing .

Project wetlands cross or serve as state boundaries. Explain: No.

(b) General Flow Relationship with Non-TNW:

Flow is: **Perennial flow**. Explain: .

Surface flow is**: Discrete and confined**

Characteristics: Flow in wetlands occurs from overflow and subsurface flow of Los Gatos Creek.

Subsurface flow: **Yes**. Explain findings: Surbsurface flow in wetland as determined by examination of soil sample pit.

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☒ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **15-20** river miles from TNW.

Project waters are **10-15** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters.**

Estimate approximate location of wetland as within the **2-year or less** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water color is clear.

Identify specific pollutants, if known: Same pollutants as creek, diazinon and sediment.

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .

☒ Vegetation type/percent cover. Explain: 35 % narrowleaf cattail; 10% dallis grass; 10% lady's thumb; 10% Himilaya blackberry .

☐ Habitat for:

☒ Federally Listed species. Explain findings: Habitat for federally listed Central California Coast steelhead.

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☒ Aquatic/wildlife diversity. Explain findings: Fish, invertebrates, reptiles, mammals, amphibians and birds. .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: **2**
Approximately (0.03) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)		Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
WWUS 4	Y	0.02		
WWUS 5	Y	0.01		

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
☐ TNWs: linear feet width (ft), Or, acres.
☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: The creek was dry during surveys in August However there are physical indicators that show that the creek receives flow during the wet season.

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   - ☐ Tributary waters: linear feet width (ft).
   - ☐ Other non-wetland waters: acres.
     Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☐ Tributary waters: linear feet width (ft).
   - ☐ Other non-wetland waters: acres.
     Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
     - ☒ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Los Gatos Creek receives year round flow from upstream reservoirs.**
     - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

   Provide acreage estimates for jurisdictional wetlands in the review area: **0.03** acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

   Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
   - ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
   As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
   - ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
   - ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
   - ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☒ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .

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[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Microsoft Bing Maps, NAIP 2010.
or ☒ Other (Name & Date):Site visit photographs August 2010.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

San Tomas Aquino Creek Rapanos Form

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APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: CA County/parish/borough: Santa Clara City: Mountain View, Cupertino, Saratoga, Los Gatos and San Jose
Center coordinates of site (lat/long in degree decimal format): Lat. 37.2765° **N**, Long. 122.0071° **W**.
Universal Transverse Mercator:
Name of nearest waterbody:
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: San Francisco Bay
Name of watershed or Hydrologic Unit Code (HUC): Palo Alto Watershed
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): July 21, 2010; August 4, 2010; August 11, 2010; August 26, 2010; September 1, 2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or 0.24 acres.
      Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 13 **square miles**
Drainage area: 13 **square miles**
Average annual rainfall: 15 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☒ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **15-20** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **10-15** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: No.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW[5]: Saratoga Creek flows under SR 85 in the Project Area and then flows approximately 16 miles through Saratoga, Santa Clara and San Jose before confluencing with Guadalupe slough and then emptying into San Francisco Bay.

Tributary stream order, if known: Saratoga Creek to San Tomas Aquino Creek to Guadalupe slough to San Francisco Bay.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: San Tomas Aquino Creek as been altered by humans through channelization and flood control for residential and commercial development near the creek. San Tomas Aquino Creek is armored on both banks with sack concrete and riprap.

Tributary properties with respect to top of bank (estimate):
Average width: 80 feet
Average depth: 20 feet
Average side slopes: **4:1 (or greater).**

Primary tributary substrate composition (check all that apply):

☐ Silts	☒ Sands	☒ Concrete
☒ Cobbles	☒ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Fairly stable in channelized condition.
Presence of run/riffle/pool complexes. Explain: No riffle, run. pool complexes present.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: This stream has water during the wet season with the flow dependent on urban runoff, and water from the upper watershed in the Santa Cruz mountains.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: The creek is confined under the SR 85 underpass by bridge abutments and by sack concrete armoring the stream banks.

Subsurface flow: **Unknown**. Explain findings: Likely subsurface flow under streambed but no tests were performed.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☒ the presence of litter and debris
☒ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☒ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: The creek was dry during the survey.

Identify specific pollutants, if known: The creek is not known to be impaired by any pollutants.

(iv) Biological Characteristics. Channel supports (check all that apply):

☐ Riparian corridor. Characteristics (type, average width): No riparian corridor in project study area.
☐ Wetland fringe. Characteristics: .
☐ Habitat for:
- ☐ Federally Listed species. Explain findings: .
- ☐ Fish/spawn areas. Explain findings: .
- ☐ Other environmentally-sensitive species. Explain findings: .
- ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: acres
Wetland type. Explain: .
Wetland quality. Explain: .
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**
Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
☐ Directly abutting
☐ Not directly abutting
- ☐ Discrete wetland hydrologic connection. Explain: .
- ☐ Ecological connection. Explain: .
- ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW
Project wetlands are **Pick List** river miles from TNW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Flow is from: **Pick List.**
Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .
☐ Vegetation type/percent cover. Explain: .
☐ Habitat for:
- ☐ Federally Listed species. Explain findings: .
- ☐ Fish/spawn areas. Explain findings: .
- ☐ Other environmentally-sensitive species. Explain findings: .
- ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**
Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: The creek was dry during surveys in August However there are physical indicators that show that the creek receives flow during the wet season.

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☒ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Microsoft Bing Maps, NAIP 2010.
or ☒ Other (Name & Date):Site visit photographs August 2010.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

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Saratoga Creek Rapanos Form

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APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: CA County/parish/borough: Santa Clara City: Mountain View, Cupertino, Saratoga, Los Gatos and San Jose
Center coordinates of site (lat/long in degree decimal format): Lat. 37.2765° **N**, Long. 122.0071° **W**.
Universal Transverse Mercator:
Name of nearest waterbody:
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: San Francisco Bay
Name of watershed or Hydrologic Unit Code (HUC): Palo Alto Watershed
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): July 21, 2010; August 4, 2010; August 11, 2010; August 26, 2010; September 1, 2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or 0.07 acres.
      Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 17 **square miles**
Drainage area: 17 **square miles**
Average annual rainfall: 15 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **15-20** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **10-15** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: No.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW[5]: Saratoga Creek flows under SR 85 in the Project Area and then flows approximately 16 miles through Saratoga, Santa Clara and San Jose before confluencing with Guadalupe slough and then emptying into San Francisco Bay.

Tributary stream order, if known: Saratoga Creek to San Tomas Aquino Creek to Guadalupe slough to San Francisco Bay.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Saratoga Creek as been altered by humans through channelization and flood control for residential and commercial development near the creek. Along both banks of the creek in the project area there is rip-rap to control bank erosion. The riprap boulders range in size from approximately 1 foot to 4 feet in diameter.

Tributary properties with respect to top of bank (estimate):
Average width: 40 feet
Average depth: 2-3 feet
Average side slopes: **2:1.**

Primary tributary substrate composition (check all that apply):

☐ Silts	☒ Sands	☒ Concrete
☒ Cobbles	☒ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Fairly stable in channelized condition.
Presence of run/riffle/pool complexes. Explain: The stream contains run/riffle, pool complexes along the stretch of creek in the project study area.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: This stream has water perennially or at least throughout most of the year during dry years with the flow dependent on urban runoff, and water from the upper watershed in the Santa Cruz mountains.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: The creek is confined under the SR 85 underpass by bridge abutments and by rip-rap under the bridge.

Subsurface flow: **Unknown**. Explain findings: Likely subsurface flow under streambed but no tests were performed.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☒ the presence of wrack line
☒ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☒ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☒ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: The creek appeared clear and did not have visible pollutants other than some trash.
Identify specific pollutants, if known: The creek is known to be impaired by sediment and diazinon.

(iv) Biological Characteristics. Channel supports (check all that apply):

☒ Riparian corridor. Characteristics (type, average width): On the west side of the SR 85 bridges over Saratoga Creek, a white alder riparian forest community is present that includes white alder (Alnus rhombifolia), red willow (Salix laevigata), arroyo willow (Salix lasiolepis), shining willow (Salix lucida),Oregon ash (Fraxinus latifolia), and big leaf maple (Acer macrophyllum).The width of the riparian corridor on the west side is approximately 250 feet. On the east side of the SR 85 bridges is a California sycamore riparian forest community that includes California sycamore (Platanus racemosa), coast live oak (Quercus agrifolia), Oregon ash (Fraxinus latifolia), and white alder. The width of the riparian corridor on the east side is approximately 150 feet.

☐ Wetland fringe. Characteristics: .

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☒ Fish/spawn areas. Explain findings: Habitat for fish including resident rainbow trout. No longer a steelhead stream due to fish passage barrier near San Tomas Aquino confluence.

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .

☒ Vegetation type/percent cover. Explain: .

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **1**
Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   ☐ TNWs: linear feet width (ft), Or, acres.
   ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: The creek observed during August and Septemeber was dry at one of the crossings with SR 85. At the other three crossings the creek had water indicating that at most locations the creek is perennial but it drys out in certain spots in the dry season. The flow in the dry creek crossing could be subsurface under the gravel and cobble streambed substrate .

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☒ Tributary waters: linear feet width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   ☐ Tributary waters: linear feet width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
   ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

   ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

   Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
   ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

   Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
   ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
   As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
   ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
   ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
   ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☒ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .

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[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Microsoft Bing Maps, NAIP 2010.
or ☒ Other (Name & Date):Site visit photographs August 2010.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

Stevens Creek Rapanos Form

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APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State:CA County/parish/borough: Santa Clara City: Mountain View, Cupertino, Saratoga, Los Gatos and San Jose
Center coordinates of site (lat/long in degree decimal format): Lat. 37.2765° **N**, Long. 122.0071° **W**.
Universal Transverse Mercator:
Name of nearest waterbody:
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: San Francisco Bay
Name of watershed or Hydrologic Unit Code (HUC): Palo Alto Watershed
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): July 21, 2010; August 4, 2010; August 11, 2010; August 26, 2010; September 1, 2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or 0.46 acres.
      Wetlands: 0 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identif y TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 29 **square miles**
Drainage area: 29 **square miles**
Average annual rainfall: 15 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☒ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **1-2** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **1-2** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: Stevens Creek crosses the project in four different areas and then flows to Whisman slough and then into San Francisco Bay.

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[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Stevens Creek as been altered by humans through channelization and flood control for residential and commercial development near the creek.

Tributary properties with respect to top of bank (estimate):
Average width: 36 feet
Average depth: feet
Average side slopes: **2:1.**

Primary tributary substrate composition (check all that apply):

☐ Silts	☒ Sands	☐ Concrete
☒ Cobbles	☒ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Fairly stable in channelized condition.
Presence of run/riffle/pool complexes. Explain: Even in the channelized areas of Stevens Creek, there were run/riffle, pool complexes .
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: This stream has water through most of the year, but is depedent on releases from Stevens Creek Reservoir upstream of the project.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: The creek flows below the SR 85 bridge overpasses where it is confined on either side by vertical concrete abutments. Outside of the stream crossings the creek flows through a large riparian corridor composed of black cottonwood and red willow trees.

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☒ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☒ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☒ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: The appeared clear and did not have visible pollutants.

Identify specific pollutants, if known: Pollutants are present from urban runoff that finds its way into the creek. The US EPA has designated the creek as impaired for diazinon, toxicity, temperature and trash. Stvens Creek Reservoir upstream of the project area is impaired for legacy pesticides including chlordane, Dialdrin; Mercury, and Polychlorinated byphenyls (PCBs) .

(iv) Biological Characteristics. Channel supports (check all that apply):

☒ Riparian corridor. Characteristics (type, average width): Black cottowood and red willow riparian corridor; average width is approximately 200 feet wide.

☐ Wetland fringe. Characteristics: .

☐ Habitat for:

☒ Federally Listed species. Explain findings: The creek is habitat for federally threatened Central California Coast Steelhead.

☒ Fish/spawn areas. Explain findings: Fish Habitat at all the stream crossings for steelhead, rainbow trout, bluegill, etc..

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .

☐ Vegetation type/percent cover. Explain: .

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
   All wetland(s) being considered in the cumulative analysis: **Pick List**
   Approximately ( ) acres in total are being considered in the cumulative analysis.

   For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

   Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   ☐ TNWs: linear feet width (ft), Or, acres.
   ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .

☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: The creek observed during August and Septemeber was dry at one of the crossings with SR 85. At the other three crossings the creek had water indicating that at most locations the creek is perennial but it drys out in certain spots in the dry season. The flow in the dry creek crossing could be subsurface under the gravel and cobble streambed substrate .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☒ Tributary waters: 1,602 linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs[8] that flow directly or indirectly into TNWs.
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (N ational Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Microsoft Bing Maps, NAIP 2010.
or ☒ Other (Name & Date):Site visit photographs August 2010.
☐ Previous determination(s). File no. and date of response letter: .

- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

Arid West Wetland Data Forms

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1A (Appendix A, sheet 16 and 48)

elevation 278 ft.

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: Cupertino/Santa Clara Sampling Date: 7/21/10

Applicant/Owner: Valley Transportation Authority State: CA Sampling Point: 1A

Investigator(s): Casey Stewman, Joe Bandel Section, Township, Range: S25, T7S, R2W

Landform (hillslope, terrace, etc.): bottom - channel Local relief (concave, convex, none): concave - creeked Slope (%): 4%

Subregion (LRR): Mediterranean California (LRR-C) Lat: 37.298410 Long: -122.029061 Datum:

Soil Map Unit Name: Xerorthents - Urban land - Botella NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____ or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No _____	Is the Sampled Area within a Wetland? Yes ✓ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks: edges of Calabazas creek channel within the ordinary high water mark - freshwater emergent wetland

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	50	Y	FACW
2.			
3.			
4.			
Total Cover:	50		
Sapling/Shrub Stratum			
1. Rubus discolor	10	N	FACW FACU
2.			
3.			
4.			
5.			
Total Cover:	10		
Herb Stratum			
1. Equisetum arvense	40	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover	40		
Woody Vine Stratum			
1.			
2.			
Total Cover:	100		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 100 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

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 = _____

Hydrophytic Vegetation Indicators:
✓ Dominance Test is >50%
✓ Prevalence Index is ≤3.0[1]
✓ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: Dominance of facultative wetland hydrophytes within OHWM of Calabazas creek

SOIL

Sampling Point: 1A

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/4	100			M	M	clay loam	w/ roots
5-12	7.5YR 2.5/1	100%			RM	M	loamy sand	25% coarse fragments + roots
12-16	gravel						gravel	- 1/4" - 1/2" gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ✓ Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
Type: gravel
Depth (inches): 12"

Hydric Soil Present? Yes ✓ No ____

Remarks: Northwest bank on downstream side of Route 85 overpass

HYDROLOG

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ✓ Surface Water (A1)
- ____High Water Table (A2)
- ✓ Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ____ Depth (inches): 1/2"
Water Table Present? Yes ✓ No ____ Depth (inches): to surface
Saturation Present? (includes capillary fringe) Yes ✓ No ____ Depth (inches): to surface

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Within ordinary high water mark of Calabazas Creek along edge of low flow channel

1B (Appendix A, sheet 16 and48)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: Cupertino/Santa Clara Sampling Date: 7/21/10
Applicant/Owner: Valley Transportation Authority State: CA Sampling Point: 1B
Investigator(s): C. Steinman, Joe Bandel Section, Township, Range: S 25, T 7S, R 2W
Landform (hillslope, terrace, etc.): bottom - channel Local relief (concave, convex, none): creekbed Slope (%): _____
Subregion (LRR): Mediterranean California (LRR C) Lat: 37.298397 Long: -122.028972 Datum: _____
Soil Map Unit Name: Xerorthents-Urban land-Botella NWI classification: NA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)
Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____
Are Vegetation _____, Soil _____ or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No _____
Hydric Soil Present? Yes _____ No _____
Wetland Hydrology Present? Yes _____ No _____
Is the Sampled Area within a Wetland? Yes _____ No ✓

Remarks: Upland bank on edge of Calabazas Crk. downstream of Route 85 overpass, approx. 6' vertically up from edge of stream bank because rip-rap prevented us from digging closer to the creek

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Aesculus californica	90	Y	UPL
2. Quercus agrifolia	10	N	UPL
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Rubus discolor	1%	N	FACU FACW
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover			
Woody Vine Stratum			
1.			
2.			
Total Cover: 100			

% Bare Ground in Herb Stratum 99 % Cover of Biotic Crust —

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

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 = _____

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50% No
___ Prevalence Index is ≤3.0[1] No
___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks: Dominance of upland trees

SOIL

Sampling Point: 1B

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/4	100					Clay loam	
3-18	10YR 3/3	100					Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ____Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks: No redoximorphic indicators present

HYDROLOG

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ____Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: ~5' above sample point 1A on lower terrace of Calabazas creek in riparian forest

2A (Appendix A, sheet 21 and 55)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: Los Gatos / Santa Clara Sampling Date: 8/4/10
Applicant/Owner: Valley Transportation Authority State: CA Sampling Point: 2A
Investigator(s): Casey Stewman, Joe Pandel Section, Township, Range: S10, T8S, R1W
Landform (hillslope, terrace, etc.): creek bed - bottom Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR): LRR-C MEDIT. CA Lat: 37.257048 Long: -121.960785 Datum:
Soil Map Unit Name: Elder fine sandy loam - sandy variant NWI classification: NA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____ Soil ____ or Hydrology ____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No ____	Is the Sampled Area within a Wetland?	Yes ____	No ____
Hydric Soil Present?	Yes ____	No ____			
Wetland Hydrology Present?	Yes ____	No ____			

Remarks: Wetland stand in mid-stream gravel bar of Los Gatos Creek

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Rubus discolor	10	Y	FACW
2. Salix laevigata	1	N	OBL
3.			
4.			
5.			
Total Cover:	11		
Herb Stratum			
1. Juncus xiphioides	<1	N	OBL
2. Typha angustifolia	35	Y	OBL
3. Paspalum dilatatum	10	Y	FAC
4. Epilobium ciliatum	3	N	FACW
5. Cyperus eragrostis	2	N	FACW
6. Polygonum persicaria	10	Y	FACW
7. Rumex crispus	1	N	FACW
8. Agrostis exarata	<1	N	FACW
Total Cover	61		
Woody Vine Stratum			
1.			
2.			
Total Cover:	72		

% Bare Ground in Herb Stratum 28 % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

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 = ____

Hydrophytic Vegetation Indicators:
✓ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: Dominance of hydrophytes in mid-stream gravel bar

SOIL

Sampling Point: 2A

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	—	—	—	—	—	—	Rock - gravel in bed	
3-16	10YR 5/1	10					Silty loam	90% gravel + coarse sand - 10% soil

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ____

Remarks: Soil is in stream, in mid-stream sandbar in perennial creek

HYDROLOG

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ✓ Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ____ Depth (inches): 1"

Water Table Present? Yes ✓ No ____ Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ✓ No ____ Depth (inches): ____

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Within OHWM of Los Gatos Creek @ Rate 85 between overpasses in mid-stream wetland stand

2B (Appendix A, sheet 21 and 55)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes Project City/County: Los Gatos/Santa Clara Sampling Date: 8/4/10

Applicant/Owner: Valley Transportation Authority State: CA Sampling Point: 2B

Investigator(s): C. Stenman, Joe Bandet Section, Township, Range: S10, T8S, R1W

Landform (hillslope, terrace, etc.): Creekbed Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): Mediterranean California – LRR: C Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Elder fine sandy loam, Rarely flooded NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____ or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No ✓	Is the Sampled Area within a Wetland? Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Genista monspessulana	5	N	UPL
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Cardous pycnocephalus	40	Y	UPL
2. Bromus diandrus	20	Y	UPL
3. Foeniculum vulgare	10	N	FACU
4. Brassica nigra	10	N	UPL
5.			
6.			
7.			
8.			
Total Cover			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

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 = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50% Fails

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

Dominance of upland herbaceous cover

SOIL

Sampling Point: 2B

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	100					Sand	75% coarse material 25% fine

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ____Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks: ~~Hydric area~~ Soil contained coarse fragments of cobble, gravel, and mussel shells. 75% coarse 25% fine.

HYDROLOGY ✓

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ____Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ✓ Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ✓ Water Marks (B1)
- ✓ Sediment Deposits (B2)
- ✓ Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): _____

Water Table Present? Yes ____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: 2 or more secondary indicators present. The point is within the OHWM of Los Gatos Creek.

3A (Appendix A, sheet 21 and55)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: Los Gatos / Santa Clara Sampling Date: 8/4/10

Applicant/Owner: Valley Transportation Authority State: CA Sampling Point: 3A

Investigator(s): Casey Stenman, Joe Bandel Section, Township, Range: S10, T8S, R1W

Landform (hillslope, terrace, etc.): creekbed - bottom Local relief (concave, convex, none): concave Slope (%): _____

Subregion (LRR): Mediterranean California - LRR-C Lat: 37.251048 Long: -121.965745 Datum: _____

Soil Map Unit Name: Elder fine sandy loam - Rarely flooded NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____ or Hydrology _____ naturally problematic? NO (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No _____	Is the Sampled Area within a Wetland? Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks: In stream herbaceous freshwater wetland in side channel of Los Gatos Creek

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Polygonum persicaria	90	Y	FACW
2. Cyperus Eragrostis	10	N	FACW
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover 100			
Woody Vine Stratum			
1.			
2.			
Total Cover: 100			

% Bare Ground in Herb Stratum — % Cover of Biotic Crust —

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

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 = _____

Hydrophytic Vegetation Indicators:
✓ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: Inundated side channel wetland within Los Gatos Creek streambed on south side of channel @ SR 85 overpass
Dominance of hydrophytes

US Army Corps of Engineers — Arid West –Version 11-1-2006

Use sample Point 2B for representative upland point adjacent to this point

SOIL

Sampling Point: 3A

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 5/1	100%					silty loam	15% soil, 85% coarse fragments

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ____

Remarks: Reduced matrix in inundated side channel instream wetland, anaerobic conditions present in perennial streambed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ✓ Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No ____	Depth (inches): 5"
Water Table Present?	Yes ✓	No ____	Depth (inches): 0 to surface
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): to surface

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: 3-5" of standing water in instream side channel wetland along south bank of Los Gatos Creek

4A (Appendix A, sheet 21 and 55)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: Los Gatos/Santa Clara Sampling Date: 8/4/10
Applicant/Owner: VTA State: CA Sampling Point: 4A
Investigator(s): C. Stenman, J. Bandel Section, Township, Range: S10 T8S, R1W
Landform (hillslope, terrace, etc.): creekbed - bottom Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR): Mediterranean California - LRR-C Lat: 37.257643 Long: -121.960745 Datum:
Soil Map Unit Name: Elder fine sandy loam - rarely flooded NWI classification: NA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____ or Hydrology ____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____
Is the Sampled Area within a Wetland? Yes ✓ No ____

Remarks: Instream broadleaf cattail stand on upstream edge of SR 85 overpasses on edge of north bank

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Typha latifolia	100	Y	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:	100		

% Bare Ground in Herb Stratum — % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

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 =

Hydrophytic Vegetation Indicators:
✓ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: Dominance of obligate hydrophyte in in-stream wetland

SOIL

Sampling Point: 4A

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 5/1	100					silty loam	15% soil, 85% coarse fragments
4-16	Gley 1 4N	100					silty clay loam	30% soil, 70% coarse fragments

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ____

Remarks: Reduced matrix soils from inundated instream wetland of perennial Los Gatos Crk, gleyed soils from 4" down

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ✓ Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ____ Depth (inches): 12

Water Table Present? Yes ____ No ____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Pool edge of north bank Los Gatos Crk @ cattail wetland

4B (Appendix A, sheet 21 and 55)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: Los Gatos/Santa Clara Sampling Date: 8/4/10
Applicant/Owner: VTA State: CA Sampling Point: 4B
Investigator(s): C. Stenman, J. Bandel Section, Township, Range: S10, T8S, R1W
Landform (hillslope, terrace, etc.): creekbed-bottom Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (LRR): Mediterranean California-LRR-C Lat: 37.251046 Long: -121.960745 Datum: _____
Soil Map Unit Name: Elder fine sandy loam - rarely flooded NWI classification: NA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)
Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____
Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No ✓
Hydric Soil Present? Yes _____ No ✓
Wetland Hydrology Present? Yes _____ No ✓
Is the Sampled Area within a Wetland? Yes _____ No ✓

Remarks: Edge of upper bank of Los Gatos CREEK, 3' vertically above 4A

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Bromus diandrus	35	Y	UPL
2. Avena barbata	25	Y	UPL
3. Piptatherum miliaceum	30	Y	UPL
4.			
5.			
6.			
7.			
8.			
Total Cover	90		
Woody Vine Stratum			
1.			
2.			
Total Cover:	90		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust —

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

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	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50% Fails
___ Prevalence Index is ≤3.0[1] Fails
___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks: Dominance of upland ruderal grasses @ edge of Los Gatos Creek

SOIL

Sampling Point: 4B

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10 YR 3/3	100					silty loam	10% soil, 90% coarse fragments (GRAVEL)

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ____Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

Upland soils along edge of Los Gatos Creek just outside OHWM

HYDROLOG

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ____Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology, outside ohwm of perennial creek

5A (Appendix A, sheet 25 and 57)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: San Jose / Santa Clara Sampling Date: 8/4/10
Applicant/Owner: Valley Transportation Authority State: CA Sampling Point: 5A
Investigator(s): C. Stewman, Joe Bandel Section, Township, Range: NA, T8S, R1E
Landform (hillslope, terrace, etc.): Creek bed - bottom Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR): Mediterranean California - LRR C Lat: 37.255371 Long: -121.869363 Datum:
Soil Map Unit Name: Urban land - Landelspark Complex NWI classification: NA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No
Are Vegetation ____, Soil ____ or Hydrology ____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No
Hydric Soil Present? Yes ✓ No
Wetland Hydrology Present? Yes ✓ No
Is the Sampled Area within a Wetland? Yes ✓ No

Remarks: Dense multi-layered wetland within OHWM of broad Guadalupe Creek channel under Route 85 overpass

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiandra	10	Y	FACW
2. Populus fremontii	20	Y	FACW
3. Salix lasiolepis	5	N	FACW
4.			
Total Cover:	35		
Sapling/Shrub Stratum			
1. Baccharis salicifolia	2	N	FACW
2. Salix lasiolepis	5	N	FACW
3. Salix exigua	10	Y	OBL FACW
4.			
5.			
Total Cover:	17		
Herb Stratum			
1. Typha latifolia	10	Y	OBL
2. Mentha spicata	30	Y	OBL
3. Cyperus eragrostis	2	N	FACW
4. Juncus crispus	2	N	FACW
5.			
6.			
7.			
8.			
Total Cover	44		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____ 96% total

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

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 =

Hydrophytic Vegetation Indicators:
✓ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ✓ No

Remarks: Dominance of wetland hydrophytes within instream wetland

SOIL

Sampling Point: 5A

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	100					Silty clay loam with roots	
7-18	Gley 1 3/10Y	100					Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ✓ Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ✓ Loamy Gleyed Matrix (F2)
- ____Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ____

Remarks: Gleyed soils beyond 6 inches.

HYDROLOG

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ____Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ____ Depth (inches): ____

Water Table Present? Yes ✓ No ____ Depth (inches): 6

Saturation Present? (includes capillary fringe) Yes ✓ No ____ Depth (inches): 2

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Within ditch and stream channel of Guadalupe Creek
standing water @ 6" in pit
saturated soils to 2" below surface

5B (Appendix A, sheet 25 and 57)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: San Jose / Santa Clara Sampling Date: 8/4/10

Applicant/Owner: VTA State: CA Sampling Point: 5B

Investigator(s): Casey Stenman, Joe Bandel Section, Township, Range: NA, T8S, R1E

Landform (hillslope, terrace, etc.): creek, bottom Local relief (concave, convex, none): concave Slope (%): _____

Subregion (LRR): Mediterranean California Lat: 37.25584 Long: -121.864363 Datum: _____

Soil Map Unit Name: Urban land - Landels park complex NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No ✓

Hydric Soil Present? Yes _____ No ✓

Wetland Hydrology Present? Yes _____ No ✓

Is the Sampled Area within a Wetland? Yes _____ No ✓

Remarks: Guadalupe CREEK; toeslope at edge of channel

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Piptatherum miliaceum	90	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover			
Woody Vine Stratum			
1.			
2.			
Total Cover: 90			

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

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 = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50% Fails

___ Prevalence Index is ≤3.0[1] Fails

___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks: Dominance of (non-hydrophyte) upland grass

SOIL

Sampling Point: SP

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR4/2	100					loam	w/10% coarse fragments
5-16	10YR4/2	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ____Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks: No REDOXIMORPHIC features, alluvium but not redox

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ____Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): _____

Water Table Present? Yes ____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No saturation within 16" of surface point site is ± 30" higher on bank than 5A

6A (Appendix A, sheet 32 and 60)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: San Jose/Santa Clara Sampling Date: 8/11/10
Applicant/Owner: VTA State: CA Sampling Point: 6A
Investigator(s): Casey Stenman, Joe Bandel Section, Township, Range: NA, T8S, R2E
Landform (hillslope, terrace, etc.): creekbed - bottom Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (LRR): LRR-C Medit. CA. Lat: 37.239782 Long: -121.864772 Datum: _____
Soil Map Unit Name: Canine Creek - Elder Complex - Rarely flooded NWI classification: Riverine
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)
Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____
Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No _____
Hydric Soil Present? Yes ✓ No _____
Wetland Hydrology Present? Yes ✓ No _____
Is the Sampled Area within a Wetland? Yes ✓ No _____

Remarks: Instream wetland in Coyote Crk. South side of SR85 overpass

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix laevigata	20	N	FACW
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Salix exigua	70	Y	FACW ~~OBL~~
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Cyperus eragrostis	3	N	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover			
Woody Vine Stratum			
1.			
2.			
Total Cover: 93			

% Bare Ground in Herb Stratum 7 % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

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 =

Hydrophytic Vegetation Indicators:
✓ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: Dominance & obligate hydrophytes

SOIL

Sampling Point: 6A

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	100			RM	M	Sandy clay	70% coarse fragments - mostly gravel
			7.5 YR 5/8	3	C	PL		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ✓ Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ____

Remarks: Low chroma reduced matrix perennially inundated and anaerobic soils in Coyote Creek

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ✓ Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ____ Depth (inches): 1/2 inch

Water Table Present? Yes ____ No ____ Depth (inches): to surface

Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): to surface

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sample point is at eastern edge of Coyote Creek channel on south side of Route 85 overpass within OHWM

6B (Appendix A, sheet 32 and 60)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: San Jose/Santa Clara Sampling Date: 8/11/10

Applicant/Owner: VTA State: CA Sampling Point: 6B

Investigator(s): C. Stewman, Joe Bandel Section, Township, Range: NA, T8S, R2E

Landform (hillslope, terrace, etc.): Creekbed - bottom Local relief (concave, convex, none): Concave Slope (%): _____

Subregion (LRR): Mediterranean California - C Lat: 37.23682 Long: -121.76472 Datum: _____

Soil Map Unit Name: Canine Creek - Elder Complex: Rarely flooded NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____ or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Salix lasiolepis	5	N	OBL
2.			
3.			
4.			
5.			
Total Cover: 5			
Herb Stratum			
1. Brassica nigra	5	N	UPL
2. Malva Nicaeensis	3	N	UPL
3. Bromus diandrus	60	Y	UPL
4. Foeniculum vulgare	<1	N	FAC-U
5.			
6.			
7.			
8.			
Total Cover 70.68			
Woody Vine Stratum			
1.			
2.			
Total Cover: 73			

% Bare Ground in Herb Stratum 10% % Cover of Biotic Crust 2

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B

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 = _____

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50% Fails
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: 6B

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	100					clay loam	70% coarse fragments

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ____Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks: Remnant hydric soils from [redacted] movement of Creek

HYDROLOG

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ____Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (Inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Point on bank of stream, approximately 5 ft. vertical, 10 ft. horizontal from surface water. No signs of hydrology present

7A (Appendix A, sheet 32 and59)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: San Jose/Santa Clara Sampling Date: 8/11/10

Applicant/Owner: VTA State: CA Sampling Point: 7A

Investigator(s): Joe Bandel, C. Stevman Section, Township, Range: NA, T8S, R2E

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): LRR-C Medit. CA. Lat: 37.226682 Long: -121.794772 Datum: _____

Soil Map Unit Name: Canine Creek - Elder Complex - Rarely flooded NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____ or Hydrology _____ naturally problematic? ND (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No _____	Is the Sampled Area within a Wetland? Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks: Instream Willow wetlands within Coyote Creek channel along side of bank within OHWM

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	90	Y	FACW
2.			
3.			
4.			
Total Cover:	90		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Cyperus eragrostis	3	N	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover	3		
Woody Vine Stratum			
1.			
2.			
Total Cover:	93		

% Bare Ground in Herb Stratum 90 % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

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 = _____

Hydrophytic Vegetation Indicators:
- ✓ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: Dominance of hydrophytes within instream wetland

SOIL

Sampling Point: 7A

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 4/2	80	10YR 5/4	20	DC	M	clay loam	5% coarse fragments
2-16	10YR 4/2	100					sandy clay loam	80% coarse fragments (gravel)

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ✓ Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ____

Remarks: Reduced matrix soils within perennial creekbed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ____Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✓	Depth (inches): ____
Water Table Present?	Yes ✓	No ____	Depth (inches): 2"
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): 1"

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Edge of east bed of Coyote Creek, north of SR 85 overpass along edge of low flow inundated channel of creek

7B (Appendix A, sheet 32 and 59)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: San Jose / Santa Clara Sampling Date: 9/11/10

Applicant/Owner: VTA State: CA Sampling Point: 7B

Investigator(s): Joe Bandel, Casey Stewman Section, Township, Range: NA, T8S, R2E

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): LRR-C Medit. CA. Lat: 37.28682 Long: -121.76772 Datum: _____

Soil Map Unit Name: Canine Creek-Elder Complex - Rarely flooded NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____ or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No ✓	Is the Sampled Area within a Wetland? Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks: On upper bank ~ 6' vertically and 12' away from point 7A on edge of riparian forest along Coyote Creek in disturbed ruderal grassland

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Foeniculum vulgare	5	N	FACU
2. Brassica nigra	55	Y	UPL
3. Carduus pycnocephalus	30	Y	UPL
4. Cirsium vulgare	5	N	UPL
5. Bromus diandrus	5	N	UPL
6.			
7.			
8.			
Total Cover 100			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

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 = _____

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50% Fails
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks: Dominance of upland Ruderal herbaceous weeds

SOIL

Sampling Point: 7B

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/3	100				M	Sandy clay loam	75% coarse fragments (gravel)

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ____Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks: Old alluvium along Coyote Creek.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ____Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): _____

Water Table Present? Yes ____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology in meadow along upper creek terrace

8A (Appendix A, sheet 32 and 61)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: San Jose/Santa Clara Sampling Date: 9/1/10
Applicant/Owner: VTA State: CA Sampling Point: 8A
Investigator(s): C. Stevman, J. Bandel Section, Township, Range: NA, T8S, R2E
Landform (hillslope, terrace, etc.): bottom Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (LRR): Mediterranean California LRR-C Lat: 37.236057 Long: -121.759409 Datum: _____
Soil Map Unit Name: Urbanland-Altamont-Alo complex NWI classification: NA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)
Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____
Are Vegetation _____, Soil _____ or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No _____
Hydric Soil Present? Yes ✓ No _____
Wetland Hydrology Present? Yes ✓ No _____
Is the Sampled Area within a Wetland? Yes ✓ No _____

Remarks: Perennial emergent freshwater wetland in roadside ditch along 101 near Coyote Parkway freshwater wetland

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Cyperus eragrostis	15	Y	FACW
2. Lemna minor	45	Y	OBL
3. Azolla filiculoides	20	Y	OBL
4. Ludwigia peploides	10	N	OBL
5. Rorippa nasturtium-aquaticum	10	N	OBL
6.			
7.			
8.			
Total Cover	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:	100		

% Bare Ground in Herb Stratum — % Cover of Biotic Crust —

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

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 = _____

Hydrophytic Vegetation Indicators:
✓ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: Dominance of obligate hydrophytes

SOIL

Sampling Point: 8A

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/1	100%				M	Clay	Reduced matrix clay - smooth

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ____

Remarks: Low chroma reduced matrix

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ✓ Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ____ Depth (inches): 8"-12"

Water Table Present? Yes ____ No ____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Inundated ditch along Hwy 101 in late dry season, Hydrology is originating from new development (runoff) from east side of 101 and flows to ditch from concrete ditch and culvert

8B (Appendix A, sheet 32 and 61)

WETLAND DETERMINATION DATA FORM —Arid West Region

Project/Site: SR 85 Express Lanes City/County: San Jose/Santa Clara Sampling Date: 9/1/10
Applicant/Owner: VTA State: CA Sampling Point: 8B
Investigator(s): Casey Stewman, Joe Bandel Section, Township, Range: NA; T8S, R2E
Landform (hillslope, terrace, etc.): terrace - upland Local relief (concave, convex, none): convex Slope (%): _____
Subregion (LRR): LRR-C Medit. CA. Lat: 37.236057 Long: -121.757409 Datum: _____
Soil Map Unit Name: Urban land - Altamont - Alo complex NWI classification: NA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)
Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes ✓ No _____
Are Vegetation _____, Soil _____ or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No ✓
Hydric Soil Present? Yes _____ No ✓
Wetland Hydrology Present? Yes _____ No X
Is the Sampled Area within a Wetland? Yes _____ No X

Remarks: 1.5' vertically above sample point 8A

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Carduus pycnocephalus	25	Y	UPL
2. Brassica nigra	60	Y	UPL
3. Foeniculum vulgare	10	N	FACU
4.			
5.			
6.			
7.			
8.			
Total Cover	95		
Woody Vine Stratum			
1.			
2.			
Total Cover:	95		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

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 = _____

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50% No - Fails
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptation& (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation' (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks: Dominance of upland ruderal weeds

SOIL

Sampling Point: SB

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/2	100					clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____Histosol (A1)
- ____Histic Epipedon (A2)
- ____Black Histic (A3)
- ____Hydrogen Sulfide (A4)
- ____Gratified Layers (A5) (LRR C)
- ____1 cm Muck (A9) (LRR D)
- ____Depleted Below Dark Surface (A11)
- ____Thick Dark Surface (A12)
- ____Sandy Mucky Mineral (S1)
- ____Sandy Gleyed Matrix (S4)
- ____Sandy Redox (S5)
- ____Stripped Matrix (S6)
- ____Loamy Mucky Mineral (F1)
- ____Loamy Gleyed Matrix (F2)
- ____Depleted Matrix (F3)
- ____Redox Dark Surface (F6)
- ____Depleted Dark Surface (F7)
- ____Redox Depressions (F8)
- ____Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____1 cm Muck (A9) (LRR C)
- ____2 cm Muck (A10) (LRR B)
- ____Reduced Vertic (F18)
- ____Red Parent Material (TF2)
- ____Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks: No redoximorphic indicators in upland adjacent to wetland ditch

HYDROLOG

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ____Surface Water (A1)
- ____High Water Table (A2)
- ____Saturation (A3)
- ____Water Marks (B1) (Nonriverine)
- ____Sediment Deposits (B2) (Nonriverine)
- ____Drift Deposits (B3) (Nonriverine)
- ____Surface Soil Cracks (B6)
- ____Inundation Visible on Aerial Imagery (B7)
- ____Water-Stained Leaves (B9)
- ____Salt Crust (B11)
- ____Biotic Crust (B12)
- ____Aquatic Invertebrates (B13)
- ____Hydrogen Sulfide Odor (C1)
- ____Oxidized Rhizospheres along Living Roots (C3)
- ____Presence of Reduced Iron (C4)
- ____Recent Iron Reduction in Plowed Soils (C6)
- ____Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____Water Marks (B1)
- ____Sediment Deposits (B2)
- ____Drift Deposits (B3)
- ____Drainage Patterns (B10)
- ____Dry-Season Water Table (C2)
- ____Thin Muck Surface (C7)
- ____Crayfish Burrows (C8)
- ____Saturation Visible on Aerial Imagery (C9)
- ____Shallow Aquitard (D3)
- ____FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Arid Roadside slope, no signs of hydrology

Appendix C Photos of Representative Wetlands and Other Waters of the United States

Photograph 1. CWUS-1: Permanente Creek (Appendix A, sheets 4 and 38)

Photograph 2. WUS-1: Stevens Creek (south of Moffett Boulevard), northeast side of SR 85 overcrossing looking southwest (Appendix A, sheets 6 and 41)

Photograph 3. WUS-1: Stevens Creek (south of Moffett Boulevard), southwest side of SR 85 overcrossing looking northeast (Appendix A, sheets 6 and 41)

Photograph 4. WUS-2: Stevens Creek (south of El Camino Real), east side of SR 85 overcrossing (Appendix A, sheets 9 and 43)

Photograph 5. WUS-2: Stevens Creek (south of El Camino Real), west side of SR 85 overcrossing (Appendix A, sheets 9 and 43)

Photograph 6. WUS-3: Stevens Creek (north of Fremont Avenue), west side of SR 85 overcrossing (Appendix A, sheets 11 and 45)

Photograph 7. WUS-3: Stevens Creek (north of Fremont Avenue), east side of SR 85 overcrossing (Appendix A, sheets 11 and 45)

Photograph 8. WUS-4: Calabazas Creek, east side of SR 85 overcrossing (Appendix A, sheets 16 and 48)

Photograph 9. WUS-5: Stormwater drain that connects to Calabazas Creek (Appendix A, sheets 16 and 48)

Photograph 10. WUS-6: Coyote Creek, looking downstream from SR 85 overcrossing (Appendix A, sheets 32 and 59-60)

Photograph 11. WUS-7: Saratoga Creek under SR 85 (armored), looking downstream (Appendix A, sheets 18 and 50)

Photograph 12. WUS-8: Wildcat Creek, looking upstream from east side of SR 85, outside of BSA (Appendix A, sheets 19 and 51)

Photograph 13. WUS-9: San Tomas Aquino Creek, view of bed looking upstream from east side of SR 85 overcrossing (Appendix A, sheets 19 and 51)

Photograph 14. WUS-10: Los Gatos Creek, looking downstream from SR 85 overcrossing (Appendix A, sheets 21 and 55)

Photograph 15. WUS-11: Ross Creek, on upstream side of SR 85 culvert crossing (Appendix A, sheets 24 and 56)

Photograph 16. WUS-11: Ross Creek, on downstream side of SR 85 culvert crossing (Appendix A, sheets 24 and 56)

Photograph 17. WUS-12: Guadalupe River, on north side of SR 85 overcrossing (Appendix A, sheets 25 and 57)

Photograph 18. WUS-13: Open water recharge basin, near Guadalupe Creek on south side of SR 85 overcrossing (Appendix A, sheets 25 and 57)

Photograph 19. WUS-15: Canoas Creek, looking downstream from SR 85 overcrossing (Appendix A, sheets 26 and 58)

Photograph 20. WUS-16: Ephemeral drainage draining to Coyote Creek (Appendix A, sheets 32 and 59)

Photograph 21. WUS-18: Matadero Creek at US 101 (Appendix A, sheets 2 and 36)

Photograph 22. WUS-19: Adobe Creek at US 101 (Appendix A, sheets 3 and 37)

Photograph 23. WUS-20: Permanente Creek downstream of US 101 (Appendix A, sheets 4 and 38)

Photograph 24. WUS-22: Permanente Creek upstream of US 101 (Appendix A, sheets 4 and 38)

Photograph 25. WWUS-2: In-stream wetland adjacent to Calabazas Creek (WUS-4) (Appendix A, sheets 16 and 48)

Photograph 26. WWUS-4: Los Gatos Creek, in-stream wetland in WUS-10 (Los Gatos Creek) (Appendix A, sheets 21 and 55)

Photograph 27. WWUS-5: Los Gatos Creek, in-stream wetland in WUS-10 (Los Gatos Creek) on south side of channel (Appendix A, sheets 21 and 55)

Photograph 28. WWUS-6: Guadalupe River, in-stream wetland of WUS-12 (Guadalupe River) on north side of SR 85 overcrossing (Appendix A, sheets 25 and 57)

Photograph 29. WWUS-6: Guadalupe River, sample point 5A with hydric soils on north side of SR 85 overcrossing (Appendix A, sheets 25 and 57)

Photograph 30. WWUS-7: Coyote Creek, in-stream wetland downstream of SR 85 overcrossing (Appendix A, sheets 32 and 60)

Photograph 31. WWUS-8: Coyote Creek, in-stream wetland upstream of overcrossing (Appendix A, sheets 32 and 59)

Photograph 32. WWUS-9: Perennial freshwater wetland, along west side of US 101 (Appendix A, sheets 32 and 61)

Photograph 33. WWUS-10: Perennial freshwater wetland (cattail) along east side of US 101 (Appendix A, sheets 32 and 61)

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Appendix D Vascular Plant List

Scientific Name[1]	Common Name
AZOLLACEAE	
Azolla filiculoides	American water fern
EQUISETACEAE	
Equisetum arvense	common horsetail
TAXODIACEAE	
*Sequoia sempervirens**	coast redwood (landscaped)
FLOWERING PLANTS - DICOTS	
ACERACEAE	
Acer macrophyllum	big-leaf maple
AIZOACEAE	
*Carpobrotus edulis**	Hottentot fig
ALTINGIACEAE	
*Liquidambar styraciflua**	sweet gum
AMARANTHACEAE	
Amaranthus blitoides	pigweed
ANACARDIACEAE	
Toxicodendron diversilobum	poison oak
APIACEAE	
*Conium maculatum**	poison hemlock
*Foeniculum vulgare**	sweet fennel
*Torilis nodosa**	meadow parsley
ARALIACEAE	
*Hedera helix**	English ivy
ASTERACEAE	
Artemisia douglasiana	Douglas's mugwort
Baccharis pilularis	coyote brush
Baccharis salicifolia	mulefat
*Carduus pycnocephalus**	Italian thistle
*Centaurea cyanus**	bachelor's button
*Centaurea solstitialis**	yellow star-thistle
*Cirsium vulgare**	bull thistle
*Delairea odorata**	Cape ivy
*Hypochaeris glabra**	smooth cat's ear
*Hypochaeris radicata**	hairy cat's ear
*Lactuca serriola**	prickly lettuce
*Picris echioides**	ox-tongue daisy
*Senecio vulgaris**	common groundsel
*Silybum marianum**	milk thistle
*Sonchus asper**	prickly sow thistle
*Sonchus oleraceus**	common sow thistle
BRASSICACEAE	
*Brassica nigra**	black mustard
*Brassica rapa**	mustard
*Lepidium latifolium**	whitetop mustard
*Raphanus raphanastrum**	wild radish

Scientific Name[1]	Common Name
*Raphanus sativus**	
Rorippa nasturtium-aquatica	watercress
CAPRIFOLIACEAE	
Sambucus nigra ssp. *coerulea*	blue elderberry
CARYOPHYLLACEAE	
*Cerastium glomeratum**	mouse-eared chickweed
CHENOPODIACEAE	
*Chenopodium album**	pigweed
CUCURBITACEAE	
Marah fabaceus	wild cucumber
EUPHORBIACEAE	
*Chamaesyce maculata**	spotted spurge
FABACEAE	
Acacia sp*	acacia (hort.)
*Acacia melonoxylon**	blackwood acacia
*Genista monspessulana**	French broom
*Lotus corniculatus**	bird's-foot trefoil
*Medicago polymorpha**	bur clover
*Melilotus indicus**	sour-clover
Vicia sativa var. *nigra**	vetch
FAGACEAE	
Quercus agrifolia	coast live oak
GERIANACEAE	
*Erodium cicutarium**	cut-leaved filaree
*Geranium molle**	geranium
JUGLANDACEAE	
Juglans californica x *regia*	black walnut
LAMIACEAE	
*Marrubium vulgare**	horehound
*Mentha spicata**	spearmint
MALVACEAE	
*Malva nicaensis**	bull mallow
MYOPORACEAE	
*Myoporum laetum**	New Zealand myoporum
MYRTACEAE	
*Leptospermum laevigatum**	Australian tea tree
ONAGRACEAE	
Epilobium brachycarpum	fireweed
Epilobium ciliatum	willow herb
Ludwigia peploides	water primrose
OXALIIDACEAE	
*Oxalis pes-caprae**	Bermuda buttercup
PAPAVERACEAE	
Eschscholzia californica	California poppy
*Fumaria parviflora**	Fumitory
PLANTAGINACEAE	
*Plantago lanceolata**	English plantain

Scientific Name[1]	Common Name
*Plantago major**	common plantain
PRIMULACEAE	
*Anagallis arvensis**	scarlet pimpernel
POLYGONACEAE	
Polygonum arenastrum	knotweed
Polygonum persicaria	lady's thumb
*Rumex acetosella**	sheep sorrel
*Rumex crispus**	curly dock
ROSACEAE	
*Cotoneaster pannosa**	cotoneaster
*Prunus domestica**	cultivated plum
*Pyracantha angustifolia**	firethorn
*Rubus discolor**	Himalayan blackberry
RUBIACEAE	
Galium aparine	goose grass
*Galium parisense**	Paris bedstraw
SALICACEAE	
Populus fremontii ssp. *fremontii*	Fremont cottonwood
Salix exigua	narrow-leaf willow
Salix laevigata	red willow
Salix lasiolepis	arroyo willow
Salix lucida ssp. *lasiandra*	shining willow
SAPINDACEAE	
Aesculus californica	California buckeye
SCROPHULARIACEAE	
*Kickxia spuria**	fluellin
SIMAROUBACEAE	
*Ailanthus altissima**	Tree of Heaven
SOLANACEAE	
*Nicotiana glauca**	tree tobacco
TAXODIACEAE	
Sequoia sempervirens	coast redwood (landscaped)
URTICACEAE	
Urtica dioica ssp. *holosericea*	stinging nettle
VALERIANACEAE	
*Centranthus ruber**	red valerian
VISCACEAE	
Phoradendron macrophyllum	broadleaf mistletoe
VITACEAE	
Vitis californica	California grape
FLOWERING PLANTS - MONOCOTS	
CYPERACEAE	
Cyperus eragrostis	nutsedge
JUNCACEAE	
Juncus xiphioides	Iris leaved rush
LEMNACEAE	
Lemna minor	common duckweed

Scientific Name[1]	Common Name
POACEAE	
Agrostis exarata	spike bentgrass
*Arundo donax**	giant reed
*Avena barbata**	slender wild oat
*Avena fatua**	wild oat
*Bromus diandrus**	ripgut
*Bromus hordeaceus**	soft chess
Bromus madritensis ssp. *madritensis**	
Bromus madritensis ssp. *rubens**	red brome
*Cynodon dactylon**	bermuda grass
Festuca occidentalis	western fescue
Hordeum murinum ssp. *murinum**	foxtail barley
*Lolium multiflorum**	Italian ryegrass
*Paspalum dilatatum**	Dallis grass
*Phalaris aquatica**	Harding grass
*Piptatherum milleaceum**	smilo grass
*Vulpia myuros**	rattail fescue
TYPHACEAE	
Typha augustifolia	Narrow-leaf cattail
Typha latifolia	Broadleaf cattail

Notes
1. Botanical nomenclature follows Hickman 1993
* Designates non-native species.