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**San Francisco Bay Regional Water Quality Control Board**

June 12, 2013  
CIWQS Place No. 793406

*Sent via electronic mail--no hard copy to follow*

California Department of Transportation  
Attn: Ron Moriguchi  
Ron\_Moriguchi@dot.ca.gov  
111 Grand Ave.  
Oakland, CA 94612-3717

**Subject: Water Quality Certification for the U.S. 101 San Francisquito Creek Bridge Replacement Project, Cities of Palo Alto and East Palo Alto, Santa Clara and San Mateo County**

Department Project No.: EA 04-23562

Dear Mr. Moriguchi:

We have reviewed and hereby issue water quality certification (Certification) to the California Department of Transportation (Department) for the U.S. 101 San Francisquito Creek Bridge Replacement Project (Project). The Department is seeking a Nationwide Permit 14 for Linear Transportation Projects from the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act (33 U.S.C. § 1344). As such, the Department has applied to the San Francisco Bay Regional Water Quality Control Board (Water Board) for a Clean Water Act Section 401 water quality certification that the Project will not violate State water quality standards.

**Project:** The following project description was derived from application materials received by the Water Board on February 19, 2013 and supplemental information provided by the Department via email on May 17, May 31, June 5, and June 6, 2013.

The Department proposes removal and replacement of the bridge that carries U.S. 101, East Bayshore Road, and West Bayshore Road over San Francisquito Creek (Creek). The existing bridge is structurally deteriorated and lacks hydraulic capacity, which contributes to flooding along the Creek. The replacement bridge will be wider than the existing bridge to provide standard lane and shoulder widths on U.S. 101, and longer than the existing bridge to accommodate a 100-year Creek flow event combined with a 100-year high tide event. The Project is planned in conjunction with projects by the San Francisquito Creek Joint Powers Authority (SFCJPA) to increase hydraulic capacity in the Creek downstream

and upstream of U.S. 101. The Project is expected to take three years to complete and will be staged to minimize traffic impacts.

Project elements include:

- Temporary diversion of the Creek each year between June 1 and October 15. Creek diversion will be accomplished by constructing sheet pile cofferdams and installing a 30" diversion pipe to allow water to pass through the work area.
- Installation of access ramps to allow equipment to access the Creek for construction of cofferdams and bridge demolition and construction.
- Demolition and removal of the existing bridge which consists of two pier walls and three spans.
- Installation of approximately 200 - 16 inch diameter pier piles.
- Installation of falsework and construction of a new bridge composed of three pier walls and four spans. Creek flow through the fourth span will be blocked on both sides by soldier pile walls until the downstream channel widening project by the SFCJPA is completed.
- Placement of rock slope protection along the channel bed at the base of the soldier pile wall. Rock slope protection will be removed as part of the SFCJPA project.
- Dewatering of stormwater and groundwater from the project site.

**Impacts:** Project implementation would permanently impact approximately 0.05 acre (286 linear feet) of San Francisquito Creek, and two coast live oak trees. Permanent impact to the Creek would result from construction of three concrete bents to support the bridge deck and additional shading caused by a larger bridge footprint. Permanent impact to oak trees would result from roadway and bridge abutment construction which would compromise the root structure of the trees.

Project implementation would temporarily impact approximately 0.02 acre of estuarine wetland, 0.93 acres (527 linear feet) of San Francisquito Creek and 0.092 acre of riparian vegetation. Temporary impacts will result from demolition and construction of the bridge and temporary diversion of the Creek.

See Attachment for impact locations and maps.

**Roadway Pollutant Impacts:** Project implementation would result in approximately 0.26 acres of new and 0.44 acres of reworked impervious area. Stormwater runoff from

impervious areas may contain hydrocarbons, metals, volatile organic compounds, trash, and sediment at levels that may significantly impact waters of the State if left untreated.

**Hydromodification Impacts:** Added impervious areas may result in alterations to existing hydrologic regimes, resulting in erosion and/or changes of sediment transport in receiving waters (hydromodification). Because added impervious area for the project will result in a minimal increase in stormwater runoff, and the project area discharges to San Francisquito Creek, which is tidally influenced, hydromodification mitigation is not required for this Project.

**Avoidance and Minimization:** The Department has avoided and minimized impacts to San Francisquito Creek, wetlands, and riparian vegetation by: utilizing a closed bypass pipe to temporarily divert the Creek at the suggestion of the National Marine Fisheries Service; utilizing a timber mat and plywood (or equivalent) system to protect the Creek from demolition debris; using sediment and erosion control best management practices; and performing construction and demolition activities in the Creek between June 1 and October 15 when flows are minimal.

**Mitigation:** To mitigate for permanent impacts to riparian vegetation, the Department shall plant 10 oak trees at the Pacheco Creek Mitigation Area in Santa Clara County (see Certification Condition no. 2).

To mitigate for temporary impacts to San Francisquito Creek and estuarine wetlands, the Department shall remove all non-native materials used for bridge construction and temporary creek bypass, that are not part of the permanent bridge structure at the end of each construction season. The Creek shall be restored to original elevations and contours, except in the areas where it will be widened to increase hydraulic capacity. Widening of the Creek shall result in approximately 0.34 acres in increased Creek area within the project limits.

**Roadway Pollutant Mitigation:** As mitigation for increased pollutant loads associated with approximately 0.70 acre of added and reworked impervious area for this Project, the Department shall construct two biofiltration swales to treat stormwater runoff (see Certification Condition no. 1). The biofiltration swales shall be located in the northbound and southbound entrance loops from Embarcadero Road to U.S. 101 (see Attachment for location map and details). Bioswale 1, located in the southbound loop, shall be sized to treat approximately 0.498 acre of impervious area. Bioswale 2, located in the northbound loop, shall be sized to treat approximately 0.222 acre of impervious area.

**CEQA Compliance:** The Department evaluated the Project pursuant to the requirements of the California Environmental Quality Act (CEQA) in a Negative Declaration. The Department filed a Notice of Determination on March 19, 2012 that the Project would not have a significant effect on the environment (SCH No. 2011042065).

**California Wetlands Portal:** It has been determined through regional, state, and national studies that tracking of mitigation/restoration projects must be improved to better assess the performance of these projects. In addition, to effectively carry out the State's No Net Loss Policy for wetlands, the State needs to closely track wetland losses, gains, and mitigation/restoration project success. Therefore, we require the Department use the California Wetlands Standard Form to provide Project information related to impacts and mitigation/restoration measures (see Condition nos. 3 and 4 of this Certification). An electronic copy of the form and instructions may be downloaded at:

<http://www.waterboards.ca.gov/sanfranciscobay/certs.shtml>

Project information concerning impacts and mitigation/restoration will be made available at the web link: <http://www.californiawetlands.net>

**Certification:** I hereby issue an order certifying that any discharge from the referenced Project will comply with the applicable provisions of sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act, and with other applicable requirements of State law. This discharge is also regulated under State Water Resources Control Board Order No. 2003 - 0017 – DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification" which requires compliance with all conditions of this Certification. The following conditions are associated with this Certification:

1. As mitigation for increased pollutant loads associated with impervious surface added and reworked with the Project, the Department shall provide treatment of stormwater runoff from no less than 0.70 acre of impervious area using biofiltration swales. The biofiltration swales shall be installed concurrently with this Project and be consistent with the plans in the Attachment of this Certification. Any revisions to the biofiltration swale design details shall be subject to the acceptance of Water Board staff.
2. To compensate for the removal of two coast live oak trees, the Department shall:
  - a. Plant no less than 10 oak trees at Pacheco Creek Mitigation Area in Santa Clara County, CA;

- b. Only deem oak tree plantings successful after ten growing seasons, whereupon eighty percent of the planted oaks shall exhibit average or improved health and vigor from the previous two growing seasons;
  - c. Provide additional planting, maintenance and monitoring until the success criteria is satisfied if the above success criteria is not met;
  - d. Submit monitoring reports to the Water Board by January 1 for years 1, 2, 3, 5, 7, and 10. All monitoring reports shall include photo-documentation utilizing consistent photo vantage points. At the end of year 10, a comprehensive final report shall be prepared that includes summaries of the monitoring data, representative photos, and maps.
3. The Department is required to use the California Wetlands Standard Form to provide project information describing impacts and mitigation/restoration measures within 14 days from the date of this Certification. An electronic copy of the form can be downloaded at: <http://www.waterboards.ca.gov/sanfranciscobay/certs.shtml>. The completed California Wetlands form shall be submitted electronically to [habitatdata@waterboards.ca.gov](mailto:habitatdata@waterboards.ca.gov) or shall be submitted as a hard copy to both: 1) The Water Board, 1515 Clay St., Suite 1400, Oakland, CA 94612, to the attention of California Wetlands Portal; and 2) San Francisco Estuary Institute, 4911 Central Ave., Richmond, CA 94804, to the attention of California Wetlands Portal;
4. Mitigation and monitoring reports shall be submitted to the Water Board by January 1 of each year. Modification of this deadline is subject to the acceptance of Water Board staff. The reports may be submitted by upload to the California Wetlands Portal website at <http://www.californiawetlands.net/tracker/ba/list>. Select San Francisco Bridge Replacement Project from the Bay Area Project List and then use the "Files & Links" web-link on the mitigation site project page to upload the report. The Department shall immediately notify appropriate Water Board staff once the monitoring report has been uploaded. If the Department cannot, or chooses not to submit the report using the California Wetlands Portal, the report may be submitted directly to Water Board staff electronically, via e-mail;
5. All temporarily disturbed areas above the ordinary high water mark shall be re-vegetated using only native plant species. The Department shall not cause, through operation of heavy machinery, or any other construction activity, compaction of marshes or open waters in areas of temporary impact. Any compaction of marshes or open waters in areas of temporary impact shall require mitigation;
6. The Resident Engineer (or appropriately authorized agent) shall hold onsite water quality permit compliance meetings (similar to tailgate safety meetings) to discuss permit compliance, including instructions on violation avoidance and violation reporting procedures. The meetings shall be held at least every other week, before forecasted storm events, and when a new contractor or subcontractor arrives to begin

work at the site. The contractors, subcontractors and their employees, as well as any inspectors or monitors assigned to the Project, shall be present at the meetings. The Department shall maintain dated sign-in sheets for attendees at these meetings, and shall make them available to the Water Board on request;

7. Concrete shall be excluded from surface water for a period of 30 days after it is poured/sprayed. During that time the concrete shall be kept moist and runoff from the concrete shall not be allowed to enter State waters. Commercial sealants may be applied to the concrete surface in instances where 30 days of water exclusion is infeasible. If sealant is used, water shall be excluded from the site until the sealant is cured. If groundwater comes into contact with fresh concrete, it shall be prevented from flowing towards surface water;
8. The Project shall be constructed in conformance with the Project Description described in this Certification and certification application materials. Any change in the Project that could impact State waters may require compensatory mitigation and shall first be reported to and found acceptable by the Water Board Executive Officer;
9. If, at any time, an unauthorized discharge to surface water (including wetlands, rivers or streams) occurs, or any other water quality problem arises, the associated Project activities shall immediately cease until adequate BMPs are implemented. The Water Board shall be notified promptly within 24 hours after the unauthorized discharge or water quality problem arises;
10. The Department shall adhere to the conditions imposed by Nationwide Permit 14 for Linear Transportation Projects issued to the Department by the U.S. Army Corps of Engineers, the Streambed Alteration Agreement issued to the Department by the California Department of Fish and Wildlife, and the Biological Opinion issued by the National Marine Fisheries Service;
11. All activities and best management practices (BMPs) shall be implemented according to the submitted application materials and the findings and conditions of this Certification. BMPs for erosion, sediment, turbidity and pollutant control shall be implemented and in place at commencement of, during, and after any ground clearing activities, construction activities, or any other Project activities that could result in erosion, sediment, or other pollutant discharges to waters of the State. The BMPs shall be implemented in accordance with the Caltrans Construction Site Best Management Practice Manual (CCSBMPM) and all contractors and subcontractors shall comply with the CCSBMPM. BMPs for erosion and sediment control shall be utilized throughout all phases of construction, regardless of date, wherever sediment-laden runoff threatens to enter waters of the State. The Department shall stage erosion and sediment control materials at the work site. All BMPs shall be installed properly and in accordance with the manufacturer's specifications. If the Project

Resident Engineer elects to install alternative BMPs for use on the project, the Department shall submit a proposal to Water Board staff for review and concurrence;

12. The Department shall not use or allow the use of erosion control products that contain synthetic materials within waters of the State at any time. The Department shall request approval from Water Board staff if an exception from this requirement is needed at a specific location. In upland and riparian areas, the Department shall prioritize the use of wildlife-friendly biodegradable (not photo-degradable) erosion control products. The Department shall not use or allow the use of erosion control products that contain synthetic netting for permanent erosion control (i.e. erosion control materials to be left in place for two years or after the completion date of the Project).

If the Department finds that erosion control netting or products have entrapped or harmed wildlife, personnel shall remove the netting or product and replace it with wildlife-friendly biodegradable products;

13. Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall be prohibited within waters of the State. Fueling of individual equipment types within waters of the State may be authorized if the Department first prepares a fueling plan that:
  - a. Identifies the specific piece of machinery that may require fueling within waters of the State;
  - b. Provides justification for the need to refuel within State waters. The justification shall describe why fueling outside of jurisdictional waters is infeasible; and
  - c. Includes a narrative of specific BMPs that shall be employed to prevent and capture fuel releases.

Fueling of equipment within waters of the State shall be prohibited until the above mentioned plan has been approved by Water Board staff. The fueling plan may be submitted individually, included in the project Storm Water Pollution Prevention Plan (SWPPP), or submitted as a SWPPP amendment.

14. Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall not result in a discharge or a threatened discharge to any waters of the State. At no time shall the Department use any vehicle or equipment which leaks any substance that may impact water quality;
15. Except as expressly allowed in this Certification, the Department is prohibited from discharging waste to waters of the State. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or concrete washings, welding slag, oil or petroleum products, or other organic or earthen material from any construction or

associated activity of whatever nature, other than that authorized by this Certification, shall be allowed to enter into waters of the State. Except for temporary stockpiling of waste generated during demolition operations (“temporary” in this instance means generated and removed during the same working day), waste materials shall not be placed where the materials may be washed by rainfall into waters of the State;

16. The Department shall provide analysis and verification that placement of non-hazardous waste or inert materials (which may include discarded product or recycled materials) will not result in degradation of water quality, human health, or the environment. All Project-generated waste shall be handled, transported, and disposed in strict compliance with all applicable State and Federal laws and regulations. When construction is complete, any excess material or debris shall be removed from the work area and disposed of properly and in accordance with the State and Federal laws and regulations, the Department is liable and responsible for the proper disposal of waste generated by their Project;
17. All imported fill material shall be clean and free of pollutants. All fill material shall be imported from a source that has the appropriate environmental clearances and permits. The reuse of low-level contaminated solids as fill onsite shall be performed in accordance with all State and Federal policies and established guidelines; a plan for such re-use must first be submitted to Water Board staff for review and concurrence;
18. Work in flowing or standing surface waters is prohibited;
19. Caltrans shall submit, subject to the acceptance of Water Board staff, a dewatering and/or diversion plan that appropriately describes the dewatered or diverted areas and how those areas will be handled during construction. The diversion/dewatering plans shall be submitted no later than 30 days prior to conducting the proposed activity. Diversion/dewatering activities shall be prohibited until Water Board staff has accepted the dewatering/diversion plan for that specific water. Information submitted shall include the area or work to be diverted or dewatered and method of the proposed activity. All diversion or dewatering activities shall be designed to minimize the impact to waters of the State, avoid fish entrainment, and maintain natural flows upstream and downstream. All dewatering or diversion structures shall be installed in a manner that does not cause sedimentation, siltation or erosion upstream or downstream. All dewatering or diversion structures shall be removed immediately upon completion of Project activities;
20. This Certification does not allow for the take, or incidental take, of any special status species. The Department shall use the appropriate protocols, as approved by the California Department of Fish and Wildlife and the USFWS, to ensure that Project activities do not impact the Beneficial Use of the Preservation of Rare and Endangered Species, as described in the San Francisco Bay Regional Water Quality Control Plan;



21. The Department shall maintain a copy of this Certification at the Project site to be available at all times to Project personnel. It is the responsibility of the Department to assure that all personnel (employees, contractors, and subcontractors) are adequately informed and trained regarding the conditions of this Certification;
22. The Water Board may add to or modify the conditions of this Certification, as appropriate, to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act;
23. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Section 13330 of the California Water Code and Title 23 of the California Code of Regulations, Section 3867;
24. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to California Code of Regulations Title 23, Subsection 3855(b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought; and
25. This Certification is conditioned upon total payment of the full fee required in State regulations (23 CCR Section 3833). The Water Board has received the full fee for this Certification.

We anticipate your cooperation in implementing these conditions. However, please be advised that any violation of water quality certification conditions is a violation of State law and subject to administrative civil liability pursuant to California Water Code, Section 13350. Failure to respond, inadequate response, late response, or failure to meet any condition of this Certification may subject you to civil liability imposed by the Water Board to a maximum of \$5,000 per day per violation or \$10 for each gallon of waste discharged in violation of this Certification.

This Certification includes requirements for information and reports. Any requirement for a report made as a condition to this action is a formal requirement pursuant to CWC section 13267, and failure or refusal to provide, or falsification of such required report is subject to civil liability as described in California Water Code, Section 13268.

Mr. Ron Moriguchi  
California Department of Transportation

- 10 -

Water Quality Certification  
San Francisco Bridge Replacement  
CIWQS Place No. 793406  
EA No. 04-23562

If you have any question, please contact Derek Beauduy at (510) 622-2348, or via e-mail to [DBeauduy@waterboards.ca.gov](mailto:DBeauduy@waterboards.ca.gov).

Sincerely,

Bruce H. Wolfe  
Executive Officer

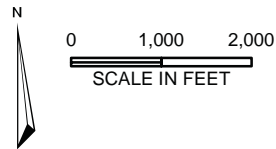
Attachment

cc (via e-mail):

Mr. Bill Orme SWRCB-DWQ	Mr. Dale Bowyer, Water Board
Mr. Cameron Johnson, USACE	Mr. Cyrus Vafai, Caltrans
Ms. Jane Hicks, Regulatory Branch, USACE	Mr. Hardeep Takhar, Caltrans
Ms. Melissa Escaron, CDFW	Mr. Jason Brush, USEPA
Ms. Paula Gill, USACE	Mr. Wilfung Martono, Caltrans
Mr. Ryan Olah, USFWS	

## **Attachment**

# **Project Maps, Plans, and Details**



**Project Location Map**

San Francisco Creek  
Bridge Replacement



JUNE 2011

FIGURE 1-1




Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

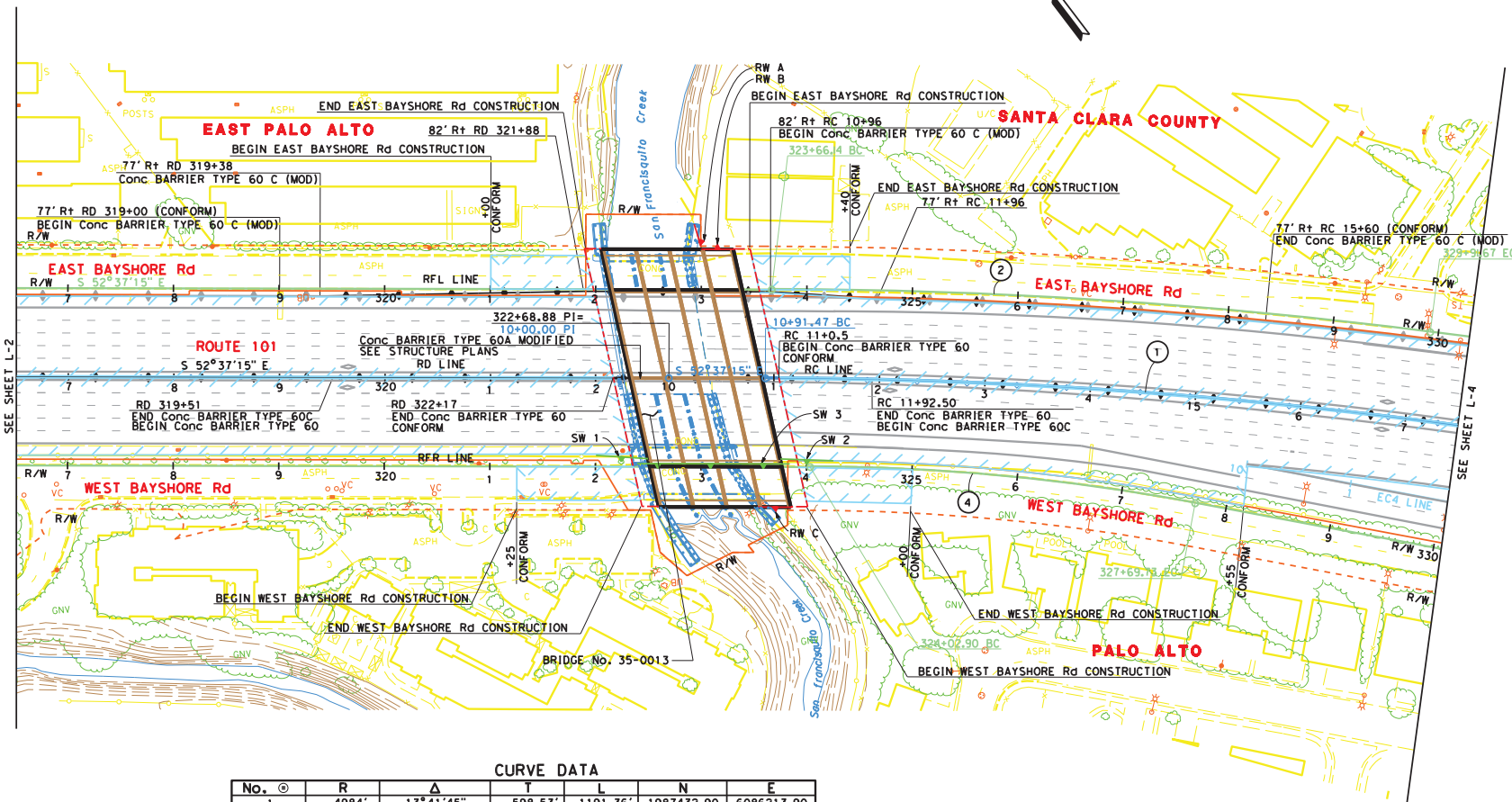
REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

PLANS APPROVAL DATE \_\_\_\_\_

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**NOTE:**  
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
 RIGHT OF WAY ENGINEERING AND DESIGN SERVICES, INC.



**CURVE DATA**

No.	⊙	R	Δ	T	L	N	E
1		498.4'	13°41'45"	598.53'	1191.36'	1987432.90	6086213.90
2		5000'	7°10'05"	313.17'	625.53'	1987483.42	6086259.78
3		260'	42°38'42"	101.49'	193.52'	1990715.85	6090474.13
4		2000'	10°30'32"	183.93'	366.83'	1989711.54	6088008.28
5		500'	42°43'40"	195.59'	372.87'	1990269.33	6089526.04

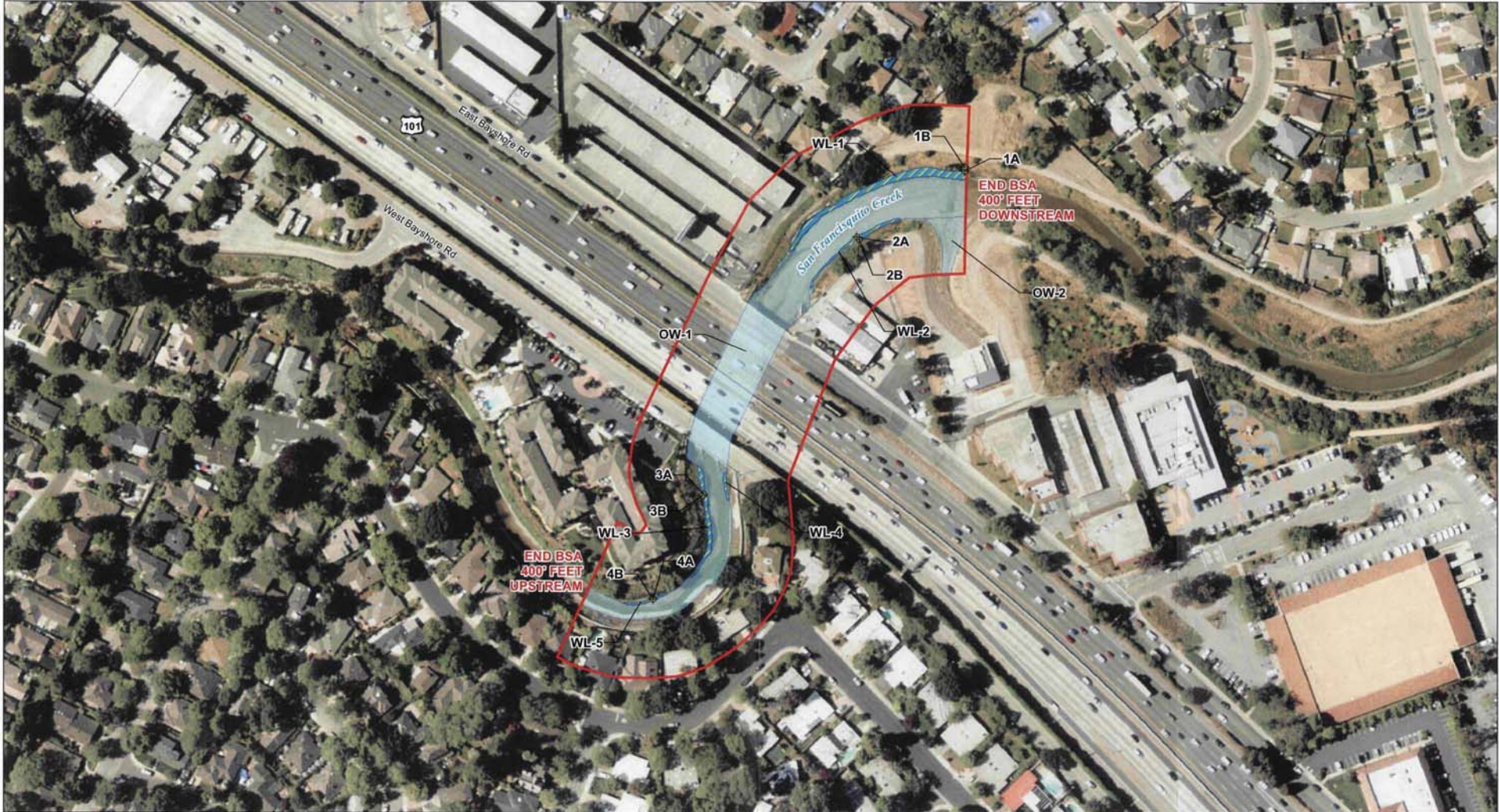
**SAN FRANCISQUITO CREEK  
 BRIDGE REPLACEMENT  
 LAYOUT**  
 SCALE: 1" = 50'

FOR NOTES, ABBREVIATIONS  
 AND LEGEND, SEE SHEET L-1

REVISIONS: REVISED BY / DATE REVISED  
 CALCULATED / DESIGNED BY / CHECKED BY  
 FUNCTIONAL SUPERVISOR  
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**

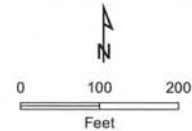
LAST REVISION: DATE PLOTTED => DATE  
 00-00-00 TIME PLOTTED => TIME





Imagery source: DigitalGlobe ImageConnect Service, 4/1/2009

- ◆ Wetland Sampling Point
-  Wetland
-  Other Waters of the U.S.
-  Biological Study Area



U.S. Army Corps of Engineers  
 San Francisco District, Regulatory Division  
 Preliminary Jurisdictional Determination

California Department of Transportation, District 4  
 San Francisquito Creek Bridge Replacement Project, Hwy 101  
 File no.: SPN-2011-00088 S Date: Mar. 23, 2011

**Potentially Jurisdictional Waters of the U.S. in the Biological Study Area**



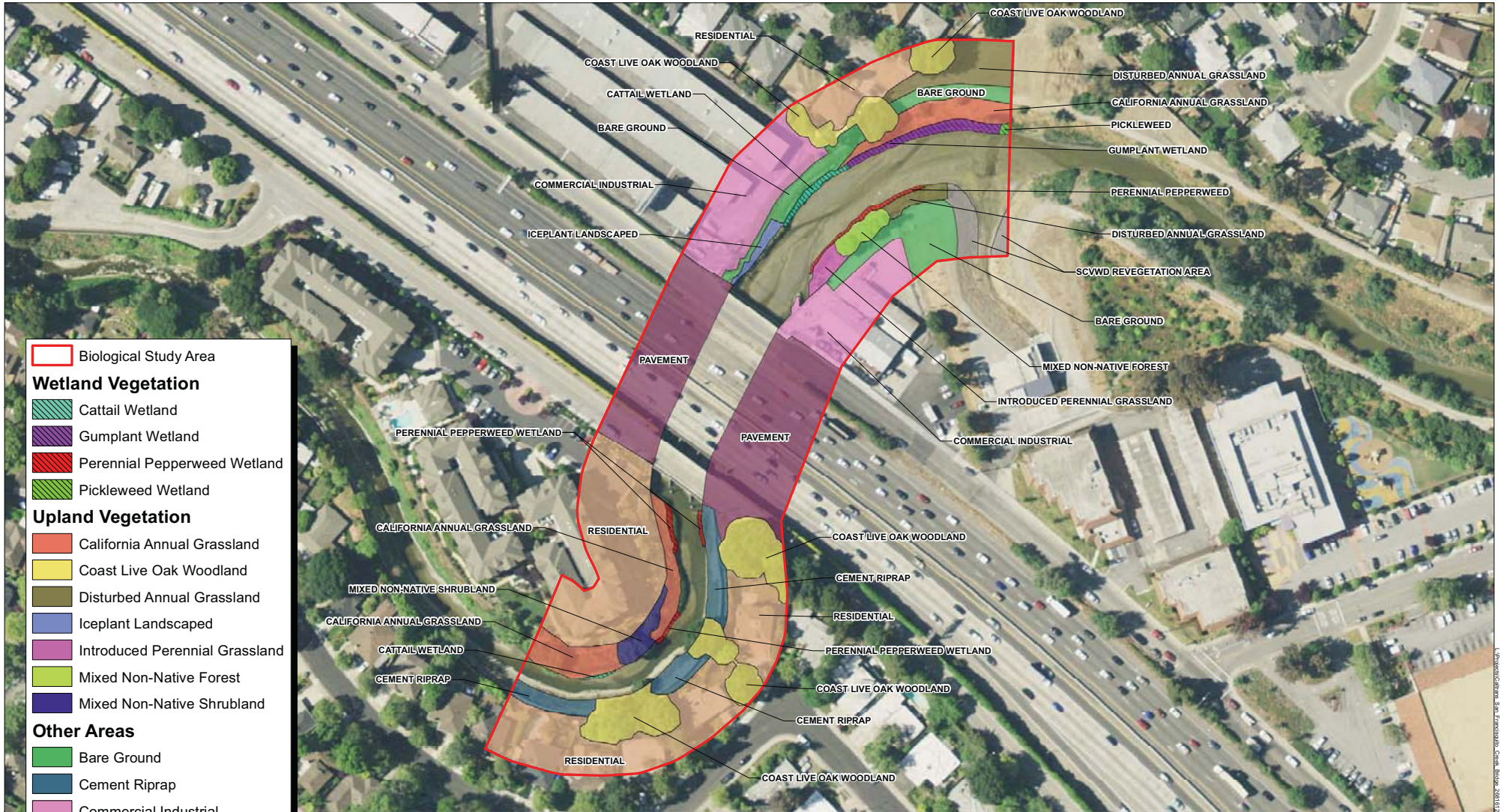
San Francisquito Creek  
 Bridge Replacement

FEBRUARY 2011

FIGURE 2-2

*JSM*





**Biological Study Area**

**Wetland Vegetation**

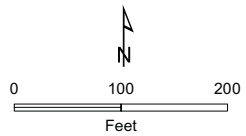
- Cattail Wetland
- Gumplant Wetland
- Perennial Pepperweed Wetland
- Pickleweed Wetland

**Upland Vegetation**

- California Annual Grassland
- Coast Live Oak Woodland
- Disturbed Annual Grassland
- Iceplant Landscaped
- Introduced Perennial Grassland
- Mixed Non-Native Forest
- Mixed Non-Native Shrubland

**Other Areas**

- Bare Ground
- Cement Riprap
- Commercial Industrial
- Pavement
- Residential
- SCVWD Revegetation Area



**Wetland and Upland Vegetation and Other Areas in the Biological Study Area**



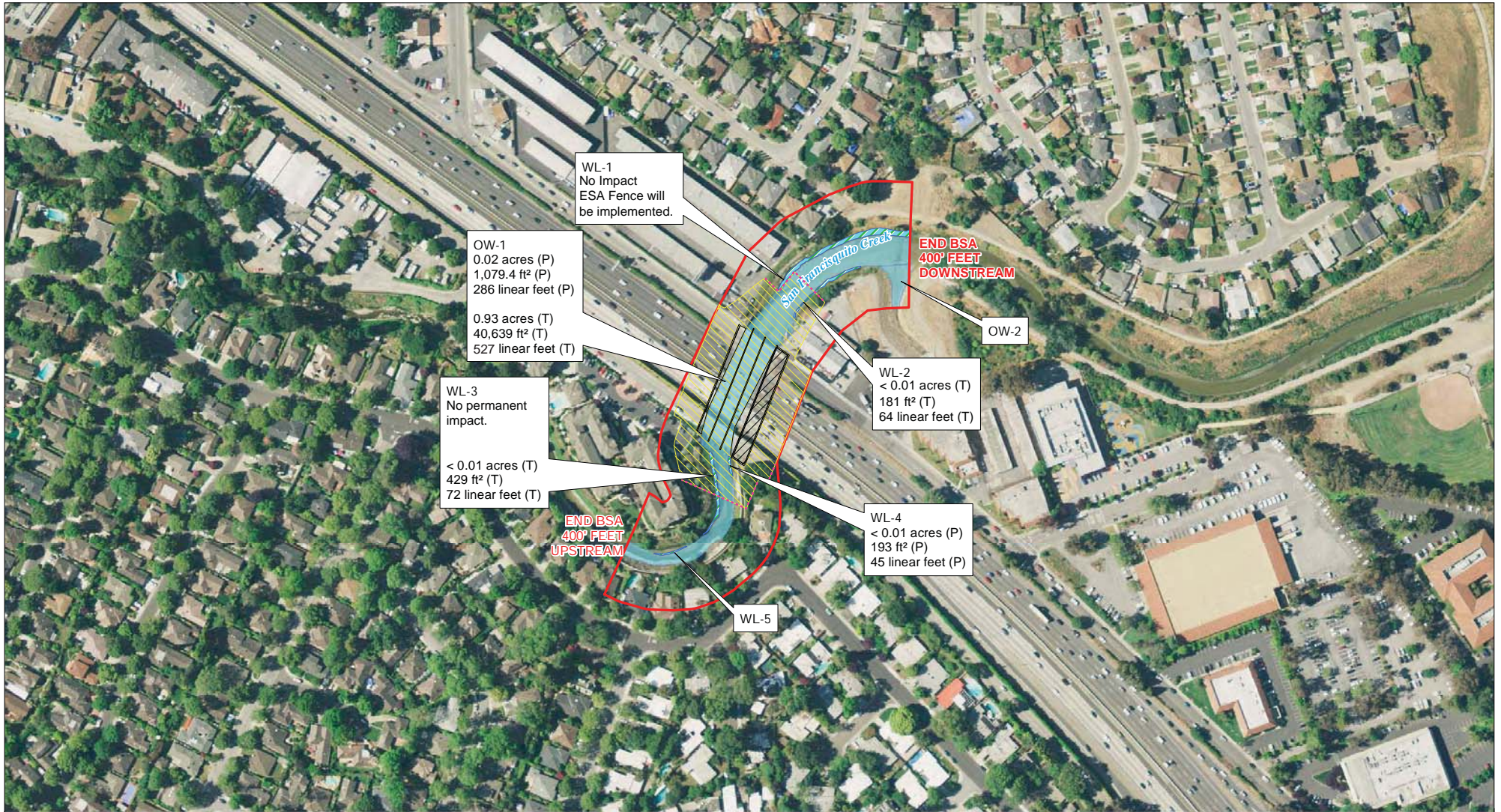
San Francisquito Creek Bridge Replacement

DECEMBER 2010

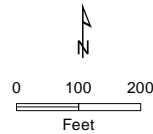
FIGURE 2-3

Photo: © 2010 San Francisco State University. Creek: © 2010 San Francisco State University.





- Biological Study Area
- Wetland
- Permanent Impact
- Other Waters of the U.S.
- Temporary Impact
- ESA Fence



Total Impacts to Waters of the U.S.

	Permanent	Temporary
Wetlands:	0	0.02 acre (181 lf)
Other Waters:	0.02 acre (286 lf)	0.93 acre (527 lf)

Impacts to Jurisdictional Waters of the U.S. in the Biological Study Area

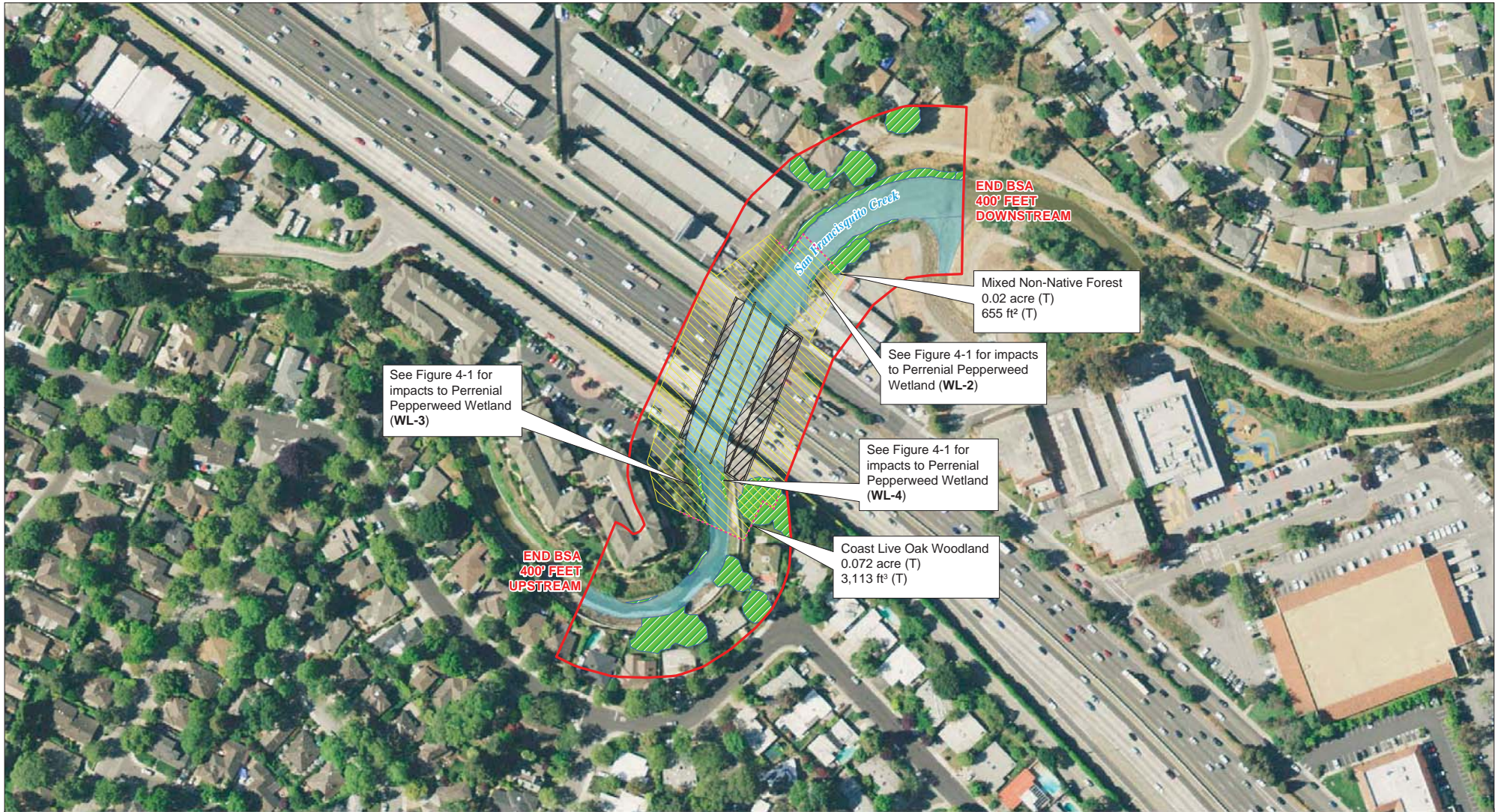


San Francisquito Creek Bridge Replacement

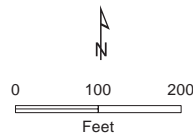
January 11, 2013

FIGURE 4-1





- Biological Study Area
- Riparian Vegetation
- Permanent Impact
- Temporary Impact
- ESA Fence
- Water



**Impacts to Riparian Vegetation  
in the Biological Study Area**

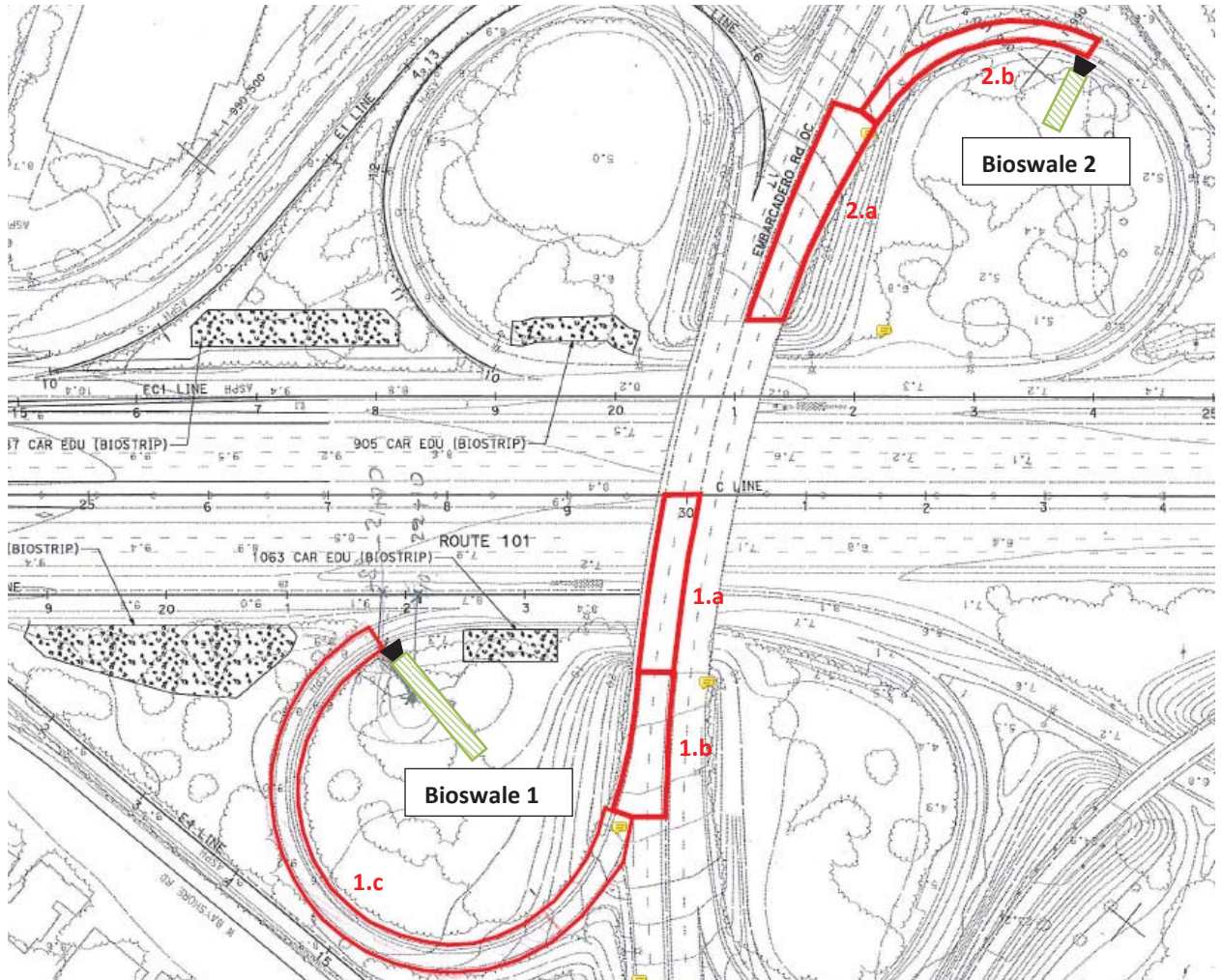


San Francisquito Creek  
Bridge Replacement

January 11, 2013

**FIGURE 4-2**





**FIGURE 1** Location of Bioswales and tributary areas for each Bioswale

**TABLE 2** Summary of Biowale dimensions and tributary area

No	BMP	Tributary Area		Location		Bioswale Dimensions		
				Start	End	Length	Width	Area
		SQ.FT	ACRES			FT	FT	SQ.FT
1	Bioswale 1	21,715	0.498	EC4 line, STA 22+00 60 FT RT	EC4 line, STA 22+20, 151 FT RT	109	8	872
2	Bioswale 2	9,652	0.222	EC1 line, STA 23+90, 277 FT RT	EC1 line, STA 23+50, 228 FT RT	49	8	392

