INFORMATION HANDOUT

For Contract No. 04-3A87A4
At 04-CC-680-24.3

Identified by
Project ID 0414000120

PERMITS

United States Army Corps of Engineers

File No. SPN-2010-00296 S

WATER QUALITY

California Regional Water Quality Control Board

Board Order No. 754433

AGREEMENTS

California Department of Fish and Wildlife

Notification No. 1600-2013-005-R3

United States Department of the Interior –Fish and Wildlife Services
81420-2011-F-0019-R001
81420-2011-F-0019-2

MATERIALS INFORMATION

CIWQS - Herbicide Use Plan

Water Source Information: "*Bay Area Clean Water Agencies: "Bay Area Recycled Water Commercial Truck Fill Facilities Location Guide, January 2015*"

DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET, 16TH FLOOR
SAN FRANCISCO, CALIFORNIA 94103-1398

REPLY TO
ATTENTION OF

MAR 20 2013

Regulatory Division

SUBJECT: File Number SPN-2010-00296 S

Mr. Jeffery Jensen
Office of Biological Sciences and Permits
California Department of Transportation
P.O. Box 23660
Oakland, California 94623-0660

Dear Mr. Jensen:

This correspondence is in reference to your submittal of December 21, 2012, concerning Department of the Army (DA) authorization to upgrade the existing overhead structure and improve safety of the off-ramp by providing seismic rehabilitation of Route 680 off-ramp to Marina Vista Road, in the town of Martinez, Contra Costa County, California (38.02528, -122.11164).

Work within U.S. Army Corps of Engineers' jurisdiction will include dewatering of the project site (4.028 acre), installation of timber mats, demolition of the current structure, and installation of cast-in-steel shell piles and new abutment, completion of the cast in place concrete box girder superstructure, and replacement of restrainer cables an cross bracing on the mainline, and restoration and revegetation of the construction site. The new overhead structure will require installation of 12 piles 5' in diameter and 20 piles 2' in diameter and new abutments constructed of 182 feet of steel sheet pile. Work will result in the permanent fill of 0.008 acre of wetland and 0.001 acre of Other Waters of the U.S. Work will also result temporary affects to 4.028 acre of wetland and Other Waters of the U.S. All work will be completed in accordance with the plans and drawings titled "*USACE File #2010-00296S, Contra Costa 680 Mococo Off-Ramp Seismic Retrofit Project, March 15, 2013, Figures 1 to 18*" (enclosure 1).

Section 404 of the Clean Water Act (CWA) generally regulates the discharge of dredged or fill material below the plane of ordinary high water in non-tidal waters of the United States, below the high tide line in tidal waters of the United States, and within the lateral extent of wetlands adjacent to these waters. Section 10 of the Rivers and Harbors Act generally regulates construction of structures and work, including excavation, dredging, and discharges of dredged or fill material, occurring below the plane of mean high water in tidal waters of the United States; in former diked baylands currently below mean high water; outside the limits of mean high water but affecting the navigable capacity of tidal waters; or below the plane of ordinary high water in non-tidal waters designated as navigable waters of the United States. Navigable waters of the United States generally include all waters subject to the ebb and flow of the tide;

and/or all waters presently used, or have been used in the past, or may be susceptible for future use to transport interstate or foreign commerce. A Preliminary JD has been completed for your site on January 19, 2011.

Based on a review of the information in your submittal, the project qualifies for authorization under Department of the Army Nationwide Permit (NWP) 14 for Linear Transportation Projects, 77 Fed. Reg. 10,184, February 21, 2012, pursuant to Section 404 of the CWA of 1972, as amended (33 U.S.C. § 1344 *et seq.*) and Section 10 of the Rivers and Harbors Act (RHA) of 1899, as amended (33 U.S.C. § 403 *et seq.*). The project must be in compliance with the terms of the NWP, the general conditions of the Nationwide Permit Program, and the San Francisco District regional conditions cited in enclosure 2. You must also be in compliance with any special conditions specified in this letter for the NWP authorization to remain valid. Non-compliance with any term or condition could result in the revocation of the NWP authorization for your project, thereby requiring you to obtain an Individual Permit from the Corps. This NWP authorization does not obviate the need to obtain other State or local approvals required by law.

This verification will remain valid until March 18, 2017, unless the NWP authorization is modified, suspended, or revoked. Activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon a NWP will remain authorized provided the activity is completed within 12 months of the date of a NWP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 C.F.R. § 330.4(e) and 33 C.F.R. §§ 330.5 (c) or (d). This verification will remain valid if, during the time period between now and March 18, 2017, the activity complies with any subsequent modification of the NWP authorization. The Chief of Engineers will periodically review NWPs and their conditions and will decide to either modify, reissue, or revoke the permits. If a NWP is not modified or reissued within five years of its effective date, it automatically expires and becomes null and void. It is incumbent upon you to remain informed of any changes to the NWPs. Changes to the NWPs would be announced by Public Notice posted on our website (http://www.spn.usace.army.mil/regulatory/index.html). Upon completion of the project and all associated mitigation requirements, you shall sign and return the Certification of Compliance, enclosure 3, verifying that you have complied with the terms and conditions of the permit.

This authorization will not be effective until you have obtained a Section 401 water quality certification from the San Francisco Bay Regional Water Quality Control Board (RWQCB). If the RWQCB fails to act on a valid request for certification within two months after receipt of a complete application, the Corps will presume a waiver of water quality certification has been

obtained. You shall submit a copy of the certification to the Corps prior to the commencement of work.

General Condition 18 stipulates that project authorization under a NWP does not allow for the incidental take of any federally-listed species in the absences of a biological opinion (BO) with incidental take provisions. As the principal federal lead agency for this project, Caltrans initiated consultation with the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) to address project related impacts to list species, pursuant to Section 7(a) of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*).

In order to ensure compliance with this NWP authorization, the following special conditions shall be implemented:

1. During dewatering for construction, appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable.

2. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary access to the marsh shall be constructed using timber mats. The filter fabric shall be sandwiched between wood layers in the timber mats to prevent fine debris from entering the wetland and reducing compaction within the wetland.

3. Temporary fills must be removed in their entirety and the affected areas shall be returned to pre-construction elevations.

4. No gravel shall be used on the temporary access road and staging areas to prevent gravel from migrating into nearby wetlands and the channel. To protect low flow channel within the project footprint, Caltrans shall install an ESA fence along the temporary access and staging areas where the channel is located.

5. Removal of the existing off-ramp structure deck shall occur from the existing deck and ground. The existing 16" Raymond piles shall be cut 3' below grade. All spoils shall be hauled off from the project site and disposed outside of Corps jurisdiction.

6. No work shall occur in the tidal channel, and all earth work shall occur during the dry season, March 1 to October 15.

7. To establish pre-construction absolute vegetative cover, a survey of baseline conditions shall be completed prior to any impact to a jurisdictional feature to determine pre-construction absolute cover.

8. Within 1-year of initiation of temporary impact to a jurisdictional feature, you shall re-contour the temporarily impacted area and replant it with appropriate soil-stabilizing native species. Planting shall occur as depicted in the enclosed figures titled, "*USACE File #2010-00296S, Contra Costa 680 Mococo Off-ramp Seismic Retrofit Project, March 15, 2013, Figure 20*" (enclosure 4). Planting shall occur using species outlined in the Erosion control legend "*USACE File #2010-00296S, Contra Costa 680 Mococo Off-ramp Seismic Retrofit Project, March 15, 2013, Figure 19*" (enclosure 5).

9. The site shall be monitored for a 5-year period. Monitoring reports shall be submitted to the Corps by November 1 of each year. By the end of the fifth year, re-vegetated areas shall achieve absolute vegetative cover similar to pre-construction conditions. The reports shall include representative photos of the re-vegetated areas, observed species composition, documentation of any invasive weed establishment, and estimates of plant cover for each species. If the cover requirements for the re-vegetated areas are not met, the Corps may require further monitoring, re-vegetation, and/or off-site mitigation. Caltrans shall be responsible for implementation of recommended remediation measures and providing funds for such measures if necessary.

10. In the event that you are unable to implement the plan described in the above special condition within 1-year of initiation of temporary impact to a jurisdictional feature, or the site does not recover to pre-construction conditions within 5 years, you must purchase credits at a Corps approved mitigation bank to compensate for the temporary impact at a 3:1 ratio. If no approved bank or in-lieu fee is available, you shall propose an alternative mitigation plan to be reviewed and approved by the Corps.

11. After removal of 62 of the existing off-ramp structure piles 0.002 acre of wetland shall be restored. The piles shall be cut 3' below grade, and filled with soil cultivated with compost to match the grade of the surrounding wetlands. The area shall be replanted with northern coastal salt marsh species outlined in the Erosion control legend "*USACE File #2010-00296S, Contra Costa 680 Mococo Off-ramp Seismic Retrofit Project, March 15, 2013, Figure 20*" (enclosure 5). These areas shall also be monitored in accordance with special condition 9.

12. The NMFS concurred with the determination that the project was not likely to adversely affect Central Valley spring-run Chinook salmon, Sacramento River winter-run Chinook salmon, Central Valley steelhead, Central California coast steelhead, and green sturgeon, and designated critical habitat for this species. This concurrence was premised, in part, on project work restrictions outlined in enclosure 6. These work restrictions are incorporated as special conditions to the NWP authorization for your project to ensure unauthorized incidental take of species and loss of critical habitat does not occur.

13. To remain exempt from the prohibitions of Section 9 of the Endangered Species Act, the non-discretionary Terms and Conditions for incidental take of federally-listed Species shall be fully implemented as stipulated in the Biological Opinion dated August 19, 1996, (Service File No.: 1-1-96-F-40, enclosure 7) that was amended on January 9, 2001 (1-1-01-F- 28), January 14, 2003 (1-1-02-F-0299), February 24, 2003 (1-103-F-0087), March 9, 2011 (81420-2011-F-0019-2), and December 26, 2012 (81420-2011-F-0019-R001). Project authorization under the NWP is conditional upon compliance with the mandatory terms and conditions associated with incidental take. Failure to comply with the terms and conditions for incidental take, where an 'incidental take' of a federally-listed species occurs, would constitute an unauthorized take and non-compliance with the NWP authorization for your project. The USFWS is, however, the authoritative federal agency for determining compliance with the incidental take statement and for initiating appropriate enforcement actions or penalties under the Endangered Species Act.

You may refer any questions on this matter to Paula Gill of my Regulatory staff by telephone at 415-503-6776 or by e-mail at Paula.C.Gill@usace.army.mil. All correspondence should be addressed to the Regulatory Division, South Branch, referencing the file number at the head of this letter.

The San Francisco District is committed to improving service to our customers. My Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner, while preserving and protecting our nation's aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website: http://www.spn.usace.army.mil/regulatory/.

Sincerely,

Jane M. Hicks
Chief, Regulatory Division

Enclosures

Copies Furnished (w/o enclosures):

CA RWQCB, Oakland, CA
U.S. EPA, San Francisco, CA
CA SWRCB, Sacramento, CA
CDFW, Yountville, Ca
USFWS, Sacramento, Ca
NMFS, Santa Rosa, Ca

May 3, 2013
CIWQS Place No. 754433

Sent via electronic mail--no hard copy to follow

California Department of Transportation
Attn: Yadollah Fathollahi
Hamid_fathollahi@dot.ca.gov
111 Grand Ave.
Oakland, CA 94612-3717

Subject: Water Quality Certification for the Mococo Overhead Seismic Rehabilitation Project, City of Martinez, Contra Costa County

Department Project No.: EA 04-3A8701

Dear Mr. Fathollahi:

We have reviewed and hereby issue water quality certification (Certification) to the California Department of Transportation (Department) for the Mococo Overhead Seismic Rehabilitation 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 Department proposes seismic rehabilitation for the Mococo Bridge Overhead along the I-680 main line and removal and replacement of the I-680 off-ramp structure at Marina Vista Boulevard.

The proposed project elements include:

- Seismic rehabilitation of the I-680 main line overhead structure.
- Demolition of the I-680 southbound off-ramp loop structure to Marina Vista Boulevard and removal of structure piles.
- Construction of a new off-ramp loop structure which will include an abutment supported by 182 linear feet of sheet pile retaining walls, a cast-in-place concrete

slab supported by 20 two foot diameter cast-in-steel-shell piles arranged in one abutment and four bents, and an elevated cast-in-place box girder supported by 12 five foot diameter cast-in-drilled-hole piles arranged in 6 bents.

- Construction of a single vehicular access lane in the I-680 main line median.

- Construction of a 100-foot long temporary access ramp for heavy equipment from the I-680 southbound on-ramp from Marina Vista Boulevard.

- Dewatering of stormwater and groundwater from the project site.

Impacts: Project implementation would permanently impact approximately 0.008 acres of brackish marsh and salt marsh and 0.001 acres of open waters of the State and the United States. Permanent impacts would occur due to pile, abutment, concrete slab, and box girder construction for the I-680 southbound off-ramp structure.

Project implementation would temporarily impact approximately 3.823 acres of brackish marsh, salt marsh and open waters.

Project implementation will affect salt marsh harvest mouse and California clapper rail.

Roadway Pollutant Impacts: Project implementation would result in approximately 0.12 acres of new and 0.46 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 stormwater runoff from the project area discharges to tidally influenced sloughs, hydromodification mitigation is not required for this Project.

Avoidance and Minimization: The Department has avoided and minimized impacts to brackish marsh, salt marsh and open waters by: isolating the work area with a cofferdam, which allows tidal flow around the work area; utilizing timber wetland protection mats to protect the original contour of all wetland areas that cannot be avoided by construction; using sediment and erosion control best management practices; performing construction in brackish marsh, salt marsh and open waters between February 1, 2014 and October 15, 2014, which coincides with the dry season and the annual closure of the tidal flood gate by the Mountain View Sanitary District during the months of February and March.

Mitigation: To mitigate for permanent impacts to brackish marsh, salt marsh and open waters the Department shall create 0.06 acres of northern coastal salt marsh within the Project limits (see Condition no. 2).

To mitigate for temporary impacts to brackish marsh, salt marsh and open waters, the Department shall restore temporarily impacted areas to previous or enhanced condition (see Condition no. 2).

To mitigate for impacts to the salt marsh harvest mouse and California clapper rail, the Department shall comply with the conditions in the United States Fish and Wildlife Service Biological Opinion and the Streambed Alteration Agreement issued by the California Department of Fish and Wildlife.

Roadway Pollutant Mitigation: As mitigation for increased pollutant loads associated with 0.58 acres of added and reworked impervious area for this Project, the Department shall construct a biofiltration strip as shown in the Attachment between station NEL2 22+70.36 and 24+32.95 to treat 0.05 acres of impervious area. The remaining 0.53 acres of required impervious runoff treatment shall be mitigated on a future project (see Condition no. 1).

CEQA Compliance: The Department evaluated the Project pursuant to the requirements of the California Environmental Quality Act (CEQA) in a Mitigated Negative Declaration. The Department filed a Notice of Determination on April 4, 2011 (SCH No. 201006029).

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. 7 and 8 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. The Department shall not commence any element of Project construction until a proposal to treat stormwater from 0.53 acres of impervious surface has been approved by the Executive Officer. The approved stormwater treatment shall be constructed and in operation in 2014. If there is any delay in constructing and operating the stormwater treatment for the 0.53 acres of impervious surface, the Department will be required to propose 20% additional treatment per year of delay.

2. As mitigation for the permanent and temporary impacts to brackish marsh, salt marsh and open waters of the State and the United States, the Department shall:

    a. Create no less than 0.06 acres of northern coastal salt marsh within the project area;

    b. Restore temporarily impacted brackish marsh, salt marsh and open waters to previous or enhanced condition;

    c. Conduct marsh planting as shown in sheet EC-1 of the Attachment. The Department shall prioritize use of seeds developed from local seed sources to promote genetic integrity;

    d. Control invasive species in the restored and created areas;

    e. Prepare a plan for controlled herbicide use that includes use criteria (e.g., target invasive plants, weather condition criteria, herbicide types, and setback). All herbicide use shall be inventoried and reported in each mitigation site annual report. The type of herbicide, target species, frequency and duration of use and setback shall be reported;

    f. Conduct monitoring for a period of no less than five years for restored and created areas;

    g. Submit annual reports to the Water Board by January 1 each year. All monitoring reports shall include photo-documentation utilizing consistent photo vantage points. If the monitoring report includes management recommendations, then the report must express whether the Department shall implement those recommendations.

3. Annual reports shall be submitted to the Water Board by January 1 during each year of the initial five year monitoring period, summarizing each year's monitoring results, including the need for any remedial actions. The annual reports shall compare data to previous years and detail progress towards meeting final success criteria. At the end of year 5, a comprehensive final report shall be prepared that includes summaries of the monitoring data, representative photos, and maps. The final report shall

document if the site meets final success criteria of 80% vegetative cover within the restored and created areas, or sufficient vegetative cover based on a reference location at the site agreed to by Water Board staff. If the criteria are not met, the report shall identify measures to be undertaken, including extension of the monitoring period until the criteria are met. Success of the mitigation program shall be determined by Water Board staff;

4. 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 0.05 acre of impervious area using a biofiltration strip. The biofiltration strip shall be installed by 2014 consistent with the plans in the Attachment of this Certification. Any revisions to the biofiltration strip design details shall be subject to the acceptance of Water Board staff.

5. All temporarily disturbed areas 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. 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 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;

8. 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 the Mococo

Overhead Seismic Rehabilitation 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;

9. 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;

10. 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;

11. 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;

12. The Department shall adhere to the conditions imposed by Nationwide Permit 14 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 to the Department by the USFWS;

13. 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;

14. 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;

15. 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.

16. 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;

17. 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;

18. 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;

19. 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;

20. Work in flowing or standing surface waters is prohibited;

21. 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;

22. 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;

23. 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;

24. 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;

25. 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;

26. 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

27. 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.

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

Sincerely,

Bruce H. Wolfe
Executive Officer

Attachment

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

Attachment

Project Area Maps, Drainage Plan, and Biofiltration Strip Detail

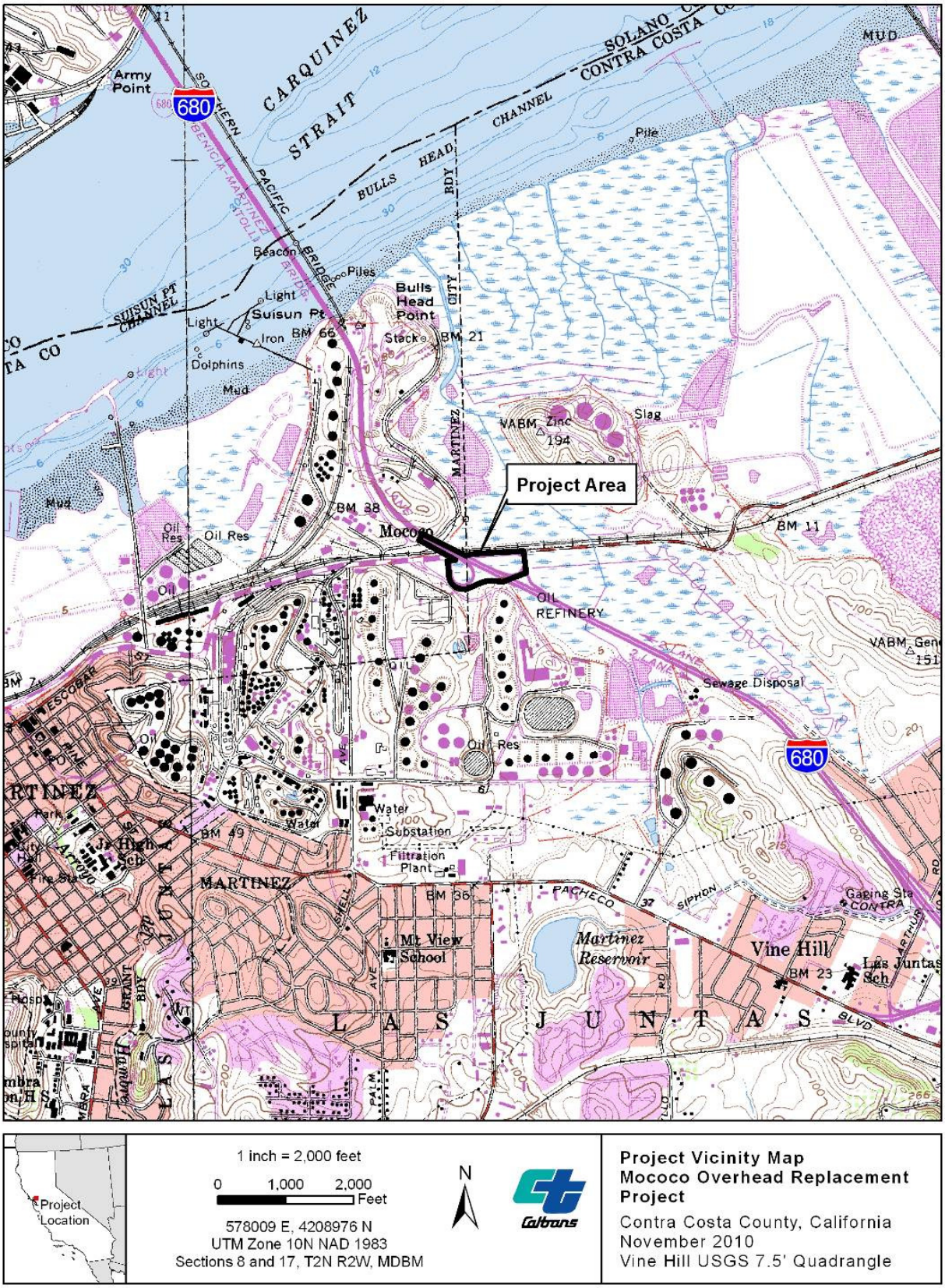


Figure 1. Project Area Map.

Figure 2. Project Area Map.

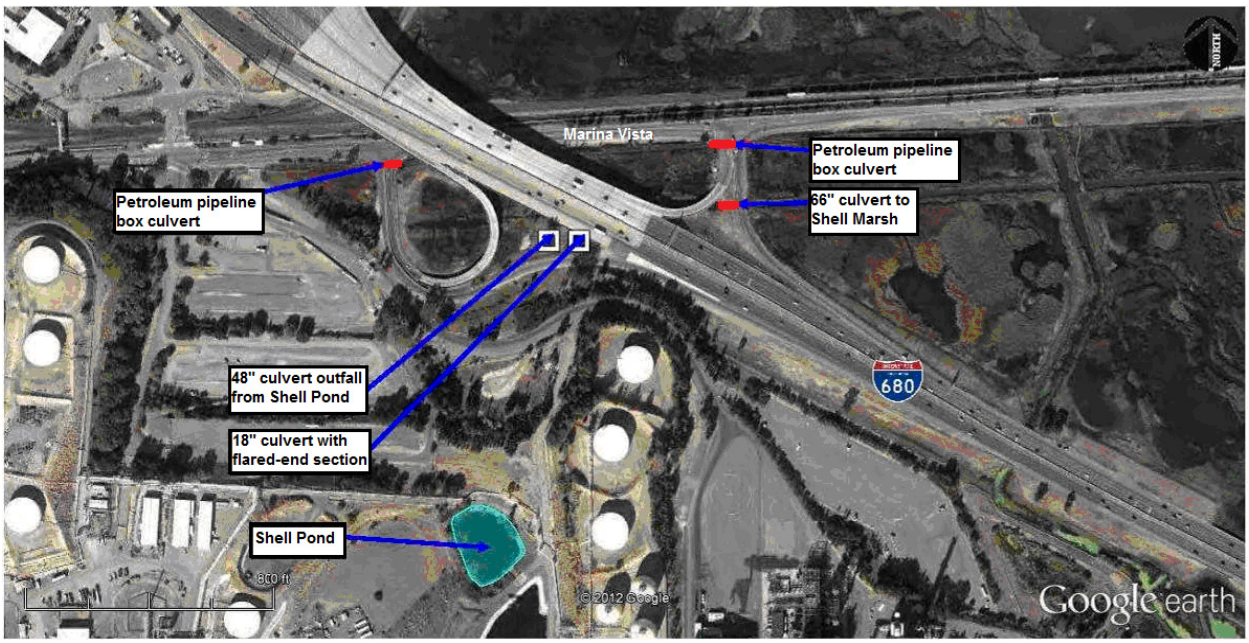


Figure 3. Project Site Inflow and Outflow Locations.

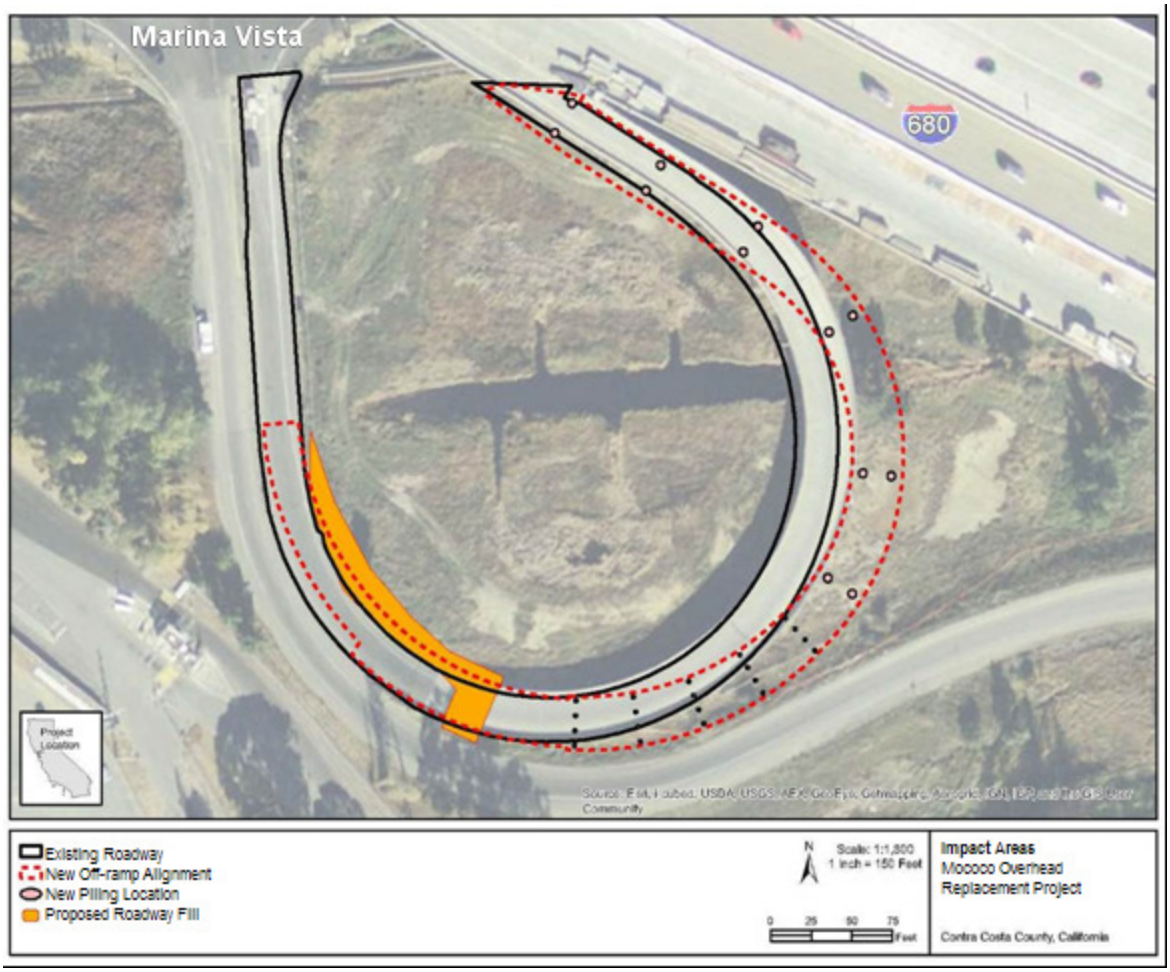


Figure 4. Permanent impact areas for the Mococo Overhead Replacement Project.

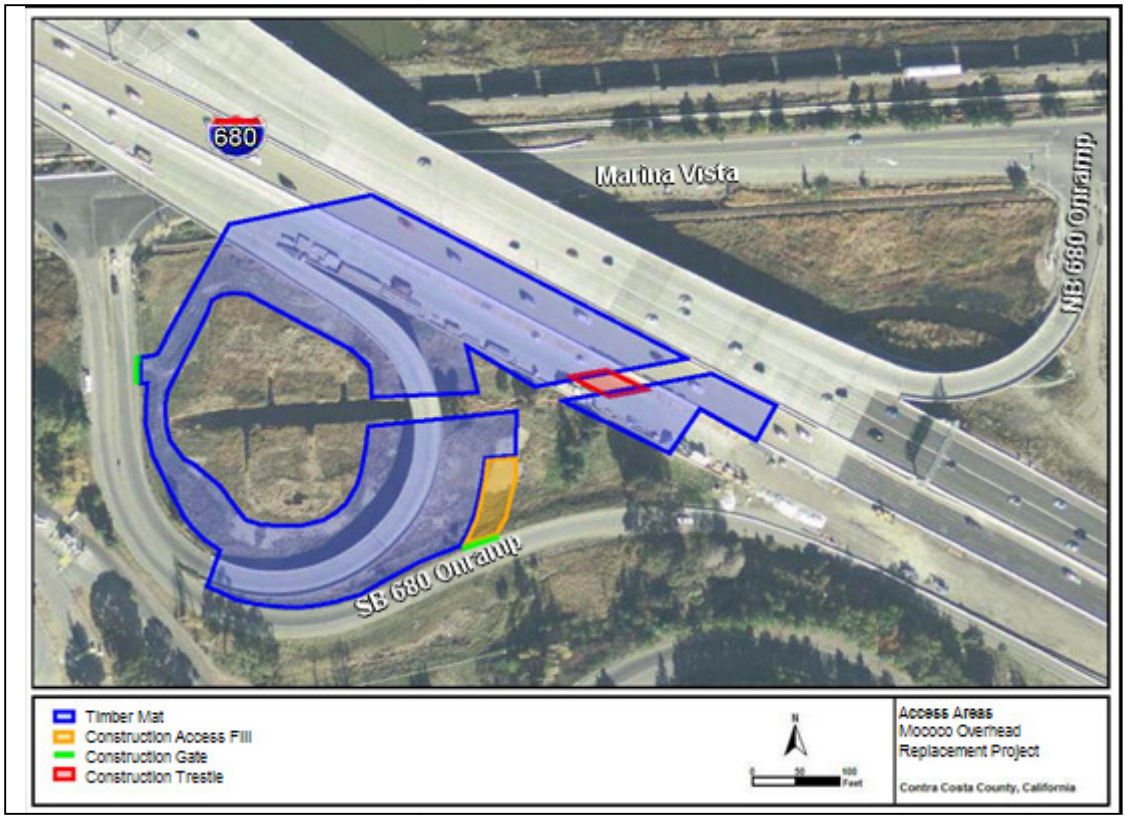


Figure 5a. Planned access and staging areas for the Mococo Overhead Replacement Project.

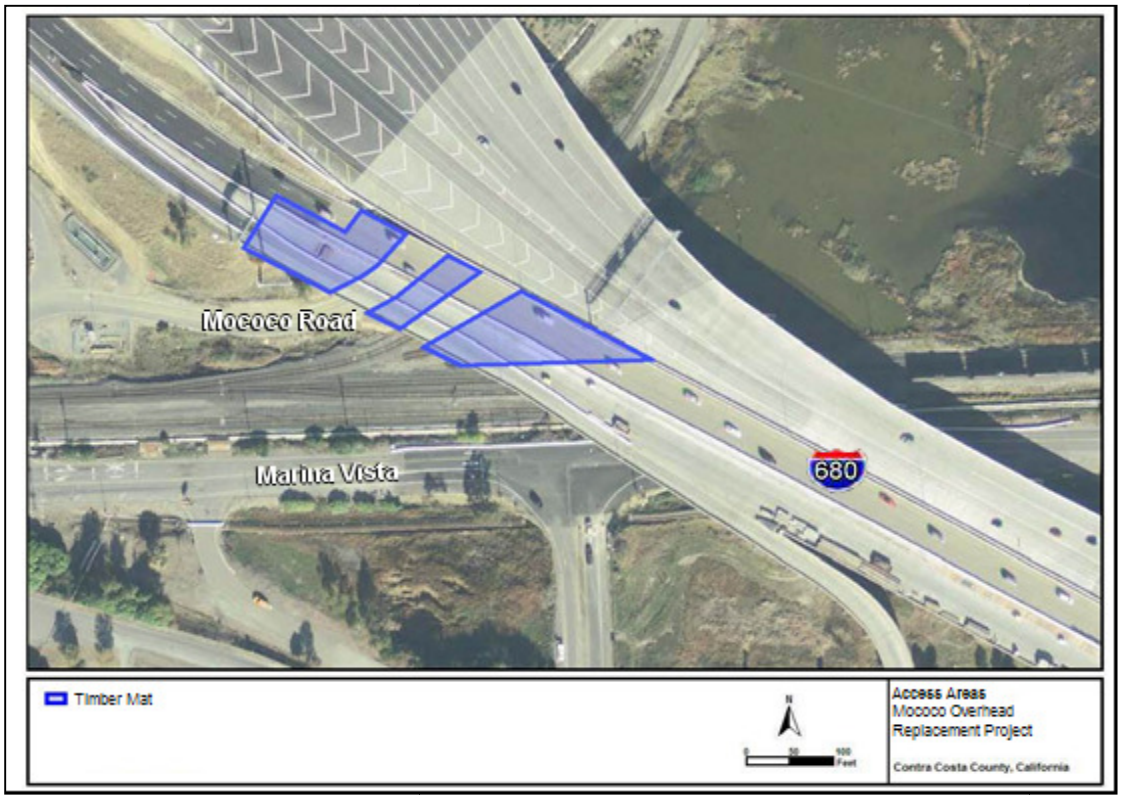


Figure 5b. Planned access and staging areas for the Mococo Overhead Replacement Project.

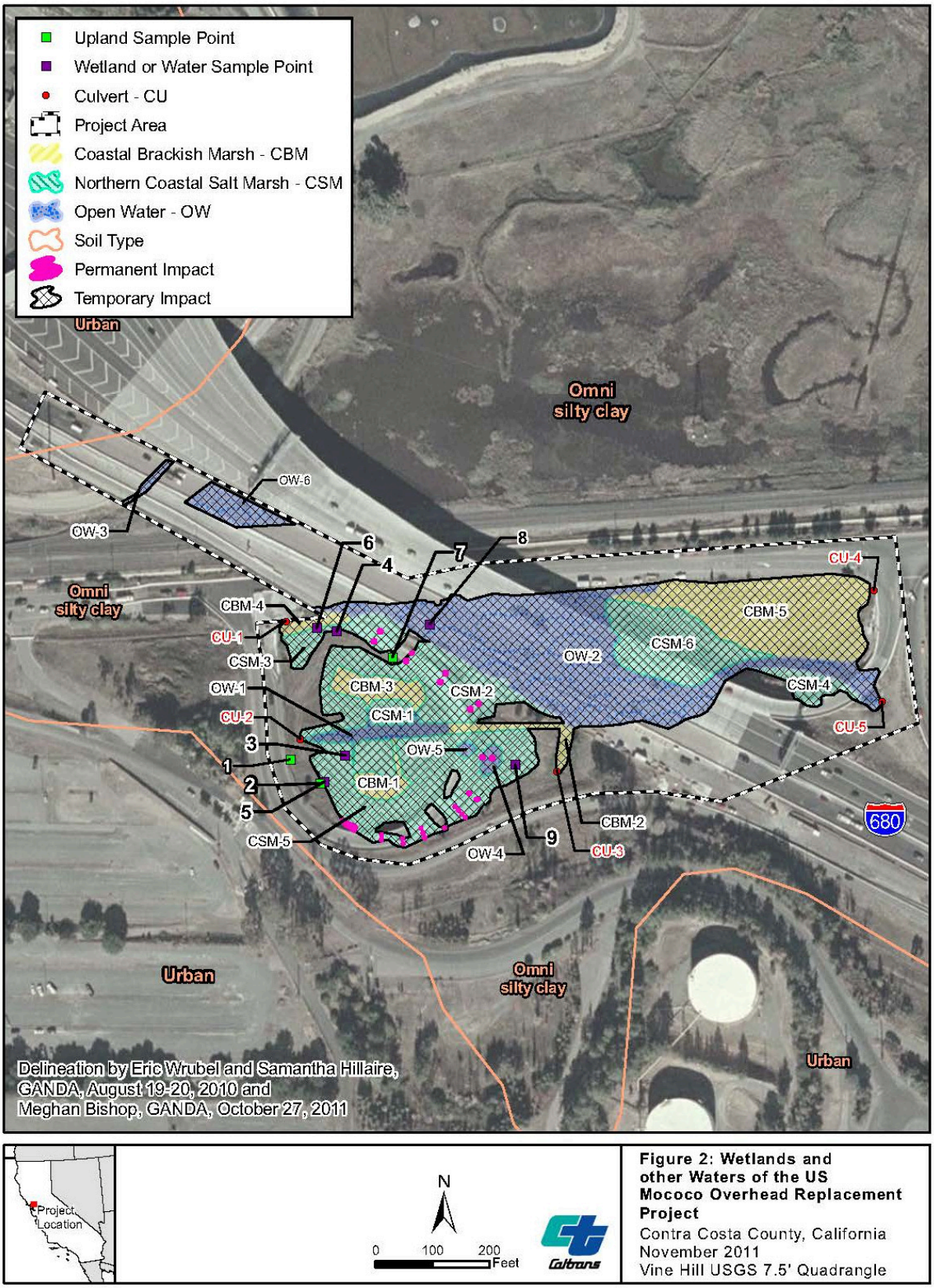


Figure 6. Temporary and permanent impacts to wetlands for the Mococo Overhead Replacement Project.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	680	23.9/24.8		

11-29-12
REGISTERED CIVIL ENGINEER DATE

Manuel M. Canilao Jr.
No. 58845
Exp: 6-30-13
CIVIL
STATE OF CALIFORNIA

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:

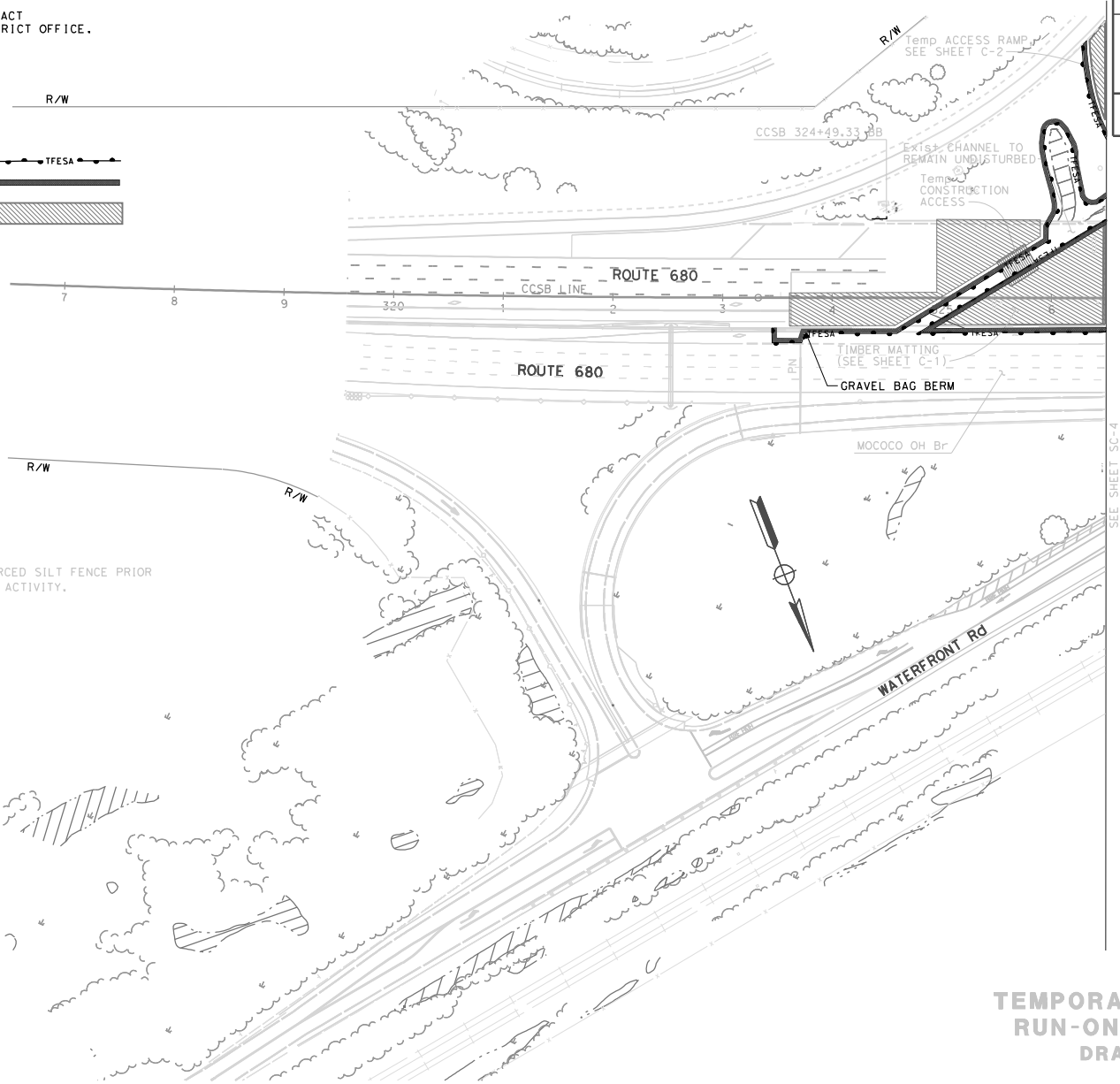
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

LEGEND:

TEMPORARY FENCE (TYPE ESA) TFESA

TEMPORARY GRAVEL BAG BERM

WORK AREA



NOTE:

1. INSTALL Temp REINFORCED SILT FENCE PRIOR TO ANY CONSTRUCTION ACTIVITY.

TEMPORARY STORM WATER RUN-ON BYPASS SYSTEM

DRAINAGE DETAILS

SCALE: 1" = 50'

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

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

DD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: JASWINDER MANN

CALCULATED-DESIGNED BY: MANUEL CANILAO JR.
CHECKED BY: JASWINDER MANN

REVISED BY: MC
DATE REVISED: 10/15/12

LAST REVISION 11-29-12
DATE PLOTTED => $DATE
TIME PLOTTED => $TIME

BORDER LAST REVISED 7/2/2010

USERNAME => $USER
DGN FILE => $REQUEST

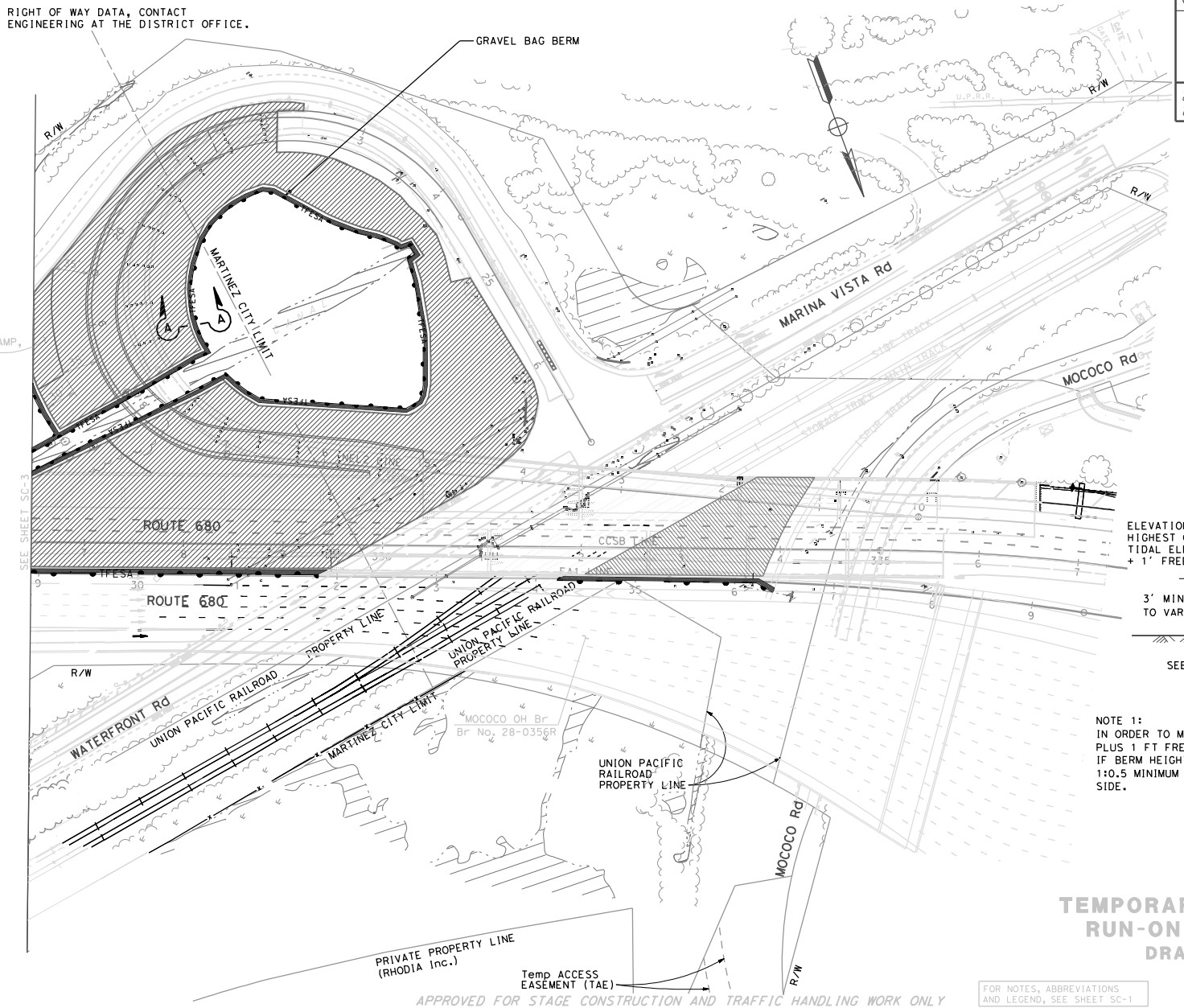
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0743

PROJECT NUMBER & PHASE 04000009671

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	680	23.9/24.8		

11-29-12
REGISTERED CIVIL ENGINEER DATE

Manuel M. Canilao Jr. No. 58845 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA

PLANS APPROVAL DATE

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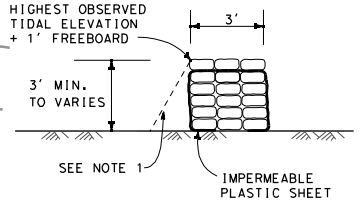
NOTE:

1. FOR NEW & Exist RAMP STRUCTURES, SEE SHEET L-3 & STRUCTURE PLANS.
2. INSTALL Temp REINFORCED SILT FENCE PRIOR TO ANY CONSTRUCTION ACTIVITY.



NOTE 1:
IN ORDER TO MAINTAIN HIGHEST OBSERVED TIDAL ELEVATION PLUS 1 FT FREEBOARD, GRAVEL BAG BERM HEIGHT WILL VARY. IF BERM HEIGHT IS MORE THAN 3 FT, TAPER THE SLOPE AT 1:0.5 MINIMUM (VERTICAL: HORIZONTAL) ON THE WORK AREA SIDE.

SECTION A-A
GRAVEL BAG BERM

TEMPORARY STORM WATER RUN-ON BYPASS SYSTEM
DRAINAGE DETAILS

SCALE: 1" = 50'

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

DD-2

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY	DATE REVISED
DESIGN	JASWINDER MANN	MANUEL CANILAO JR.	MC	10/15/12
		CHECKED BY		
		JASWINDER MANN		

LAST REVISION 11-29-12 | DATE PLOTTED => %DATE | TIME PLOTTED => %TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => %USER | DGN FILE => %REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0743 | PROJECT NUMBER & PHASE 04000009671

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	680	23.9/24.8		

Alex McDonald
LICENSED LANDSCAPE ARCHITECT

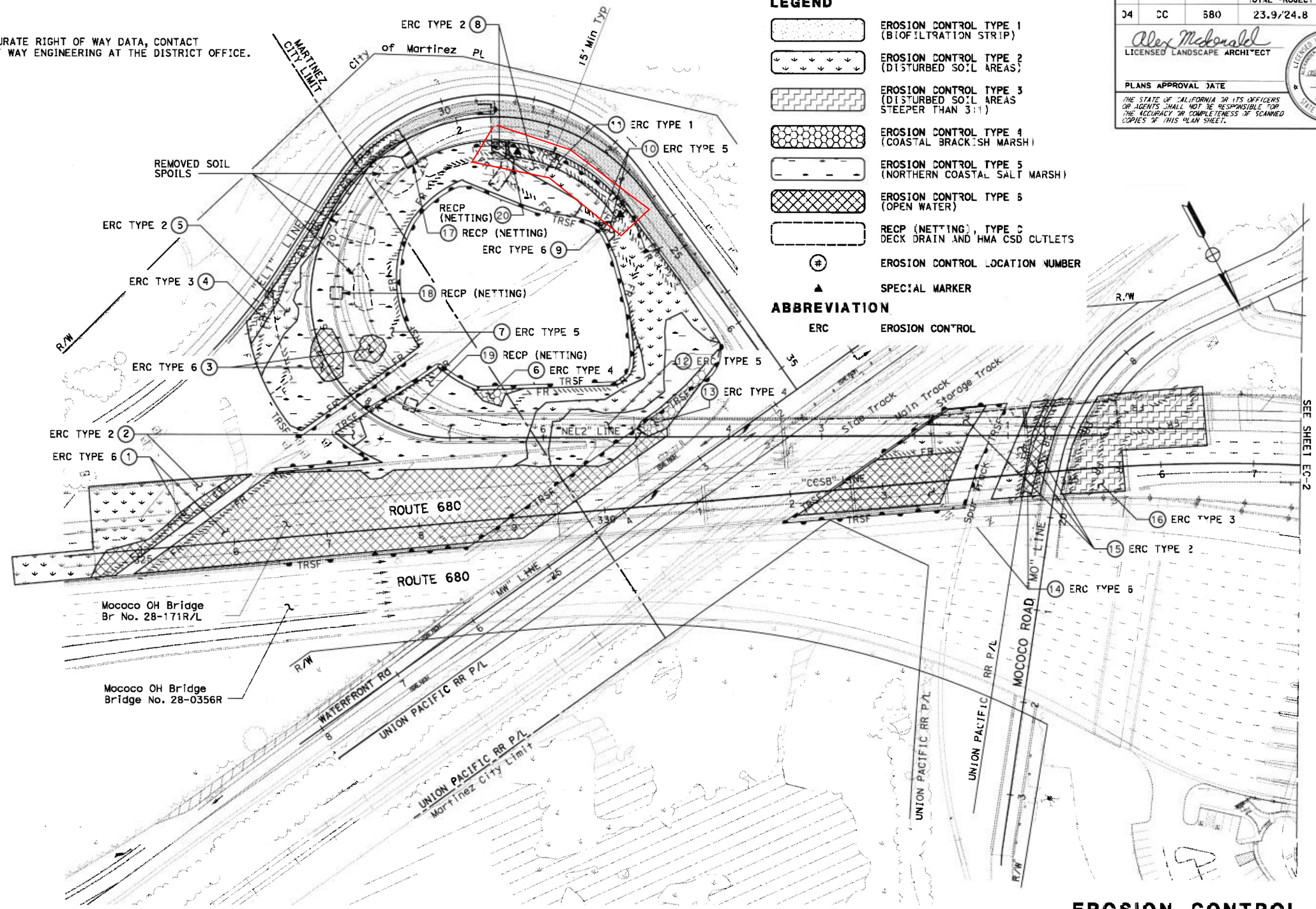
PLANS APPROVAL DATE

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.

LICENSED LANDSCAPE ARCHITECT — ALEXANDER K. MCDONALD No. 5484 — 8-31-14 — RENEWAL DATE — 12-3-12 — DATE — STATE OF CALIFORNIA

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



LEGEND

- EROSION CONTROL TYPE 1 (BIOFILTRATION STRIP)
- EROSION CONTROL TYPE 2 (DISTURBED SOIL AREAS)
- EROSION CONTROL TYPE 3 (DISTURBED SOIL AREAS STEEPER THAN 3:1)
- EROSION CONTROL TYPE 4 (COASTAL BRACKISH MARSH)
- EROSION CONTROL TYPE 5 (NORTHERN COASTAL SALT MARSH)
- EROSION CONTROL TYPE 6 (OPEN WATER)
- RECP (NETTING), TYPE C DECK DRAIN AND HMA CSD OUTLETS
- (#) EROSION CONTROL LOCATION NUMBER
- ▲ SPECIAL MARKER

ABBREVIATION

ERC EROSION CONTROL

EROSION CONTROL PLAN

SCALE: 1" = 50'

EC-1

APPROVED FOR EROSION CONTROL WORK ONLY

REVISED BY	DATE REVISED
AKM	12/2/12

CALCULATED-DESIGNED BY: Alex McDonald
CHECKED BY: Chris Padick

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
WATER QUALITY

SENIOR LANDSCAPE ARCHITECT: DAVID W. YAM

LAST REVISION: DATE PLOTTED -> 03 DEC 2012 TIME PLOTTED -> 15:53
12-03-12

BORDER LAST REVISED 7/2/2010 | USERNAME => s126849 | DGN FILE => 0400000967tb001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0792 | PROJECT NUMBER & PHASE 04000009671

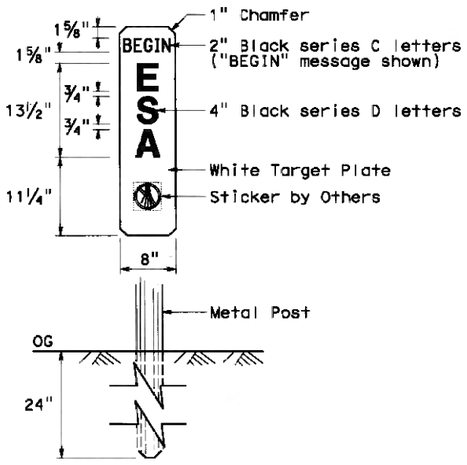
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	CC	680	23.9/24.8		

Alex Mcdonald
LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

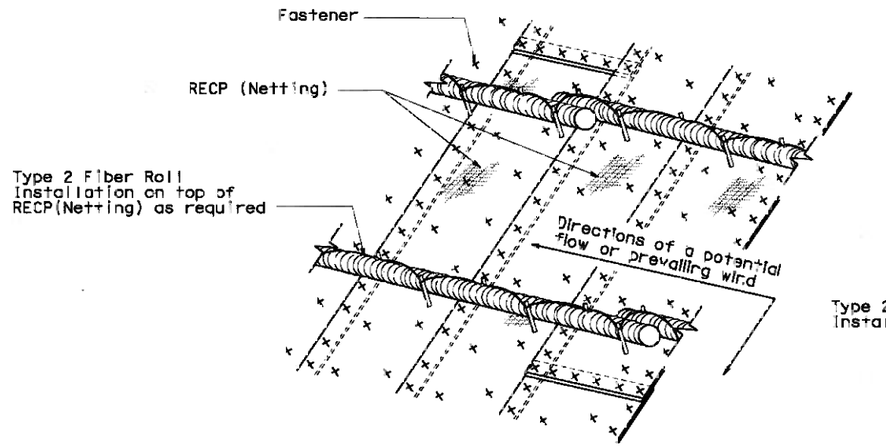
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LICENSED LANDSCAPE ARCHITECT — ALEXANDER K. MCDONALD — No. 5541 — 8-31-14 — Renewal Date — 12-3-12 — STATE OF CALIFORNIA

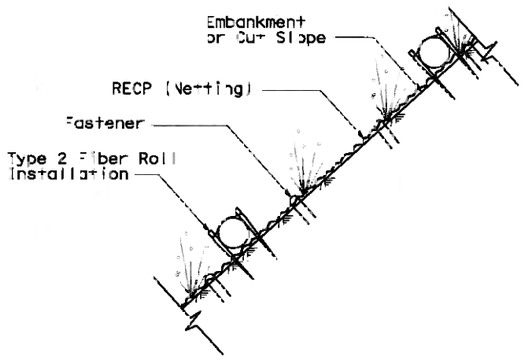


SPECIAL MARKER

See Std Plans A73A, A73B and MUTCD Sign Code G11-10 (CA) for additional details



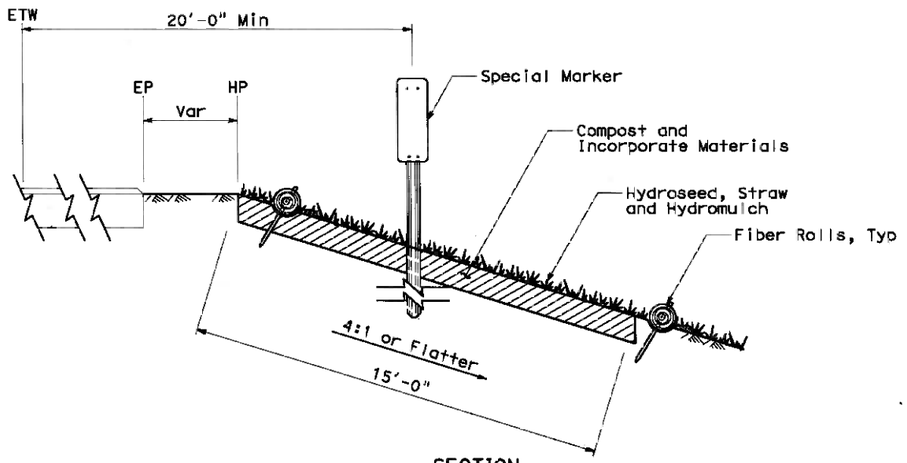
ISOMETRIC



SECTION

ROLLED EROSION CONTROL PRODUCT (NETTING) ON SLOPE WITH FIBER ROLLS

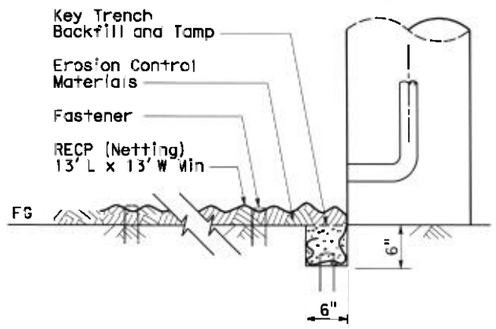
See Std Plan H51 and H52 for additional details



SECTION

BIOFILTRATION STRIP (EROSION CONTROL TYPE 1)

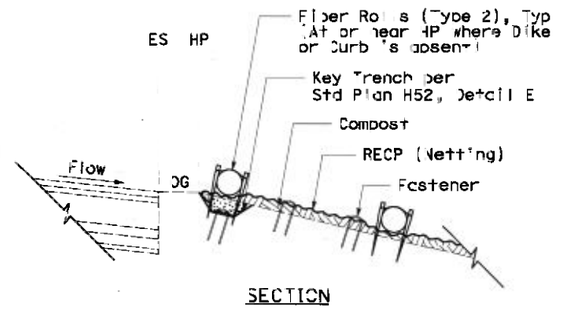
Sta NEL2 22+70.36 TO 24+32.95, Rt



SECTION

ROLLED EROSION CONTROL PRODUCT (NETTING) AT DECK DRAIN AND HMA OSD OUTLETS

(Deck drain outlet shown)
See Std Plans T55 for additional details similar in character



SECTION

EROSION CONTROL (TYPE 3) AT LOCATION 4

Sta EL1 26+60 TO 29+44, Rt

EROSION CONTROL DETAILS

NO SCALE

ECD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
WATER QUALITY
SENIOR LANDSCAPE ARCHITECT — DAVID W. YAM
CALCULATED-DESIGNED BY — Alex McDonald
CHECKED BY — Chris Padick
REVISED BY — AKM
DATE REVISED — 12/2/12
LAST REVISION — DATE PLOTTED => 03-JUL-2014 TIME PLOTTED => 15:53
05 03 12

BORDER LAST REVISED 7/2/2010 | USERNAME => s126849 DGN FILE => 0400000967tc001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0792 | PROJECT NUMBER & PHASE 04000009671

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	DC	88C	23.9/24.8		

Alex McDonald
LICENSED LANDSCAPE ARCHITECT

LICENSED LANDSCAPE ARCHITECT
ALEXANDER C. MCDONALD
No. 5547
Alex McDonald
SIGNATURE
8-31-14
RENEWAL DATE
12-3-12
DATE
STATE OF CALIFORNIA

PLANS APPROVAL DATE

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EROSION CONTROL TYPE 1

SEQUENCE	ITEM	MATERIAL DESCRIPTION	MATERIAL TYPE	APPLICATION RATE	DEPTH
STEP 1	COMPOST	COMPOST	MEDIUM	538 CY/ACRE	
STEP 2	INCORPORATE MATERIALS	COMPOST			6"-10"
STEP 3	HYDROSEED *	SEED	MIX 1	60 LB/ACRE	
		FIBER	WOOD	285 LB/ACRE	
		FERTILIZER	ORGANIC	800 LB/ACRE	
STEP 4	STRAW	STRAW	RICE	2 TON/ACRE	
STEP 5	HYDROMULCH	FIBER	WOOD	285 LB/ACRE	
		TACKIFIER	PSYLLIUM	200 LB/ACRE	

EROSION CONTROL TYPE 2

SEQUENCE	ITEM	MATERIAL DESCRIPTION	MATERIAL TYPE	APPLICATION RATE	DEPTH
STEP 1	COMPOST	COMPOST	MEDIUM	270 CY/ACRE	
STEP 2	INCORPORATE MATERIALS	COMPOST			8"-12"
STEP 3	HYDROSEED *	SEED	MIX 1	60 LB/ACRE	
		FIBER	WOOD	285 LB/ACRE	
		FERTILIZER	ORGANIC	800 LB/ACRE	
STEP 4	STRAW	STRAW	RICE	2 TON/ACRE	
STEP 5	HYDROMULCH	FIBER	WOOD	285 LB/ACRE	
		TACKIFIER	PSYLLIUM	200 LB/ACRE	

EROSION CONTROL TYPE 3

SEQUENCE	ITEM	MATERIAL DESCRIPTION	MATERIAL TYPE	APPLICATION RATE
STEP 1	COMPOST	COMPOST	MEDIUM	135 CY/ACRE
STEP 2	ROLLED EROSION CONTROL PRODUCT (NETTING)	NETTING	TYPE A	
STEP 3	HYDROSEED *	SEED	MIX 1	60 LB/ACRE
		FIBER	CELLULOSE	2,000 LB/ACRE
		FERTILIZER	ORGANIC	800 LB/ACRE
STEP 4	HYDROMULCH	FIBER	CELLULOSE	2,000 LB/ACRE
		TACKIFIER	PSYLLIUM	200 LB/ACRE

EROSION CONTROL TYPE 4

SEQUENCE	ITEM	MATERIAL DESCRIPTION	MATERIAL TYPE	APPLICATION RATE	DEPTH
STEP 1	COMPOST	COMPOST	MEDIUM	270 CY/ACRE	
STEP 2	INCORPORATE MATERIALS	COMPOST			8"-12"
STEP 3	WILDFLOWER SEEDING *	SEED	MIX 2	60 LB/ACRE	
		FERTILIZER	ORGANIC	800 LB/ACRE	
STEP 4	HYDROMULCH	FIBER	CELLULOSE	3,000 LB/ACRE	
		TACKIFIER	PSYLLIUM	200 LB/ACRE	

NOTE:

* SEE FIBER ROLLS SEQUENCE.

EROSION CONTROL TYPE 5

SEQUENCE	ITEM	MATERIAL DESCRIPTION	MATERIAL TYPE	APPLICATION RATE	DEPTH
STEP 1	COMPOST	COMPOST	MEDIUM	270 CY/ACRE	
STEP 2	INCORPORATE MATERIALS	COMPOST			3"-12"
STEP 3	WILDFLOWER SEEDING *	SEED	MIX 3	60 LB/ACRE	
		FERTILIZER	ORGANIC	800 LB/ACRE	
STEP 4	HYDROMULCH	FIBER	CELLULOSE	3,000 LB/ACRE	
		TACKIFIER	PSYLLIUM	200 LB/ACRE	

EROSION CONTROL TYPE 6

SEQUENCE	ITEM	MATERIAL DESCRIPTION	MATERIAL TYPE	APPLICATION RATE	DEPTH
STEP 1	COMPOST	COMPOST	MEDIUM	270 CY/ACRE	
STEP 2	INCORPORATE MATERIALS	COMPOST			3"-12"
STEP 3	HYDROSEED *	SEED	MIX 4	60 LB/ACRE	
		FIBER	CELLULOSE	2,000 LB/ACRE	
STEP 4	HYDROMULCH	FIBER	CELLULOSE	2,000 LB/ACRE	
		TACKIFIER	PSYLLIUM	200 LB/ACRE	

FIBER ROLLS

SEQUENCE	ITEM	MATERIAL DESCRIPTION	MATERIAL TYPE	REMARKS
In erosion control Type 1, 2, 4, 5 and 6 areas Fiber Rolls must be installed before Hydroseed or Wildflower Seeding.	FIBER ROLLS	FIBER ROLL	TYPE B 8" TO 10" Dia	Type 1 Fiber Roll Installation
In erosion control Type 3 areas Fiber Rolls must be installed after RECP (Netting) and before Hydroseed.	FIBER ROLLS	FIBER ROLL	TYPE B 8" TO 10" Dia	Type 2 Fiber Roll Installation

ROLLED EROSION CONTROL PRODUCT (NETTING)

SEQUENCE	ITEM	MATERIAL DESCRIPTION	MATERIAL TYPE	REMARKS
Install after all other erosion control materials in the same area	ROLLED EROSION CONTROL PRODUCT (NETTING)	NETTING	TYPE C	For installation details similar in character, See Std Plan T55

EROSION CONTROL LEGEND

NO SCALE

ECL-1

REVISED BY	AKM
DATE REVISED	12/2/12
CALCULATED-DESIGNED BY	Alex McDonald
CHECKED BY	Chris Padick
SENIOR LANDSCAPE ARCHITECT	DAVID W. YAM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
WATER QUALITY

DATE PLOTTED => 03-DEC-2012
TIME PLOTTED => 15:53
LAST REVISION 05 03 12

BORDER LAST REVISED 7/2/2010

USERNAME => s126849
DGN FILE => 0400000967to001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0792

PROJECT NUMBER & PHASE 0400000967

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.wildlife.ca.gov

EDMUND G. BROWN, Jr., Governor
CHARLTON H. BONHAM, Director

November 14, 2013

Mr. Hardeep Takhar
California Department of Transportation
111 Grand Ave.
Oakland, Ca 94623

Subject: Amendment of Lake or Streambed Alteration Agreement
Notification No. 1600-2013-005-R3

Dear Mr. Takhar:

The California Department of Fish and Wildlife (Department) has received your request to amend Streambed Alteration Agreement #1600-2013-0005-3 (Agreement) and the required fee in the amount of $560.2 for a major amendment. Your request to amend the Agreement includes the following changes:

Project Description:

The work will occur between post miles ~~*24.26*~~ **22.7** and 24.**8**.

The slab section will be supported by 20 pile-driven cast-in-steel-shell (CISS) piles, 2 feet in diameter, arranged in **4 bents and one abutment** ~~*5 bents.*~~

To control flooding and water quality in the greater marsh area, Caltrans will temporarily isolate the Project site from tidal flows before and during construction operations by ~~*closing tidal gates and installing a water diversion system*~~ **installing a coffer dam system which will be placed 36 feet from the existing and proposed structure locations.** Temporary pumps, powered by generators, would be used to pump the remaining rainwater, seawater, and groundwater seepage from the Project site~~*. A gravel bag coffer dam will be placed east of the existing petroleum pipeline box culvert under the northbound Interstate 680 off-ramp, located approximately 700 feet northeast of the proposed structure, to prevent any water from entering the Project site from tidal sources. A 48-inch temporary high density polyethylene culvert will couple to a 48-inch culvert from the Shell Refinery treatment pond, and will divert Shell storm-water through the petroleum pipeline box culvert.*~~ **The dewatering system will remain in place and active for the duration of construction, in order to pump any groundwater that accumulates during pile driving activities. Groundwater will receive treatment to meet watershed standards prior to being discharged.** This system will keep the Project site dry until construction is complete.

Removal of the existing off-ramp structure deck will occur from the existing deck and ground. The existing 16-inch piles will be cut **1** ~~*3*~~ foot below grade.

Avoidance and Minimization Measure 2.1 shall read : Construction work shall occur within ~~*wetland or channel areas*~~ **jurisdictional** areas between **February 1** ~~*March 1*~~ and October 15.

Avoidance and Minimization Measure 2.2 shall be deleted: ~~*Channel dewatering and in-channel construction activities shall occur when the Peyton Slough tide gates are closed.*~~

Avoidance and Minimization Measure 2.7 shall be deleted: ~~*A Qualified Biologist shall install temporary block nets prior to the installation of the downstream cofferdam. The downstream cofferdam will then be installed. A Qualified Biologist will collect and relocate fish downstream of the lower cofferdam. The area between the two cofferdams will be dewatered using a pump with a 1/4-inch mesh fish screen.*~~

Avoidance and Minimization Measure 2.14 shall be deleted: ~~*Pile driving operations shall be limited to a maximum of 40 days to minimize impacts to sensitive species.*~~

Avoidance and Minimization Measure 2.16 shall read: Timber mats will be installed under the entire existing structure and will extend ~~*30*~~ **36** feet on both sides to catch falling debris. Filter fabric **and subgrade enhancement geotextile** will then be installed on top **and bottom** of the mats followed by a plywood cover. Care will be taken around piles/columns to ensure that no holes are present**. Permittee shall prevent all demolition material, including dust, from entering the marsh.**

Compensatory Measure 3.1 shall read: Permittee shall submit to CDFW for review and approval, an Onsite Restoration Plan to address temporary impacts to Coastal Brackish Marsh (~~*1.39*~~ **.06** acre), and temporary (~~*2.58*~~ **1.92** acre) permanent (.08 acre) impacts to Northern Coastal Salt Marsh, within 6 months of the issuance of this Agreement. The Onsite Restoration Plan shall include a plant/seed palette of native species to be used, success criteria, a monitoring a reporting schedule, and corrective actions to be taken if mitigation measures do not meet the approved success criteria. All plantings/seeds shall be derived from locally available genotypes. The Permittee shall monitor the survival and vigor of onsite plantings for a period of 5 years to ensure attainment of 75% survivorship. Permittee shall control invasive species as needed to ensure attainment of 75% survivorship at 5 years. Any onsite plans to convert uplands to wetlands to mitigate for permanent footing impacts shall adhere to the requirements of this condition. Permanent impacts shall be mitigated at a 3:1 mitigation to impact ratio.

A temporary access road, extending 36 feet from both sides of the proposed and existing superstructures, would be required to complete the construction operations for removal and construction of the new off-ramp structure. Contractors will use a timber mat system for access roads and staging areas, to protect the original contour of all wetland areas that cannot be avoided during construction. In addition to timber matting, elevated access trestles may be installed over the existing channel and in locations over the timber matting area. An approximately 100-foot long temporary access ramp will lead from the Interstate 680 southbound onramp to the temporary access road. The access ramp will be constructed of embankment fill with steel sheet pile retaining walls and will be located in upland.

The Department hereby agrees to amend the agreement as requested. All conditions in the Agreement remain in effect.

Copies of the Agreement and this amendment must be readily available at project worksites and must be presented when requested by a Department representative or agency with inspection authority.

If you have any questions regarding this matter, please contact Melissa Escaron, Staff Environmental Scientist at (925)786-3045 or **melissa.escaron@wildlife.ca.gov**

Sincerely,

12/4/13

Craig Weightman
Environmental Program Manager

cc: Melissa Escaron, Staff Environmental Scientist

ACKNOWLEDGEMENT

I hereby agree to the above-referenced amendment.

Print Name: HARDEEP TAKHAR Date: 12.2.13

Signature: _____

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In Reply Refer To:
81420-2011-F-0019-R001

DEC 26 2012

Ms. Melanie Brent, Office Chief
Caltrans District 4 Environmental Analysis
California Department of Transportation
P.O. Box 23660
Oakland, California 94623-0660

Subject: Reinitiation of Consultation on the Interstate 680 Mococo Overhead Seismic Restoration Project in Contra Costa County, California (Caltrans EA 3A8700)

Dear Ms. Brent:

This letter is a reinitiation of formal consultation to amend the Biological Opinion issued on August 19, 1996, (Service File No.: 1-1-96-F-40) for the Interstate 680 (I-680) Mococo Overhead Seismic Restoration located in Contra Costa County, California. Reinitiation was requested by the California Department of Transportation (Caltrans) on September 20, 2012, to address the effects of modifications to project design elements that will provide a more redundant and robust structural system, better able to withstand force effects from an earthquake on the endangered California clapper rail (*Rallus longirostris obsoletus*), endangered salt marsh harvest mouse (*Reithrodontomys raviventris*), threatened delta smelt (*Hypomesus transpacificus*) and designated critical habitat for delta smelt. The biological opinion was previously amended on January 9, 2001 (1-1-01-F- 28), January 14, 2003 (1-1-02-F-0299), February 24, 2003 (1-1-03-F-0087) and March 9, 2011 (81420-2011-F-0019-2). Reinitiation of consultation is exercised under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users legislation (23 U.S.C. 327) allows the Secretary of the U.S. Department of Transportation acting through the Federal Highway Administration (FHWA) to establish a Surface Transportation Project Delivery Pilot Program, whereby a State may assume the FHWA responsibilities under the National Environmental Policy Act (NEPA) for environmental review, agency consultation and other action pertaining to the review or approval of a specific project. Caltrans assumed these responsibilities for the FHWA on July 1, 2007 through a Memorandum of Understanding (MOU) within the State of California (http://www.dot.ca.gov/ser/downloads/MOUs/nepa_delegation/sec6005mou.pdf).

The following changes are made to the August 19, 1996, biological opinion:

1. Add the following to the **Consultation History** on page 1:

September 24, 2012	The Service received a request from Caltrans dated September 20, 2012, to reinitiate formal consultation to address the effects of project design modifications on listed species.
February 18, 2009 - December 5, 2012	Electronic and phone correspondence between Caltrans, California Department of Fish and Game (CDFG) and the Service.

2. Change the following in the **Description of the Proposed Action** on page 2 of the March 9, 2011 amendment from:

The purpose of this project is to bring the Mococo off-ramp and mainline up to the current seismic standards set by Caltrans. Caltrans proposes to repair the deteriorated seismic deficiencies of the existing I-680 southbound off-ramp by replacing it with a new, seismically efficient, off-ramp. The replacement structure would comprise a cast-in-place concrete box girder superstructure and cast-in-place concrete slabs. The girder will be supported by six cast-in-steel shell (CISS) piles, 6.5 feet in diameter. The concrete slab will be supported by thirty-five 16-inch CISS piles on four bents. A new abutment will also be constructed. Corroded restrainer cables will be replaced on the mainline and additional lateral bracings will be installed to span end diaphragms.

Demolition of Existing Structure:

Removal of the existing off-ramp structure deck will occur in sections using heavy equipment and is scheduled for February 2014. The deck will be removed from the ground, or above, including removing all existing substructure elements to a depth of 2 feet below ground. All spoils will be hauled away from the project site. The following actions will be taken to ensure no debris enters the channel or wetland areas during demolition:

1. Filter fabric/plastic/tarps, or other similar material, will be hung and secured from existing structure to prevent demolition material from entering the marsh.

2. Timber mats will be installed under the entire existing structure and will extend 30 feet on both sides to catch falling debris. Filter fabric will then be installed on top of the mats followed by a plywood cover. Care will be taken around piles/columns to ensure that no holes are present.

Replacement of Off-ramp:

Pile driving activities will be scheduled to occur in short succession to minimize the temporal duration of effects on listed species. Pile driving is expected to last less than 20 days. For the range of diesel impact hammers proposed by Caltrans' Structure Design Team, time for pile driving, not including stoppages, is between 30-60 minutes per pile. Sound pressure level for the same proposed diesel impact hammers ranges from 99 dBA to 119 dBA at a distance of 23 feet from pile. Pile noise at peak intensity will attenuate to near-background highway noise (83 Lmax dB) at a distance of 1,500 feet. Consequently, traffic handling is necessary on the mainline and off-ramp until the new off-ramp construction on this area is completed. A temporary access road is required to complete

the construction operations. Alignment and construction of the new abutment will occur during this phase.

Retrofit of Mainline:

Caltrans will retrofit the mainline by replacing the restrainer cables and installing cross bracing. This will require partial closure of Marina Vista Avenue/Waterfront Road. Traffic will be re-routed first onto the northern half of the road, then the southern half, until repairs to the understructure are completed. A temporary trestle 30 feet wide and approximately 25 feet long will be constructed over the existing drainage canal, to provide access for restoration. The location of the end supports for the trestle would be at hard points to prevent the bank from collapsing, as required, and ESA fencing will line the channel to prevent workers from disturbing the channel bank. All groundwork required for restoration of mainline will occur between March 1, 2013 and October 15, 2013, with non-ground work, i.e. work on the roadway proper, occurring from October 15, 2013 to December 15, 2013.

Staging and Access

Caltrans identified staging locations within the Caltrans right of way (ROW). Staging locations will be used for temporary storage of heavy construction equipment, various construction materials, stockpile areas, equipment maintenance shops, and field offices. Staging shall occur on the shoulder of Marina Vista Avenue, directly underneath the mainline north-northeast of the project site, as well as 50 feet east of the existing off-ramp. No vegetation is present at the shoulder location and under the mainline site. There is wetland vegetation located in the area proposed, approximately 50 feet east of existing structure. All staging in natural areas will be fitted with using a combination of materials and techniques such as timber mats, geotextile reinforcing fabric, crushed rock and falsework pads to protect the wetland habitats. No gravel/geotech fabric will be used at staging areas to fulfill Regional Water Quality Control Board recommendations.

Caltrans identified access roads within the Caltrans ROW. Access roads will be used for driving equipment to the project footprint. Caltrans will completely avoid the existing channel, and will protect the channel by installing ESA fencing within the impact areas. Two areas will be used for access roads. The first area is an existing dirt roadway directly northwest of the existing structure. The second area is directly south-southeast of the proposed structure, which continues under the overhead structure approximately 50 feet east of the structure. At this location, there is no access road at this time. Contractors will use combination of materials and techniques including but not limited to: geotextile reinforcing fabric, crushed rock and falsework pads, for access roads and staging areas to protect the original contour of all wetland areas that cannot be avoided within identified affected areas. No gravel will be used at staging areas to fulfill Regional Water Quality Control Board recommendations. After construction is complete, all material will be removed and the area will be restored to original grade to the maximum extent practicable.

To:

The purpose of this project is to bring the Mococo off-ramp and mainline up to the current seismic standards set by Caltrans. Caltrans proposes to repair the deteriorated seismic deficiencies of the existing I-680 southbound off-ramp by replacing it with a new, seismically efficient, off-ramp. ~~The replacement structure would comprise a cast-in-~~

~~place concrete box girder superstructure and cast-in-place concrete slabs. The girder will be supported by six cast-in-steel-shell (CISS) piles, 6.5 feet in diameter. The concrete slab will be supported by thirty-five 16-inch CISS piles on four bents.~~ **The replacement structure would comprise a combination of 20-CISS piles and 12-cast in drilled hole (CIDH) piles. The abutment design has remained unchanged as its design minimizes the amount of fill used in grading the abutment. The CIDG piles will be arranged in groups of two piles per bent, for a total of six bents. The CISS piles will be arranged in groups of four piles per bent, for a total of five bents. The final bent will be adjacent to the abutment retaining walls.** A new abutment will also be constructed. Corroded restrainer cables will be replaced on the mainline and additional lateral bracings will be installed to span end diaphragms.

Demolition of Existing Structure:

Removal of the existing off-ramp structure deck will occur in sections using heavy equipment and is scheduled for March 2013. The deck will be removed from the ground, or above, including removing all existing substructure elements to a depth of 2 feet below ground. **The demolition plan will remove the off-ramp in longitudinal sections, working from the mainline towards the abutment.** All spoils will be hauled away from the project site. The following actions will be taken to ensure no debris enters the channel or wetland areas during demolition:

1. ~~Filter fabric/plastic/tarps, or other similar material, will be hung and secured from existing structure to prevent demolition material from entering the marsh~~.

2. Timber mats will be installed under the entire existing **and proposed off-ramp** structures and will extend 30 feet on both sides to catch falling debris. Filter fabric will then be installed on top of the mats followed by a plywood cover. Care will be taken around piles/columns to ensure that no holes are present.

Replacement of Off-ramp:

Pile driving activities will be scheduled to occur in short succession to minimize the temporal duration of effects on listed species. Pile driving is expected to last ~~less than 20~~ **a maximum of 40 days to transport and stage the CIDH piles, and to ensure the pile locations are sufficiently dewatered for stability of the final structure**. For the range of diesel impact hammers proposed by Caltrans' Structure Design Team, time for pile driving, not including stoppages, is between 30-60 minutes per pile. Sound pressure level for the same proposed diesel impact hammers ranges from 99 dBA to 119 dBA at a distance of 23 feet from pile. Pile noise at peak intensity will attenuate to near-background highway noise (83 Lmax dB) at a distance of 1,500 feet. Consequently, traffic handling is necessary on the mainline and off-ramp until the new off-ramp construction on this area is completed. A temporary access road is required to complete the construction operations. Alignment and construction of the new abutment will occur during this phase.

Mainline Repairs

Caltrans will retrofit the mainline by replacing the restrainer cables and installing cross bracing. ***The repairs will include installation of corbel catcher assemblies, to prevent girders from falling should they become loose during an earthquake.*** This will require

partial closure of Marina Vista Avenue/Waterfront Road. Traffic will be re-routed first onto the northern half of the road, then the southern half, until repairs to the understructure are completed. A temporary trestle 30 feet wide and approximately 25 feet long will be constructed over the existing drainage canal, to provide access for restoration. The location of the end supports for the trestle would be at hard points to prevent the bank from collapsing, as required, and ESA fencing will line the channel to prevent workers from disturbing the channel bank. All groundwork required for restoration of mainline will occur between March 1, 2013 and October 15, 2013, with non-ground work, i.e. work on the roadway proper, occurring from October 15, 2013 to December 15, 2013.

Staging and Access

Caltrans identified staging locations within the Caltrans right of way (ROW). Staging locations will be used for temporary storage of heavy construction equipment, various construction materials, stockpile areas, equipment maintenance shops, and field offices. Staging shall occur on the shoulder of Marina Vista Avenue, directly underneath the mainline north-northeast of the project site, as well as 50 feet east of the existing off-ramp. No vegetation is present at the shoulder location and under the mainline site. There is wetland vegetation located in the area proposed, approximately 50 feet east of existing structure. All staging in natural areas will be fitted with using a combination of materials and techniques such as timber mats, geotextile reinforcing fabric, crushed rock and falsework pads to protect the wetland habitats. No gravel/geotech fabric will be used at staging areas to fulfill Regional Water Quality Control Board recommendations.

Caltrans identified access roads within the Caltrans ROW. **A 100-foot long temporary access ramp will be constructed from the southbound on-ramp to I-680 from Marina Vista, immediately east of the proposed off-ramp structure. The proposed temporary ramp will be located between two 100-foot long sheet pile walls, used to support the roadbed.** Access roads will be used for driving equipment to the project footprint. Caltrans will completely avoid the existing channel, and will protect the channel by installing ESA fencing within the impact areas. ~~Two areas will be used for access roads. The first area is an existing dirt roadway directly northwest of the existing structure. The second area is directly south-southeast of the proposed structure, which continues under the overhead structure approximately 50 feet east of the structure. At this location, there is no access road at this time.~~ Contractors will use combination of materials and techniques including but not limited to: geotextile reinforcing fabric, crushed rock and falsework pads, for access roads and staging areas to protect the original contour of all wetland areas that cannot be avoided within identified affected areas. No gravel will be used at staging areas to fulfill Regional Water Quality Control Board recommendations. After construction is complete, all material will be removed, the area will be restored to original grade to the maximum extent practicable **and all temporarily affected areas will be hydroseeded with native wetland or upland seed mix, with a one-year plant establishment period and five years of monitoring to ensure restored areas are returned to preconstruction condition.**

This concludes the reinitiation of formal consultation on the I-680 Mococo Overhead Seismic Restoration Project located in Contra Costa County, California. The remainder of the August 19, 1996, biological opinion and March 9, 2011, amendment is unchanged. If you have questions concerning this reinitiation of consultation on the I-680 Mococo Overhead Seismic Restoration Project, please contact Jerry Roe or Ryan Olah at (916) 414-6600.

Sincerely,

E. Tatteval

for Susan K. Moore
Field Supervisor

cc:
Melisa Escaron, California Department of Fish and Game, Yountville, California

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In Reply Refer To:
81420-2011-F-0019-2

MAR 09 2011

Mr. Jim Richards
Attn: Rachel Cotroneo
Office of Biological Sciences and Permits
California Department of Transportation
P.O. Box 23660
Oakland, California 94623-0660

Subject: Reinitiation of Consultation on the Interstate 680 Mococo Overhead Seismic Restoration Project in Contra Costa County, California (Caltrans EA 3A8700)

Dear Mr. Richards:

This letter is a reinitiation of consultation for the August 19, 1996, biological opinion for the Interstate 680 (I-680) Mococo Overhead Seismic Restoration Project (Service File No.: 1-1-96-F-40) located in Contra Costa County, California. Reinitiation of consultation was requested by the California Department of Transportation (Caltrans) to include the seismic restoration of the Mococo off-ramp. Reinitiation of consultation is exercised under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

The following changes are made to the August 19, 1996, biological opinion:

1. Add the following to the **Consultation History** on page 3:

February 18, 2009	The Fish and Wildlife Service (Service) attended a site visit with Caltrans to familiarize agency staff with the project and discuss effects to listed species.
April 21, 2009	The Service attended a site visit with Caltrans and the California Department of Fish and Game to evaluate project alternatives and discuss reinitiation of formal consultation and amendment to biological opinion for the I-680 Benicia-Martinez Bridge.
June 16, 2010	The Service received the Notice of Availability for the Intent to Adopt Draft Initial Study with a Mitigated Negative Declaration dated June 3, 2010.
July 14, 2010	The Service received a letter from Caltrans dated August 12, 2010, requesting reinitiation of formal consultation to include the seismic restoration of the Mococo off-ramp. The Service also received a Natural Environment Study dated August 2010.

February 18, 2009 - February 16, 2011 Electronic and phone correspondence between Caltrans, California Department of Fish and Game (CDFG) and the Service.

2. Add the following to the **Description of the Proposed Action** on page 3:

The purpose of this addition to the project is to bring the Mococo off-ramp and mainline up to the current seismic standards set by Caltrans. Caltrans proposes to repair the deteriorated seismic deficiencies of the existing I-680 southbound off-ramp by replacing it with a new, seismically efficient, off-ramp. The replacement structure would comprise a cast-in-place concrete box girder superstructure and cast-in-place concrete slabs. The girder will be supported by six cast-in-steel shell (CISS) piles, 6.5 feet in diameter. The concrete slab will be supported by thirty-five 16-inch CISS piles on four bents. A new abutment will also be constructed. Corroded restrainer cables will be replaced on the mainline and additional lateral bracings will be installed to span end diaphragms.

A 30-foot temporary road measured from both sides of the proposed and existing superstructures would be required to complete the construction operations for removal and construction of the new off-ramp structure. Contractors will use a combination of materials and techniques including but not limited to: geotextile reinforcing fabric, crushed rock and falsework pads, for access roads and staging areas to protect the original contour of all wetland areas that cannot be avoided within identified affected areas. No gravel will be placed directly on wetland soils and will be contained within designated areas atop of geotextile reinforcing fabric or other similar method to prevent gravel fill of wetlands and the channel. After construction is complete, all material will be removed and the area will be restored to original grade to the maximum extent practicable. To protect the low flow channel within the project footprint Caltrans will install an Environmentally Sensitive Area (ESA) fence along the temporary access and staging areas where the channel is located.

Removal of the existing off-ramp structure deck will occur in sections using heavy equipment from the ground, including the removal of all existing Raymond piles to 2 feet below ground. All spoils will be hauled off-site using large dump trucks. A debris containment system will be developed by the contractor to ensure no debris enters the channel and surrounding wetlands during demolition.

Construction

Dewatering Strategy:

Caltrans will install one dewatering pump and a 48-inch temporary culvert that will connect the existing 48-inch culvert from the shell refinery pond to the existing 66-inch cross culvert. The dewatering pump will be used to handle the 25-year storm runoff sheet flowing into the project footprint and the wetland east of the action area.

To install this dewatering system, the contractor will need to:

1. Create a temporary access way along the low flow channel to install the 48-inch pipe and access to the western side of the existing 66-inch culvert using a combination of materials and techniques such as timber mats, geotextile reinforcing fabric, crushed rock and falsework pads. This will be removed after project completion.

2. Temporarily dewater the western side of the existing 66-inch culvert to install the transition structure/junction box between the temporary 48-inch and existing 66-inch, as well as the main dewatering pump and generator. This will involve a cofferdam in the area immediately adjacent to the western side of the existing 66-inch culvert and temporarily plugging the 66-inch culvert with a plug pig or other inflatable bladder. The dewatering pump will be installed in or adjacent to the low spot in the channel (adjacent to the proposed transition structure) and will discharge into the transition structure/junction box. The sheet piles and inflatable bladder will be removed following completion of the transition structure/junction box and main dewatering pump installation. The transition structure/junction box and main dewatering pump will be removed after project completion.

3. Gravel-bagging of the utility box culvert located approximately 700 feet to the northeast of the project footprint. Installation of gravel bags will be done by hand. Gravel bags and fill in the gravel bags will be consistent with National Marine Fisheries Service (NMFS) and Regional Water Quality Control Board specifications. This will be removed after project completion.

4. Construction site ancillary dewatering pumps at the pile cap excavations to expel accumulated ground water. This will be accomplished with general construction site pumps.

The equipment used to install the dewatering system is envisioned to be a medium size excavator for placing the temporary culverts, main dewatering pump, and transition structure. The access road will be constructed using a combination of materials and techniques such as timber mats, geotextile reinforcing fabric, crushed rock and falsework pads. These materials will be removed when work is completed. These dewatering activities will occur in March 2013, directly before construction begins.

Fish Salvage Plan:

Prior to implementation, the dewatering and fish salvage plan will be submitted to NMFS and CDFG for approval to protect fish. Caltrans will first install an upstream cofferdam. A CDFG/NMFS-approved Fisheries Certified Biologist will install temporary block nets prior to the installation of the downstream cofferdam. The downstream cofferdam will then be installed. The biologists will collect and relocate fish downstream of the lower cofferdam in accordance with the agency approved fish salvage plan. The area between the two cofferdams will be dewatered using a pump with a fish screen. The fish screen will comprise 1/4-inch mesh in accordance with NMFS Fish Screening Criteria (NMFS 1997) for fingerling-sized fish unless otherwise directed by NMFS. The fish screen will be inspected by the on-site biologist prior to installation to verify it is in compliance with NMFS standards. If any listed species are found, work will be stopped immediately and the appropriate actions will be taken and the agencies will be notified.

Demolition of Existing Structure:

Removal of the existing off-ramp structure deck will occur in sections using heavy equipment and is scheduled for March 2013. The deck will be removed from the ground, or above, including removing all existing substructure elements to a depth of 2 feet below ground. All spoils will be hauled away from the project site. The following actions will be taken to ensure no debris enters the channel or wetland areas during demolition:

1. Filter fabric/plastic/tarps, or other similar material, will be hung and secured from existing structure to prevent demolition material from entering the marsh.

2. Timber mats will be installed under the entire existing structure and will extend 30 feet on both sides to catch falling debris. Filter fabric will then be installed on top of the mats followed by a plywood cover. Care will be taken around piles/columns to ensure that no holes are present.

Replacement of Off-ramp:

Pile driving activities will be scheduled to occur in short succession to minimize the temporal duration of effects on listed species. Pile driving is expected to last less than 20 days. For the range of diesel impact hammers proposed by Caltrans' Structure Design Team, time for pile driving, not including stoppages, is between 30-60 minutes per pile. Sound pressure level for the same proposed diesel impact hammers ranges from 99 dBA to 119 dBA at a distance of 23 feet from pile. Pile noise at peak intensity will attenuate to near-background highway noise (83 Lmax dB) at a distance of 1,500 feet. Consequently, traffic handling is necessary on the mainline and off-ramp until the new off-ramp construction on this area is completed. A temporary access road is required to complete the construction operations. Alignment and construction of the new abutment will occur during this phase.

Retrofit of Mainline:

Caltrans will retrofit the mainline by replacing the restrainer cables and installing cross bracing. This will require partial closure of Marina Vista Avenue/Waterfront Road. Traffic will be re-routed first onto the northern half of the road, then the southern half, until repairs to the understructure are completed. A temporary trestle 30 feet wide and approximately 25 feet long will be constructed over the existing drainage canal, to provide access for restoration. The location of the end supports for the trestle would be at hard points to prevent the bank from collapsing, as required, and ESA fencing will line the channel to prevent workers from disturbing the channel bank. All groundwork required for restoration of mainline will occur between March 1, 2013 and October 15, 2013, with non-ground work, i.e. work on the roadway proper, occurring from October 15, 2013 to December 15, 2013.

Project Schedule and Funding

The first phase of construction will begin in March 2013 and construction is currently scheduled to be completed by December 2013. The first phase of the work will be dewatering of the project site. The second phase involves installation of timber mats, demolition of the current structure and installation of CISS piles and new abutment. The third phase of the project will involve completing the cast in place concrete box girder superstructure and replacing the restrainer cables and cross bracing on the mainline.

Equipment Used

The project may require equipment such as, but not limited to, inflatable bladder, pumps, cherry pickers, cranes, excavators, bobcats, or backhoes, rubber-tired dump trucks, front-end loaders, drill jumbos, front-end loaders, asphalt-paving machines, and impact pile-driving hammers.

Staging and Access

Caltrans identified staging locations within the Caltrans right of way (ROW). Staging locations will be used for temporary storage of heavy construction equipment, various construction materials, stockpile areas, equipment maintenance shops, and field offices. Staging shall occur on the shoulder of Marina Vista Avenue, directly underneath the mainline north-northeast of the project site, as well as 50 feet east of the existing off-ramp. No vegetation is present at the shoulder location and under the mainline site. There is wetland vegetation located in the area proposed, approximately 50 feet east of existing structure. All staging in natural areas will be fitted with using a combination of materials and techniques such as timber mats, geotextile reinforcing fabric, crushed rock and falsework pads to protect the wetland habitats. No gravel/geotech fabric will be used at staging areas to fulfill Regional Water Quality Control Board recommendations.

Caltrans identified access roads within the Caltrans ROW. Access roads will be used for driving equipment to the project footprint. Caltrans will completely avoid the existing channel, and will protect the channel by installing ESA fencing within the impact areas. Two areas will be used for access roads. The first area is an existing dirt roadway directly northwest of the existing structure. The second area is directly south-southeast of the proposed structure, which continues under the overhead structure approximately 50 feet east of the structure. At this location, there is no access road at this time. Contractors will use combination of materials and techniques including but not limited to: geotextile reinforcing fabric, crushed rock and falsework pads, for access roads and staging areas to protect the original contour of all wetland areas that cannot be avoided within identified affected areas. No gravel will be used at staging areas to fulfill Regional Water Quality Control Board recommendations. After construction is complete, all material will be removed and the area will be restored to original grade to the maximum extent practicable.

Conservation Measures

1. **Seasonal Avoidance**. Construction actions will be scheduled to minimize effects on in channel and wetland habitats. Construction work will occur within in-channel or wetland areas between March 1 and October 15.

2. **Environmentally Sensitive Area Fencing.** Prior to the start of construction, ESAs – defined as areas containing sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed – will be clearly delineated using high-visibility orange fencing. Construction work areas include the active construction site and all areas providing support for the project including areas used for vehicle parking, equipment and material storage and staging, access roads, etc. The ESA fencing will remain in place throughout the duration of the project, while construction activities are ongoing and will prevent the encroachment of construction equipment/personnel from entering sensitive habitat areas. The final project plans will depict all locations where ESA fencing will be installed and how it will be installed. The bid solicitation package special provisions will clearly describe acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs. In addition, hydrological features (i.e., topographic depressions, drainage ditches, culverts, etc.) outside of the project footprint will not be manipulated (i.e., re-routed, dredged, filled, graded, etc.). This will avoid

potential effects to wetlands and waters outside of the project footprint that are hydrologically connected to aquatic features within the project footprint.

3. **Wildlife Exclusion Fencing**. Prior to the start of construction, Wildlife Exclusion Fencing (WEF) will be installed along the project footprint in all areas where salt marsh harvest mice could enter the project site. In cooperation with the Service and CDFG the location of the fencing will be determined by the Resident Engineer and Service/CDFG-approved biologist based on habitat suitability. The final project plans will show where and how the WEF will be installed. The special provisions of the bid solicitation package will clearly describe acceptable fencing material and proper WEF installation and maintenance. The WEF will remain in place throughout the duration of the project, while construction activities are ongoing. The WEF will be inspected daily and maintained throughout the project duration. Upon project completion the WEF will be completely removed and the areas returned to original condition or better.

4. **Environmental Awareness Training**. Before the onset of construction activities, a qualified biologist will conduct an education program for all construction personnel. At a minimum the training will include a description of salt marsh harvest mouse, California clapper rail and other listed species; migratory birds and their habitats; the occurrence of these species within the action area; an explanation of the status of these species and protection under the Act; the measures to be implemented to conserve listed species and their habitats as they relate to the work site; and boundaries within which construction may occur. A fact sheet conveying this information will be prepared and distributed to all construction crews and project personnel entering the project footprint. Upon completion of the program, personnel will sign a form stating that they attended the program and understand all the avoidance and minimization measures and implications of Act.

5. **Biological Monitor**. Caltrans will designate one or more Service/CDFG-approved biologist(s) for the project. This qualified biologist(s) will be onsite during all activities that may result in the take of listed species. The qualifications of the biologist(s) will be presented to the Service for review and written approval 45 days before ground-breaking occurs at the project site. The biologist(s) will be given the authority, through the Resident Engineer, to stop any work that may result in the take of these listed animal species. If the biologist(s) exercises this authority, the Service/CDFG will be notified by telephone and electronic mail within one working day.

6. **Work Stoppage**. Upon notice from the on-site biological monitor, the Resident Engineer will halt work and immediately contact the Service/CDFG-approved biologist in the event that a listed species is observed in the construction zone. The Resident Engineer will suspend all construction activities in the immediate construction zone, until the species leaves the site voluntarily or is moved from the site by the Service/CDFG-approved biologist as directed by the Service/CDFG.

7. **Best Management Practices (BMP)**. Storm Water Pollution Prevention Plans (SWPPP) and erosion control BMPs will be developed and implemented to minimize any wind or water-related erosion and will be in compliance with the requirements of the Regional Water Quality Control Board. The SWPPP will

provide guidance for design staff to include provisions in construction contracts for measures to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. Protective measures will include, at a minimum:

a. No discharge of pollutants from vehicle and equipment cleaning is allowed into any storm drains or water courses.

b. Vehicle and equipment fueling and maintenance operations must be at least 50 feet away from watercourses, except at established commercial gas stations or established vehicle maintenance facility.

c. Concrete wastes are collected in washouts and water from curing operations is collected and disposed. Neither will be allowed into watercourses.

d. Spill containment kits will be maintained onsite at all times during construction operations and/or staging or fueling of equipment.

e. Dust control measures will include use of water trucks and dust palliatives to control dust in excavation-and-fill areas, covering temporary access road entrances and exits with rock (rocking), and covering of temporary stockpiles when weather conditions require.

f. Coir rolls or straw wattles will be installed along or at the base of slopes during construction to capture sediment.

g. Protection of graded areas from erosion using a combination of silt fences, fiber rolls along toes of slopes or along edges of designated staging areas, and erosion control netting (such as jute or coir) as appropriate on sloped areas.

h. Permanent erosion control measures such as bio-filtration strips and swales to receive storm water discharges from the highway, or other impervious surfaces will be incorporated to the maximum extent practicable.

8. **Construction Site Management Practices**. The following site restrictions will be implemented to avoid or minimize effects on listed species and their habitats:

a. A speed limit of 15 miles per hour (mph) in the project footprint in unpaved areas will be enforced to reduce dust and excessive soil disturbance.

b. Construction access, staging, storage, and parking areas, will be located within the project ROW outside of any designated ESA or outside of the ROW in areas environmentally cleared by the contractor. Access routes and the number and size of staging and work areas will be limited to the minimum necessary to construct the proposed project. Routes and boundaries of roadwork will be clearly marked prior to initiating construction or grading.

c. To the maximum extent practicable, any borrow material will be certified to be non-toxic and weed free.

d. All food and food-related trash items will be enclosed in sealed trash containers and removed completely from the site at the end of each day.

e. No pets from project personnel will be allowed anywhere in the action area during construction.

f. No firearms will be allowed on the project site except for those carried by authorized security personnel, or local, State or Federal law enforcement officials.

g. All equipment will be maintained such that there will be no leaks of automotive fluids such as gasoline, oils or solvents and a Spill Response Plan will be prepared. Hazardous materials such as fuels, oils, solvents, etc. will be stored in sealable containers in a designated location that is at least 50 feet from wetlands and aquatic habitats.

h. Servicing of vehicles and construction equipment including fueling, cleaning, and maintenance will occur at least 50 feet from any aquatic habitat unless separated by topographic or drainage barrier or unless it is an already existing gas station. Staging areas may occur closer to the project activities as required.

9. **Reduce Ground Disturbance**. To minimize potential effects from compaction or other disturbances, contractors will use a combination of materials and techniques such as timber mats, geotextile reinforcing fabric, crushed rock and falsework pads to protect the original contour of all wetland areas that cannot be avoided within identified temporary effect areas adjacent to or within the Caltrans ROW. Staging areas within the vegetated area of the action area will have geo-fabric and aggregate rock installed prior to use. No gravel will be used for staging areas. After construction, all materials will be removed and restored to pre-construction conditions or better.

10. **Removal of Debris**. All grinding and asphalt concrete waste will be hauled off-site, to an environmentally cleared location.

11. **Avoidance of Entrapment**. To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 2-feet deep will be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled they must be thoroughly inspected for trapped animals. All replacement pipes, culverts, or similar structures stored in the action area overnight will be inspected before they are subsequently moved, capped and/or buried. If at any time a listed species is discovered, the Resident Engineer and Service/CDFG-approved biologist will be informed immediately. The Service/CDFG-approved biologist will coordinate with the Service/CDFG to determine if relocating the species is necessary.

12. **Proper Use of Erosion Control Devices**. To prevent listed species from becoming entangled, trapped or injured, erosion control materials with plastic mono-filament netting will not be used within the action area.

13. **Clearance Surveys**. Immediately prior to the initiation of any ground disturbing activities including staging of equipment or materials, the Service/CDFG-approved biologist will conduct a clearance survey to ensure no listed species are present

within the area to be disturbed. If a listed species is observed, all project work will cease and the Service/CDFG will be contacted to determine how to proceed. Under no circumstances will the capture, handling or relocation of salt marsh harvest mice or California clapper rails occur unless expressly authorized by the Service and CDFG.

14. **Vegetation Removal.** Vegetation removal will be minimized to the maximum extent possible. Vegetation will be cut above the soil level except in areas that will be excavated. This will allow plants that reproduce vegetatively to resprout after construction. A Service/CDFG-approved biologist will be present during all vegetation clearing and grubbing activities and will thoroughly inspect all areas immediately prior to vegetation clearing. If at any point salt marsh harvest mouse, California clapper rail or other listed species are discovered during these activities, work will cease until the animal(s) has left the area. All clearing and grubbing of pickleweed will occur by hand (i.e. using shovels, pick axes, etc.; no motorized tools including weed wackers, chainsaws, etc. shall be used), all other vegetation will be cleared either by hand or light construction equipment such as backhoes and excavators. If clearing and grubbing occurs between February 1 and August 31, a qualified biologist(s) will survey for nesting birds within the area(s) to be disturbed including a perimeter buffer of 100 feet for passerines and 500 feet for raptors before clearing activities begin. All nest avoidance requirements of the Migratory Bird Treaty Act and California Fish and Game Code will be observed. All cleared vegetation will be removed from the project footprint to prevent attracting animals to the project site. The contractor will be responsible for obtaining all permits, licenses and environmental clearances for properly disposing of such materials.

15. **Reduce Spread of Invasive Species**. To reduce the spread of invasive non-native plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. This order is provided to prevent the introduction of invasive species and provide for their control in order to minimize the economic, ecological, and human health impacts. In the event that high-or medium-priority noxious weeds, as defined by the California Department of Food and Agriculture or the California Invasive Plant Council, are disturbed or removed during construction-related activities, the contractor will contain the plant material associated with these noxious weeds and dispose of it in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing native grasses or a native erosion control seed mixture. If seeding is not possible, the area should be covered to the extent practicable with heavy black plastic solarization material until the end of the project.

16. **Replant, Reseed, and Restore Disturbed Areas**. All slopes or unpaved areas temporarily affected by the proposed action will be restored to pre-project conditions to the maximum extent practicable. Slopes and bare ground will be reseeded with native grasses and shrubs to stabilize and prevent erosion. Where disturbance includes the removal of trees or plants, native species will be replanted.

3. Add the following text at the end of the **Status of the Species** for the California clapper rail on page 7:

California Clapper Rail

Listing Status: The California clapper rail was listed as endangered on October 13, 1970 (35 FR 16047). Critical Habitat has not been designated for this species. A detailed account of the taxonomy, ecology, and biology of the clapper rail is presented in the Salt Marsh Harvest Mouse & California Clapper Rail Recovery Plan (Service 1984) and the references cited therein. The clapper rail is a Fully Protected Species under California law (See California Fish and Game Code Section 3511).

Natural History and Distribution: This subspecies is one of three subspecies in California listed as endangered under the Act. The other subspecies include the light-footed clapper rail (*R. l. levipes*), which is found in tidal marshes in southern California and northwestern Baja California, and the Yuma clapper rail (*R. l. yumanensis*), which is restricted to the Colorado River basin. The California clapper rail is distinguishable from other clapper rails by its large body size of 13 to 19-inch from bill to tail, and weighs approximately 8.8 to12.3 oz. It has an orange bill, a rufous breast, black and white barred flanks, and white undertail coverts (Albertson and Evens 2000). Clapper rails are sexually dimorphic; the males are slightly larger than females (Garcia 1995). Juveniles have a pale bill and dark plumage. Clapper rails are capable of producing several vocalizations, most common of which are a series of keks or claps (Massey and Zembal 1987).

The clapper rail is endemic to tidally influenced salt and brackish marshes of California. Historically, the clapper rail occurred in tidal marshes along California's coast from Morro Bay, San Luis Obispo County, to Humboldt Bay, Humboldt County. Currently, California clapper rails are known to occur in tidal marshes in the San Francisco Estuary (Estuary) (San Francisco, San Pablo, Grizzly, Suisun and Honker bays). Clapper rails are typically found in the intertidal zone and sloughs of salt and brackish marshes dominated by pickleweed (*Salicornia virginica*), Pacific cordgrass (*Spartina foliosa*), gumplant (*Grindelia stricta* var. *angustifolia*), saltgrass (*Distichlis spicata*), jaumea (*Jaumea carnosa*), and adjacent upland refugia. They may also occupy habitats with other vegetative components, which include, but are not limited to, bulrush (*Scirpus americanus* and *S. maritimus*), cattails (*Typha* spp.), and Baltic rush (*Juncus balticus*).

Evens and Page (1983) concluded from research in a northern San Francisco Bay marsh that the clapper rail breeding season, including pair bonding and nest construction, may begin as early as February. Field observations in South Bay marshes suggest that pair formation also occurs in February in some areas (J. Takekawa, pers. comm.). The end of the breeding season is typically defined as the end of August, which corresponds with the time when eggs laid during re-nesting attempts have hatched and young are mobile. Harvey (1988) and Foerster *et al.* (1990) reported mean clutch sizes of 7.27 and 7.47 eggs for clapper rails, respectively. The clapper rail builds a bowl shaped platform nest of marsh vegetation and detritus (DeGroot 1927; Harvey 1988; Foerster *et al.* 1990). The clapper rail typically feeds on benthic invertebrates, but its diet is wide ranging, and includes seeds, and occasionally small mammals such as the harvest mouse.

Dispersal or movements by clapper rails in California occurs between and outside of marshes (Orr 1939; Zembal *et al.* 1985; San Francisco Bay Bird Observatory [SFBBO] 1986; Page and Evens 1987; Albertson 1995). Eddleman (1989) identified movements by Yuma clapper rails outside of their territories as juvenile dispersal; dispersal by an unmated individual bird; and shifts in home ranges after the breeding, in the winter, and during high water periods; and attributed these movements to a search for more suitable habitat where territories, mates, food, or safe refuge were better available. Juvenile dispersal apparently constitutes the main type of long distance movements by light-footed clapper rails, while adult birds tend to stay within territories once they are established (Zembal and Massey 1988; Zembal *et al.* 1989; Ledig 1990; Zembal 1990 and 1994; Zembal *et al.* 1996; Zembal *et al.* 1997; Zembal *et al.* 1998). Similarly, clapper rails tend to stay within established territories or home ranges year-round (SFBBO 1986; Albertson 1995). Zembal and Massey (1988) noted that 3 of 6 radio-tagged light-footed clapper rails that moved extensively were preyed upon within a relatively short period of time. By comparison, seven other birds that remained sedentary within established territories were not preyed upon during the telemetry period.

Population Status and Trends: An estimated 40,191 acres of tidal marshes remained in 1988 of the 189,931 acres of tidal marsh that historically occurred in the Estuary; this represents a 79 percent reduction from historical conditions (Goals Project 1999). The suitability of many remaining marshes for clapper rails is limited, and in some cases precluded, by their small size, fragmentation, and lack of tidal channel systems and other micro-habitat features. These limitations render much of the remaining tidal marsh acreage unsuitable or of low value for the species. The clapper rail was listed as endangered primarily as a result of habitat loss. The factors described above have contributed to the more recent population reduction, which has occurred since the mid-1980s. Although many factors are at work, predation by native and non-native predators, in conjunction with historic habitat loss and fragmentation are the current known primary threats. With historic populations at Humboldt Bay, Elkhorn Slough, and Morro Bay now extirpated, the Estuary represents the last stronghold and breeding population of this subspecies.

A number of factors influencing remaining tidal marshes limit their habitat values for clapper rails. Much of the east San Francisco Bay shoreline from San Leandro to Dumbarton Bridge is rapidly eroding, and many marshes along this shoreline could lose their clapper rail populations in the future, if they have not already. In addition, an estimated 600 acres of former salt marsh along Coyote Creek, Alviso Slough, and Guadalupe Slough, have been converted to fresh- and brackish-water vegetation due to large-volume freshwater discharge from wastewater facilities in the South Bay and are now of lower quality for clapper rails. This conversion has at least temporarily stabilized as a result of the drought since the early 1990s.

In addition, the introduction of non-native, invasive plant species such as *Spartina* and its hybrids into tidal wetlands within the Estuary is potentially impacting clapper rails by drastically changing the structure and function of tidal marshes in the estuary. Invasive Spartina chokes tidal creeks, changing the hydrology of the marsh and reducing the amount of foraging habitat within tidal channels, as well as replacing much of the native diverse tidal marsh vegetation. Other invasive plant species such as perennial pepperweed (*Lepidium latifolium*) and glasswort (*Salsola soda*) also have the potential to alter the marsh landscape, making it less suitable as clapper rail habitat.

Throughout the Estuary, the remaining clapper rail population is impacted by a suite of mammalian and avian predators. At least 12 native and 3 non-native predator species are known to prey on various life stages of the clapper rail (Albertson 1995). Artificially high local populations of native predators, especially raccoons, skunks, and ravens occur due to the presence of landfills and other sources of human food waste adjacent to marshes. Feral cats also represent another predation threat on adult and young clapper rails near residential areas and landfills (Albertson 1995). Non-native Norway rats have long been known to be effective predators of clapper rail nests (DeGroot 1927; Harvey 1988; Foerster *et al.* 1990). According to Harvey (1988) and Foerster *et al.* (1990), predators, especially rats, accounted for clapper rail nest losses of 24 to 29 percent in certain South Bay marshes. Placement of shoreline riprap, levees, buildings, and landfills favor rat populations, which results in greater predation pressure on clapper rails in certain marshes. Encroaching development displaces lower order predators from their natural habitat and adversely affects higher order predators, such as coyotes, which will normally limit population levels of lower order native and non-native predators, especially red foxes (Albertson 1995).

Hunting intensity and efficiency by many avian predators is increased by the presence of electric power transmission lines, which cross tidal marshes and provide otherwise-limited hunting perches (J. Takekawa, pers. comm.). In addition, both red-tailed hawks and common ravens nest on transmission towers. Common raven populations have recently increased dramatically within the Estuary and evidence of clapper rail egg predation by this species has been detected (J. Albertson, pers. comm.).

These predation impacts are exacerbated by a lack of high marsh and natural high tide cover in most remaining marshes. DeGroot (1927) noted that clapper rails were extremely vulnerable to predation by raptors during high tide events when they were forced to seek refuge in exposed locations. Similarly, Johnston (1956 and 1957) and Fisler (1965) observed heightened predator activity in marshes coinciding with extreme high tides. Evens and Page (1986) also documented the susceptibility of California black rails to predation during extreme high tides. More recently, clapper rail predation was noted in west Marin during extreme high tides in 2005 (G. Downard, pers. comm.). There is an abundance of falcons, raptors, egrets, and herons during high tides that opportunistically take advantage of prey during this vulnerable period.

The proliferation of non-native red foxes into tidal marshes of South Bay since 1986 has had a profound effect on clapper rail populations. As a result of the rapid decline and almost complete elimination of clapper rail populations in certain marshes, the San Francisco Bay National Wildlife Refuge implemented a predator management plan in 1991 (Foerster and Takekawa 1991) with an ultimate goal of increasing clapper rail population levels and nesting success through management of red fox predation. This program was successful in increasing the South Bay clapper rail populations from an all-time low.

Mercury accumulation in eggs is perhaps the most significant contaminant problem affecting clapper rails in the Estuary, with the South Bay containing the highest mercury levels. Mercury is extremely toxic to embryos and has a long biological half-life. Schwarzbach *et al.* (2006) found high mercury levels and low hatching success (due both to predation and, presumably, mercury) in clapper rail eggs throughout the Estuary.

Clapper rails vary in their sensitivity to human disturbance, both individually and between marshes. Certain types of disturbances have occurred within or adjacent to some marsh areas for a long time and certain clapper rails appear to have habituated or become tolerant of these disturbances, while others appear to habituate over time or are unable to habituate to these disturbances at all. For example, certain clapper rails in the Palo Alto Baylands Nature Preserve appear to be somewhat tolerant of the relatively common pedestrian traffic on the public boardwalk that dissects the marsh. Clapper rail nests have been documented within 10 feet of trails in Elsie Romer and Cogswell marshes in Alameda County, and within 65 feet of a busy street near White Slough in Solano County. In contrast, Albertson (1995) documented a clapper rail abandoning its territory in Laumeister Marsh in the South Bay, shortly after a repair crew worked on a nearby transmission tower. The bird did not establish a stable territory within the duration of the breeding season, but eventually moved closer to its original home range several months after the disturbance. As a result of this territorial abandonment, the opportunity for successful reproduction during the breeding season was eliminated (J. Takekawa, pers. comm.). Clapper rails in Laumeister Marsh have little contact with people, and are apparently quite sensitive to human-related disturbance. Evens and Page (1983) documented 4 clapper rail breeding territories along the Greenbrae boardwalk in the Corte Madera Ecological Preserve. In 1993, no clapper rail breeding territories were discovered along the boardwalk even though clapper rail habitat conditions remained unchanged (J. Garcia, pers. comm.). This territorial abandonment is attributed to an increase in domestic and feral dogs and cats along the boardwalk resulting from new residents moving into nearby residential areas since 1983 (J. Garcia, pers. comm.).

Clapper rail reactions to disturbance may vary with season; however both breeding and non-breeding seasons are critical times. Clapper rail mortality is greatest during the winter, primarily due to predation during extreme winter high tides (Eddleman 1989; Albertson 1995). Human-related disturbance may increase the clapper rails' vulnerability to predators. During high tides, clapper rails and other wildlife hide within any available cover in the transition zone and high marsh. As people approach, the birds may flush and attract predators. The presence of people and their pets in or near the high marsh plain or upland areas during marsh inundation may even prevent clapper rails from leaving the lower marsh plain to seek cover, which also leaves them vulnerable to predation (Evens and Page 1983; Evens and Page 1986). Public trails that run along a narrow marsh transition zone may be particularly hazardous to marsh species that depend on this habitat for refuge during high tides.

On numerous occasions at the Corte Madera Ecological Preserve, clapper rails have been observed seeking refuge from unrestrained dogs entering tidal marshes from adjacent levees with public access (J. Garcia, pers. comm.). These disturbances have occurred despite the presence of signs notifying users that they are entering sensitive wildlife species areas and that pets must be under restraint while in the preserve area. Similarly, along the Redwood Shores Peninsula in San Mateo County, fences and signs installed to prevent access into areas with listed species habitat have been repeatedly vandalized and people continue to enter the prohibited areas beyond the fences and signs (Popper and Bennett 2005).

A population viability analysis under development for clapper rails identified changes in adult survivorship as the factor with the largest influence on population growth rates

(M. Johnson, pers. comm.). Another model also indicates that adult survivorship of clapper rails is the primary demographic variable for maintaining a stable population or causing the population to either increase or decline (Foin *et al.* 1997). These models indicate that survival of adult birds has the strongest effect on the perpetuation or extinction of the overall population.

Although Gill (1978) may have overestimated the total clapper rail population in the mid-1970s at 4,200 to 5,900 birds, surveys conducted by CDFG and the Service estimated that the clapper rail population was approximately 1,500 birds in the mid-1980s (Harvey 1988). A conservative estimate of the population in North San Francisco, San Pablo, and Suisun Bays, was 195 to 282 pairs based on a synoptic survey conducted in 1992-93 (Collins *et al.* 1994). In 2004, Avocet Research Associates conducted surveys within San Pablo Bay and estimated about 200 pairs of clapper rails in that area. These surveys did not include some marshes in north Central San Francisco Bay and Suisun Bay that were surveyed in 1992-93. Between the surveys conducted in 1992-93 and 2004, several population centers in San Pablo Bay have declined precipitously. The population in the White Slough tidal marshes on the west side of the Napa River declined from an estimated 16 to 23 pairs as recent as 2000, to an estimated 2 to 5 pairs in 2002, and 3 to 5 pairs in 2004, while the population in the Sonoma Creek marshes declined from 13 pairs in 1992 to no pairs in 2001 and 2004 (Avocet Research Associates 2004).

Although clapper rails are typically found in tidal salt marshes, they have also been documented in brackish marshes in the South Bay. Breeding-season surveys conducted in marshes bordering Coyote Creek in 1989 documented breeding clapper rails in a wide variety of plant associations. Surveys conducted during the 1990 breeding season (H.T. Harvey & Associates 1990b) and winter season (H. T. Harvey & Associates 1990a) found a number of clapper rails occupying salt/brackish transitional marshes and several brackish, alkali bulrush-dominated (*Scirpus robustus*) marshes, including Warm Springs Marsh (immediately east of Pond A19) and the marshes along upper Coyote Slough even farther east. In addition, clapper rails were found in nearly pure stands of alkali bulrush along Guadalupe Slough in 1990 and 1991 (H. T. Harvey & Associates 1990a, 1990b and 1991). Although it has been suggested that habitat quality may be lower in brackish marshes than in salt marshes (Shuford 1993), further studies comparing reproductive success in different marsh types are necessary to determine the value of brackish marshes to clapper rails.

On rare occasions, clapper rails have been recorded even further upstream, in brackish/freshwater transition marshes, particularly during the non-breeding season. In the Alviso/Sunnyvale area, such individuals have been recorded along upper Alviso Slough near the Gold Street bridge (S. Terrill, pers. obs.), in nontidal freshwater ponds between Calabazas and San Tomas Aquino Creeks north of Highway 237 in Sunnyvale (S. Rottenborn, pers. obs.), and along Artesian Slough near the Environmental Education Center in January 1999 and January to February 2001 (Santa Clara County Bird Data unpubl.).

4. Add the following text to the **Environmental Baseline** for the salt marsh harvest mouse on page 8:

Within the action area, pickleweed habitat is restricted to small isolated patches within Shell Marsh to the east and McNabeny Marsh to the north. Both areas are separated from

the project footprint by roads with culverts for water passage, i.e. Interstate 680 northbound onramp separates Shell Marsh to the west and Marina Vista Road separates McNabeny Marsh to the north. The project footprint supports low density stands of pickleweed interspersed with bare ground and other weedy and wetland tolerant plants. Habitat within the project footprint portion of the action area is considered low quality habitat for the salt marsh harvest mouse based on the low vegetation cover, distance from areas of suitable habitat to the north and east, and the presence of roads and railroads that act as significant movement barriers for the species. Pickleweed habitat within the portion of Shell Marsh and McNabeny Marsh within the action area provide suitable habitat for all life history stages the salt marsh harvest mouse. The nearest reported salt marsh harvest mouse sightings occur approximately 0.6-mile to the southeast in a small area dominated by pickleweed in Shell Marsh in 1990 and 0.9-mile to the northeast reported from a non-specific area identified as the area between the Benicia-Martinez Bridge and the Pacheco Creek-Avon refinery in 1958. Both areas are linked to the action area without any barriers to movement or dispersal. Based on the biology and ecology of species, the presence of suitable habitat, occupied habitat in nearby tidal marshes, and recent records, the salt marsh harvest mouse is likely to inhabit the action area.

5. Add the following text at the end of the **Environmental Baseline** for the California clapper rail on page 9:

The action area is situated within an area that is inundated much of the year and is highly disturbed. Vegetation within the project footprint comprises sparse stands of pickleweed, alkali heath (*Frankenia salina*), cattails, salt marsh bulrush and saltgrass. Within the action area, more substantial stands and less disturbed habitat are present within Shell Marsh to the east and McNabeny Marsh to the north. These latter areas are separated from the project footprint by roads but are hydrologically connected by culverts, i.e. Interstate 680 northbound onramp separates Shell Marsh to the west and Marina Vista Road separates McNabeny Marsh to the north. Caltrans (2010) identified suitable nesting and foraging habitat within the action area in dense stands of pickleweed east and north of I-680 in Shell Marsh and McNabney Marsh, respectively. Clapper rails have been observed approximately 1.3 miles to the northeast and east of Pacheco Creek. A closely related species, the California black rail (*Laterallus jamaicensis coturniculus*) have been reported 0.7 mile to the north and 1.0 mile to the northwest, which indicates that these areas also provide suitable habitat for the California clapper rail based on similar habitat requirements. Based on the biology and ecology of species, the presence of suitable habitat, occupied habitat in nearby tidal marshes, and recent records, the California clapper rail is likely to inhabit the action area.

6. Add the following text to the **Effects of the Action** for the salt marsh harvest mouse on page 9:

The project will temporarily affect 3.58 acres of low quality salt marsh harvest mouse habitat containing sparse stands of pickleweed and cordgrass to accommodate vehicle access, staging and groundwork. Caltrans will minimize the effects associated with the temporary ground disturbance by draining the project footprint area outside of the low-flow channel and allowing it to dry prior to the start of construction; using timbermats, geotextile fabric or other similar materials; restoring the site to original contours; and revegetating the area with native plant species following the completion of construction.

Construction of the new piles and the abutment will result in the permanent removal of 1.109 acres of low quality wetland habitat. Pile driving activities may result in disturbance to salt marsh harvest mice within the action area causing altered behavioral responses, temporary avoidance of habitat within 1,500 feet of the project footprint, increased stress and reduced feeding success. Noise levels are expected to peak at 119 Lmax dB at a distance of 23 feet and will attenuate to near-background highway noise of 83 Lmax dB at a distance of 1,500 feet (Caltrans 2010). Caltrans will minimize the effects associated with pile driving by timing pile driving activities to occur within a 20 day period.

Caltrans proposes to minimize disturbance to salt marsh harvest mice by installing wildlife exclusion fencing to discourage individuals from venturing into the project footprint during the active construction phase, installing ESA fencing to prevent workers from disturbing habitat outside of the project footprint, conducting contractor education and conducting preconstruction surveys prior to vegetation clearing or ground disturbing activities, requiring a Service/CDFG-approved biological monitor to be present during work activities that may result in the take of salt marsh harvest mice, and recontouring and revegetating disturbed areas following project completion.

7. Add the following text at the end of the **Effects of the Action** for the California clapper rail on page 9:

The project will temporarily affect 3.58 acres of low quality California clapper rail habitat containing sparse stands of pickleweed and cordgrass to accommodate vehicle access, staging and groundwork. Construction of the new piles and abutments will result in the permanent removal of 1.109 acres of low quality wetland habitat. The proposed action is likely to result in disturbance to California clapper rails nesting or foraging within the pickleweed dominated habitats within the action area in the nearby Shell Marsh and McNabney Marsh. These disturbances are most likely to result from pile driving activities, which are expected to peak at 119 L_{max} dB at a distance of 23 feet. Noise levels at peak intensity will attenuate to near-background highway noise of 83 L_{max} dB at a distance of 1,500 feet (Caltrans 2010). Caltrans will minimize the effects associated with pile driving by timing pile driving activities to occur within a 20 day period.

General construction activities such as the removal of the existing off-ramp, jack-hammering, concrete cutting, heavy equipment operations, etc., may alter rail behavior in ways that result in the harm and harassment of individual California clapper rails through the temporary loss of habitat due to avoidance of areas that have suitable habitat but intolerable levels of disturbance; reduced foraging efficiency; and increased movement or flushing from cover, or altered activity patterns, that reduce energy reserves and increase predation risk. California clapper rails may adjust the boundaries of their territories or disperse to other habitat areas.

Caltrans proposes to minimize disturbance to California clapper rails by constructing wildlife exclusion fencing to discourage individuals from venturing into the project footprint during the active construction phase, erecting ESA fencing to prevent workers from disturbing habitat outside of the project footprint, conducting environmental education, conducting protocol surveys to identify active nests, broods, or calling centers within the action area prior to the start of construction and pile driving activities, establishing non-disturbance buffers around active nests, broods, and calling centers,

requiring a Service/CDFG-approved biological monitor to be present during work activities that may result in the take of California clapper rails, and recontouring and revegetating disturbed areas following project completion.

8. Add the following text to the **Amount or Extent of Take** for the salt marsh harvest mouse on page 12:

The proposed action is likely to result in disturbance to salt marsh harvest mice inhabiting the pickleweed dominated areas in Shell Marsh to the east and McNabeny Marsh to the north. These disturbances are most likely to result from work activities associated with the pile driving activities. Such disturbance may result in the avoidance of areas that have suitable habitat but intolerable levels of disturbance; increased movement or flushing from cover; or altered behavioral patterns that reduce energy reserves and increase predation risk. The Service is quantifying take incidental to the proposed action as the harm and harassment of all salt marsh harvest mice inhabiting the action area inclusive of the 4.689 acres of temporary and permanent habitat removal. Upon implementation of the following Reasonable and Prudent Measures, all salt marsh harvest mice within the action area will become exempt from the prohibitions described under section 9 of the Act. No other forms of take are exempted under this opinion.

9. Add the following text at the end of the **Amount or Extent of Take** for the California clapper rail on page 13:

The proposed action is likely to result in disturbance to California clapper rails inhabiting the pickleweed dominated areas in Shell Marsh to the east and McNabeny Marsh to the north. These disturbances are most likely to result from work activities associated with the pile driving activities, removal of the existing structure, and general construction activities. The Service expects that incidental take of the California clapper rail will be difficult to detect based on the cryptic coloration and reclusive nature of this species. Losses of this species may also be masked by seasonal and annual fluctuations in abundance, density and nest/breeding site selection. The Service is quantifying take incidental to the proposed action as the harm and harassment of all California clapper rails inhabiting the action area inclusive of the 4.689 acres of temporary and permanent habitat removal. Upon implementation of the Conservation Measures of this opinion and the following Reasonable and Prudent Measures, all California clapper rails within the action area will become exempt from the prohibitions described under section 9 of the Act. No other forms of take are exempted under this opinion.

10. Add the following to the **Terms and Conditions** on page 13:

1. Caltrans shall require all contractors to comply with the Act in the performance of the action and shall perform the action as outlined in the Project Description of this biological opinion, as amended, and as provided by Caltrans in the biological assessment dated August 2010 and all other supporting documentation submitted to the Service in support of the action. Caltrans shall include language in their contracts that expressly requires contractors and subcontractors to work within the boundaries of the project footprint identified in this biological opinion, including vehicle parking, staging, laydown areas, and access roads.

2. Caltrans shall ensure the Resident Engineer or their designee shall have full authority to implement and enforce all Conservation Measures and Terms and Conditions of this biological opinion. The Resident Engineer or their designee shall maintain a copy of this biological opinion, as amended, onsite whenever construction is in progress. Their name(s) and telephone number(s) shall be provided to the Service at least thirty (30) calendar days prior to ground-breaking at the project.

3. The WEF shall be inspected daily by the biological monitor and maintained throughout the project duration. Repairs to the WEF shall be completed within 24 hours of discovery.

4. Within 30 days prior to the start of ground disturbing activities, call count surveys shall be conducted within 1,500 feet of the project footprint to determine if active California clapper rail nests, broods and calling centers are present within the action area. Call count surveys shall be conducted monthly thereafter throughout the duration of construction during the nesting season which occurs from February 1 to September 30. Surveys shall follow the Service's survey protocol. If active nests – nests with egg(s) or young present – broods, or calling centers are located the action area, all construction activities within the survey buffer shall cease immediately and the Service/CDFG shall be notified within 24 hours of the observation. No work shall occur within 700 feet and no pile driving shall occur within 1,500 feet of the active nest(s), broods and calling centers until the young have fledged.

5. The Service/CDFG-approved biologist shall maintain monitoring records that include: (1) the beginning and ending time of each day's monitoring effort; (2) a statement identifying the listed species encountered, including the time and location of the observation; (3) the time the specimen was identified and by whom and its condition; and (4) a description of any actions taken. The Service/CDFG-approved biologist shall maintain complete records in their possession while conducting monitoring activities and shall immediately provide records to the Service, CDFG, and/or their designated agents upon request. All monitoring records shall be provided to the Service upon completion of the monitoring work.

6. If verbally requested through the Resident Engineer or their designee, before, during, or upon completion of ground breaking and construction activities, Caltrans shall ensure the Service, CDFG, and/or their designated agents can immediately and without delay, access and inspect the project site for compliance with the Project Description, Conservation Measures, and Terms and Conditions of this biological opinion.

11. Replace the **Reporting Requirements** on page 13 with the following:

Proof of environmental training shall be provided to the Endangered Species Program, Sacramento Fish and Wildlife Office, 2800 Cottage Way, Room W-2605, Sacramento, California 95825-1846. Observations of salt marsh harvest mouse, California clapper rail or any listed or rare species should be reported to the California Natural Diversity Database (CNDDB) within thirty (30) calendar days of the observation.

Injured listed species must be cared for by a licensed veterinarian or other qualified person, such as the Service/CDFG-approved biologist. Dead animals shall be placed in a zip-lock® plastic storage bag with a piece of paper indicating the date, time, location and name of the person who found it. The bag shall be placed in a freezer located in a secure location until instructions are received from the Service regarding the disposition of the specimen or until the Service takes custody of the specimen. The Service must be notified within 24 hours of the discovery of death or injury resulting from project-related activities or is observed at the project site. Notification shall include the date, time, and location of the incident or finding of a dead or injured animal clearly indicated on a USGS 7.5-minute quadrangle and other maps at a finer scale, as requested by the Service, and any other pertinent information. The Service contacts are Branch Chief, Endangered Species Program, Sacramento Fish and Wildlife Office at (916) 414-6600, and Resident Agent-in-Charge of the Service's Law Enforcement Division at (916) 414-6660.

Caltrans shall submit a post-construction compliance report prepared by the on-site biologist to the Sacramento Fish and Wildlife Office within sixty (60) calendar days of the date of the completion of construction activity. This report shall detail: (1) dates that construction occurred; (2) pertinent information concerning the success of the project in meeting compensation and other conservation measures; (3) an explanation of failure to meet such measures, if any; (4) known project effects on the salt marsh harvest mouse and California clapper rail, if any; (5) incidental take of these species, if any; (6) documentation of employee/contractor environmental education; and (7) other pertinent information.

Caltrans shall report to the Service any information about take or suspected take of listed wildlife species not authorized by this biological opinion. Caltrans must notify the Service via electronic mail and telephone within twenty-four (24) hours of receiving such information. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and photographs of the specific animal. The individual animal shall be preserved, as stated above, and held in a secure location until instructions are received from the Service regarding the disposition of the specimen or the Service takes custody of the specimen.

12. Change the first paragraph of the **Reinitiation—Closing Statement** on page 14 from:

This concludes formal consultation on the proposed I-680 bridge across the Carquinez Strait. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

To:

This concludes formal consultation on the proposed I-680 bridge across the Carquinez Strait. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, including work outside of the project footprint analyzed in this opinion and including vehicle parking, staging, lay down areas, and access roads; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion including use of vehicle parking, staging, lay down areas, and access roads; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where take exceeds what was anticipated in this biological opinion, Caltrans will no longer be exempt from the prohibitions of section 9 until such time that Caltrans reinitiates formal consultation and consultation is completed.

This concludes the reinitiation of formal consultation on the I-680 Mococo Overhead Seismic Restoration Project located in Contra Costa County, California. The remainder of the August 19, 1996 biological opinion is unchanged. If you have questions concerning this reinitiation of consultation on the I-680 Mococo Overhead Seismic Restoration Project, please contact Jerry Roe or Ryan Olah at (916) 414-6600.

Sincerely,

Susan K. Moore
Field Supervisor

cc:
Chris States, California Department of Transportation, Oakland, CA
Melissa Escaron, California Department of Fish and Game, Yountville, CA
Liam Davis, California Department of Fish and Game, Yountville, CA

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(510) 622-2348

From: Chan, Kit@DOT
Sent: Tuesday, February 02, 2016 10:27 AM
To: Beauduy, Derek@Waterboards
Cc: Vafai, Cyrus@DOT
Subject: FW: 04-3A8704 Mococo Overhead Project - RWQCB Cert. Condition 2.e. - Herbicide Use Plan

Good Morning Derek,

The Mococo O.H. Water Quality Cert. (CIWQS Place No. 754433 "*Water Quality Certification for the Mococo Overhead Seismic Rehabilitation Project, City of Martinez, Contra Costa County"*, Department Project No.: EA 04-3A8701) Condition 2.e. required preparation of a plan for controlled herbicide use and reporting on such pesticide use as part of the annual report.

This e-mail serves as said Herbicide Use Plan (HUP).

Tracking herbicide use on-site will be provided for through use of the Department's *Report Of Chemical Spray Operations* (Form LA-17) or other similar tracking mechanism. A sample of Form LA-17 is attached (please see "sprayreports.pdf"). Tracking will include at a minimum; type of pesticide used, atmospheric conditions at time of application, setbacks from ESA/waters conformed to, duration of spraying activity and amount of pesticide used.

Target species for the Site will include but not limited to the following:

California Department of Food and Agriculture Noxious Weeds:

Botanical Name	Common Name
Arundo donax	Giant reed
Centaurea solstitalis	Yellow starthistle
Chondrilla juncea	Skeletonweed
Cynara cardunculus	Artichoke thistle
Cytisus scoparius	Scotch broom
Dittrichia graveolens	Stinkweed
Genital monspessulana	French broom
Lepidium latafolium	Perennial peppercress
Spartina alterniflora	Smooth cordgrass
Spartina anglica	Common cordgrass
Spartina densiflora	Dense-flowered cordgrass
Spartina patens	Saltmeadow cordgrass
Spartium junceum	Spanish broom

California Invasive Plant Council invasive non-native plants:

Agrostis avenacea	Pacific bentgrass
Ailanthus altissima	Tree-of-heaven
Brassica spp.	Mustard
Carpobrotus spp.	Iceplant
Cirsium vulgare	Bull Thistle
Dipsacus spp.	Teasel
Egeria densa	Brazilian egeria
Eucalyptus globulus	Blue gum
Ficus carica	Edible fig
Foeniculum vulgare	Fennel
Hedera spp.	Ivy
Lolium multiflorum	Italian ryegrass
Ludwigia peploides	Creeping waterprimrose
Lythrum hyssopifolium	Hyssop loosestrife
Mentha pulegium	Pennyroyal
Mesembryanthemum crystallinum	Crystalline iceplant
Myoporum laetum	Ngaio tree
Myriophyllum spicatum	Spike watermilfoil
Phalaris aquatica	Bulbous canarygrass
Polypogon monspeliensis	Rabbitfoot polypogon
Potamogeton crispus	Curly-leaved pondweed
Raphanus sativus	Wild radish
Rubus armeniacus	Himalayan blackberry
Rumex crispus	Curly dock
Salsola soda	Glasswort
Tamarix spp.	Tamarisk
Tetragonia tetragonioides	New Zealand spinach

Herbicide use will be inventoried and reported on annually.

Please advise on this proposal if it is deemed satisfactory.

Thank you,

Kit Chan
District 4-Environmental Engineering
Office of Water Quality
401 Permit Branch
510-286-6218
kit_chan@dot.ca.gov

BACWA
BAY AREA
CLEAN WATER
AGENCIES

Bay Area Recycled Water
Commercial Truck Fill Facilities Location Guide
January 2015

WHITLEY BURCHETT *& Associates*

Background

This Guide was prepared by Whitley Burchett & Associates under contract with Bay Area Clean Water Agencies and under the direction of the BACWA Recycled Water Committee. The Guide was prepared in response to inquiries of commercial recycled water truck fill facilities in the Bay Area. It is the Recycled Water Committee's intention to update this Guide annually. If you see any information that should be updated, have a facility to add to this Guide, or have any questions please email Info@bacwa.org.

Disclaimer

The intent of this Guide is to provide prospective water haulers with general information regarding the location of Bay Area Recycled Water Commercial Truck Fill Facilities, permit requirements, and associated fees for recycled water. Information in this Guide represents data collected in the fall of 2014. Please contact agencies directly for current information.

Cover Photos

Top row from left to right: San Francisco Public Utilities Commission, Dublin San Ramon Services District

Bottom row: East Bay Municipal Utility District

Acknowledgements

This Guide was prepared in conjunction with the BACWA agencies. The time spent by agencies providing program information and review of this document is greatly appreciated.

Electronic Version

The BACWA Truck Fill Guide is available on the BACWA website at http://bacwa.org.

TABLE OF CONTENTS

Bay Area Commercial Recycled Water Truck Fill Facilities Location Map

* Indicates the general location of a truck fill facility.

List of Agencies with Recycled Water Commercial Truck Fill Facilities Sorted by County/City

SECTION 1

Recycled Water Commercial Truck Fill Facilities Information

CITY OF CALISTOGA

707.942.2782

www.ci.calistoga.ca.us

Recycled Water Fill Facilities:			
Treatment Plant	Yes	Distribution System	No
Can water be used outside of this agency's service area?			No

Hydrant Fill Facilities

Location:	None		
Number of Fill Facilities:		Connection Device:	
Quality:		Truck Size Limits:	
Quantity Limitations per Trip:		Truck Weight Limits:	
Other Restrictions:			
Additional Access Information:			

Fill Facilities at Treatment Plant

Location:	Dunaweal Wastewater Treatment Plant (call for address)		
Quality:	Disinfected Tertiary	Type of Connection:	Side
Quantity Limitations per Trip:	No Minimum	Hours:	Mon-Fri 7 a.m. - 3:30 p.m.
	Maximum up to truck limit	Appointment Required:	No
Quantity Limitations per Day:	No Minimum	Truck Size Limits:	None
	Maximum 50,000 gal	Truck Weight Limits:	None
Additional Access Information:			

Training

Required:	No	Duration:	
Who:		Frequency:	
Schedule:		Location:	
Length of time to become authorized truck hauler:			1 business day

Signage

Area Use Signage Required:	No	Vehicle Signage Required:	Yes
Signs Provided by Water Agency:	N/A	Signs Provided by Water Agency:	Yes

Vehicle Inspection

Required:	No	Inspection Location:	
Duration:		Re-inspection Required:	
How to schedule:			

Fees

Water:	No Charge	Training:	No Charge
Connection Device:	No Charge	Permit:	No Charge
Vehicle Signage:	No Charge	Use Area Signage:	N/A
Other:			

CENTRAL CONTRA COSTA SANITARY DISTRICT

925.228.9500

www.centralsan.org

Recycled Water Fill Facilities:

Treatment Plant: No

Distribution System: Yes

Can water be used outside of this agency's service area? Yes

Hydrant Fill Facilities

Location: Locations in Concord (Willow Way) and Martinez (Marsh Drive)

Number of Fill Facilities: 3

Connection Device: Hydrant key and Construction meter

Quality: Disinfected Tertiary

Truck Size Limits: Max. truck length 18 ft.

Quantity Limitations per Trip: No Minimum
Maximum 6,000 gal

Truck Weight Limits: No limit

Other Restrictions:

Additional Access Information: Fill times: Mon.-Fri. 7 a.m. - 5 p.m. (can be negotiated)

Fill Facilities at Treatment Plant

Location: None

Quality:

Type of Connection:

Quantity Limitations per Trip:

Hours:

Appointment Required:

Quantity Limitations per Day:

Truck Size Limits:

Truck Weight Limits:

Additional Access Information:

Training

Required: Yes

Duration: 15 minutes

Who: Either Truck Owner, Truck Driver, or Customer using water

Frequency: Only Once

Schedule: By Appointment

Location: Recycled Water Treatment Plant

Length of time to become authorized truck hauler: 1 business day

Signage

Area Use Signage Required: No

Vehicle Signage Required: Yes

Signs Provided by Water Agency: N/A

Signs Provided by Water Agency: Yes

Vehicle Inspection

Required: No

Inspection Location:

Duration:

Re-inspection Required:

How to schedule:

Fees

Water: $3.28 per 1,000 gal

Training: No Charge

Connection Device: $750 (refundable deposit)

Permit: No Charge

Vehicle Signage: No Charge

Use Area Signage: N/A

Other:

DUBLIN SAN RAMON SERVICES DISTRICT

925.875.2334

www.dsrsd.com

Recycled Water Fill Facilities:			
Treatment Plant	Yes	Distribution System	Yes
Can water be used outside of this agency's service area?	Yes		

Hydrant Fill Facilities

Location:	Dublin, CA - see website for locations		
Number of Fill Facilities:	10+	Connection Device:	Construction Meter
Quality:	Disinfected Tertiary	Truck Size Limits:	None
Quantity Limitations per Trip:	No Minimum Maximum up to truck limit	Truck Weight Limits:	None
Other Restrictions:	Permit plus $1,000 refundable deposit for meter required.		
Additional Access Information:	Obtain permit and meter at 7051 Dublin Blvd, Dublin.		

Fill Facilities at Treatment Plant

Location:	DSRSD Wastewater Treatment Plant 7399 Johnson Drive, Pleasanton		
Quality:	Disinfected Tertiary	Type of Connection:	Overhead and Large Hose Bib
Quantity Limitations per Trip:	No Minimum Maximum up to truck limit	Hours: Appointment Required:	24 hrs/day, 7 days/wk* No
Quantity Limitations per Day:	No Minimum No Maximum	Truck Size Limits: Truck Weight Limits:	None None
Additional Access Information:	*After business hours truck drivers must use special gate access code to enter the plant. The access code is valid only during hours specified in the permit.		

Training

Required:	Yes	Duration:	15 min
Who:	Truck Owner and Driver	Frequency:	Once
Schedule:	By Appointment	Location:	Recycled Water Plant
Length of time to become authorized truck hauler:	1 business day		

Signage

Area Use Signage Required:	No	Vehicle Signage Required:	Yes
Signs Provided by Water Agency:	N/A	Signs Provided by Water Agency:	Yes

Vehicle Inspection

Required:	No	Inspection Location:	
Duration:		Re-inspection Required:	
How to schedule:			

Fees

Water:	Hydrant- check with DSRSD for current fee; Plant- $10/truck load	Training:	No Charge
		Permit:	Hydrant- No permit fee; Treatment Plant- $73/year
Connection Device:	Hydrant access- $1,000 deposit for construction meter; Treatment Plant- No connection device charge	Use Area Signage:	N/A
Vehicle Signage:	No Charge		
Other:			

EAST BAY MUNICIPAL UTILITY DISTRICT

510.287.1346

www.ebmud.com

Recycled Water Fill Facilities:

Treatment Plant	Yes	Distribution System	No
Can water be used outside of this agency's service area?			Check with EBMUD

Hydrant Fill Facilities

Location:	None		
Number of Fill Facilities:		Connection Device:	
Quality:		Truck Size Limits:	
Quantity Limitations per Trip:		Truck Weight Limits:	
Other Restrictions:			
Additional Access Information:	www.ebmud.com, search "Recycled Water Truck Program"		

Fill Facilities at Treatment Plant

Locations:	1) EBMUD Wastewater Treatment Plant, Oakland 2) North Richmond Water Recycling Plant, Richmond		
Quality:	Disinfected Tertiary	Type of Connection:	Hydrant
Quantity Limitations per Trip:	No Minimum Maximum up to truck limit	Hours:	24 hrs/day, 7 days/wk
		Appointment Required:	Only for first visit
Quantity Limitations per Day:	No Minimum No Maximum	Truck Size Limits:	None
		Truck Weight Limits:	None
Additional Access Information:	1) EBMUD Wastewater Treatment Plant - enter through the main security gate at the plant to obtain access to the fill hydrant. 2) North Richmond Plant - hydrant is located outside of the plant gate and is accessible with a hydrant key.		

Training

Required:	Yes	Duration:	15 minutes
Who:	Truck Driver	Frequency:	Once
Schedule:	By Appointment	Location:	Recycled Water Plant
Length of time to become authorized truck hauler:			5 business days

Signage

Area Use Signage Required:	No	Vehicle Signage Required:	Yes
Signs Provided by Water Agency:	N/A	Signs Provided by Water Agency:	Yes

Vehicle Inspection

Required:	Yes	Inspection Location:	Recycled Water Plant
Duration:	Less than 1 hour	Re-inspection Required:	No
How to schedule:	To be conducted at time of training		

Fees

Water:	No Charge	Training:	No Charge
Connection Device:	No Charge	Permit:	No Charge
Vehicle Signage:	No Charge	Use Area Signage:	N/A
Other:			

CITY OF LIVERMORE

925.960.8138

Recycled Water Fill Facilities:

Treatment Plant: No

Distribution System: Yes

Can water be used outside of this agency's service area? No

Hydrant Fill Facilities

Location: Call for address

Number of Fill Facilities: 10+

Connection Device: Construction meter and Hydrant Key

Quality: Disinfected Tertiary

Truck Size Limits: No limit

Quantity Limitations per Trip: No Minimum
Maximum up to truck limit

Truck Weight Limits: No limit

Other Restrictions:

Additional Access Information:

Fill Facilities at Treatment Plant

Location: None

Quality:

Type of Connection:

Quantity Limitations per Trip:

Hours:

Appointment Required:

Quantity Limitations per Day:

Truck Size Limits:

Truck Weight Limits:

Additional Access Information:

Training

Required: Yes

Duration: 2 hours or less

Who: Truck Driver

Frequency: Once

Schedule: At time of hydrant meter deposit

Location: Administration Building

Length of time to become authorized truck hauler: 1 business day

Signage

Area Use Signage Required: Yes

Vehicle Signage Required: Yes

Signs Provided by Water Agency: Yes

Signs Provided by Water Agency: Yes

Vehicle Inspection

Required: No

Inspection Location:

Duration:

Re-inspection Required:

How to schedule:

Fees

Water: $2.37 per CCF

Training: No Charge

Connection Device: $1,000

Permit: No Charge

Vehicle Signage: Varies

Use Area Signage: No Charge

Other: Monthly service charge of $195.30

MARIN MUNICIPAL WATER DISTRICT

415.945.1557

Recycled Water Fill Facilities:

Treatment Plant: No

Distribution System: Yes

Can water be used outside of this agency's service area? No

Hydrant Fill Facilities

Location: Call for location

Number of Fill Facilities: 1

Connection Device: Hose Bib

Quality: Disinfected Tertiary

Truck Size Limits: No limit

Quantity Limitations per Trip: No Minimum
Maximum up to truck limit

Truck Weight Limits: No limit

Other Restrictions:

Additional Access Information:

Fill Facilities at Treatment Plant

Location: None

Quality:

Type of Connection:

Quantity Limitations per Trip:

Hours:

Appointment Required:

Quantity Limitations per Day:

Truck Size Limits:

Truck Weight Limits:

Additional Access Information:

Training

Required: Yes

Duration: 2 hours or less

Who: Truck Driver

Frequency: Once

Schedule: By Appointment

Location: Administration Building or Hydrant Fill Facility

Length of time to become authorized truck hauler: 6 business days

Signage

Area Use Signage Required: Yes

Vehicle Signage Required: Yes

Signs Provided by Water Agency: Yes

Signs Provided by Water Agency: Yes

Vehicle Inspection

Required: Yes

Inspection Location: Administration Building

Duration: 1 hour or less

Re-inspection Required: Annually

How to schedule: Appointment

Fees

Water: Tier 1: 0-100 CCF @ $2.57 per CCF;
Tier 2: 101-150 CCF @ $7.48 per CCF
Tier 3: over 150 CCF @ $14.97 per CCF

Training: No Charge

Connection Device: No Charge

Permit: No Charge

Vehicle Signage: No Charge

Use Area Signage: No Charge

Other:

CITY OF MILPITAS

408.586.3355

www.ci.milpitas.ca.gov

Recycled Water Fill Facilities:			
Treatment Plant	No	Distribution System	Yes
Can water be used outside of this agency's service area?			Yes

Hydrant Fill Facilities

Location:	Call for locations		
Number of Fill Facilities:	5	Connection Device:	Hydrant key and Construction meter
Quality:	Disinfected Tertiary	Truck Size Limits:	check with City
Quantity Limitations per Trip:	No Minimum Maximum up to truck limit	Truck Weight Limits:	check with City
Other Restrictions:	M-F: 7 a.m. to 7 p.m.		
Additional Access Information:	Secure access. Gate key to be provided at training.		

Fill Facilities at Treatment Plant

Location:	None		
Quality:		Type of Connection:	
Quantity Limitations per Trip:		Hours:	
		Appointment Required:	
Quantity Limitations per Day:		Truck Size Limits:	
		Truck Weight Limits:	
Additional Access Information:			

Training

Required:	Yes	Duration:	1 hour
Who:	Truck Owner, Truck Driver, and Customer	Frequency:	Once
Schedule:	By Appointment and Semi-Annually	Location:	Administration Building or Hydrant fill facility
Length of time to become authorized truck hauler:			2 business days

Signage

Area Use Signage Required:	Yes	Vehicle Signage Required:	Yes
Signs Provided by Water Agency:	No	Signs Provided by Water Agency:	Yes

Vehicle Inspection

Required:	Yes	Inspection Location:	Administration Building or Hydrant fill facility
Duration:	1 hour or less		
How to schedule:	Appointment	Re-inspection Required:	Annually

Fees

Water:	$2.65 per HCF	Training:	No Charge
Connection Device:	$2,000	Permit:	No Charge
Vehicle Signage:	No charge	Use Area Signage:	No charge
Other:	Monthly fee of $75		

NAPA SANITATION DISTRICT

707.258.6029

www.napasan.com

Recycled Water Fill Facilities:

Treatment Plant: Yes

Distribution System: No

Can water be used outside of this agency's service area? Yes

Hydrant Fill Facilities

Location: None

Number of Fill Facilities:

Quality:

Quantity Limitations per Trip:

Other Restrictions:

Additional Access Information:

Connection Device:

Truck Size Limits:

Truck Weight Limits:

Fill Facilities at Treatment Plant

Location: Soscol Water Recycling Facility (call for address)

Quality: Disinfected Tertiary

Quantity Limitations per Trip: No Minimum
Maximum up to truck limit

Quantity Limitations per Day: No Minimum
No Maximum

Additional Access Information:

Type of Connection: Side

Hours: 7:30 a.m. - 4:30 p.m. Daily

Appointment Required: No

Truck Size Limits: None

Truck Weight Limits: None

Training

Required: Yes

Who: Truck Owner, Truck Driver, and Customer

Schedule: By Appointment

Duration: 2 hours or less

Frequency: Once, plus Annual Refresher

Location: Recycled Water Plant

Length of time to become authorized truck hauler: 2 business days

Signage

Area Use Signage Required: Yes

Signs Provided by Water Agency: Yes

Vehicle Signage Required: Yes

Signs Provided by Water Agency: Yes

Vehicle Inspection

Required: Yes

Duration: 15 min

How to schedule: By Appointment

Inspection Location: Recycled Water Plant

Re-inspection Required:

Fees

Water: $0.98 per 1,000 gal

Connection Device: No Charge

Vehicle Signage: $6 per sticker and $10.50 per plastic sign

Other:

Training: No Charge

Permit: $50

Use Area Signage: $6 per sticker and $10.50 per plastic sign

NORTH MARIN WATER DISTRICT

415.761.8912

www.nmwd.com

Recycled Water Fill Facilities:			
Treatment Plant	No	Distribution System	Yes
Can water be used outside of this agency's service area?			No

Hydrant Fill Facilities

Location:	Call for address		
Number of Fill Facilities:	10+	Connection Device:	Hydrant key
Quality:	Disinfected Tertiary	Truck Size Limits:	No limit
Quantity Limitations per Trip:	No Minimum Maximum up to truck limit	Truck Weight Limits:	No limit
Other Restrictions:			
Additional Access Information:			

Fill Facilities at Treatment Plant

Location:	None		
Quality:		Type of Connection:	
Quantity Limitations per Trip:		Hours:	
		Appointment Required:	
Quantity Limitations per Day:		Truck Size Limits:	
		Truck Weight Limits:	
Additional Access Information:			

Training

Required:	No	Duration:	
Who:		Frequency:	
Schedule:		Location:	
Length of time to become authorized truck hauler:			1 business day

Signage

Area Use Signage Required:	No	Vehicle Signage Required:	Yes
Signs Provided by Water Agency:	N/A	Signs Provided by Water Agency:	Yes

Vehicle Inspection

Required:	No	Inspection Location:	
Duration:		Re-inspection Required:	
How to schedule:			

Fees

Water:	$5.00 per load; no max.	Training:	N/A
Connection Device:	No Charge	Permit:	No Charge
Vehicle Signage:	No Charge	Use Area Signage:	N/A
Other:			

ORO LOMA

510.276.4700

Recycled Water Fill Facilities:

Treatment Plant: Yes

Distribution System: No

Can water be used outside of this agency's service area? Yes

Hydrant Fill Facilities

Location: None

Number of Fill Facilities:

Connection Device:

Quality:

Truck Size Limits:

Quantity Limitations per Trip:

Truck Weight Limits:

Other Restrictions:

Additional Access Information:

Fill Facilities at Treatment Plant

Location: Oro Loma Treatment Facility (call for address)

Quality: Disinfected Secondary-2.2

Type of Connection: Overhead

Quantity Limitations per Trip: No Minimum
Maximum up to truck limit

Hours: M-F: 6 a.m. - 5 p.m.

Appointment Required: No

Quantity Limitations per Day: No Minimum
No Maximum

Truck Size Limits: None

Truck Weight Limits: None

Additional Access Information:

Training

Required: Yes

Duration: 15 min

Who: Truck Driver

Frequency: Once

Schedule: By Appointment

Location: Recycled Water Plant

Length of time to become authorized truck hauler: 1 business day

Signage

Area Use Signage Required: No

Vehicle Signage Required: No

Signs Provided by Water Agency: N/A

Signs Provided by Water Agency: N/A

Vehicle Inspection

Required: No

Inspection Location:

Duration:

Re-inspection Required:

How to schedule:

Fees

Water: No Charge

Training: No Charge

Connection Device: No Charge

Permit: No Charge

Vehicle Signage: N/A

Use Area Signage: N/A

Other:

CITY OF PALO ALTO

650.329.2598

Recycled Water Fill Facilities:

Treatment Plant: Yes
Distribution System: No
Can water be used outside of this agency's service area? Yes

Hydrant Fill Facilities

Location: None
Number of Fill Facilities:
Quality:
Quantity Limitations per Trip:
Other Restrictions:
Additional Access Information:
Connection Device:
Truck Size Limits:
Truck Weight Limits:

Fill Facilities at Treatment Plant

Location: Palo Alto Regional Water Quality Control Plant (call for address)
Quality: Disinfected Tertiary
Quantity Limitations per Trip: No Minimum
Maximum up to truck limit
Quantity Limitations per Day: No Minimum
No Maximum
Additional Access Information:
Type of Connection: Overhead and Side
Hours: Mon-Fri 6:30 a.m. - 5 p.m.
Appointment Required: No
Truck Size Limits: None
Truck Weight Limits: None

Training

Required: Yes
Who: Truck Driver
Schedule: By Appointment
Length of time to become authorized truck hauler: 1 business day
Duration: 2 hours or less
Frequency: Once
Location: Recycled Water Plant

Signage

Area Use Signage Required: Yes
Signs Provided by Water Agency: No
Vehicle Signage Required: Yes
Signs Provided by Water Agency: No

Vehicle Inspection

Required: No
Duration:
How to schedule:
Inspection Location:
Re-inspection Required:

Fees

Water: No Charge
Connection Device: No Charge
Vehicle Signage: User provides
Other:
Training: No Charge
Permit: $50 per year
Use Area Signage: User provides

CITY OF PETALUMA

707.776.3726

Recycled Water Fill Facilities:

Treatment Plant: Yes

Distribution System: No

Can water be used outside of this agency's service area? Yes

Hydrant Fill Facilities

Location: None

Number of Fill Facilities:

Connection Device:

Quality:

Truck Size Limits:

Quantity Limitations per Trip:

Truck Weight Limits:

Other Restrictions:

Additional Access Information:

Fill Facilities at Treatment Plant

Location: Ellis Creek Water Recycling Facility (call for address)

Quality: Disinfected Tertiary

Type of Connection: Overhead

Quantity Limitations per Trip: No Minimum
Maximum up to truck limit

Hours: Mon-Fri 7 a.m. - 4:30 p.m.

Appointment Required: No

Quantity Limitations per Day: No Minimum
No Maximum

Truck Size Limits: None

Truck Weight Limits: None

Additional Access Information:

Training

Required: Yes

Duration: 2 hours or less

Who: Truck Driver and
Customer using water

Frequency: Once

Location: Recycled Water Plant

Schedule: By Appointment

Additional Permit Requirement: City inspects all recycled water use sites, and performs cross connection checks. City issues permit to recycled water user. Recycled water user must contact City to initiate water hauling. Time to issue permit varies.

Length of time to become authorized truck hauler: Varies. Contact City.

Signage

Area Use Signage Required: Yes

Vehicle Signage Required: Yes

Signs Provided by Water Agency: Yes

Signs Provided by Water Agency: Yes

Vehicle Inspection

Required: No

Inspection Location:

Duration:

Re-inspection Required:

How to schedule:

Fees

Water: $1.88 per HCF

Training: No Charge

Connection Device: No Charge

Permit: No Charge

Vehicle Signage: No Charge

Use Area Signage: No Charge

Other:

CITY OF REDWOOD CITY

650.780.7470

Recycled Water Fill Facilities:

Treatment Plant: No

Distribution System: Yes

Can water be used outside of this agency's service area? Yes

Hydrant Fill Facilities

Location: Call for address

Number of Fill Facilities: 4

Connection Device: Construction Meter

Quality: Disinfected Tertiary

Truck Size Limits: No limit

Quantity Limitations per Trip: No Minimum
Maximum up to truck limit

Truck Weight Limits: No limit

Other Restrictions:

Additional Access Information:

Fill Facilities at Treatment Plant

Location:

Quality:

Type of Connection:

Quantity Limitations per Trip:

Hours:

Appointment Required:

Quantity Limitations per Day:

Truck Size Limits:

Truck Weight Limits:

Additional Access Information:

Training

Required: Yes

Duration: 2 hours or less

Who: Truck Owner, Truck Driver, and Customer using water

Frequency: Once

Location: Administration Building

Schedule: By Appointment

Length of time to become authorized truck hauler: 5 business days

Signage

Area Use Signage Required: Yes

Vehicle Signage Required: Yes

Signs Provided by Water Agency: Yes

Signs Provided by Water Agency: Yes

Vehicle Inspection

Required: No

Inspection Location:

Duration:

Re-inspection Required:

How to schedule:

Fees

Water: Contact City

Training: Contact City

Connection Device: Contact City

Permit: Contact City

Vehicle Signage: No Charge

Use Area Signage: No Charge

Other:

SAN FRANCISCO INTERNATIONAL AIRPORT

650.821.8380

Recycled Water Fill Facilities:			
Treatment Plant	Yes	Distribution System	No
		Can water be used outside of this agency's service area?	No

Hydrant Fill Facilities

Location:	None		
Number of Fill Facilities:		Connection Device:	
Quality:		Truck Size Limits:	
Quantity Limitations per Trip:		Truck Weight Limits:	
Other Restrictions:			
Additional Access Information:			

Fill Facilities at Treatment Plant

Location:	Mel Leong Treatment Plant		
Quality:	Disinfected Secondary-23	Type of Connection:	Hydrant
Quantity Limitations per Trip:	No Minimum	Hours:	24 hrs/day, 7 days/wk
	Maximum up to truck limit	Appointment Required:	No
Quantity Limitations per Day:	No Minimum	Truck Size Limits:	None
	No Maximum	Truck Weight Limits:	None
Additional Access Information:			

Training

Required:	Yes	Duration:	2 hours or less
Who:	Truck Driver	Frequency:	Once
Schedule:	By Appointment	Location:	Treatment Plant
		Length of time to become authorized truck hauler:	5 business days

Signage

Area Use Signage Required:	No	Vehicle Signage Required:	Yes
Signs Provided by Water Agency:	N/A	Signs Provided by Water Agency:	Yes

Vehicle Inspection

Required:	Yes	Inspection Location:	Recycled Water Plant
Duration:	1 hour or less	Re-inspection Required:	One random audit per year
How to schedule:	Appointment		

Fees

Water:	No Charge	Training:	No Charge
Connection Device:	No Charge	Permit:	No Charge
Vehicle Signage:	No Charge	Use Area Signage:	N/A
Other:			

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

415.695.7378

Recycled Water Fill Facilities:

Treatment Plant: Yes
Distribution System: No
Can water be used outside of this agency's service area? No

Hydrant Fill Facilities

Location: None
Number of Fill Facilities:
Connection Device:
Quality:
Truck Size Limits:
Quantity Limitations per Trip:
Truck Weight Limits:
Other Restrictions:
Additional Access Information:

Fill Facilities at Treatment Plant

Location: South East Treatment Plant
750 Phelps Street, San Francisco
Quality: Disinfected Secondary-23
Type of Connection: Overhead and Side
Quantity Limitations per Trip: No Minimum
Hours: 24 hrs/day, 7 days/week
Maximum up to truck limit
Appointment Required:
Quantity Limitations per Day: No Minimum
Truck Size Limits: None
No Maximum
Truck Weight Limits: None
Additional Access Information: Access code and PIN provided at permit issuance

Training

Required: Yes
Duration: 2 hours or less
Who: Truck Driver
Frequency: Once
Schedule: By Appointment
Location: Treatment Plant
Length of time to become authorized truck hauler: 3 business days

Signage

Area Use Signage Required: Yes
Vehicle Signage Required: Yes
Signs Provided by Water Agency: No
Signs Provided by Water Agency: Yes

Vehicle Inspection

Required: Yes
Inspection Location: Truck Fill Facility
Duration: 1 hour or less
Re-inspection Required: Not required
How to schedule: Appointment

Fees

Water: No Charge
Training: No Charge
Connection Device: No Charge
Permit: No Charge
Vehicle Signage: No Charge
Use Area Signage: No Charge
Other:

CITY OF SANTA ROSA

707.543.3938

Recycled Water Fill Facilities:

Treatment Plant: Yes
Distribution System: No
Can water be used outside of this agency's service area? Yes

Hydrant Fill Facilities

Location: None
Number of Fill Facilities:
Connection Device:
Quality:
Truck Size Limits:
Quantity Limitations per Trip:
Truck Weight Limits:
Other Restrictions:
Additional Access Information:

Fill Facilities at Treatment Plant

Location: Santa Rosa Subregional Water Reuse Plant
Quality: Disinfected Tertiary
Type of Connection: Hydrant
Quantity Limitations per Trip: No Minimum
Maximum up to truck limit
Hours: Mon-Fri 8 a.m. - 5:30 p.m.
Appointment Required: No
Quantity Limitations per Day: No Minimum
No Maximum
Truck Size Limits: None
Truck Weight Limits: None
Additional Access Information:

Training

Required: No
Duration:
Who:
Frequency:
Schedule:
Location:
Length of time to become authorized truck hauler: 1 business day

Signage

Area Use Signage Required: No
Vehicle Signage Required: Yes
Signs Provided by Water Agency: N/A
Signs Provided by Water Agency: No

Vehicle Inspection

Required: No
Inspection Location:
Duration:
Re-inspection Required:
How to schedule:

Fees

Water: $5.09 per 1,000 gal
Training: No Charge
Connection Device: No Charge
Permit: $15.00 per year
Vehicle Signage: N/A
Use Area Signage: No Charge
Other:

SONOMA COUNTY WATER AGENCY

707.521.1865

www.scwa.ca.gov

Recycled Water Fill Facilities:			
Treatment Plant	Yes	Distribution System	No
Can water be used outside of this agency's service area?			Yes

Hydrant Fill Facilities

Location:	None		
Number of Fill Facilities:		Connection Device:	
Quality:		Truck Size Limits:	
Quantity Limitations per Trip:		Truck Weight Limits:	
Other Restrictions:			
Additional Access Information:			

Fill Facilities at Treatment Plant

Locations:	Sonoma Valley County Sanitation District (call for address)		
Quality:	Disinfected Tertiary	Type of Connection:	Side
Quantity Limitations per Trip:	No Minimum Maximum up to truck limit	Hours:	Mon-Fri 8 a.m. - 4 p.m.; with permission could be 24/7
Quantity Limitations per Day:	No Minimum No Maximum	Appointment Required:	No
		Truck Size Limits:	None
		Truck Weight Limits:	None
Additional Access Information:	Contact treatment plant for site access outside of business hours		

Training

Required:	Yes	Duration:	2 hours or less
Who:	Truck Driver	Frequency:	With each new application
Schedule:	By Appointment	Location:	Recycled Water Plant
Length of time to become authorized truck hauler:			5 business days

Signage

Area Use Signage Required:	No	Vehicle Signage Required:	Yes
Signs Provided by Water Agency:	N/A	Signs Provided by Water Agency:	Yes

Vehicle Inspection

Required:	Yes	Inspection Location:	Recycled Water Plant
Duration:	1 hour or less	Re-inspection Required:	With each new application
How to schedule:	Appointment		

Fees

Water:	$5.00 per 1,000 gal	Training:	No Charge
Connection Device:	$100 deposit	Permit:	$300
Vehicle Signage:	First set free	Use Area Signage:	N/A
Other:			

SOUTH BAY WATER RECYCLING

408.277.3671

Recycled Water Fill Facilities:

Treatment Plant: Yes
Distribution System: Yes
Can water be used outside of this agency's service area? Yes

Hydrant Fill Facilities

Location: Call for location
Number of Fill Facilities: 10+
Connection Device: Hydrant Key and Construction Meter
Quality: Disinfected Tertiary
Truck Size Limits: TBD during inspection
Quantity Limitations per Trip: No Minimum
Maximum up to truck limit
Truck Weight Limits: TBD during inspection
Other Restrictions:
Additional Access Information: Secured access. Gate access code or gate key to be provided at training.

Fill Facilities at Treatment Plant

Location: San Jose/Santa Clara Regional Wastewater Facility
700 Los Esteros Rd., San Jose
Quality: Disinfected Tertiary
Type of Connection: Hydrant
Quantity Limitations per Trip: No Minimum
Maximum up to truck limit
Hours: Mon-Fri 7 a.m. - 4 p.m.
Appointment Required: No
Quantity Limitations per Day: No Minimum
No Maximum
Truck Size Limits: None
Truck Weight Limits: None
Additional Access Information:

Training

Required: Yes
Duration: 2 hours or less
Who: Truck Owner, Truck Driver, and Customer using water
Frequency: Annually
Location: At Water Retailer Office
Schedule: By Appointment
Length of time to become authorized truck hauler: 1 business day

Signage

Area Use Signage Required: Yes
Vehicle Signage Required: Yes
Signs Provided by Water Agency: Yes
Signs Provided by Water Agency: Yes

Vehicle Inspection

Required: Yes
Inspection Location: Corp Yard
Duration: 1 hour or less
Re-inspection Required: Annually
How to schedule: Appointment

Fees

Water: Contact City
Training: Contact City
Connection Device: Contact City
Permit: Contact City
Vehicle Signage: Contact City
Use Area Signage: Contact City
Other:

CITY OF SUNNYVALE

408.760.7560

Recycled Water Fill Facilities:

Treatment Plant: Yes
Distribution System: No
Can water be used outside of this agency's service area? Yes

Hydrant Fill Facilities

Location: None
Number of Fill Facilities:
Connection Device:
Quality:
Truck Size Limits:
Quantity Limitations per Trip:
Truck Weight Limits:
Other Restrictions:
Additional Access Information:

Fill Facilities at Treatment Plant

Location: Sunnyvale Water Pollution Control Plant (call for address)
Quality: Disinfected Tertiary
Type of Connection: Hydrant
Quantity Limitations per Trip: No Minimum
Maximum up to truck limit
Hours: Mon-Fri 7 a.m. - 4 p.m.
Appointment Required: No
Quantity Limitations per Day: No Minimum
No Maximum
Truck Size Limits: None
Truck Weight Limits: None
Additional Access Information:

Training

Required: Yes
Duration: 2 hours or less
Who: Truck Owner, Truck Driver, and Customer using water
Frequency: Annually
Schedule: By Appointment
Location: Agency Corp Yard
Length of time to become authorized truck hauler: 8+ business days

Signage

Area Use Signage Required: Yes
Vehicle Signage Required: Yes
Signs Provided by Water Agency: No
Signs Provided by Water Agency: No

Vehicle Inspection

Required: Yes
Inspection Location: Corp Yard
Duration: 1 hour or less
Re-inspection Required: Annually
How to schedule: Appointment

Fees

Water: No Charge
Training: No Charge
Connection Device: No Charge
Permit: No Charge
Vehicle Signage: User provides
Use Area Signage: User provides
Other:

TOWN OF YOUNTVILLE

707.944.2988

townofyounvtille.com

Recycled Water Fill Facilities:

Treatment Plant: Yes

Distribution System: No

Can water be used outside of this agency's service area? No, not without authorization

Hydrant Fill Facilities

Location: None

Number of Fill Facilities: 0

Connection Device:

Quality:

Truck Size Limits:

Quantity Limitations per Trip:

Truck Weight Limits:

Other Restrictions:

Additional Access Information:

Fill Facilities at Treatment Plant

Location: Town of Yountville Wastewater Reclamation Facility
7501 Solano Avenue, Yountville, CA 94599

Quality: Disinfected Tertiary and Disinfected Secondary-2.2

Type of Connection: Hydrant and Side

Quantity Limitations per Trip: No Minimum
Maximum 5,000 gal

Hours: Mon-Fri 8 a.m. - 3:30 p.m.

Appointment Required: Yes, for initial fill-up and training

Quantity Limitations per Day: No Minimum
Maximum 25,000 gal per day

Truck Size Limits: None

Truck Weight Limits: None

Additional Access Information:

Training

Required: Yes

Who: Truck Owner, Truck Driver, and Customer using water

Schedule: By Appointment

Duration: 2 hours or less

Frequency: Annually

Location: Wastewater Reclamation Facility

Length of time to become authorized truck hauler: 3 business days

Signage

Area Use Signage Required: Yes

Signs Provided by Water Agency: No

Vehicle Signage Required: No

Signs Provided by Water Agency: N/A

Vehicle Inspection

Required: No

Duration:

How to schedule:

Inspection Location:

Re-inspection Required:

Fees

Water: $992 for first 100,000 gal

Connection Device: No Charge

Vehicle Signage: N/A

Other:

Training: No Charge

Permit: $350

Use Area Signage: User provides

SECTION 2

Additional Commercial Truck Fill Facilities in 2015

Commercial Fill Facilities Planned to be Operational in 2015

COUNTY/CITY	AGENCY
SAN MATEO COUNTY	
Pacifica	North Coast County Water District (contact for availability) Contact: www.nccwd.com
SONOMA COUNTY	
Windsor	Town of Windsor (operational Spring 2015) Contact: (707) 838-5343

SECTION 3

Potential Future Commercial Truck Fill Facilities

Agencies That May Consider Commerical Fill Facilities in the Future

At the time this Guide was prepared, the agencies below indicated they may consider development of commercial fill facilities, in particular if the drought continues.

COUNTY/CITY	AGENCY
ALAMEDA COUNTY	
Piedmont	City of Piedmont
Union City	Union Sanitary District
CONTRA COSTA COUNTY	
Antioch	Delta Diablo Sanitation District
Brentwood	City of Brentwood
Richmond	West County Wastewater District
MARIN COUNTY	
San Rafael	Ross Valley Sanitary District
SAN FRANCISCO	
South San Francisco	South San Francisco
SAN MATEO COUNTY	
Menlo Park	West Bay Sanitary District
San Mateo	City of San Mateo
SOLANO COUNTY	
Benicia	City of Benicia
SONOMA COUNTY	
Guerneville	Sonoma County Water Agency
Petaluma	City of Petaluma
Santa Rosa	City of Santa Rosa
Santa Rosa	Sonoma County Water Agency
Sonoma	Sonoma County Water Agency

SECTION 4

Recycled Water Uses Allowed in California

Recycled Water Uses Allowed[1] in California

Use of Recycled Water	Treatment Level			
	Disinfected Tertiary Recycled Water	Disinfected Secondary – 2.2 Recycled Water	Disinfected Secondary – 23 Recycled Water	Undisinfected Secondary Recycled Water
Irrigation of:				
Food crops where recycled water contacts the edible portion of the crop, including all root crops	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Parks and playgrounds	**Allowed**	Not Allowed	Not Allowed	Not Allowed
School yards	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Residential landscaping	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Unrestricted-access golf courses	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Any other irrigation uses not prohibited by other provisions of the California Code of Regulations	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Food crops, surface-irrigated, above-ground edible portion, and not contacted by recycled water	**Allowed**	**Allowed**	Not Allowed	Not Allowed
Cemeteries	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Freeway landscaping	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Restricted-access golf courses	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Ornamental nursery stock and sod farms with unrestricted public access	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Pasture for milk animals for human consumption	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Non-edible vegetation with access control to prevent use as a park, playground or school yard	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Orchards with no contact between edible portion and recycled water	**Allowed**	**Allowed**	Not Allowed[2]	Not Allowed[2]
Vineyards with no contact between edible portion and recycled water	**Allowed**	**Allowed**	Not Allowed[2]	Not Allowed[2]
Non food-bearing trees, including Christmas trees not irrigated less than 14 days before harvest	**Allowed**	**Allowed**	**Allowed**	**Allowed**
Fodder and fiber crops and pasture for animals not producing milk for human consumption	**Allowed**	**Allowed**	**Allowed**	**Allowed**
Seed crops not eaten by humans	**Allowed**	**Allowed**	**Allowed**	**Allowed**
Food crops undergoing commercial pathogen-destroying processing before consumption by humans	**Allowed**	**Allowed**	**Allowed**	**Allowed**
Ornamental nursery stock, sod farms not irrigated less than 14 day before harvest	**Allowed**	**Allowed**	**Allowed**	**Allowed**
Supply for impoundment:				
Non-restricted recreational impoundments, with supplemental monitoring for pathogenic organisms	**Allowed**[3]	Not Allowed	Not Allowed	Not Allowed
Restricted recreational impoundments and publicly-accessible fish hatcheries	**Allowed**	**Allowed**	Not Allowed	Not Allowed
Landscape impoundments without decorative fountains	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Supply for cooling or air conditioning:				
Industrial or commercial cooling or air conditioning involving cooling tower, evaporative condenser, or spraying that creates a mist	**Allowed**[4]	Not Allowed	Not Allowed	Not Allowed
Industrial or commercial cooling or air conditioning not involving cooling tower, evaporative condenser, or spraying that creates a mist	**Allowed**	**Allowed**	**Allowed**	Not Allowed

Recycled Water Uses Allowed[1] in California
(continued)

Use of Recycled Water	Treatment Level			
	Disinfected Tertiary Recycled Water	Disinfected Secondary – 2.2 Recycled Water	Disinfected Secondary – 23 Recycled Water	Undisinfected Secondary Recycled Water
Other uses:				
Groundwater recharge	**Allowed** under special case-by-case permits by RWQCBs[5]			
Flushing toilets and urinals	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Priming drain traps	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Industrial process water that may contact workers	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Structural fire fighting	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Decorative fountains	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Commercial laundries	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Consolidation of backfill material around potable water pipelines	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Artificial snow making for commercial outdoor uses	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Commercial car washes, not heating the water, excluding the general public from washing process	**Allowed**	Not Allowed	Not Allowed	Not Allowed
Industrial process water that will not come into contact with workers	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Industrial boiler feedwater	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Non-structural fire fighting	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Backfill consolidation around non-potable piping	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Soil compaction	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Mixing concrete	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Dust control on roads and streets	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Cleaning roads, sidewalks, and outdoor work areas	**Allowed**	**Allowed**	**Allowed**	Not Allowed
Flushing sanitary sewers	**Allowed**	**Allowed**	**Allowed**	**Allowed**

This summary is prepared from the December 2, 2000-adopted Title 22 Water Recycling Criteria and supersedes all earlier versions. Prepared by Bahman Sheikh and edited by EBMUD Office of Water Recycling, who acknowledge this is a summary and not the formal version of the regulations referenced above.

[1] Refer to the full text of the December 2, 2000 version of Title 22: California Code of Regulations, Chapter 3 Water Recycling Criteria. This chart is only an informal summary of the uses allowed in this version, with the exception of orchards and vineyards noted as "Not Allowed[2]" on page 1 and explained below.

[2] Per California Department of Public Health letter of January 8, 2003 to California Regional Water Quality Control Boards.

[3] Allowed with "conventional tertiary treatment." Additional monitoring for two years or more is necessary with direct filtration.

[4] Drift eliminators and/or biocides are required if public or employees can be exposed to mist.

[5] Refer to Groundwater Recharge Guidelines, available from the California Department of Public Health.

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