CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

TENTATIVE ORDER
WASTE DISCHARGE REQUIREMENTS and WATER QUALITY CERTIFICATION FOR:

EAST BAY REGIONAL PARK DISTRICT
REGIONAL MAINTENANCE ACTIVITIES, ALAMEDA AND CONTRA COSTA COUNTIES

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter the Regional Water Board, finds that:

1. The East Bay Regional Park District (hereinafter Discharger) proposes to conduct routine maintenance activities on land owned and/or managed by the Discharger within Alameda and Contra Costa counties, Land owned and/or managed by the Discharger currently is located on 65 regional parks, covering a total area of more than 100,000 acres. The Discharger conducts routine maintenance activities in streams, creeks, channels, catchment basins, seeps, springs, ponds, lakes, and beaches. Maintenance activities may involve culvert replacement, maintenance of existing structures, maintenance of existing road or trail crossings of creeks, bank stabilization, maintenance dredging, and beach replenishment. The purpose of the maintenance activities is to protect water quality and quantity, to reduce erosion, to maintain and enhance natural resources, and to provide safe access for the public and emergency vehicles. Obtaining timely regulatory agency approval for identified maintenance needs is critical, especially in heavy rainfall years.

2. Routine maintenance activities may occur in several watersheds within Alameda and Contra Costa counties including the Alameda, Alhambra, Claremont, Garrity, Rheem, Kirker, Mount Diablo, Pinole, San Pablo, San Leandro, San Lorenzo, Walnut, and Wildcat creek watersheds that drain to San Francisco Bay, San Pablo Bay, and Suisun Bay. A complete list of 102 creeks, lakes, reservoirs, and major ponds where routine maintenance activities could occur is contained in Attachment D. This Order applies to portions of these watersheds that are located within the jurisdiction of the Regional Water Board as shown in the figures in Attachment D

3. The Discharger developed documents referred to as *Activities that Constitute Routine Maintenance in Waterways, Ponds, and Lakes in the East Bay Regional Park District Watersheds* (Attachment A) and *Best Management Practices and Standard Operating Procedures for Routine Maintenance Activities in Waterways, Streams, Ponds and Lakes in East Bay Regional Park District, Alameda and Contra Costa Counties* (Attachment B). These documents describe maintenance activities, impact avoidance measures, Best Management Practices (BMPs), and habitat restoration measures.

4. The need for specific maintenance activities covered by this Order is normally the result of stormwater related erosion, channel down-cutting and sedimentation problems resulting from high stream flow events. Generally, between 30 and 60 maintenance projects covered by this Order are anticipated to be completed annually. Routine maintenance activities are summarized in Attachment A and consist of the following main categories:

    - Vegetation management for stream flow measuring stations, for water control facilities, and for public health, safety, and benefit.
    - Planting of riparian vegetation.
    - Sediment and debris removal from siltation basins, managed ponds, and marinas.
    - Management of large woody debris, herbaceous vegetation, fallen trees, rubbish, garbage, and debris, as needed to maintain bank stability and minimize flood threats, while maintaining fish habitat.
    - Removal of non-native, invasive vegetation.
    - Repair or replacement of small areas of damaged or failed rock riprap, gabions, geocells, sacked concrete, concrete walls or cribwall bank revetments in order to maintain bank stability.
    - Bank stabilization using biotechnical bank stabilization techniques on creek banks that were not previously armored.
    - Routine maintenance or replacement of culverts in stream channels associated with park trails and access roads, including limited culvert replacement with in-kind structures, along with the installation of energy dissipaters, headwalls, and tailwalls on existing or replacement culverts. [1]
    - Maintenance of swim beaches using sand recapture or replenishment.
    - Maintenance of existing bridges and installation of clear span bridges.
    - Maintenance and repair of existing piers and docks.
    - Maintenance of existing stream fords and installation of articulated concrete blocks for small stream crossings.

5. The issuance of Waste Discharge Requirements (WDRs) and Water Quality Certification (WQC) serves to govern the Discharger's various maintenance activities for the purpose of alleviating local flood damage problems, protecting fish and wildlife, and addressing public safety concerns in an environmentally responsible manner.

6. The majority of the Discharger's routine maintenance activities consists of improving existing conditions and enhancing habitat for aquatic species with such activities as cattail removal from choked out water bodies, removing and replacing dysfunctional culverts, and removing stream obstructions and barriers. Overall, the majority of the maintenance activities authorized under this Order will improve existing conditions or result in a net environmental benefit. For the

[1] Note: The replacement of other forms of stream crossings with culverts is not authorized by this Order.

duration of the five-year permit, the Discharger has identified 17 potential restoration projects that would create and/or enhance about 35 acres of tidal wetlands, 8.11 acres of lentic water bodies, and 0.88 acres (1,960 linear feet) of stream habitat. These proposed restoration sites are within the current distributional range of the California red-legged frog, California tiger salamander, California clapper rail, salt marsh harvest mouse, and/or Western pond turtle and will be enhanced to provide additional permanent habitat for these special status species. In addition, restored sites will provide long-term habitat for a variety of other aquatic species. Restoring and/or creating permanent aquatic habitat will compensate for the small-scale temporary cumulative impacts associated with the various routine maintenance projects.

7. If excess mitigation credits are accrued, the Discharger, subject to the Regional Water Board's Executive Officer's approval, may make credits available to itself and other public entities to be used as compensatory mitigation for loss of functions and values of waters of the State associated with other projects located within watersheds in Alameda or Contra Costa Counties, and within the jurisdictional boundary of the Regional Water Board. Subject to the Executive Officer's approval, the Discharger may accept payment of an in-lieu fee or may allow public entities to use excess mitigation credits documented from previous years as compensatory mitigation.

8. The Discharger has contacted the California Department of Fish and Game (CDFG) concerning the proposed maintenance activities. A Memorandum of Understanding (MOU) will be created between CDFG and the Discharger regarding streambed alteration notification and routine maintenance activities subject to State Fish and Game Code Section 1601.

9. Between September 1, 2010, and September 15, 2010, the Army Corps of Engineers provided public notice of its intent to issue a Regional General Permit (RGP) (File No. 2003-28902S) to the Discharger authorizing various routine maintenance activities.

10. The Army Corps of Engineers' (File No. 2003-28902S) has determined that the proposed activities associated with the Discharger's routine maintenance activities appear to be covered under the *U.S. Army Corps of Engineers Proposed Procedures for Permitting Projects that will Not Adversely Affect Selected Listed Species in California* (NLAA) consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) (dated November 16, 2006). Federally listed species that occur on land managed by the Discharger are listed in Attachment E to this Order. Any proposed projects that do not fit the NLAA will require a separate Section 7 authorization before work may be performed on those sites.

11. The Army Corps of Engineers' (File No. 2003-28902S) has determined that the proposed activities associated with the Discharger's routine maintenance

activities will not adversely impact any Essential Fish Habitat (EFH) designated under the Magnuson-Stevens Fishery Conservation and Management Act. Any proposed projects that may adversely impact EFH will require a separate Section 7 authorization in consultation with the National Marine Fisheries Service (NMFS) before work may be performed on those sites.

12. On June 12, 2009, and August 17, 2009, and with subsequent submittals of March 15, 2011, and April 13, 2011, the Discharger applied to the Board for Water Quality Certification under Section 401 of the Clean Water Act.

13. Issuance of a multi-year permit to the Discharger allows for streamlining regulatory approvals, implementing watershed-scale mitigation to address cumulative impacts, increasing the efficient use of staff resources for the Regional Water Board and the Discharger, while allowing for review of all planned maintenance projects. In addition, a multi-year permit allows the Discharger to plan and budget for routine maintenance on a fixed annual cycle.

Impacts and Mitigation Measures

14. Routine maintenance activities covered under this Order are small in scale. The footprint of individual projects shall not exceed 200 square feet (0.05 acres) or 150 linear feet for any one project, except: 1) clearing of inboard ditches when necessary to prevent or reduce road and trail erosion; 2) planting riparian vegetation to reduce erosion; and 3) fencing to keep people and livestock away from stream channels. Projects over 150 feet in length or adjacent projects implemented within 3 calendar years totaling over 150 feet in length shall require separate permit application to the Regional Water Board. Individual projects covered under this Order shall not exceed a total of 25 cubic yards of cut material, 25 cubic yards of fill material, or 200 cubic yards of dredged material.

15. Routine maintenance activities covered under this Order will not be performed in perennial, intermittent and ephemeral streams that are known to contain anadromous fish. Routine maintenance activities in streams that are either tributary to existing anadromous fish habitat or that provide potential habitat for anadromous fish shall be performed in conformance with Provisions E.6, E.7 and E.8 of this Order

16. For most bank stabilization and sediment removal projects, excavators shall be used from the top-of-bank. For projects where the use of excavators from the top-of-bank is not possible, or would cause major vegetation impacts, equipment may be used within the channel when it is dry naturally or flows are bypassed. With the exception of material used to construct cofferdams for temporary channel dewatering, no temporary fills may be placed in natural stream channels.

17. If repair activities affect the active channel, the work area shall be isolated from flowing stream segments using cofferdams and restored to pre-project conditions after maintenance is complete. Cofferdams shall be constructed of materials that

will not introduce sediment to the stream channel and can be completely removed following completion of the maintenance activity (See the Best Management Practices in Attachment B to this Order).

18. Vegetation management techniques include removal using small hand tools and hand-held equipment, mechanical removal using heavy equipment like a flail mower attached to an excavator, and spot chemical control on tree stumps and along access roads.

19. All staging will occur on adjacent access roads or previously disturbed areas. Soil and rip-rap will be staged in areas that have been previously disturbed (i.e., service road, turn-outs, etc).

20. The *Activities that Constitute Routine Maintenance in Waterways, Ponds, and Lakes in the East Bay Regional Park District Watersheds* (Attachment A) and *Best Management Practices For Regional Routine Maintenance Activities in Waterways, Streams, Ponds, and Lakes in East Bay Regional Park District, Alameda and Contra Costa Counties* (Attachment B) include planning guidelines or principles to determine how, where, and when routine maintenance activities should occur. These principles should be used in the development of each year's maintenance work plan, prior to any work. These principles consider the natural function of the system, provide an understanding of local physical constraints, identify sensitive habitats, consider watershed processes, determine when action is needed, identify maintenance activities needed, and strive to recognize and implement solutions to minimize the on-going need for maintenance activities.

21. Most routine maintenance activities under this Order will be conducted in a manner that results in no net loss of waters of the State, including streams and wetlands. However, some wetlands associated with creeks, streambeds, basins and stock ponds will be temporarily impacted in some cases, and will require appropriate mitigation, consistent with the State's "no net loss" policy. All mitigation activities shall occur within the Discharger's jurisdiction, as described in Finding 6. Impacts and mitigations associated with individual projects shall be accounted for by acreage, linear feet, and type of water of the State impacted and shall be reported to the Regional Water Board annually.

California Wetlands Portal

22. 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, following monitoring periods that last several years. In addition, to effectively carry out the State's "no net loss" wetland policy, the State needs to closely track both wetland losses and mitigation/restoration project success. Therefore, this Order requires that the Discharger use the California Wetlands Form to provide project information related to impacts and mitigation/restoration measures (see provisions E.31 and E.32 of this Order). An electronic copy of the form and instructions can 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.

Regulatory Framework

23. The *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes implementation plans to achieve water quality objectives. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law, and the U.S. EPA, where required.

24. The Basin Plan lists the following existing and potential beneficial uses for surfaces waters in Alameda and Contra Costa counties within the jurisdiction of the Regional Water Board. The Discharger conducts maintenance activities on an estimated 102 creeks, lakes, reservoirs, and major ponds, including the Alameda, Alhambra, Claremont, Garrity, Rheem, Kirker, Mount Diablo, Pinole, San Pablo, San Leandro, San Lorenzo, Walnut, and Wildcat creek watersheds that drain to San Francisco Bay, San Pablo Bay, and Suisun Bay (See Attachment D to this Order), with the following designated beneficial uses:

    a. Agricultural Supply (AGR)
    b. Cold Freshwater Habitat (COLD)
    c. Freshwater Replenishment (FRSH)
    d. Groundwater Recharge (GWR)
    e. Fish Migration (MIGR)
    f. Municipal and Domestic Supply (MUN)
    g. Navigation (NAV)
    h. Preservation of Rare and Endangered Species (RARE)
    i. Water Contact Recreation (REC-1)
    j. Non-contact Water Recreation (REC-2)
    k. Fish Spawning (SPWN)
    l. Warm Freshwater Habitat (WARM)
    m. Wildlife Habitat (WILD)

    Sediment management, vegetation management, culvert repair or replacement, and bank stabilization activities could temporarily impact beneficial uses of waters of the State for:

    a. Warm Freshwater Habitat (WARM)
    b. Cold Freshwater Habitat (COLD)
    c. Wildlife Habitat (WILD)
    d. Preservation of Rare and Endangered Species (RARE)
    e. Fish Migration (MIGR)
    f. Fish Spawning (SPWN)

25. The Basin Plan lists the following existing and potential beneficial uses for portions of the shoreline of San Francisco Bay in Alameda and Contra Costa counties within the jurisdiction of the Regional Water Board. The Discharger may conduct maintenance activities at the following shoreline parks, Bay Point Wetlands Brooks Island, Carquinez Strait Shoreline, Coyote Hills Regional Park, Crown Beach, Eastshore State Park, Hayward Shoreline, Lone Tree Point, Martin Luther King Jr. Shoreline, Martinez Shoreline, Miller/Knox, Oyster Bay, Point Isabel, Point Pinole, and, San Pablo Bay Shoreline, with the following designated beneficial uses:.

    a. Commercial and Sport Fishing (COMM)
    b. Estuarine habitat (EST)
    c. Marine habitat. (MAR)
    d. Industrial Service Supply (IND)
    e. Fish Migration (MIGR)
    f. Navigation (NAV)
    g. Preservation of Rare and Endangered Species (RARE)
    h. Water Contact Recreation (REC-1)
    i. Non-contact Water Recreation (REC-2)
    j. Fish Spawning (SPWN)
    k. Shellfish harvesting (SHELL)[2]
    l. Wildlife Habitat (WILD)

    Sediment management, vegetation management, and bank stabilization activities could temporarily impact beneficial uses of waters of the State for:

    a. Commercial and Sport Fishing (COMM)
    b. Estuarine habitat (EST)
    c. Marine habitat. (MAR)
    d. Fish Migration (MIGR)
    e. Navigation (NAV)
    f. Rare, Threatened, or Endangered Species (RARE)
    g. Water Contact Recreation (REC-1)
    h. Non-contact Water Recreation (REC-2)
    i. Fish Spawning (SPWN)
    j. Wildlife Habitat (WILD)
    k. Shellfish harvesting (SHELL)

26. The following groundwater basins, which underlie, at least in part, land under the control of the Discharger, support the existing and potential beneficial uses listed below: Castro Valley Groundwater Basin; Santa Clara Valley Groundwater Basin, Niles Cone Sub-Basin; Santa Clara Valley Groundwater Basin, East Bay Plain Sub-Basin; Livermore Valley Groundwater Basin; Sunol Valley Groundwater Basin; Pittsburg Plain Groundwater Basin; Clayton Valley

[2] Shellfish collection observations have occurred and could potentially occur on a limited basis at all San Francisco Bay shoreline parks (Hayward Shoreline, Oyster Bay, Martin Luther King Jr. Shoreline, Crown Beach, Eastshore State Park, Pt. Isabel, Miller/Knox, Point Pinole, Carquinez Strait Shoreline, Brooks Island, and Martinez Shoreline).

Groundwater Basin; Ygnacio Valley Groundwater Basin; San Ramon Valley Groundwater Basin; and Arroyo del Hambre Valley Groundwater Basin.

a. Agricultural Supply (AGR)
b. Industrial Service Supply (IND)
c. Industrial Process Supply (PROC)
d. Municipal and Domestic Supply (MUN)

27. The following water bodies that could be affected by routine maintenance activities covered by this Order are identified as impaired on the federal Clean Water Act Section 303(d) list for the pollutants listed:

Impaired Water Body	Pollutant
Creeks	
Alameda Creek	Diazinon
Arroyo De La Laguna	Diazinon
Arroyo Del Valle	Diazinon
Arroyo Las Positas	Diazinon, Nutrient/Eutrophication, and Biological Indicators
Arroyo Mocho	Diazinon and Temperature (water)
Baxter Creek	Trash
Cerrito Creek	Trash
Codornices Creek	Temperature (water) and Trash
Damon Slough	Trash
Grayson Creek	Trash
Kirker Creek	Pyrethoids, Toxicity, and Trash
Mount Diablo Creek	Diazinon and Toxicity
Pine Creek	Diazinon
Pinole Creek	Diazinon
Rodeo Creek	Diazion
San Leandro Creek (Lower)	Diazinon and Trash
San Lorenzo Creek	Diazinon
San Pablo Creek	Diazinon and Trash
Sausal Creek	Trash
Strawberry Creek	Trash
Walnut Creek	Diazinon
Wildcat Creek	Diazinon
Lakes and Reservoirs	
Del Valle Reservoir	Mercury and PCBs
Lafayette Reservoir	Mercury and PCBs
San Pablo Reservoir	Chlordane, Dieldrin, Heptachlor Epoxide, Mercury, PCBs, and Toxaphene

28. Central San Francisco Bay, which is a receiving water body for some of the creeks listed above, is identified as impaired on the Clean Water Act Section 303(d) list and is listed as impaired for Chlordane, DDT, Dieldrin, Dioxin compounds, Furan Compounds, Invasive Species, Mercury, PCBs, Selenium, and Trash.

29. Lower San Francisco Bay, which is a receiving water body for some of the creeks listed above, is identified as impaired on the Clean Water Act Section 303(d) list and is listed as impaired for Chlordane, DDT, Diazinon, Dieldrin, Dioxin compounds, Invasive Species, Furan Compounds, Mercury, PCBs, and Trash.

30. San Leandro Bay, which is a receiving water body for some of the creeks listed above, is identified as impaired on the Clean Water Act Section 303(d) list and is listed as impaired for Chlordane, Dieldrin, Dioxin compounds, Furan Compounds, Invasive Species, Lead (sediment), Mercury, PAHs, Pesticides, and Zinc.

31. San Pablo Bay, which is a receiving water body for some of the creeks listed above, is identified as impaired on the Clean Water Act Section 303(d) list and is listed as impaired for Chlordane, DDT, Dieldrin, Dioxin compounds, Furan Compounds, Invasive Species, Mercury, PCBs, and Selenium.

32. Carquinez Strait, which is a receiving water body for some of the creeks listed above, is identified as impaired on the Clean Water Act Section 303(d) list and is listed as impaired for Chlordane, DDT, Dieldrin, Dioxin compounds, Furan Compounds, Invasive Species, Mercury, PCBs, and Selenium.

33. Suisun Bay, which is a receiving water body for some of the creeks listed above, is identified as impaired on the Clean Water Act Section 303(d) list and is listed as impaired for Chlordane, DDT, Dieldrin, Dioxin compounds, Furan Compounds, Invasive Species, Mercury, PCBs, and Selenium.

34. The Discharger has certified in filings with the Alameda County Clerk on March 4, 2011, and the Contra Costa County Clerk on March 8, 2011, that the proposed maintenance activities are categorically exempt from the California Environmental Quality Act (CEQA) Guidelines.

    The action to adopt WDRs and WQC for the regional maintenance activities is exempt from the provisions of CEQA, in accordance with the following:

    - Section 15301 for the operation, repair maintenance, or minor alteration of existing structures, facilities, mechanical equipment, or topographical features involving negligible or no expansion of use;
    - Section 15302 for the replacement or reconstruction of existing structures and facilities on the same site having substantially the same purpose and capacity;
    - Section 15303 for new construction of limited to small new facilities including installation of small, new equipment and facilities in small structures, and conversion of the use of small existing structures;
    - Section 15304 for minor alterations in the condition of the land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees, except for forestry or agricultural purposes. This includes grading on land with a slope of less 10 percent, except in a waterway, wetland,

officially designated scenic area, or officially mapped areas of severe geological hazard. This also includes new gardening, landscaping, minor trenching and filling, maintenance dredging and filling of earth into previously excavated land with compatible material; and

- Section 15311 for the construction or placement of minor structures accessory to existing facilities.
- Section 15333 for small habitat restoration projects of less than 5 acres

35. The goals of the California Wetlands Conservation Policy (Governor's Executive Order W-59-93, signed August 23, 1993) include ensuring no "overall loss", and achieving a "long-term net gain in the quantity, quality, and permanence of wetlands acreage and values…"

36. Senate Concurrent Resolution No. 28 states that, "It is the intent of the legislature to preserve, protect, restore, and enhance California's wetlands and multiple resources which depend on them for the benefit of the people of the State". .

37. Section 13142.5 of the California Water Code requires that "Highest priority shall be given to improving or eliminating discharges that adversely affect … Wetlands, estuaries, and other biologically sensitive areas". .

38. Pursuant to Title 23, California Code of Regulations Sections 3857 and 3859 the Regional Water Board is issuing Waste Discharge Requirements and Water Quality Certification for routine maintenance activities proposed by the Discharger as described in Attachment A. The annual fee shall be in accordance with the current fee schedule, per California Code of Regulations, Division 3, Chapter 9, Article 1, section 2200(a)(1), based on the discharge's Threat to Water Quality and Complexity rating of the Discharge to Land or Surface Waters, plus applicable surcharge(s). The Threat and Complexity rating shall initially be rated as 3C.

39. The Regional Water Board has notified the Discharger and interested parties of its intent to issue Waste Discharge Requirements and Water Quality Certification for routine maintenance activities.

40. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to this Order.

IT IS HEREBY ORDERED that the East Bay Regional Park District (Discharger), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. The direct or indirect discharge of wastes, as defined in Section 13050(d) of the California Water Code, within or outside of the active project site, to surface

waters or surface water drainage courses is prohibited, except as authorized in this Order.

2. The discharge shall not cause degradation of water quality and beneficial uses.

3. Excavated sediment shall remain within designated disposal areas at all times. The designated disposal areas are: (a) any off-site, authorized temporary or permanent location maintained in compliance with federal and State regulations, (b) any on-site, authorized temporary or permanent location, provided material will be isolated and contained to prevent impacts to waters of the State and their beneficial uses, or (c) a permitted landfill. Sediment may be re-used by the Discharger or offered to other parties for re-use if such re-use is consistent with the screening levels contained in the Regional Water Board's May 2000 staff report, *Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines*.

4. The discharge of sediment and runoff/decant water that exceeds effluent limits, from excavated materials disposed of at any temporary or permanent disposal site, to waters of the State is prohibited.

5. Any maintenance or dredge and disposal activity subject to these requirements shall not cause a condition of pollution or nuisance as defined in Section 13050 (l) and (m) of the California Water Code.

6. Groundwater beneficial uses shall not be degraded as a result of routine maintenance activities.

7. No debris, soil, silt, sand, cement, concrete, or washings thereof, or other construction related materials or wastes, oil or petroleum products or other organic or earthen material shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess material shall be removed from the work area and any areas adjacent to the work area where such material may be washed into waters of the State.

B. Discharge Specifications

1. Appropriate soil erosion control measures shall be undertaken and maintained to prevent discharge of sediment to surface waters or surface water drainage courses.

2. In accordance with CWC §13260, the Discharger shall file with the Regional Water Board a report of any material change in the character, location, or quantity of this waste discharge. Any proposed material change in the discharge requires approval by the Regional Water Board after a hearing under CWC §13263.

3. A responsible representative of the Discharger shall immediately, and in no case no more than 24 hours, notify the Regional Water Board staff by telephone whenever an adverse condition occurs as a result of this discharge. An adverse condition includes, but is not limited to, a violation or threatened violation of the requirements of this Order, significant spill of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance. Pursuant to Section 13267(b) of the California Water Code, a written notification of the adverse condition shall be submitted to the Regional Water Board within five days of occurrence. The written notification shall identify the adverse condition, describe the actions necessary to remedy the condition, and specify a timetable, subject to the modifications of the Regional Water Board, for the remedial actions.

C. Effluent Limitations

Excavated material effluent (decant water) discharged from any permanent or temporary disposal site located on the project site or off the site shall not exceed the following numeric and narrative limits at any time:

1. Numeric Limits:

   a. pH 6.5 – 8.5

   b. Settleable Matter < 1.0 ml/l-hour

2. Narrative Limits:

a. Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses; and.

b. All water shall be free from dissolved sulfide concentrations above natural background levels

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D. Receiving Water Limitations

1. Work in and around the stream channel or Bay shoreline shall not cause the following conditions to exist in waters of the State at any place:

   a. Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses;

   b. Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses;

c. Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth cause nuisance or adversely affect beneficial uses;

d. Waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life;

e. There shall be no alteration of temperature, turbidity, or apparent color beyond present natural background levels;

f. Dissolved oxygen, with the beneficial use designations listed in 1. g. a. below, shall not be reduced below the listed minimums in the receiving water from the point of discharge;

g. Routine maintenance activities shall not cause the following limits to be exceeded in waters of the State at any point:

a. Dissolved Oxygen:	5.0 (WARM) or 7.0 (COLD) mg/l minimum. When natural factors cause lesser concentrations, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b. Dissolved Sulfide:	All water shall be free from dissolved sulfide concentrations above natural background levels. Concentrations of only a few hundredths of a milligram per liter can cause a noticeable odor or be toxic to aquatic life. Violation of the sulfide objective will reflect violation of dissolved oxygen objectives as sulfides cannot exist to a significant degree in an oxygenated environment.
c. pH:	A variation of natural ambient pH by more than 0.5 pH units.
d. Toxicity:	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.
e. Un-ionized Ammonia:	0.025 mg/L as N, annual median; and 0.16 mg/L as N, maximum.
f. Salinity:	The project shall not increase total dissolved solids or salinity to adversely affect beneficial uses.

g. Turbidity	Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases from normal background light penetration or turbidity relatable to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTU, or greater than 5 NTU where natural turbidity is less than 50 NTU.

2. The discharge shall not cause a violation of any particular water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board as required by the Clean Water Act and regulations adopted there under. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

3. Groundwater shall not be degraded as a result of maintenance activities or sediment disposal.

E. Provisions

General Water Quality

1. The Discharger shall comply with all the Prohibitions, Receiving Water Limitations, and Provisions of this Order immediately upon adoption of this Order or as provided below. Requirements prescribed by this Order supersede the requirements prescribed by Order No. R2-2004-0057. Order No. R2-2004-0057 is hereby rescinded upon the effective date of this Order

2. The Discharger shall be restricted to maintenance activities summarized in Attachment A that would be eligible for coverage under the following U.S. Army Corps of Engineers Nationwide permits (NWPs) for the purpose of this Order:

   - NWP 3, Maintenance
   - NWP 13, Bank Stabilization
   - NWP 14, Linear Transportation Projects
   - NWP 18, Minor Discharges
   - NWP 19, Minor Dredging
   - NWP 27, Aquatic Habitat Restoration, Establishment, and Enhancement Activities
   - NWP 28, Modification of Existing Marinas
   - NWP 31, Maintenance of Existing Flood Control Facilities
   - NWP 37, Emergency Watershed Protection and Rehabilitation
   - NWP 40, Agricultural Activities

- NWP 42, Recreational
- NWP 45, Repair of Upland Damaged by Discrete Events

3. The Discharger shall submit separate water quality certification (WQC) applications for projects that do not meet the criteria for the routine maintenance activities summarized in Attachment A, or would not qualify for the U.S. Army Corps of Engineer NWPs listed in Provision E.2. At a minimum, the Discharger shall submit separate WQC applications for any single project with fill impacts to a water body or wetland of greater than 200 square feet (0.05 acre), or for any single fill activity of more than 25 cubic yards, of for any single dredging activity of more than 200 cubic yards per site per year. The Discharger shall also submit separate WQC applications for any single channel project that would impact more than 150 linear feet for any one project, except: 1) clearing of inboard ditches when necessary to prevent or reduce diversion potential to road and trail systems; 2) planting riparian vegetation to reduce erosion, and 3) fencing to keep people and livestock away from stream channels. Projects over 150 feet in length or adjacent projects implemented within 3 calendar years shall require separate WQC application to the Regional Water Board.

4. The Discharger shall submit by June 1st of each year an Annual Notification of Proposed Projects, specifying planned routine maintenance activities that will occur in the following year. The Annual Notification of Proposed Projects shall indicate project location, scope, purpose and need; the amount of fill of waters of the State, including wetlands; and any associated mitigation.

5. For required mitigation, including on-site restoration and off-site mitigation, the Annual Notification of Proposed Projects shall include performance criteria. On-site performance criteria will be used to establish that habitats at impacted sites have recovered to near pre-impact levels (e.g., percent cover of disturbed surfaces with vegetation, percent survival of replanted riparian vegetation, etc.). Off-site performance criteria shall be used to establish that the mitigation projects successfully created or enhanced habitat (e.g., geomorphic stability of channels and/or berms, percent survival of planted riparian vegetation, percent cover of planted vegetation, sufficient ponding to support breeding of listed amphibians, etc.).

6. For routine maintenance activities impacting watercourses that are known to support or have the potential to support threatened and/or endangered species, a qualified biologist shall conduct a pre-construction survey. If any threatened and/or endangered species are located during the pre-construction survey at the project site, the Discharger shall conduct the maintenance project in a manner that is consistent with the requirements of the U*.S. Army Corps of Engineers Proposed Procedures for Permitting Projects that will Not Adversely Affect Selected Listed Species in California* (NLAA) consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) (dated November 16, 2006).

7. Under this Order, routine maintenance activities will not be conducted in perennial or intermittent streams known to contain anadromous fish. For intermittent streams and tributaries that discharge to perennial streams with anadromous fish, where the presence of anadromous fish is unknown and there are no complete barriers to fish passage, the Discharger shall conduct surveys prior to any activity to determine the presence of any anadromous fish.

8. The Discharger shall follow the procedures and protocols in the Fishnet 4C Manual[3] when removing large woody debris from stream channels for maintenance purposes. Large woody debris shall not be removed or be managed in a channel if it potentially functions as habitat for salmonids or other threatened and endangered species. If the large woody debris poses a credible risk of blocking a culvert, bridge, or otherwise obstructing flow or causing structural damage it may be relocated, repositioned, and or cabled to a stream bank in a manner to protect existing habitat. For channels that do not provide potential salmonid, or threatened and endangered species habitat that relies on large woody debris, large woody debris can be immediately removed or relocated to a more suitable location if the large woody debris is posing a significant and imminent threat of structural damage.

9. The Discharger shall halt work activities if fish, amphibians or other aquatic organisms exhibit stress or are found dead within 1,000 feet of work activity or discharge authorized by this Order. The Discharger shall immediately assign a qualified biologist to investigate the cause of the problem, to define an acceptable corrective action plan, and to determine if the cause is related to maintenance activities. The Discharger shall immediately report all incidents involving dead or stressed aquatic organisms to Regional Water Board staff.

10. The Discharger shall implement bioengineering methods as the preferred methodology for bank stabilization projects. Repairs that require alternative structural reinforcement, such as placement of rock rip-rap, shall be filled with native soil and local plant materials and mulch, unless these materials would contribute to further erosion and sedimentation. A rationale for each instance of using an alternate more hardened bank stabilization method must be stated and discussed in the Annual Notification of Proposed Projects (See Provision E.33), and more hardened bank stabilization methods shall not be implemented without the approval of the Executive Officer of the Water Board.

11. Routine maintenance activities shall not result in direct or cumulative significant impacts to water quality or beneficial uses of waters of the State.

[3] Fishnet 4C, MFG, Inc., Prunuske Chatham, Inc., Pacific Watershed Associates (2004) *Guidelines For Protecting Aquatic Habitat and Salmon Fisheries for County Road Maintenance*, prepared for Fishnet 4C Counties, California Department of Fish and Game, National Marine Fisheries Service, California Resources Agency

12. The Discharger shall implement all applicable BMPs described in Attachment B. Changes to bank repair methods shall be proposed in the Annual Notification of Proposed Projects package, or equivalent document, and approved in writing by the Executive Officer before implementation.

13. The Discharger shall comply with all applicable items of the Self Monitoring Program (Attachment C).

Wetland/Waters of the State Mitigation

14. Most routine maintenance activities under this Order will be conducted in a manner that results in no net loss of wetlands/waters of the State, but some maintenance activities may have impacts that require mitigation consistent with the State's 'no net loss" policy. The Discharger shall maintain records of all wetland/waters of the State losses and gains associated with each individual routine maintenance activity project. The total acreage, linear feet, and type of wetland/waters of the State impacted and the total acres, linear feet, and type of wetland/water of the State created, and total credits available from prior years and the current year shall be reported in the Annual Post-Maintenance reports (See Provision E.34). In addition, the number, location, and nature of restoration sites, including pre-construction and post-construction photographs, of restored sites shall be submitted as part of the Annual Post-Maintenance reports.

15. For the duration of the five-year permit, the Discharger has identified 17 potential restoration projects that would create and/or enhance about 35 acres of tidal wetlands, 8.11 acres of lentic water bodies, and 0.88 acres (1,960 linear feet) of stream habitat. These proposed restoration sites are within the current distributional range of the California red-legged frog, California tiger salamander, California clapper rail, salt marsh harvest mouse, and/or Western pond turtle and will be enhanced to provide additional permanent habitat for these special status species. In addition, restored sites will provide long-term habitat for a variety of other aquatic species. Restoring and/or creating permanent aquatic habitat will compensate for the small-scale temporary cumulative impacts associated with the various routine maintenance projects, as well as any small permanent impacts associated with these projects.

16. The Discharger shall evaluate the anticipated impacts for which mitigation is required at each of the proposed project sites that are included in the Annual Notification Report (See Provision E.33). For each project in the Annual Notification of Proposed Projects, the Discharger shall describe on-site mitigation (e.g., stabilization of disturbed surfaces, re-vegetation of disturbed surfaces, planting of riparian vegetation, etc) and the amount of off-site mitigation in one of the mitigation areas described in Provision E.15 that is proposed for the individual project (Since many mitigation sites will be consolidated mitigation sites compensating for the impacts of multiple small projects, the appropriateness of each year's proposed mitigation shall be evaluated with respect to net impacts and net

mitigation). The amount of proposed mitigation should be based on the following factors: anticipated temporal loss of habitat associated with the interval between impacts at the project-site and functioning of restored habitat at the mitigation site (longer recovery times, such as tree re-growth versus grass re-growth, require more mitigation); the distance between the impact site and the mitigation site (greater distances require more mitigation); differences in habitat type between the impacted site and mitigation site (greater differences require more mitigation); any uncertainties associated with the mitigation site (greater uncertainty requires more mitigation); and the permanence of the impact (permanent impacts require more mitigation than temporary impacts). Although most of the projects authorized by this Order are anticipated to have only temporary impacts, some projects may also have small areas of permanent impacts. The proposed mitigation in the Annual Notification of Proposed Projects is subject to review and approval by the Executive Officer of the Water Board.

17. Water Board staff shall review Annual Notification of Proposed Projects and Annual Post-Maintenance Reports to assess the adequacy of the mitigation provided in each year for the impacts that occurred in that year. If staff determines that the Discharger has not completed sufficient mitigation, the Discharger shall be informed of the deficit and shall address it in the following year's Annual Notification of Proposed Projects. If Executive Officer determines that the Discharger has provided excess mitigation, the Discharger will be allowed to accrue excess mitigation credit for use as described in the following provision.

18. If excess mitigation credits are accrued, the Discharger, subject to the Regional Water Board's Executive Officer's approval, may make credits available to itself and other public entities to be used as compensatory mitigation for loss of functions and values of waters of the State associated with other projects located within watersheds in Alameda or Contra Costa Counties, and within the jurisdictional boundary of the Regional Water Board. Subject to the Executive Officer's approval, the Discharger may accept payment of an in-lieu fee or may allow public entities to use excess mitigation credits documented from previous years as compensatory mitigation.

Sediment Management

19. The Discharger may temporarily stockpile excavated sediment prior to disposal or reuse, provided that appropriate State and federal regulations are met and BMPs are implemented to protect water quality and beneficial uses. The excavated sediment may be stockpiled on-site so that it can be loaded into trucks for off-site disposal within three working days. The excavated sediment may also be temporarily stockpiled at an off-site location so that runoff, sediment, or decant water from the excavated materials will not contact waters of the State.

20. The Discharger shall ultimately dispose of dewatered material at a permitted landfill, approved upland sediment disposal site, or at an approved reuse site in accordance with applicable State and federal regulations, including applicable provisions of this Order.

21. Sediment may be re-used by the Discharger or offered to other parties for re-use, if such re-use is consistent with the screening levels contained in the Regional Water Board's May 2000 staff report, *Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines*, including proper characterization of chemical constituents in the sediment through laboratory analytical testing.

22. All staging shall occur on adjacent access roads or previously disturbed areas. Soil and rip-rap shall be staged in areas that have been previously disturbed (i.e., service road, turn-outs, etc).

23. If repair activities affect the active channel, the work area shall be isolated from flowing stream segments using cofferdams and restored to pre-project conditions as soon as maintenance is complete. Instream diversion techniques and instream isolation techniques are specified in Attachment B. All stream diversions shall be carefully maintained and monitored. Upon completion of work in diverted channels, the stream diversion shall be removed and flow shall be returned to the original stream channel or through any replacement culvert installed as part of the maintenance project.

24. Non ground-disturbing work may be conducted in the channel zone, but outside the low-flow channel, at anytime. This includes pruning and removing select non-native invasive plant species, maintaining channel access roads for drainage and accessibility, conducting minor repairs of culverts, and repairing fences (along either side of access roads, including the upper portion of stream banks where access is from the service road). These maintenance activities may be conducted at any time, provided there is no discharge of waste that may cause an adverse impact to water quality or beneficial uses. Planting of riparian vegetation may be done at any time provided there is no erosion and sedimentation that may cause an adverse impact to water quality or beneficial uses.

25. Temporary road crossings that are primarily for emergency use, such as for the passage of heavy equipment for fire suppression, shall be graded carefully to preclude the discharge of sediment, soil or rock into flowing or standing water. Any rock and gravel being graded shall not be removed from the streambed.

26. The Discharger shall divert any flow at the site around the active maintenance site in a non-erosive manner, in accordance with *Best Management Practices for Standard Operating Procedures for Routine Maintenance Activities* (Attachment B).

27. No equipment shall operate in standing or flowing water. Work may be performed in the stream channel if no water is flowing or if flow has been diverted in accordance with provisions E.23 and E.26 above.

Waste Management

28. The Discharge of any hazardous, designated or non-hazardous waste as defined in Title 27, Division 2, Subdivision 1, Chapter 2 of the California Code of Regulations shall be conducted in accordance with applicable State and federal regulations.

29. The Discharger shall remove and relocate any wastes that are discharged in violation of this Order. Waste shall be disposed of at a location in compliance with federal and State regulations and in such a way as to prevent impacts to waters of the State and their beneficial uses.

30. The Discharger shall ultimately dispose of dewatered material at a permitted landfill, approved upland sediment disposal site, or at an approved reuse site in accordance with applicable State and federal regulations, including applicable provisions of this Order.

Monitoring and Reporting

31. To support annual program implementation, the Discharger will submit the following documents and reports annually to the Regional Water Board:

    a) Annual Notification of Proposed Projects,
    b) Annual Post-Maintenance Report, and
    c) Any other self-monitoring reports required or deemed necessary by the Executive Officer

    The Discharger is required to submit the above reports by uploading them to the California Wetlands Portal website at http://www.californiawetlands.net/tracker/ba/list or via email. To upload the reports, go to the above link, click on your project, click on Files & Links, and follow the steps. When any report is uploaded to the California Wetlands Portal, then the Discharger shall notify the Regional Water Board staff case manager that the report has been uploaded.

32. The Discharger is required to use the California Wetlands form to report net habitat losses and net gains as part of the Annual Post-Maintenance Report, as specified in Provision E.34. Habitat losses and gains shall be reported for each completed individual maintenance project, and the location of each project shall be reported in the Annual Post-Maintenance Reports. Tracking of individual maintenance projects will be used to identify areas of ongoing instability. The completed California Wetlands form shall be submitted electronically to habitatdata@waterboards.ca.gov and in hard copy to both 1) the Regional Water Board (see the address on the letterhead), attention California Wetlands Portal; and 2) to the San Francisco Estuary Institute, 1110 Pardee Lane, Oakland, CA 94621-1424, to the attention of Mike May.

33. Annual Notification of Proposed Projects, prepared in conformance with the SMP in Attachment C to this Order, for the following year's proposed projects shall be submitted by June 1st of each year.

34. The Discharger shall file Annual Post-Maintenance Reports, prepared in conformance with the SMP in Attachment C to this Order, with the Regional Water Board by February 15th of each year. Annual Post-Maintenance reports shall include descriptions of work performed, any unanticipated field conditions, and changes to planned projects or performance of mitigation measures, as well as before and after photographs of each project site. Compensatory mitigation (restoration) activities shall be reported in these Annual Post-Maintenance Reports, which shall include the number, location, and nature of mitigation sites, as well as pre-construction and post-construction photographs of mitigation sites. The Discharger shall maintain records of all wetland/waters of the State losses and gains associated with each individual routine maintenance activity project. The total acreage, linear feet, and type of wetland/waters of the State impacted and the total acres, linear feet, and type of wetland/water of the State created, and total credits available from prior years and the current year shall be reported in the Annual Post-Maintenance reports. In addition, photographs of mitigation sites that have not yet attained their performance criteria must be submitted as part of the Annual Post-Maintenance reports. Each restoration site shall be monitored in subsequent annual reports until the restoration site meets its performance criteria (See Attachment C).

35. The following activities are exempt from annual notification requirements and may occur any time at the discretion of the Discharger: maintenance of existing access roads located along the top-of-bank where there will be no impact on waters of the State; maintenance of cross-slope drains across roads, on inboard ditches that run parallel to roads where all work is above the level of top-of-bank of the adjacent stream, and there is no impact to waters of the State; and removal of debris (trash, shopping carts, etc.) accumulations using hand labor and not involving the removal of vegetation or large woody debris.

36. After five years of routine maintenance activities, the Discharger and Regional Water Board will conduct a review in 2016 and consider reissuing WDR and WQC for an additional five years. The review will include an assessment of routine maintenance activities conducted to date, BMPs, and overall program coordination and communication between the Discharger and regulatory agencies.

Records Provisions

37. The Discharger shall maintain records of all routine maintenance activities, natural resources in the program area, permitting requirements, and mitigation efforts.

38. The Executive Officer may request that data be provided to the Regional Water Board at times outside of the reporting requirements specified in this Order.

39. The Discharger shall retain records of all reports required by this Order, and records of all information used to complete the application for this Order, for a period of at least ten years. This period may be extended by request of the Executive Officer at any time.

General Provisions

40. These Requirements do not authorize commission of any act causing injury to the property of another or of the public; do not convey any property rights; do not remove liability under federal, state or local laws, regulations or rules of other programs and agencies nor do these Requirements authorize the discharge of waste without appropriate permits from other agencies or organizations

41. Capital improvement projects and emergency maintenance activities and procedures are not covered in this Order.

42. The Discharger shall comply with all necessary approvals and/or permits for routine maintenance activities from applicable government agencies, including, but not limited to, the: California Department of Fish and Game, United States Army Corps of Engineers, United States Fish and Wildlife Service, National Oceanic and Atmospheric Administration - National Marine Fisheries Service, and local agencies. The Discharger shall submit copies of such approvals and/or permits to the Executive Officer prior to routine maintenance implementation.

43. The Discharger shall implement the routine maintenance activities in accordance with BMPs described in Attachment B and the findings herein, and shall comply with all applicable water quality standards.

44. Any change to routine maintenance activities that would have a significant or material effect on the findings, conclusions, or conditions of this Order shall be submitted to the Executive Officer for review and written approval.

45. Routine maintenance activities shall occur only when there is no surface flow or the channel has been dewatered during the construction period of April 15 to October 31 of any year, or until the immediate project area receives the first significant rainfall (defined as 0.5 inches of rain in a 24-hour period), whichever comes first. Routine maintenance activities shall occur beginning June 15 for streams that are tributary to streams that support anadromy. Routine maintenance activities started before October 15 shall be at least 50 percent complete by October 15 of any year, and shall be completed by October 31 or until the first significant rainfall as described above.

46. These water quality certification and waste discharge requirements are subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to California Water Code Section 13330 and Title 23, California Code of Regulations, Section 3867.

47. This water quality certification 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 Title 23, California Code of Regulations, Section 3855, Subdivision (b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

48. The Regional Water Board may add to or modify the conditions of this Order, 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 and/or any new or revised TMDL requirements.

49. The Discharger shall maintain a copy of this Order, and all relevant plans and BMPs at routine maintenance work sites so as to be available at all times to site operating personnel.

50. The Discharger shall correct any and all problems that arise from routine maintenance activities, including a failure to meet the conditions of this Order that results in an unauthorized release of pollutants, including sediment.

51. The Discharger shall permit the Regional Water Board staff or its authorized representative, upon presentation of credentials:

    a. Entry on to the premises on which maintenance activities are planned or underway, wastes are located, or in which records are kept.
    b. Access to copy any records required to be kept under the terms and conditions of this Order.
    c. Access to inspect any treatment equipment, monitoring equipment or monitoring method required by this Order.
    d. Access to sample any discharge or surface water covered by this Order.

52. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable State or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Order. In response to a suspected violation of any condition of this Order, the Regional Water Board may require the Discharger to furnish, under penalty of perjury, any technical or monitoring reports the Regional Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this Order, the Regional Water Board may add to or modify the conditions of this Order as appropriate to ensure compliance.

53. This Order is not transferable.

54. The authorization for activities covered by this Order expires in the Fall of 2016, when the Clean Water Act Section 404 authorization from the Army Corps of Engineers expires. The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for reissuance of waste discharge requirements. Mitigation reporting, accounting, and post-maintenance report requirements that extend beyond the term of this Order are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, complete and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on X Y, 2011.

_____
BRUCE H. WOLFE
Executive Officer

Attachments:

A: Activities that Constitute Routine Maintenance in Waterways, Ponds, and Lakes in the East Bay Regional Park District Watersheds
B: Best Management Practices (BMPs) and Standard Operating Procedures for Routine Maintenance Activities in Waterways, Streams, Ponds and Lakes in East Bay Regional Park District, Alameda and Contra Costa Counties
C: Self-Monitoring Program
D Affected Water Bodies and Regional Maps
E Federally Listed Species that Occur Within East Bay Regional Park District Property
.

East Bay Regional Park District

Regional Maintenance Activities
Alameda and Contra Costa Counties

ATTACHMENT A

Activities that Constitute Routine Maintenance in Waterways, Ponds and Lakes in the East Bay Regional Park District Watersheds

ATTACHMENT A

ACTIVITIES THAT CONSTITUTE ROUTINE MAINTENANCE IN WATERWAYS, PONDS AND LAKES IN THE EAST BAY REGIONAL PARK DISTRICT WATERSHEDS

The following activities, with their conditional requirements, are accepted as the routine maintenance activities that may be conducted by East Bay Regional Park District (EBRPD) within all streams, channels, catchment basins, ponds, and lakes within their Alameda and Contra Costa Counties wastersheds.

1. Routine removal of the minimum vegetation necessary to insure the proper functioning and operation of stream flow measuring stations and existing water control facilities or structures necessary for public health, safety and benefit, provided that heavy equipment shall not be used in the streambed unless dry conditions are present and trees over 4 inches diameter at breast height (dbh) will not be removed.

2. Planting of riparian vegetation by hand or with rubber-tired backhoe along gravel bars and banks of EBRPD lakes and banks of their tributaries, is subject to the following conditions: (a) equipment shall not be operated in standing or flowing water; (b) trenches shall be excavated, planted and backfilled on the same day; (c) fueling shall not take place in the stream channels, on lake beds, nor within 100 feet of open water; and (d) access shall be by existing access ramps only.

3. The following sites may be dredged as needed to remove accumulated sediment and debris. Dredging shall be done with a crawler excavator and limited to 200 cubic yards annually per site with less than 0.05 acre of wetland or waterbody impact for each single dredging activity. Erosion, sediment and turbidity control measures and procedures shall be implemented to minimize siltation and turbidity downstream of the siltation basins during dredging operations. EBRPD shall not cause suspended solids in the water column downstream of the siltation basins to increase more than 10% over background levels. Background level is equal to the turbidity of the stream immediately upstream of the siltation basin. Sediment that is removed shall be hauled away to a landfill or other appropriate upland site for disposal, or re-used as allowed in the Order. Removal of riparian vegetation shall be minimized during dredging operations. Routinely dredged sites include:

    a. Lake Temescal Regional Park Siltation Basins located near the confluence of Caldecott Creek (1) and Temescal Creek (2);

    b. Tilden Nature Area man-made ecological interpretive ponds (4) which are fed with piped-in water (EBMUD);

c. Tilden Nature Area siltation basins (2), located in Wildcat Creek, specifically installed to protect Jewel Lake;

d. Tilden Regional Park Golf Course siltation basin, located in Wildcat Creek specifically installed to protect Lake Anza;

e. Lake Chabot Regional Park marina sediment basin located at the confluence of a small ephemeral stream and the paved concrete boat launch

f. Miller Knox Regional Park engineered pond, which is fed with pumped-in bay water;

g. Concrete paved boat launches at Lake Del Valle;

4. Removal of woody and herbaceous vegetation with hand tools or hand power tools in the stream bottom in that portion of the channel from the toe of one bank to the toe of the opposite bank. Only that vegetation representing a bank erosion and/or flood threat shall be removed. All such removal shall be in the dry stream channel when there is neither flowing nor standing water at the removal sites. No trees over 4 inches diameter at breast height (dbh) will be removed.

5. Removal of fallen trees, branches, rubbish, garbage and associated debris from the stream channel, banks and culverts. This is allowed only when material represents a bank erosion and/or flood threat. Wherever reasonably possible, this activity shall be restricted to and/or staged from the dry streambanks and upland areas to keep in-stream disturbance and turbidity to a minimum.

6. Removal of non-native, invasive vegetation (Arundo, tree tobacco, castor bean, pampas grass, eucalyptus, acacia, broom, etc.)

7. Repair or replacement of damaged or failed sections of rock riprap, gabion, geocell, sacked concrete, concrete wall and/or cribwall bank revetments to maintain bank stabilization. These activities shall be confined to the damaged or failed sections and immediate adjacent bank area (not to exceed an additional 30 feet total) affected by the damage or failure. Routine revetment repair or replacement shall be conducted only when the channel is dry and only during the period of April 15 to October 31. Riparian trees shall be protected from damage to the greatest extent possible during revetment repair and replacement. Repair or replacement will utilize less bank hardening materials, and/or more bio-technical materials, as much as possible. To the maximum extent practical, repairs shall not include new placement of gabions, geocells, sacked concrete or concrete walls.

8. Use of biotechnical bank stabilization techniques to stabilize creek banks that were not previously armored. Bank stabilization involves the repair and stabilization of small creek banks and streambeds when a weakened, unstable, or

failing bank causes or threatens damage to an adjacent property, generates erosion that increases downstream sediment yields, impacts riparian habitat and/or other natural resource values, increases the flood hazard, threatens public safety, or impairs roads, transportation, or access.

9. Routine maintenance or replacement of culverts in stream channels associated with park trails and access roads and installation of energy dissipaters, headwalls, and tailwalls on existing and replacement culverts. These activities shall be conducted only when the channel is dry and only during the period of April 15 to October 31. The replacement of other forms of stream crossings with culverts is not authorized by the WDRs for maintenance activities.

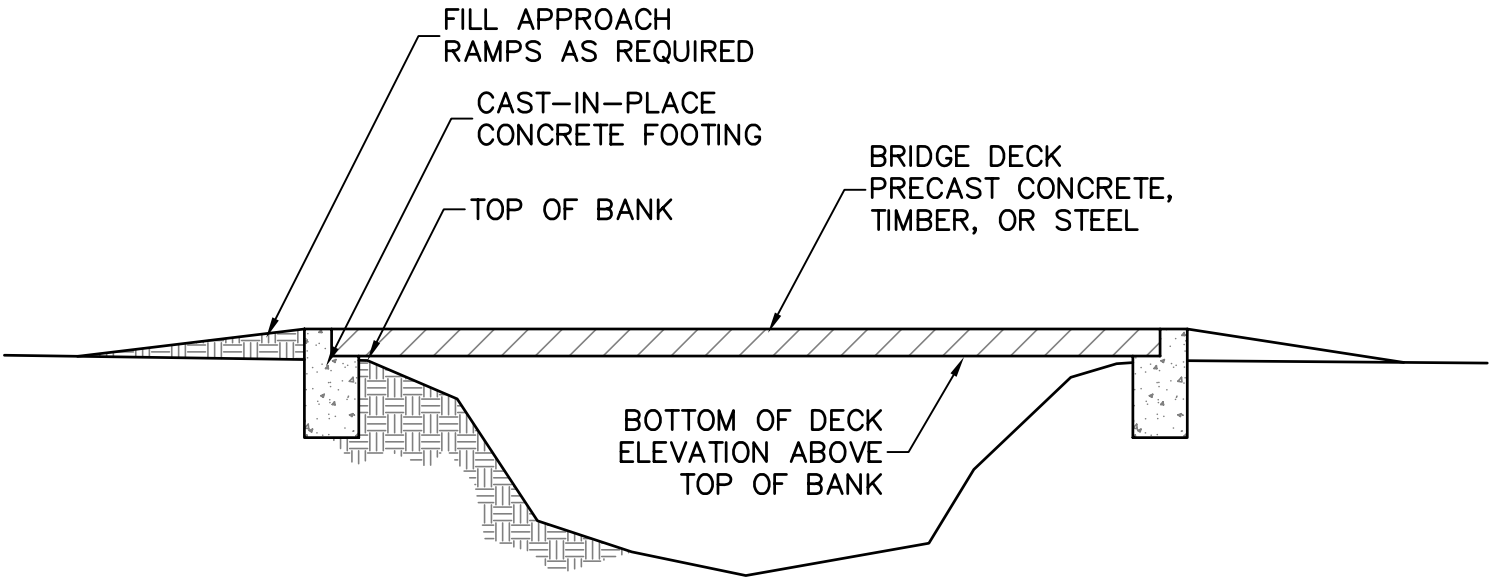
10. Annual swim beach sand recapture and maintenance. These activities shall occur only in beach areas above lake level. Sand shall be re-spread across the beach area above the water line using a bulldozer.

11. Maintenance of existing bridges and installation of clear span bridges.

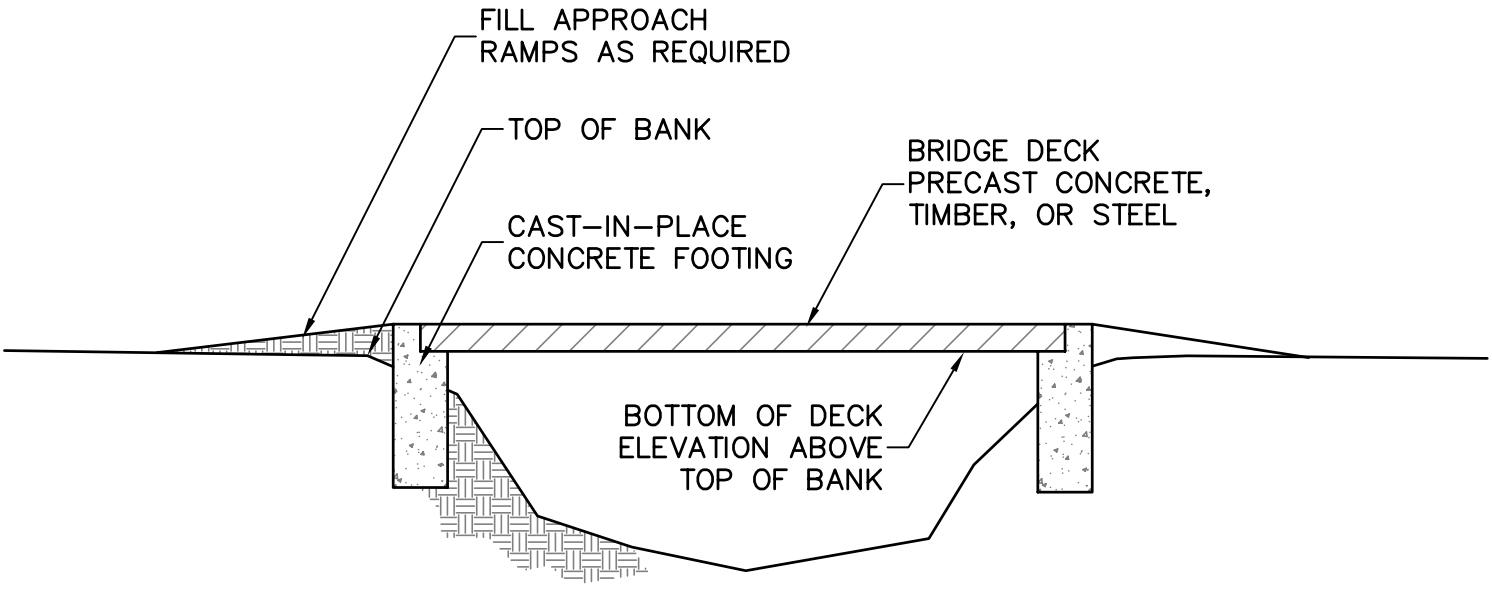
12. Maintenance of existing stream fords and installation of articulated concrete blocks for small stream crossings.

13. Routine maintenance of existing piers and docks to repair broken or rotting members. May include in-kind replacement of abutments, piles, decking, ramps, gangways, and dock structures, not to exceed existing footprints.

ATTACHMENT B



CLEAR–SPAN BRIDGE – FOOTINGS OUTSIDE OF TOP OF BANK



CLEAR–SPAN BRIDGE – FOOTINGS INSIDE OF TOP OF BANK

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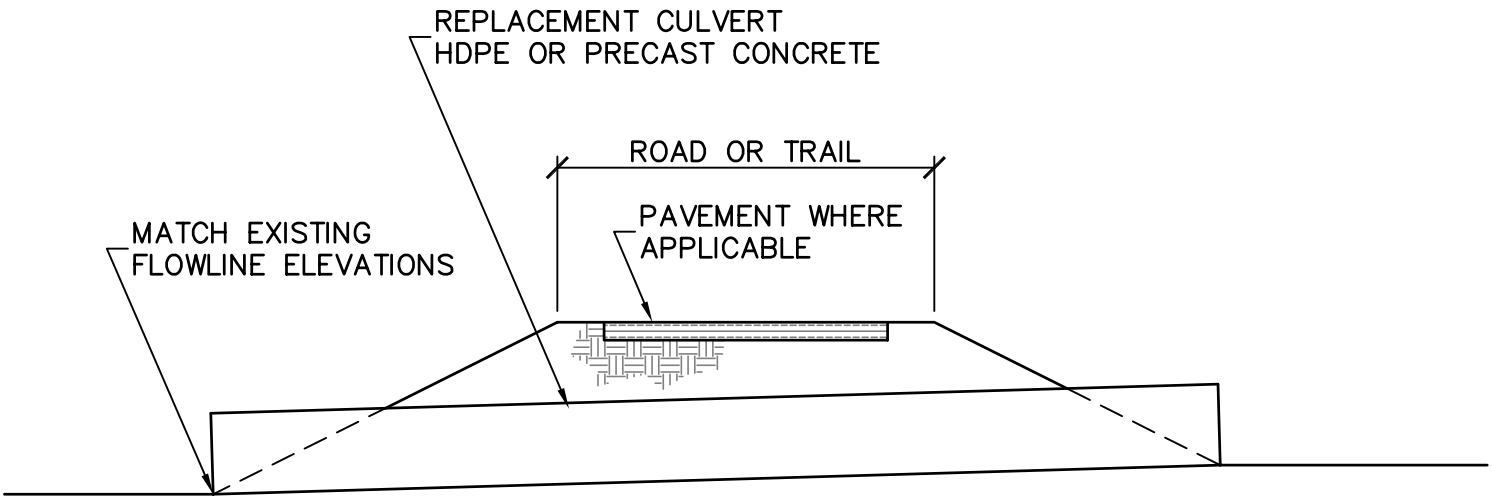
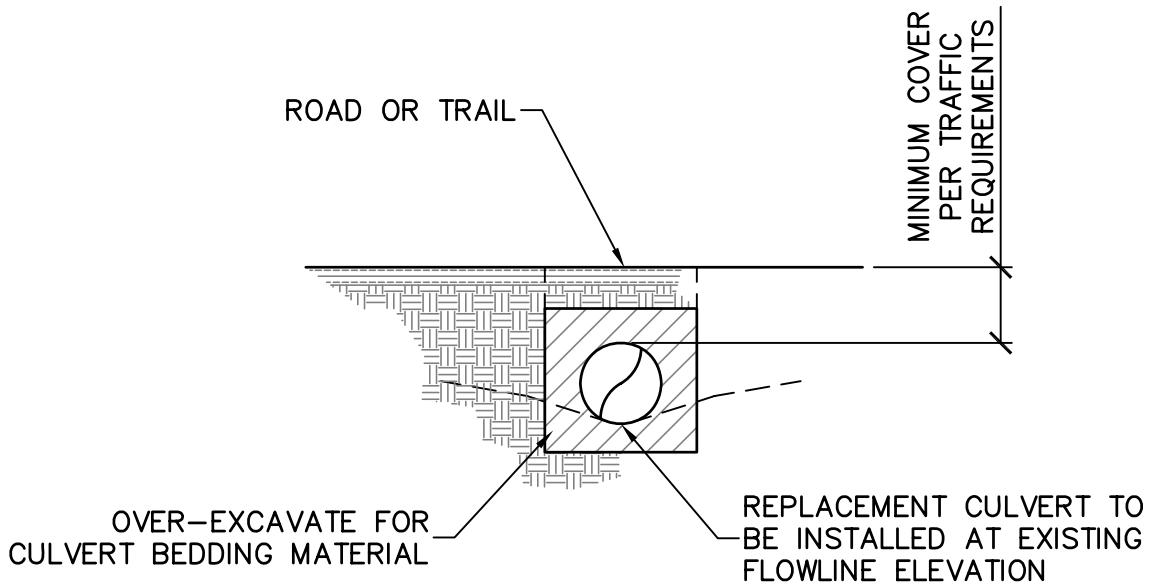
	INSTALLATION OF CLEAR-SPAN BRIDGES	SCALE NONE	DRAWING NO.	SHEET NO. 1
	ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES	DATE MARCH 2010		OF
	PROJECT NO. CONTRACT NO.	**EAST BAY REGIONAL PARK DISTRICT**		

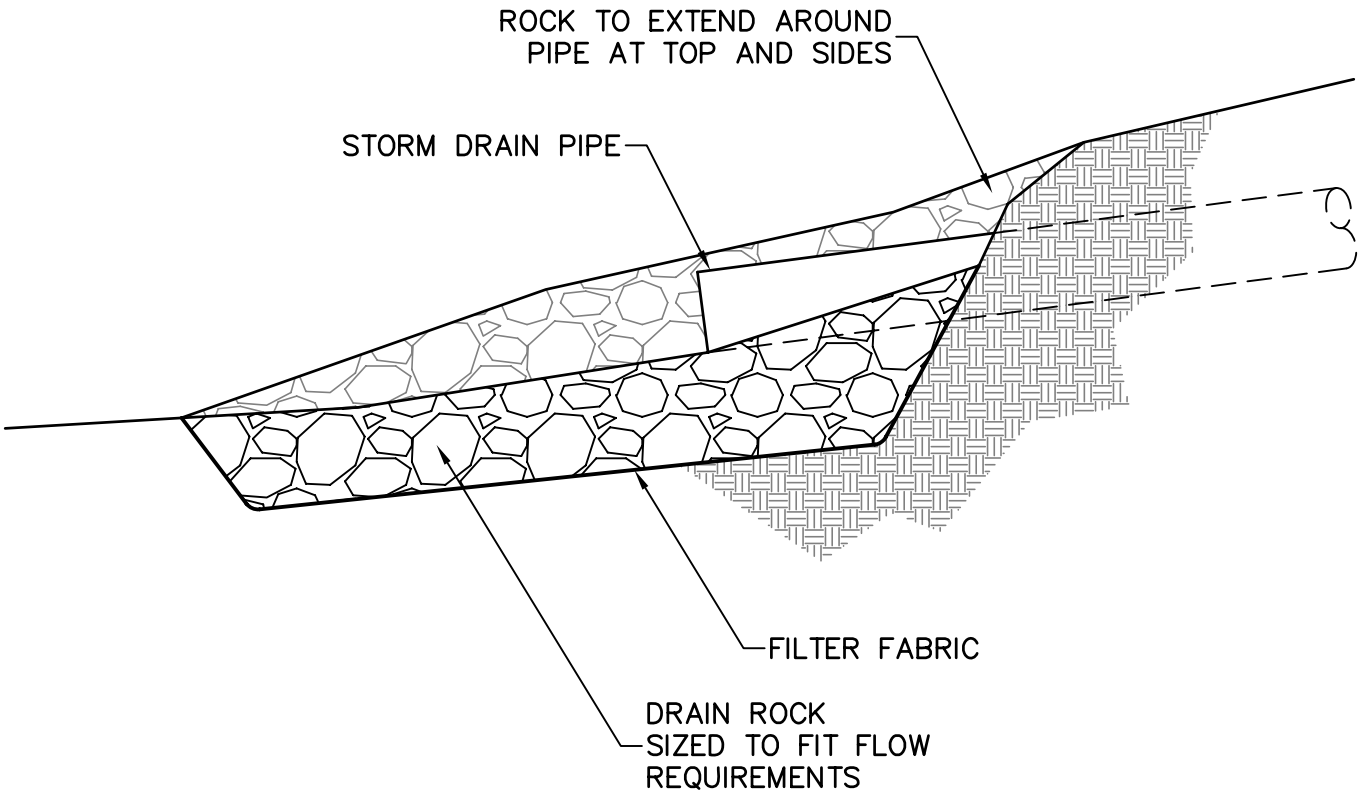


CULVERT – LONGITUDINAL SECTION

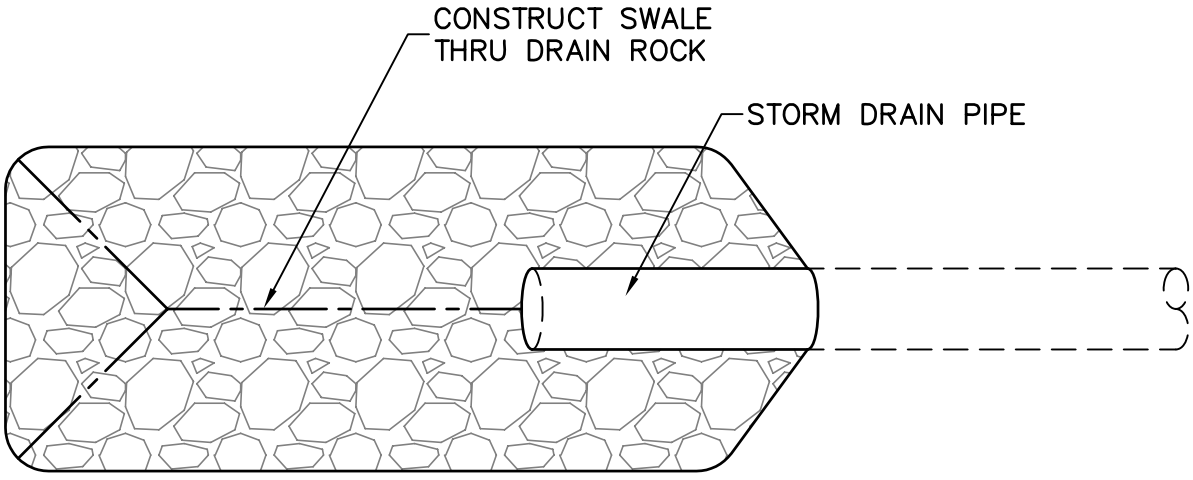


CULVERT – TRANSVERSE SECTION

CULVERT REPLACEMENT		SCALE NONE	DRAWING NO.	SHEET NO. 2
ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES		DATE MARCH 2010		OF
PROJECT NO.	CONTRACT NO.	**EAST BAY REGIONAL PARK DISTRICT**		

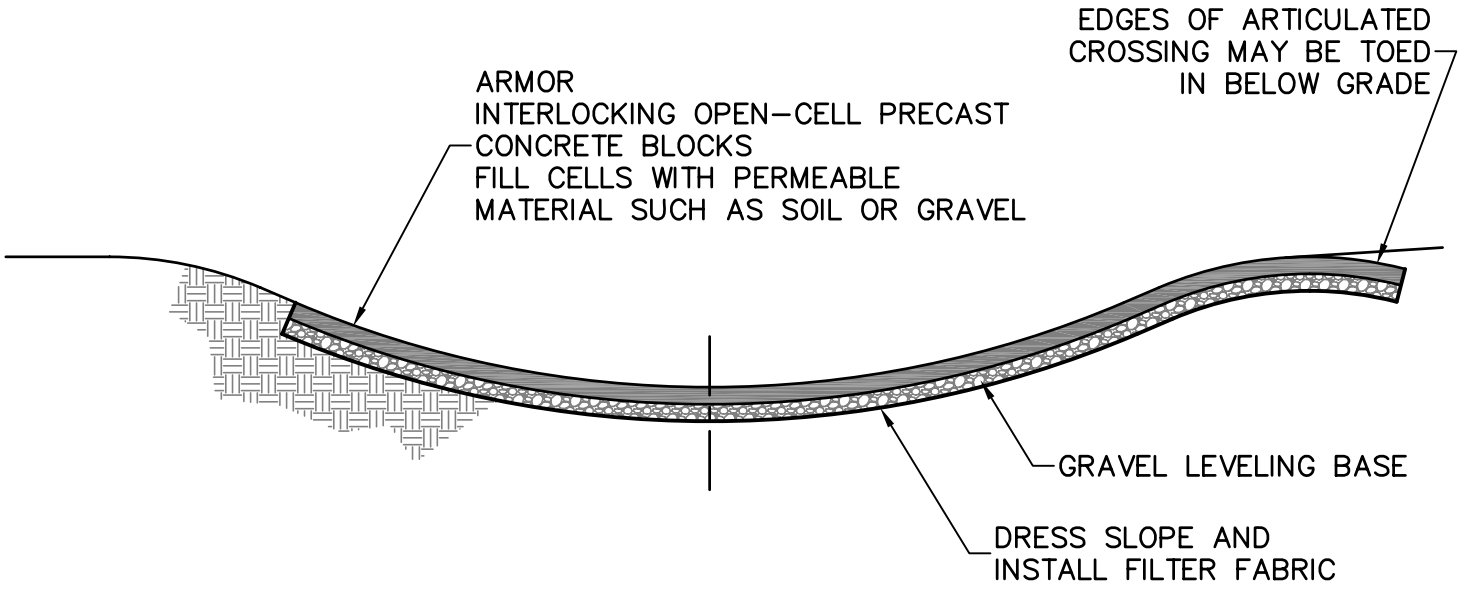


ENERGY DISSIPATER – LONGITUDINAL SECTION

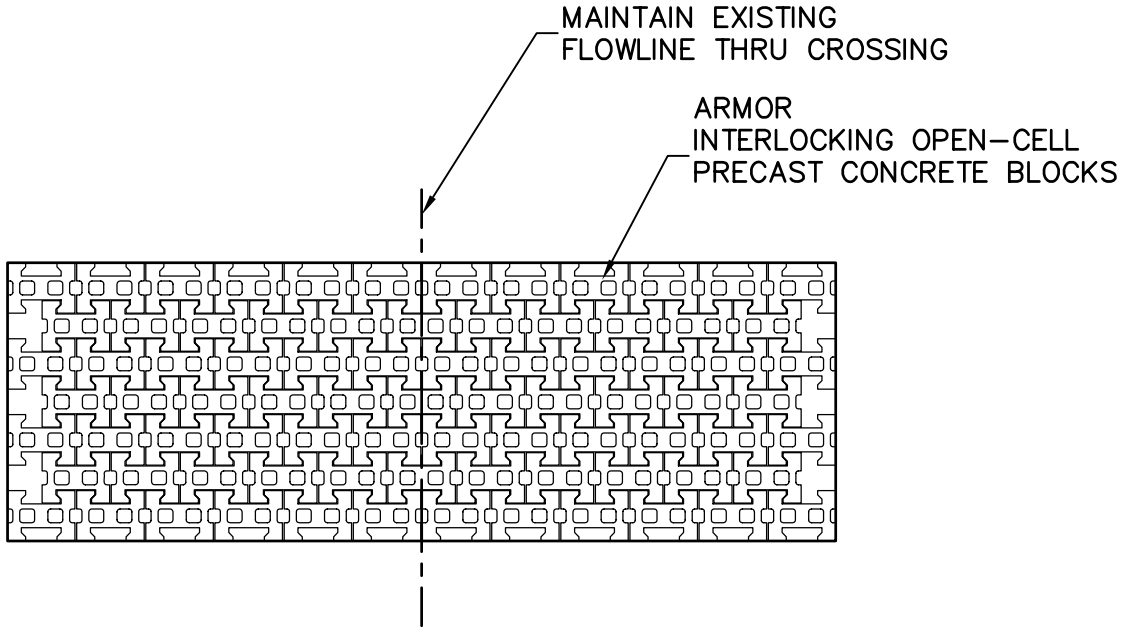


ENERGY DISSIPATER – PLAN VIEW

ENERGY DISSIPATERS	SCALE NONE	DRAWING NO.	SHEET NO. 3
ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES	DATE MARCH 2010		OF
PROJECT NO. CONTRACT NO.	**EAST BAY REGIONAL PARK DISTRICT**		

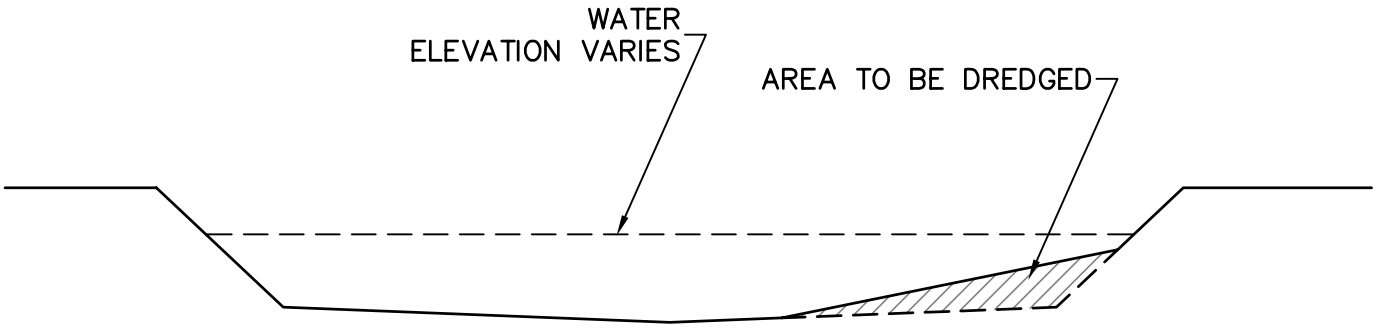


ARTICULATED CROSSING – LONGITUDINAL SECTION



ARTICULATED CROSSING – PLAN VIEW

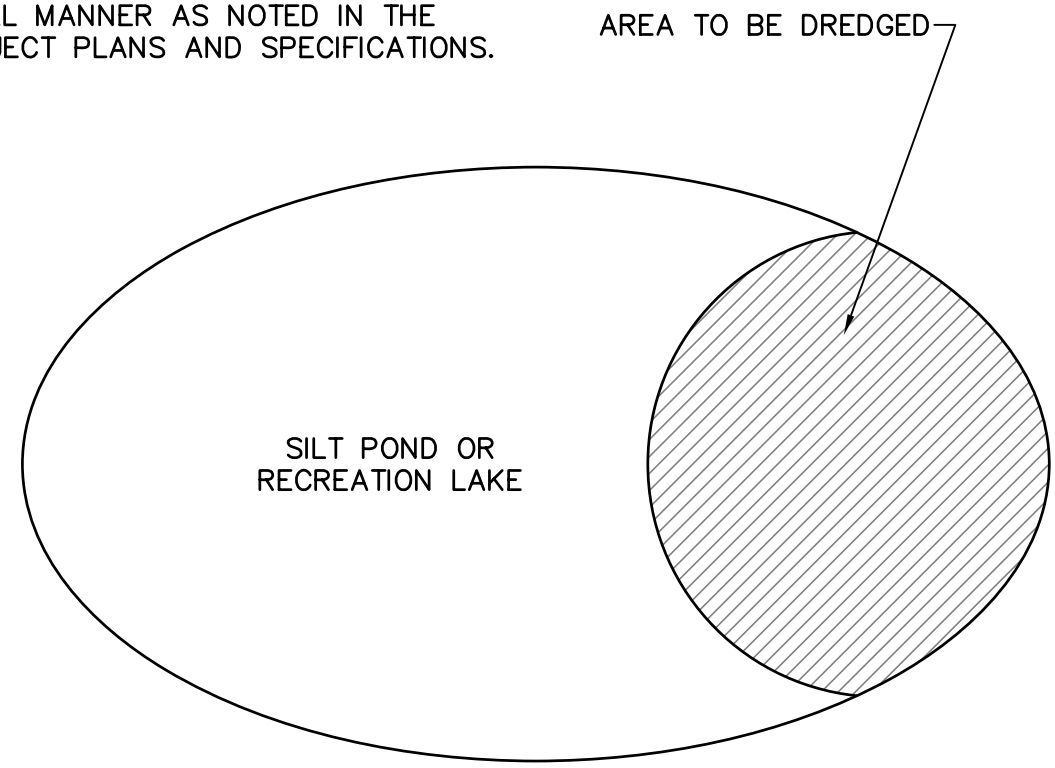
ARTICULATED CROSSING	SCALE NONE	DRAWING NO.	SHEET NO. 4	
ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES	DATE MARCH 2010		OF	
PROJECT NO. CONTRACT NO.	**EAST BAY REGIONAL PARK DISTRICT**			



SILT DREDGING – SECTION

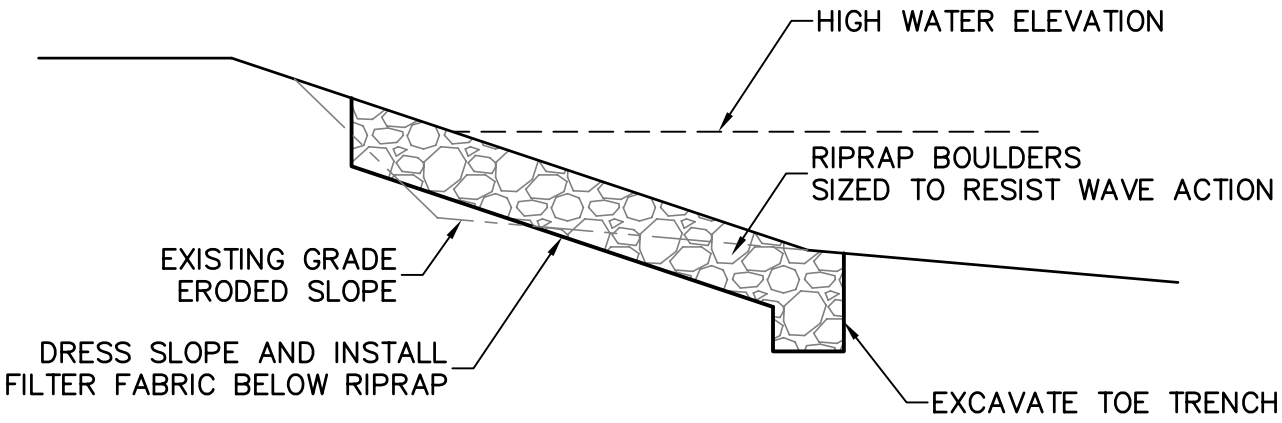
NOTES

1. ONLY DREDGE AREA NOTED ON PLANS.
2. DO NOT REMOVE MORE MATERIAL THAN ALLOWED BY PERMIT.
3. DISPOSE OF DREDGED MATERIAL IN A LEGAL MANNER AS NOTED IN THE PROJECT PLANS AND SPECIFICATIONS.

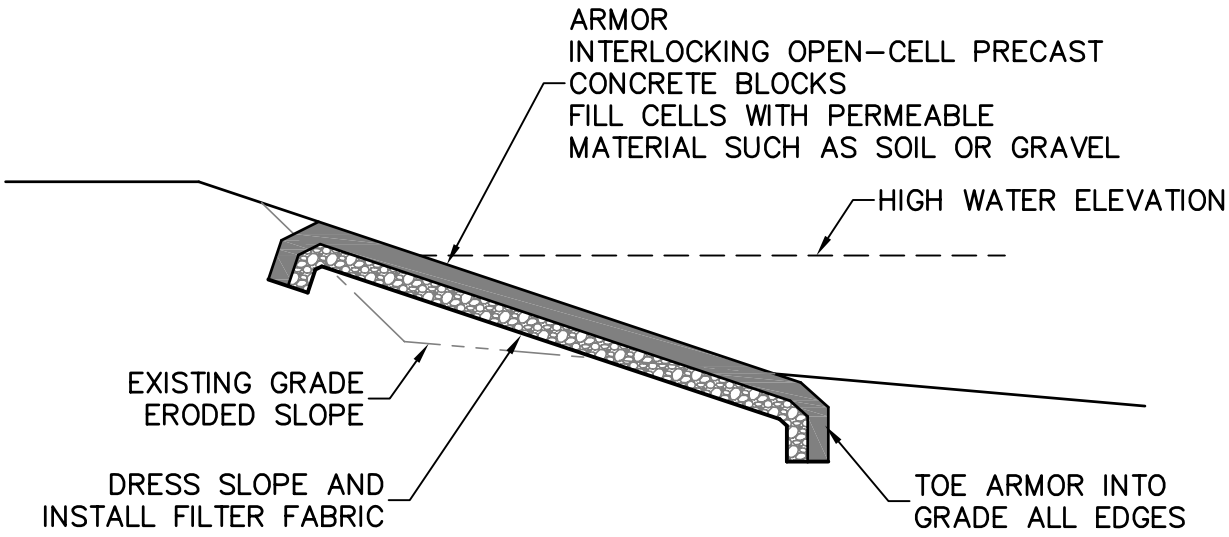


SILT DREDGING – PLAN VIEW

DREDGING OF PONDS OR RECREATION LAKES	SCALE NONE	DRAWING NO.	SHEET NO. 5
ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES	DATE MARCH 2010		OF
PROJECT NO. CONTRACT NO.	**EAST BAY REGIONAL PARK DISTRICT**		

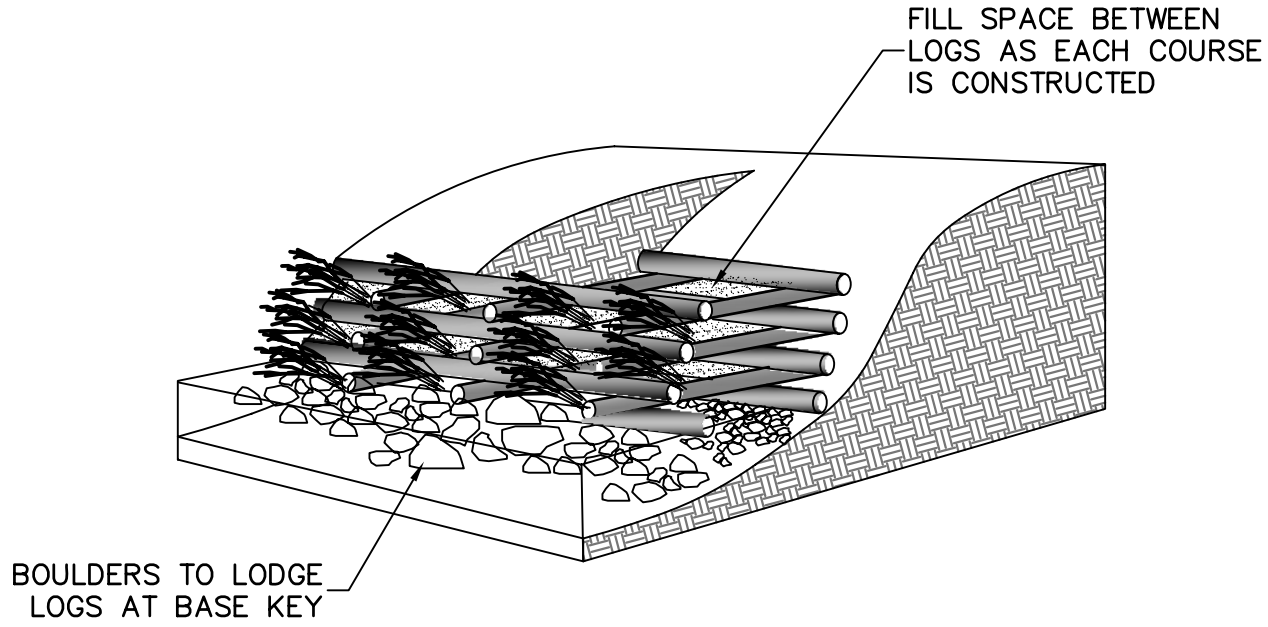


RIPRAP – SECTION

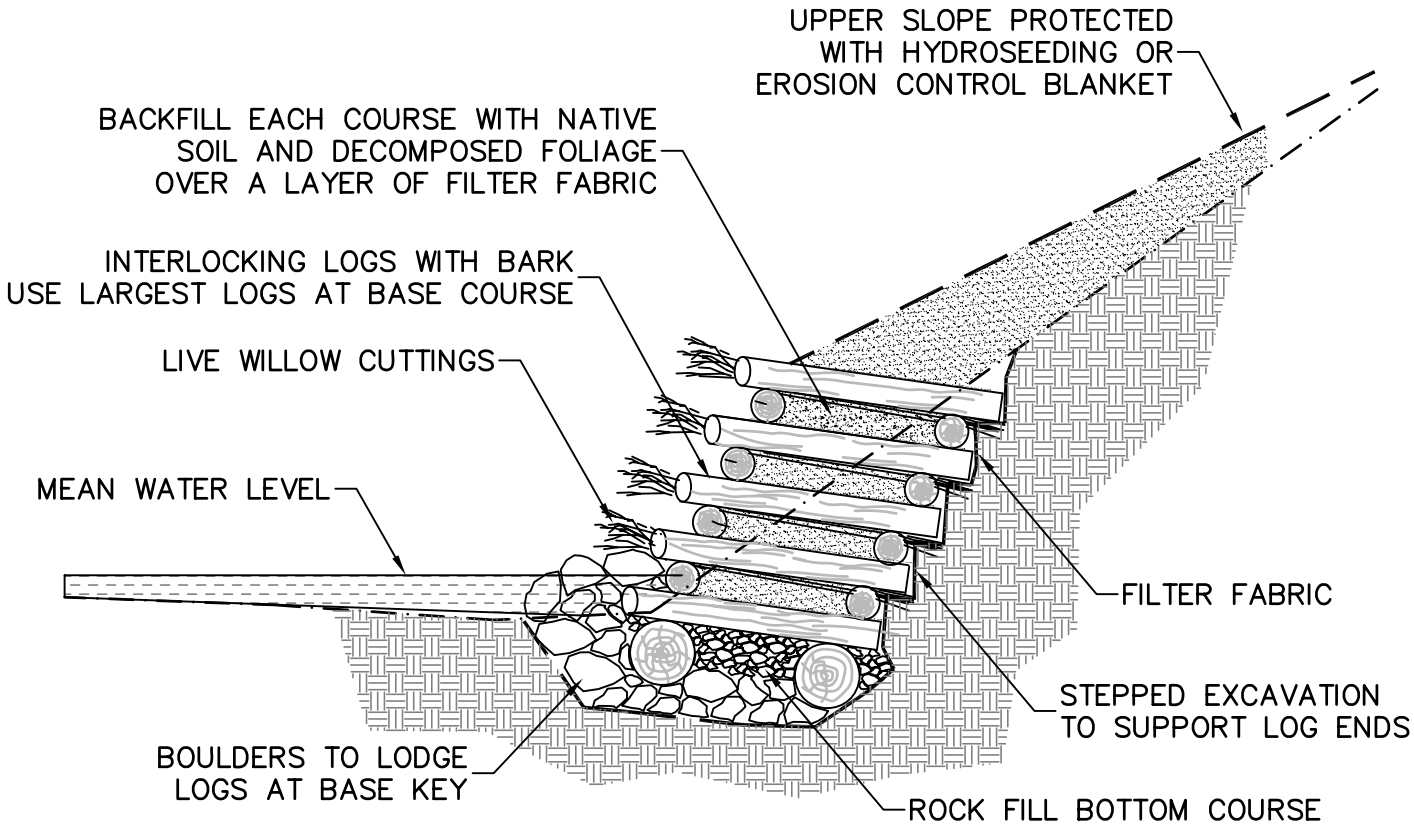


MODULAR CONCRETE UNIT ARMOR – SECTION

	BANK STABILIZATION & EROSION CONTROL	SCALE NONE	DRAWING NO.	SHEET NO. 6
	ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES	DATE MARCH 2010		OF
	PROJECT NO. CONTRACT NO.	**EAST BAY REGIONAL PARK DISTRICT**		



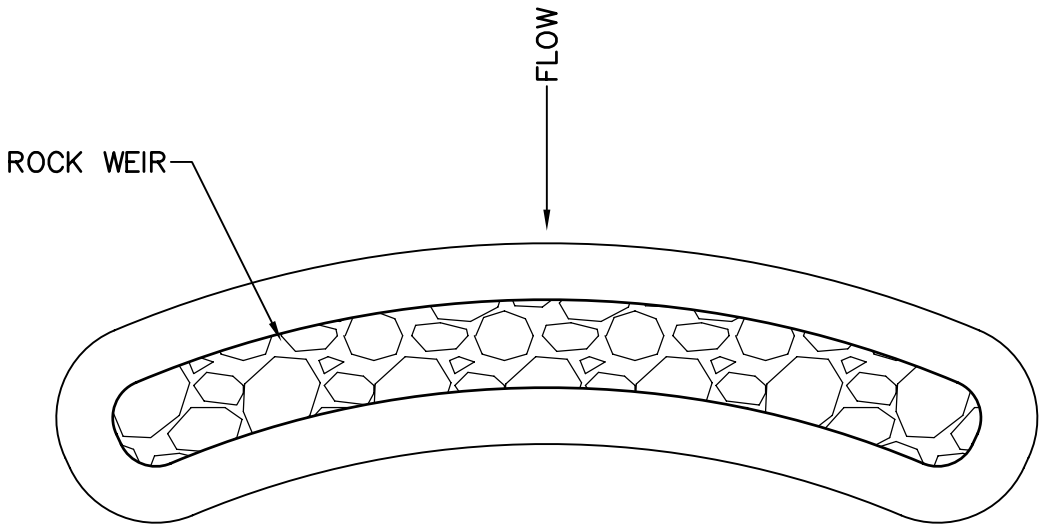
CRIBWALL – ISOMETRIC VIEW



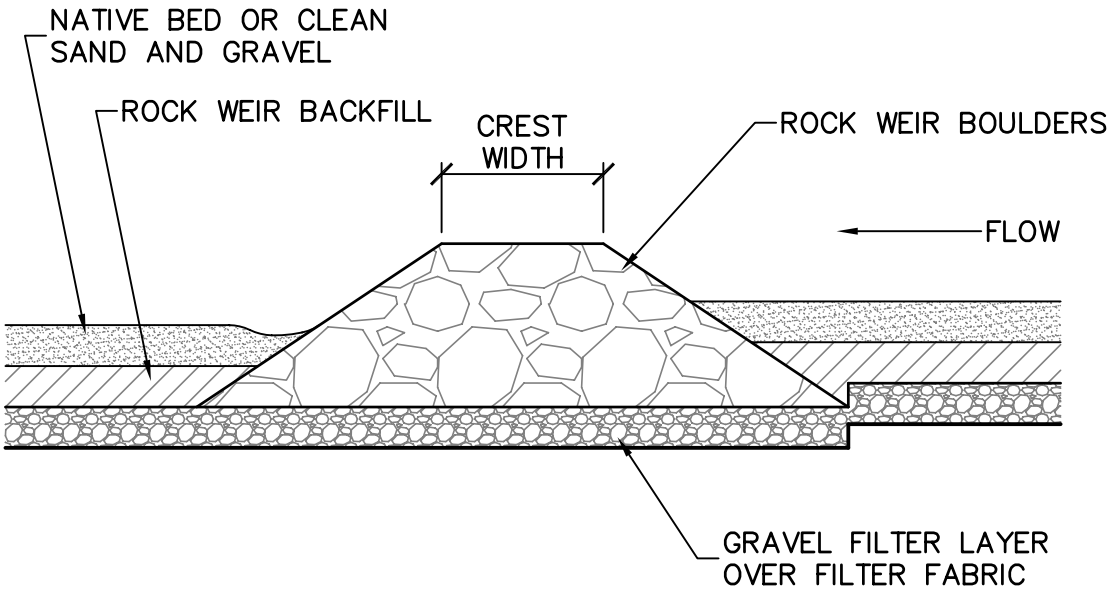
LOG CRIB WALL – SECTION

S:\parkland\DESIGN\PARKS_District Wide\Routine Maintenance Activities\Routine Maintenance Activities – Sketches.dwg 6-30-10 01:09:25 PM ggilchrist

BANK STABILIZATION & EROSION CONTROL	SCALE NONE	DRAWING NO.	SHEET NO. 7	
ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES	DATE MARCH 2010		OF	
PROJECT NO. CONTRACT NO.	**EAST BAY REGIONAL PARK DISTRICT**			



ROCK WEIR – PLAN VIEW



ROCK WEIR – SECTION VIEW

BANK STABILIZATION & EROSION CONTROL	SCALE NONE	DRAWING NO.	SHEET NO. 8
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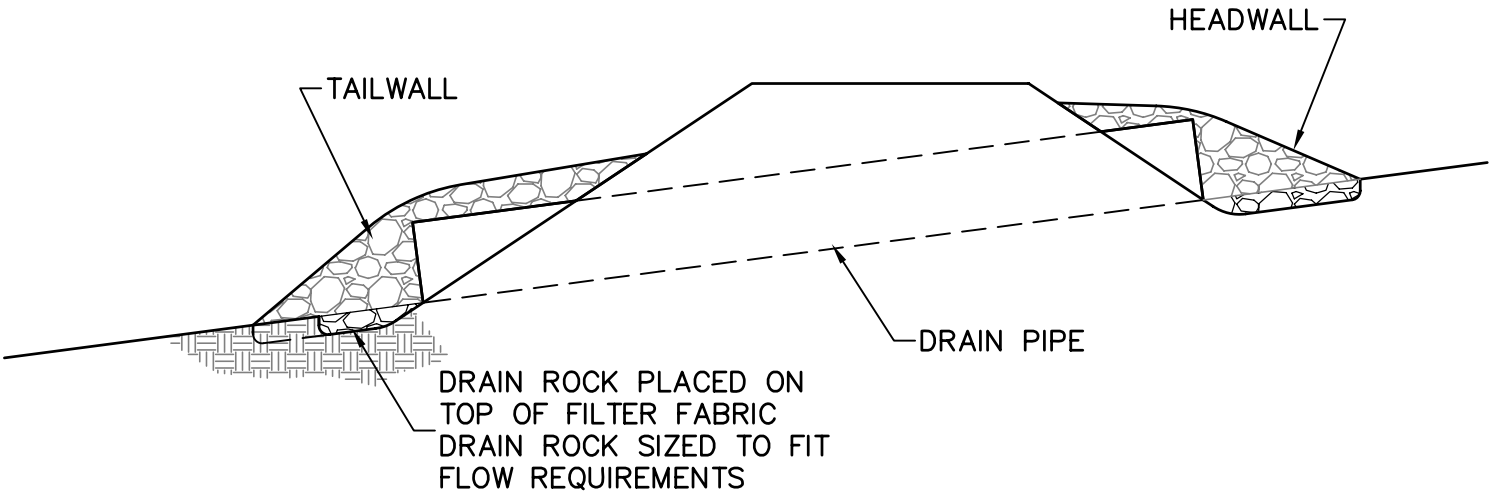
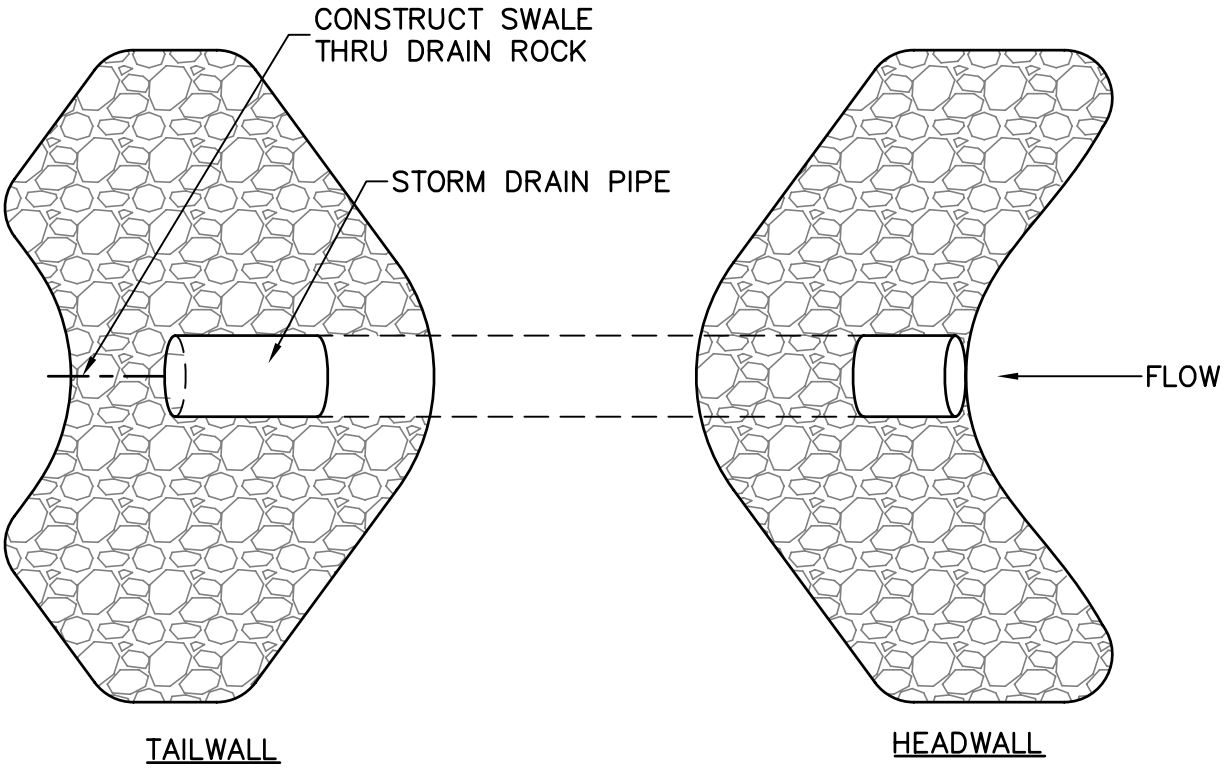
PROJECT NO. CONTRACT NO.	**EAST BAY REGIONAL PARK DISTRICT**		



HEADWALL AND TAILWALL – LONGITUDINAL SECTION



HEADWALL AND TAILWALL – PLAN VIEW

HEADWALL AND TAILWALL	SCALE NONE	DRAWING NO.	SHEET NO. 9	
ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES	DATE MARCH 2010		OF	
PROJECT NO. CONTRACT NO.	**EAST BAY REGIONAL PARK DISTRICT**			

East Bay Regional Park District

Regional Maintenance Activities
Alameda and Contra Costa Counties

ATTACHMENT B

Best Management Practices (BMP's) for Regional Routine Maintenance Activities in Waterways, Streams, Ponds and Lakes in East Bay Regional Park District, Alameda and Contra Costa Counties

ATTACHMENT B

BEST MANAGEMENT PRACTICES (BMP's) FOR REGIONAL ROUTINE MAINTENANCE ACTIVITIES IN WATERWAYS, STREAMS, PONDS AND LAKES IN EAST BAY REGIONAL PARK DISTRICT, ALAMEDA AND CONTRA COSTA COUNTIES.

The Regional Water Board has issued Waste Discharge Requirements and Water Quality Certification to the East Bay Regional Park District for routine maintenance activities in jurisdictional watershed features associated with waterways, streams, ponds, and lakes within the boundaries of the East Bay Regional Park District (District) in Alameda and Contra Costa Counties. The District will follow the normal notification process and obtain separate authorizations for all impacts that do not meet the routine maintenance activities presented in (Attachment A) of the Waste Discharge Requirements and Water Quality Certification. In addition, the District will comply with all conditions of the Memorandum of Understanding between the California Department of Fish and Game (CDFG), the U.S. Army Corps of Engineers (ACOE) Regional General Permit for East Bay Regional Park District Routine Maintenance (ACOE Fie Number 2003-28902S) and any Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) and the U.S. National Marine Fisheries Service (NMFS) that may be deemed necessary by the ACOE.

A. The following BMPs shall be used for all projects:

1. Whenever feasible the District will implement the Best Management Practices identified in the California *Salmonid Stream Habitat Restoration Manual* and the Federal *Interagency Stream Corridor Restoration Manual*.

2. All District projects shall be reviewed by qualified Stewardship staff who work directly with Operations staff to identify site specific BMPs and develop the appropriate protective guidelines for each project. Permitted District biologists familiar with sensitive species will closely monitor each project.

3. No routine maintenance activity shall be conducted that substantially disrupts the movements of aquatic indigenous life.

4. Work within special status species habitat will be performed only between August 1 and October 31 or under dry site conditions, to avoid impacts to California red-legged frogs (*Rana aurora draytonii*), Foothill yellow-legged frogs (*Rana boylii*), California tiger salamander (*Ambystoma californiense*), Western pond turtle (*Clemmys marmorata*) and minimize adverse impacts to fish and wildlife resources and their habitats.

5. Work within non-listed species habitat will be performed between April 15 and October 31. However, debris removal from culverts necessary to prevent flooding may be conducted at any time.

6. Debris removal during winter to unclog culverts, etc., shall be performed by hand crews, or by the use of trucks with winches, and/or backhoes operated from the top of the bank.

7. As much as possible the District will avoid large woody riparian vegetation and remove only the minimum necessary to complete the project.

8. Woody debris, which does not cause a problem of bank instability, flooding, or culvert blockage, will be left in place to provide in-stream cover and habitat for California red-legged frogs, Western pond turtles, salmonids, and other aquatic species.

9. The District will avoid use of equipment in waterways, streams, ponds, and lakes as much as possible, and will only use equipment in waterways, streams, ponds, and lakes after receiving the approval of the Executive Officer of the Water Board for such work.

10. No equipment will operate in standing or flowing water, and disturbance in stream channels will be minimized as much as possible.

11. The District will avoid using heavy equipment in areas where hand tools or light equipment are capable of performing the task.

12. Whenever feasible the District will use rubber-tired vehicles as opposed to track mounted equipment to avoid soil compaction and disturbance.

13. New concrete will not be placed or poured on-site in a location that may contact any natural water bodies. Newly poured concrete shall be allowed to completely cure (a minimum of 28 days) or be treated with a CDFG-approved sealant before it comes into contact with flowing water.

14. Any concrete pouring will be isolated from all natural waterbodies through appropriate wrapping or water barrier equipment.

15. Prior to work, all equipment will be inspected for fuel, oil, or hydraulic leaks and repaired.

16. At the work site, fueling of equipment and vehicles will only occur in upland areas and at a minimum of 100 feet from open water.

17. To avoid and minimize disturbance of riparian habitat, the District will plant riparian vegetation by hand or with a rubber-tired backhoe from above top of bank.

18. No equipment shall be operated in areas of flowing or standing water; no fueling, cleaning, or maintenance of vehicles or equipment shall take place within any areas where an accidental discharge to waters of the State may occur; construction materials and heavy equipment must be stored outside of the active flow of the creek. When work within waters of the State is necessary, the entire stream flow shall be diverted around the work area, using gravel-filled sand bag cofferdams, hoses, and pumps. All dewatering methods shall be installed such that natural flow is maintained upstream and downstream of the project area. Any temporary dams or diversions shall be installed such that the diversion does not cause sedimentation, siltation, or erosion upstream or downstream of the project area. All dewatering methods shall be removed immediately upon completion of Project activities. When pumps are necessary to maintain flow around the work site, they shall be provided with appropriate screening to avoid entraining any life stages of listed species that may be present at the work site, and the screens shall be monitored regularly while the pump is in operation.

B. The following BMPs shall be used when performing work on natural stream crossings (fords):

1. Natural stream crossings are annually evaluated District-wide to determine the need for maintenance.

2. Minimal grading or debris removal will be performed to make the crossing passable.

3. Stream gravels and sediments will be left within the dry portion of the stream channel rather than moved to upland areas.

4. Natural crossings (that require less intensive maintenance), will be preferred and used where feasible.

C. The following BMPs shall be used when removing and replacing culverts:

1. Whenever galvanized metal culverts are to be replaced, the District will replace old metal-galvanized culverts with plastic culverts. This will minimize the need for follow-up maintenance and stream disturbance. The District may request the use of alternative culvert materials, if the use of plastic culverts is considered infeasible. But alternate materials shall not be used without the approval of the Executive Officer of the Regional Water Board.

2. Whenever feasible, the District will install replacement culverts large enough to accommodate anticipated 25-year frequency storm events. This will minimize the need for follow-up maintenance and stream disturbance. The District may request the use of alternative sizing parameters, if installing a culvert capable of conveying the 25-year frequency flow volume is considered infeasible. But alternate design storms shall not be used without the approval of the Executive Officer of the Regional Water Board. Replacement culverts shall be designed to conform to sound design principles such as outlined in the Regional Water Board's *Primer on Stream and River Protection for the Regulator and Program Manager*, Technical Reference Circular, W.D. 02 - #1". In addition, whenever feasible, the District will install additional culverts to drain a flood plain.

3. The District shall install replacement culverts at the existing grade to maintain natural stream gradient and minimize under cutting and erosion.

4. Whenever culverts must be replaced or repaired, the District will remove culverts to restore and enhance the natural stream corridor and riparian vegetation to the maximum extent feasible.

5. Whenever culverts must be replaced or repaired the District will remove culverts and replace them with clear-span bridges or armored articulated fords to the maximum extent feasible. This will re-establish typical stream flow and reduce erosion.

6. To stabilize culverts the District will construct headwalls, discharge end splash pads, and install armoring with porous materials or other techniques that allow plant growth and avoid the permanent elimination of stream habitat.

D. The following practices shall be used to stabilize banks and prevent or control erosion:

1. The District shall use bio-engineering such as planting riparian woody vegetation, willow wattles and mattresses, log crib-walls, log and stump deflectors, or vortex weirs to stabilize banks and reduce erosion. The District may request the use of more hardened bank stabilization techniques, if the use of bio-engineered techniques is considered infeasible at a project site. But more hardened bank armoring shall not be implemented without the approval of the Executive Officer of the Water Board.

2. Where appropriate (e.g., when revegetation is not likely to be well established prior to the start of the rainy season), the District shall use jute

netting or other erosion control fabrics to provide protection until adequate plant growth can provide permanent protection.

3. The District shall broadcast and/or hydro seed (native mix) with tackified straw and planting of willow, maple, alder, and other native riparian woody vegetation to stabilize banks and prevent erosion.

E. The following practices shall be used for routine maintenance dredging of ponds and lakes. The District shall provide reasons for any deviations for prior review and approval by the Executive Officer:

1. The District shall perform work in dry conditions above the water level. Otherwise, the District shall use floating open water turbidity curtains to contain sediment.

2. The District may implement other erosion, sediment and turbidity control measures and procedures to contain sediments, minimize siltation, and prevent downstream turbidity.

3. The District shall dredge with an excavator from top of bank.

4. All sediments removed during dredging will be disposed of in the appropriate upland location(s), or re-used as allowed in the Order.

5. The District shall minimize removal of riparian vegetation during dredging operations.

F. The following practices shall be used for pond restoration and enhancement:

1. General pond restoration dredging will occur during dry site conditions.

2. Stock ponds will only be dredged when dry and after determining no California red-legged frogs, California tiger salamanders, or Western pond turtles are present.

3. Wherever feasible, dredged ponds and earthen dams will be reconfigured to enhance the habitat for aquatic species.

G. Restoration and enhancement to address or offset temporal impacts to waterbodies

1. While conducting routine maintenance, the District shall incorporate an adaptive management strategy to improve existing conditions. Overall, implementing the above BMPs reduces adverse effects to parklands and nearby waterbodies. The District shall also include restoration and enhancement of existing ponds, streams and other waterbodies to address

or offset any temporary impacts associated with the maintenance of the various existing facilities. Restoration and enhancement will include, but need not be limited to, the following:

a. Stream and pond restoration for special status species and other aquatic species.
b. Removing in stream man-made structures to restore the natural stream conditions.
c. Planting native riparian and wetland vegetation to improve water quality.
d. Controlling and removing non-native invasive species (i.e., bullfrogs, exotic fish, Chinese mitten crab, etc.).
e. Identifying and removing in stream barriers to fish and other aquatic species.
f. Installing nest boxes for riparian bird species (i.e., wood ducks, tree swallows, and flycatchers).

2. The District will select the appropriate sites and type of restoration to compensate for any potential temporary impacts or minor permanent impacts associated with all routine maintenance projects. These mitigation sites will be located within the District's watershed to insure the high likelihood of restoration success. In addition, mitigation sites will be located where wetlands, ponds, or streams previously existed or where nearby waterbodies still exist. The District will calculate the total area (i.e., linear feet, square feet, acres) for each routine project determined to potentially have a temporary or minor permanent impact. In addition, the total area of each enhancement and restoration project will be similarly calculated and directly applied at an appropriate ratio to compensate for any temporary and minor permanent cumulative impacts associated with a routine maintenance project and reported in the annual report.

3. For the duration of the five-year permit, the District has identified 17 potential restoration projects that would create and/or enhance about 35 acres of tidal wetlands, 8.11 acres of lentic water bodies, and 0.88 acres (1,960 linear feet) of stream habitat. These proposed restoration sites are within the current distributional range of the California red-legged frog, California tiger salamander, California clapper rail, salt marsh harvest mouse, and/or Western pond turtle and will be enhanced to provide additional permanent habitat for these special status species. In addition, they will provide long-term habitat for a variety of other aquatic species. Restoring and/or creating permanent aquatic habitat will more than compensate for the small-scale temporary cumulative impacts associated with the various routine maintenance projects. Any unused restoration credits that accrue can be used for future routine maintenance projects determined to have temporary impacts. It is also important to recognize that although some projects may have temporary impacts, most routine maintenance projects consist of improving existing

conditions and enhancing the habitat for aquatic species (i.e., cattails removal from choked out waterbodies, replacing or removing dysfunctional culverts, removing stream obstructions and barriers). Restoring and/or creating permanent aquatic habitat will compensate for the small-scale temporary and any minor permanent cumulative impacts associated with the various routine maintenance projects.

Any compensatory mitigation (restoration) activities shall be reported in the Annual Post-Maintenance Reports (See Attachment C to the Order). In addition, the number, location, and nature of restoration sites including pre-construction and post-construction photographs of restored sites shall be submitted as part of the Annual Post-Maintenance Reports which are due on February 15th each year.

H. Vegetation Management

1. All vegetation management activities that could result in the runoff of herbicides that are not registered for aquatic use into waters of the State are prohibited.
2. The Discharger shall select and apply herbicides according to the product label directions and uses approved by the U.S. EPA and the California Department of Pesticide Regulation, and per applicable provisions of this Order
3. Only herbicides and surfactants registered for aquatic use will be applied to aquatic areas or within the banks of channels. Herbicides will not be applied during or within 24 hours prior to rain.
4. Livestock will be used for vegetation management to avoid the use of chemical herbicides, to control invasive vegetation, and promote the growth of native vegetation. Where livestock are used in association with a specific routine maintenance project, livestock shall be managed to prevent them from creating or worsening existing erosion and sedimentation problems in flowing stream channels.
5. Vegetation management activities that could result in the destabilization of stream banks or increase sediment input into waters of the State are prohibited.
6. Vegetation management activities shall not adversely impact the riparian zone, shade, canopy coverage, or habitat. Overall impacts of vegetation management activities shall be implemented in a manner that improves net habitat values and beneficial uses in affected waters of the State.

East Bay Regional Park District

Regional Maintenance Activities
Alameda and Contra Costa Counties

ATTACHMENT C

California Regional Water Quality Control Plan
San Francisco Bay Region
Self-Monitoring Program

ATTACHMENT C
CALIFORNIA REGIONAL WATER QUALITY CONTROL PLAN
SAN FRANCISCO BAY REGION
SELF-MONITORING PROGRAM
for
East Bay Regional Park District
Regional Maintenance Activities

I. General

A. Basis

Reporting responsibilities of the East Bay Regional Park District as " Discharger" are specified in Sections 13225(a), 13267(b), 13268, 13383, 13387(b) of the California Water Code and this Board's Resolution No. 73-167.

B. Purpose

The principal purposes of a monitoring program by a discharger, also referred to as a Self-Monitoring Program, are to document compliance with discharge requirements and prohibitions established by this Board and to facilitate self-policing by the discharger in the prevention and abatement of pollution arising from maintenance activities.

C. Monitoring Methods

Monitoring of impact and mitigation sites shall be consistent with standard protocols for assessing percent coverage by plants, survival of plants, stability of banks, stability of berms, geomorphic stability of channels. Monitoring reports shall be signed by either an individual or a position having responsibility for the overall operation of the regulated activity (e.g., authorized agent, field supervisor, or project manager).

II. Specifications for Monitoring

The Discharger is required to perform monitoring in accordance with the following conditions and requirements:

A. Standard Observations

As appropriate, the following observations shall be recorded annually for each impact and mitigation site, until the appropriate performance criteria are attained (For some sites, such as sedimentation ponds or beach replenishment, these observations are not necessary).

1. Impact Sites:
   a. Percent coverage by vegetation relative to pre-impact vegetation.
   b. Percent survival of planted shrubs and trees.
   c. Stability of impacted creek bed and banks (e.g., slumping, undercutting, headcuts, knickpoints, incision, etc.).
   d. Stability of culvert inlets and outlets, including adjacent natural creek channels.
   e. Pre-construction and post-construction photographs
   f. Annual post-construction photographs for all sites that have not attained their performance criteria.

2. Mitigation Sites:

a. Percent coverage by vegetation relative to pre-restoration/enhancement vegetation.
b. Percent survival of planted shrubs and trees.
c. Stability of impacted creek bed and banks (e.g., slumping, undercutting, headcuts, knickpoints, incision, etc.).
d. Stability of berms supporting mitigation ponds.
e. Duration and depth of ponding during breeding seasons for listed amphibians at pond restoration or enhancement sites.
f. Pre-construction and post-construction photographs
g. Annual post-construction photographs for all sites that have not attained their performance criteria.
h. Any observations of use of mitigation sites by California red-legged frog, California tiger salamander, California clapper rail, salt marsh harvest mouse, Western pond turtle, or any other special status aquatic species.

B. Records to be maintained

1. Written reports, maintenance records, field notes, photographs and other records shall be maintained by the Discharger for a minimum of five years. Records shall include notes and observations for each site as follows:

a. Identification of each impact or mitigation site.
b. The dimensions (square feet and/or linear feet) of impacted waters of the State at each impact site
c. The dimensions (square feet and/or linear feet) of enhanced or restored waters of the State at each mitigation site
d. Date and time of monitoring event.
e. Observations made of vegetation (percent coverage, percent survival, etc.)
f. Observations of channel and/or berm stability (e.g., slumping, undercutting, headcuts, knickpoints, incision, etc.)
g. Depth and duration of ponding.
h. Any records of species observed using the site
i. Site photographs
j. Map or maps of each site showing the areas in which work was performed at each site and the locations and directions at which photographs were taken.

2. Written reports, maintenance records, field notes, photographs and other records shall be made accessible to Regional Water Board staff upon request.

III. Reports to be filed with the Board

A. Reports and the letter transmitting reports shall be signed by the general manager or assistant general manager(s) of the Discharger, or by a duly authorized representative of that person.

B. Annual Notification of Proposed Projects

1. The Annual Notification of Proposed Projects for the following year's proposed projects shall be submitted by June 1st of each year.

2. The Annual Notification of Proposed Projects shall include:

a. All routine maintenance activities planned for the following year, including the Nationwide Permit (NWP) that would have authorized each project;
b. Individual project locations, scope, purpose and need;
c. The amount of fill of waters of the State, including wetlands, for each project, in square feet and/or linear feet as appropriate. For culvert replacement or rehabilitation projects, the length of existing and replacement culverts shall also be reported. [1]:
d. Descriptions of all on-site mitigation (e.g., stabilization of disturbed surfaces, re-vegetation of disturbed surfaces, planting of riparian vegetation, etc) for that year's projects.
e. Descriptions of the off-site mitigation projects proposed for that year's projects (Since many mitigation sites will be consolidated mitigation sites compensate for impacts of multiple small projects, the appropriateness of each year's proposed mitigation shall be evaluated with respect to net impacts and net mitigation).
f. Performance criteria for on-site restoration that can be used to establish that habitats at impacted sites have recovered to near pre-impact levels (e.g., percent cover of disturbed surfaces with vegetation, percent survival of replanted riparian vegetation, etc.).
g. Performance criteria for off-site mitigation that can be used to establish that the mitigation projects have successfully created or enhanced habitat (e.g., geomorphic stability of channels and/or berms, percent survival of planted riparian vegetation, percent cover of planted vegetation, sufficient ponding to support breeding of listed amphibians, etc.).

C. Annual Post-Maintenance Reports

1. Following the end of the year, the discharger shall prepare and submit by February 15th of each year, a detailed report (annual report) on all completed routine maintenance projects and mitigation sites implemented during the previous year.

2. The annual report shall contain:

a. Information regarding the various maintenance projects' locations, length and width of impact areas. At culvert sites, the report shall include the length of the existing and replacement culverts. This information may be submitted in a tabular format with supporting text.

b. Information regarding the various mitigation projects' locations, length and width of impact areas. For each mitigation site, the annual report shall describe the type of mitigation habitat that was restored and/or enhanced. This information may be submitted in a tabular format with supporting text.

[1] Due to the relatively small footprint of most projects and the similar nature of many projects, the notification and post-maintenance reports may be organized as a large table. This table should be augmented with explanatory text for any unusual impact or mitigation sites.

c. At bank stabilization sites, the project report shall include a description of the bio-engineering bank stabilization methods used at the site. If bio-engineering bank stabilization was not implemented, the annual report shall include a rationale for selecting an alternate bank stabilization method.

d. A list of all BMPs applied to the various maintenance projects completed within each preceding year as part of the required annual report described above.

e. A description of any unanticipated field conditions that affected the implementation of maintenance or mitigation projects.

f. Any changes to planned maintenance projects or mitigation projects, as they were described in the Annual Notification of Proposed Projects.

g. All of the Standard Observations specified in Section II.A of this SMP.

h. Discussions of each site's progress toward meeting its performance criteria, including any recommendations for maintenance necessary to help attain the performance criteria and summaries of maintenance activities that have been performed in the prior year. If necessary, contingency measures for all mitigation projects shall be discussed. The discharger shall also identify any special approaches or conditions utilized to complete the maintenance and mitigation projects.

i. A current account of impacts and mitigation restoration, including: a summary of losses of wetlands/waters of the State associated with each individual routine maintenance activity project, including the total acreage, linear feet, and type of wetland/waters of the State impacted; a summary of the gains of wetlands/waters of the State associated with each mitigation site including the total acreage, linear feet, and type of wetland/waters of the State enhanced or restored; and a summary of net increase (or decrease) in the total acres, linear feet, and type of wetland/water of the State created in the previous year. This information will be used to determine whether or not the Discharger has created excess mitigation credits for use by the Discharger as mitigation for future maintenance projects, or as otherwise allowed by the Provisions of the Order.

j. If any impact or mitigation sites have attained their performance criteria, the Annual Report will present the basis for determining that such sites have met their performance criteria. Upon receiving concurrence from the Executive Officer of the Regional Board, these sites may be removed from annual monitoring and reporting requirements.

East Bay Regional Park District

Regional Maintenance Activities
Alameda and Contra Costa Counties

ATTACHMENT D

Affected Water Bodies and Regional Maps

List of Waterbodies on EBRPD Property in San Francisco Bay Regional Water Quality Control Board Jurisdiction

Waterbody Name	Regional Park(s)
Agua Caliente Creek	Mission Peak/Monument Peak
Alameda Creek	Ohlone Wilderness, Sunol
Alhambra Creek	Briones, Martinez Shoreline
Altamont Creek	Brushy Peak
Apperson Creek	Sunol
Ardenwood Creek	Coyote Hills
Arroyo Del Cerro	Diablo Foothills
Arroyo Del Valle	Del Valle, Shadow Cliffs
Baxter Creek	Point Isabel
Bear Creek	Briones
Bolinas Creek	Las Trampas
Bollinger Creek	Las Trampas
Bull Valley Creek	Carquinez Strait Shoreline
Calaveras Creek	Sunol
Canada del Cierbo	Crockett Hills
Cascade Creek	Briones
Castro Creek	Kennedy Grove, Sobrante Ridge
Castro Valley Creek	Cull Canyon
Cerrito Creek	Eastshore State Park
Codornices Creek	Eastshore State Park
Cottonwood Creek	Doolan Canyon
Crandall Creek	Coyote Hills
Cull Creek	Cull Canyon, Las Trampas
Cull Lagoon	Cull Canyon
Damon Slough	Martin Luther King Jr. Shore
Del Valle	Del Valle
Devaney Canyon Creek	Pleasanton Ridge
Don Castro	Don Castro
Doolan Canyon	Doolan Canyon
Dry Creek	Garin, Dry Creek Pioneer
Dublin Creek	Dublin Hills
East Creek	Martin Luther King Jr. Shore
Edwards Creek	Crockett Hills
Elkhorn Creek	Crockett Hills, Carquinez Strait Shoreline
Elmhurst Creek	Martin Luther King Jr. Shore
Estudillo Canal	Lake Chabot
Frazer Creek	Carquinez Strait Shoreline
Garrity Creek	San Pablo Bay Shoreline
Goethels Canyon	Clayton Ranch
Gold Creek	Pleasanton Ridge
Grass Valley Creek	Anthony Chabot, Lake Chabot
Grayson Creek	Briones
Grizzly Creek	Las Trampas
Harwood (Claremont) Creek	Claremont Canyon
Head Canyon Creek	Pleasanton Ridge
Hollis Creek	Dublin Hills
Indian Creek	Ohlone Wilderness
Indian Joe Creek	Sunol
Irish Canyon	Black Diamond Mines
Jewel Lake	Tilden
Johnson Landing Canal	Hayward Shoreline
Kennedy Creek	Kennedy Grove
Kirker Creek	Black Diamond Mines

List of Waterbodies on EBRPD Property in San Francisco Bay Regional Water Quality Control Board Jurisdiction

Waterbody Name	Regional Park(s)
La Costa Creek	Ohlone Wilderness
Lafayette Creek	Lafayette Moraga Trail
Lake Anza	Tilden
Lake Chabot	Chabot
Lake Temescal	Temescal
Las Trampas Creek	Las Trampas
Leyden Creek	Sunol, Mission Peak/Monument Peak
Lila Creek	Wildcat Canyon
Little Pine Creek	Diablo Foothills
Marin Creek	Eastshore State Park
Martin Canyon	Dublin Hills
Merle Creek	Carquinez Strait Shoreline
Mission Creek	Mission Peak/Monument Peak
Morrison Creek	Vargas Plateau
Mount Diablo Creek	Clayton Ranch
Murrieta Creek	Ohlone Wilderness
Norris Creek	Bishop Ranch
Oak Creek	Bishop Ranch
Patterson Creek	Coyote Hills
Pine Creek	Diablo Foothills
Pinole Creek	Briones
Pirate Creek	Sunol
Quarry Lakes	Quarry Lakes
Redwood Creek	Redwood, Anthony Chabot
Reliez Creek	Briones
Rheem Creek	Point Pinole
Rifle Range Branch	Leona Canyon/Heights
San Antonio Creek	Ohlone Wilderness
San Leandro Creek	Huckleberry, Lake Chabot, Martin Luther King Jr. Shoreline
San Lorenzo Creek	Don Castro
San Pablo Creek	Kennedy Grove
Sans Crainte Creek	Diablo Foothills
Schoolhouse Creek	Eastshore State Park
Scott Creek	Mission Peak/Monument Peak
Shadow Cliffs	Shadow Cliffs
Shafer Creek	Ohlone Wilderness
Shinn Pond	Quarry Lakes
Sinbad Creek	Pleasanton Ridge
Sindicich Creek	Briones
Spring Water Creek	Briones
Strawberry Creek	Eastshore State Park
Sulphur Creek	Hayward Shoreline
Sycamore Creek	Morgan Territory
Tassajara Creek	Morgan Territory, Tassajara Creek
Tehan Canyon	Pleasanton Ridge
Temescal Creek	Temescal
Tin House Creek	Briones
Toroges Creek	Mission Peak/Monument Peak
Trout Creek	Ohlone Wilderness
Welch Creek	Sunol
Whitlock Creek	Ohlone Wilderness
Wildcat Creek	Tilden, Wildcat Canyon
Williams Gulch	Ohlone Wilderness

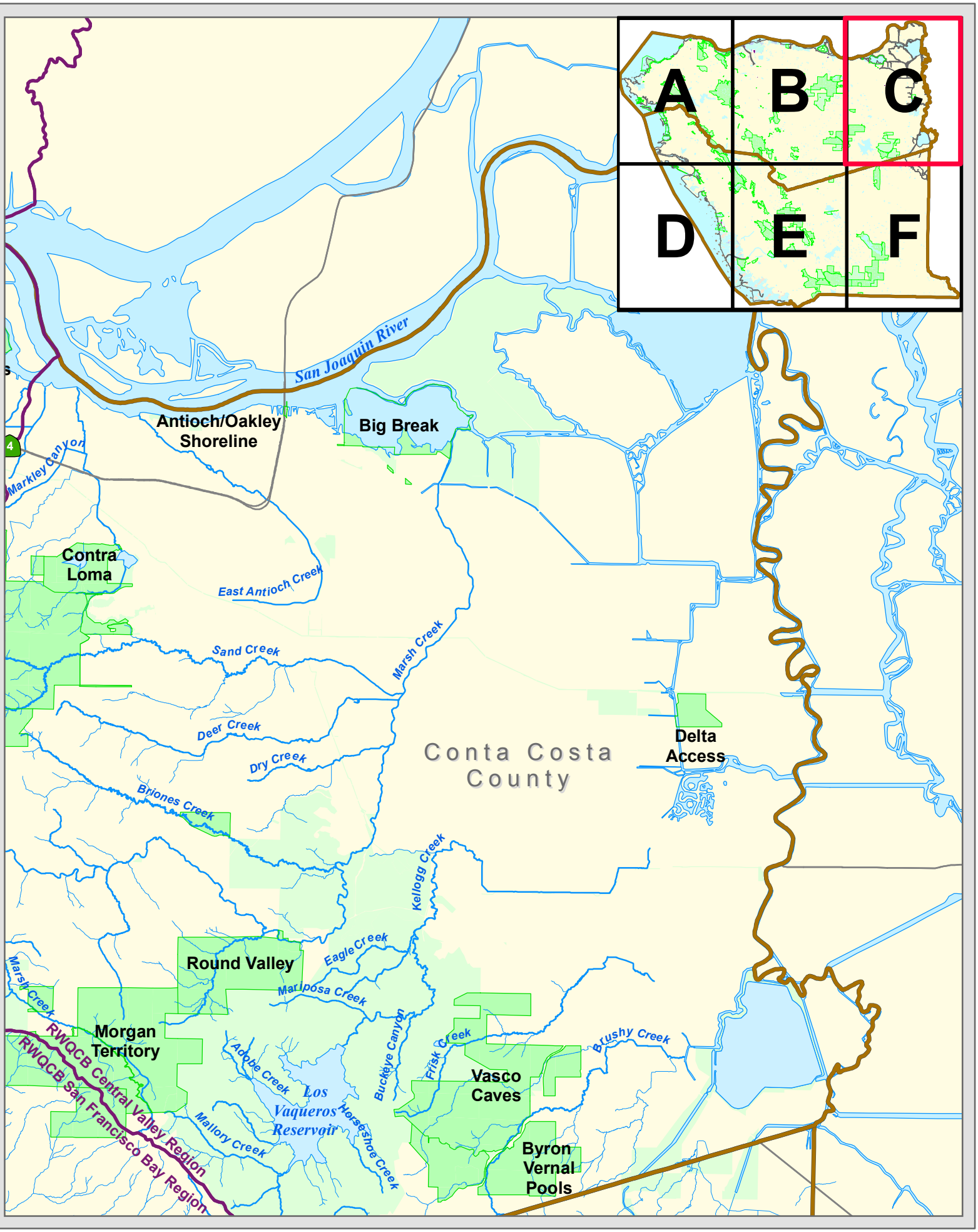
List of Waterbodies on EBRPD Property in San Francisco Bay Regional Water Quality Control Board Jurisdiction

Waterbody Name	Regional Park(s)
Zeile Creek	Garin

EAST BAY REGIONAL PARK DISTRICT

EBRPD Parklands
Other Open Space
Streams
Major Streams
Freeways
1:150,000
May 2011

EAST BAY REGIONAL PARK DISTRICT



EAST BAY REGIONAL PARK DISTRICT

EBRPD Parklands
Other Open Space
Streams
Major Streams
Freeways
1:150,000
May 2011

EAST BAY REGIONAL PARK DISTRICT

EBRPD Parklands
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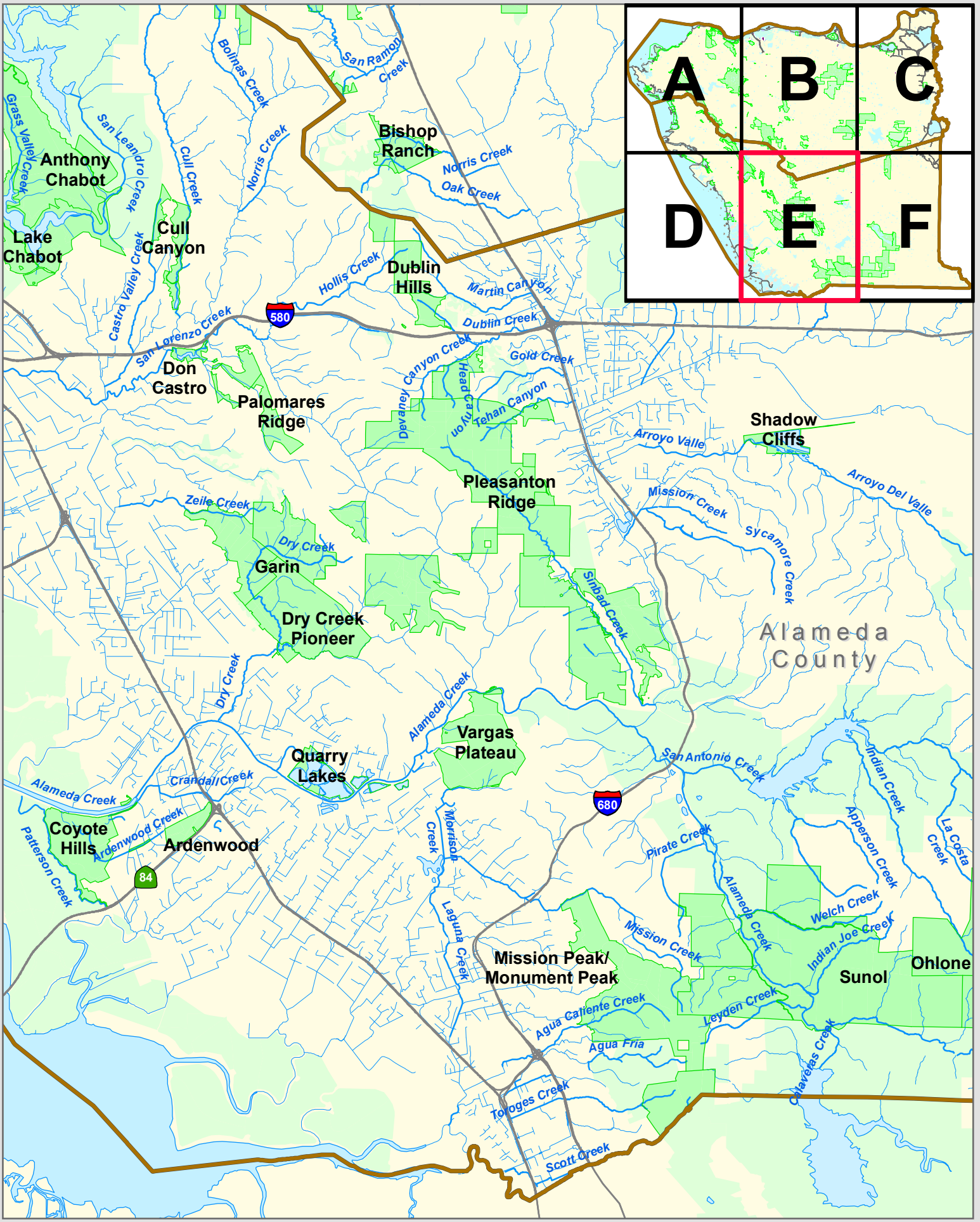
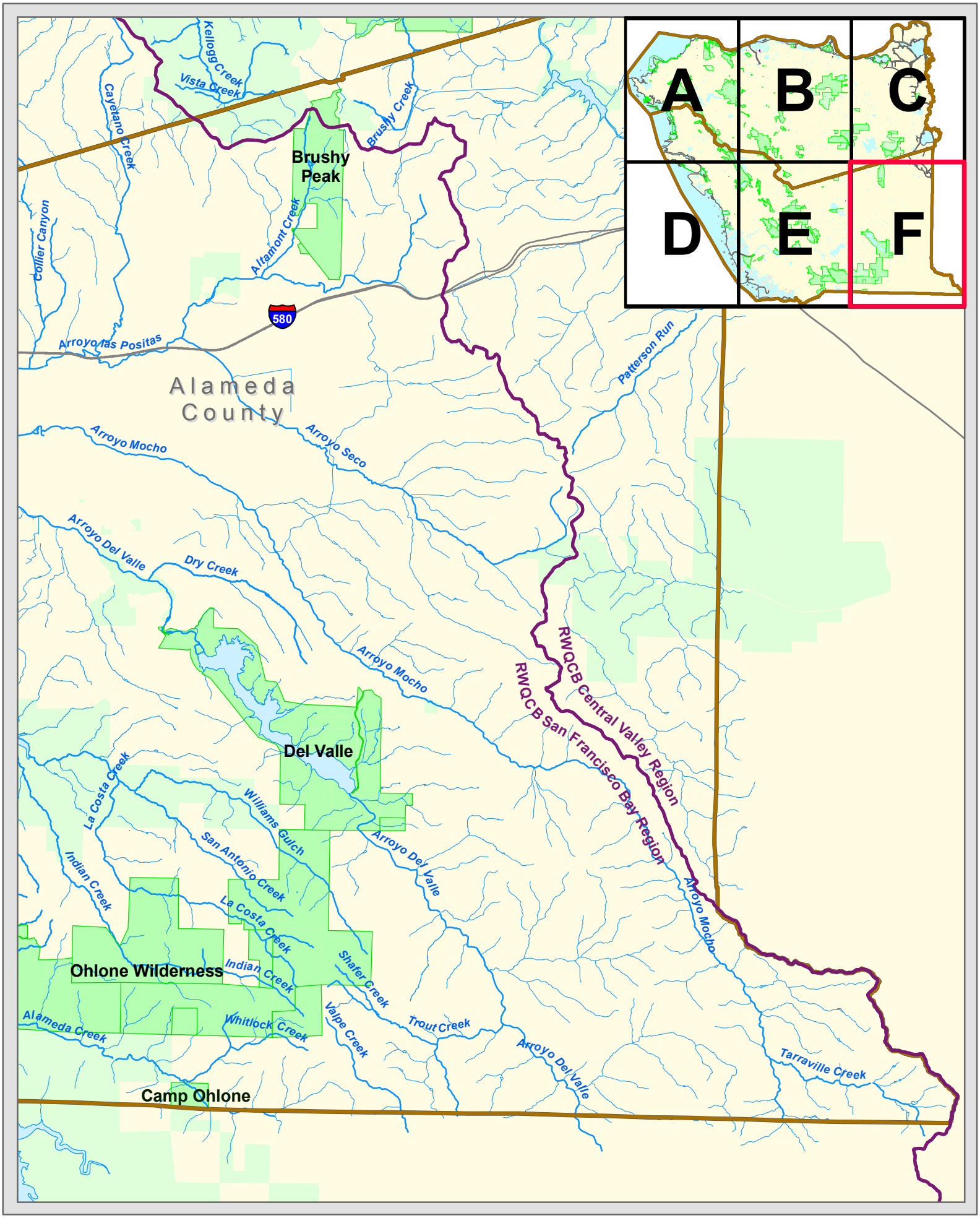
May 2011



EAST BAY REGIONAL PARK DISTRICT

EBRPD Parklands
Other Open Space
Streams
Major Streams
Freeways

1:150,000
May 2011



EAST BAY REGIONAL PARK DISTRICT

EBRPD Parklands
Other Open Space
Streams
Major Streams
Freeways
1:150,000
May 2011

East Bay Regional Park District

Regional Maintenance Activities
Alameda and Contra Costa Counties

ATTACHMENT E

Federally Listed Species that Occur Within East Bay Regional Park District Property

Attachment E

Federally listed species that occur within East Bay Regional Park District and potentially occur at various project sites that are covered under the U.S. Fish and Wildlife Service and NOAA – National Marine Fisheries Service programmatic consultation (November 16, 2006).

Longhorn fairy shrimp (*Branchinecta longiantenna*)
Vernal pool fairy shrimp (*Branchinecta lynchi*)
Vernal pool tadpole shrimp (*Lepidurus packardi*)
Delta smelt (*Hypomesus transpacificus*)
Chinook salmon (*Oncorhynchus tshawytscha*)
Steelhead (*Oncorhynchus mykiss*)
California tiger salamander (*Ambystoma californiense*)
California red-legged frog (*Rana draytonii*) formally (*Rana aurora draytonii*)
Giant garter snake (*Thamnophis gigas*)
California clapper rail (*Rallus longirostris obsoletus*)
Salt marsh harvest mouse (*Reithrodontomys raviventris*)
Contra Costa goldfields (*Lasthenia conjugens*)
Soft bird-beak (*Cordylanthus mollis ssp. mollis*)

These thirteen covered species could potentially occur at various proposed routine maintenance project sites within the East Bay Regional Park District. To assess potential effects on federally listed we are providing a quantitative and qualitative analysis of all the East Bay Regional Park District's (District) routine maintenance projects conducted under our U.S. Army Corps of Engineer's General permits Numbers 23394S and 28902S. This includes evaluating potential impacts of routine maintenance projects to federally listed species and potential effects to critical habitat. From 1998-2009 the District worked on a total 247 projects in a variety of wetlands throughout our parklands. One hundred twenty three of these projects had no permanent impact or wetland loss and 124 projects had some permanent impact resulting in wetland loss per project ranging from <0.0001 acres to 0.09 acres, for an overall cumulative total of 1.016 acres of permanent wetland loss. To compensate for this wetland loss the District created and/or restored > 2.58 acres of lentic water habitat.

Not all of the 247 routine maintenance projects occurred in habitat that support federally listed species. Within the District, the California red-legged frog (*Rana draytonii*) occurs in 81 ponds and 26 district stream reaches, and California tiger salamander (*Ambystoma californiense*) have been documented breeding in 80 stock ponds, where 39% of the ponds these two species are sympatric. During the eleven year permit period, 116 routine projects were completed in potentially suitable habitat and 55 projects resulted in some permanent wetland loss within the distributional range of the California red-legged frog. The impacts per project ranged from <0.0001 to 0.02 acres, for an overall total of 0.360 acres of permanent wetland loss in areas which potentially provide habitat for this species. The other 61 projects had minimal temporary impact and resulted in no permanent wetland loss or adversely affected aquatic breeding or non-breeding habitats.

While 101 routine projects were completed within the distributional range of California tiger salamander, none of the projects impacted lentic waterbodies or resulted in temporary or permanent loss of aquatic breeding habitat. In addition, the vast majority of routine maintenance projects occurred in various drainages and stream reaches that do not support California tiger salamander breeding populations. The projects primarily include the replacement of culverts and installation of armored fords on existing roads with un-measurable temporary disturbance to suitable upland habitat for California tiger salamanders.

Although these projects occurred in the distributional range of the California red-legged frog and/or California tiger salamander, not all of the projects occurred within critical habitat designation or in areas known to support the species. Large portions of District lands are excluded from critical habitat designation of California tiger salamander (Federal Register: August 23, 2005 – Volume 70, Number 162). In addition as previously stated, none of the routine maintenance projects had a direct, indirect, and/or cumulative effect on aquatic or terrestrial habitat known to support or potentially suitable for California tiger salamanders.

Similarly, the vast majority of the District's parklands in eastern Contra Costa County are excluded from critical habitat designation for California red-legged frog (Federal Register: March 17, 2010 – Volume 75, Number 511). However, critical habitat units in Alameda and Contra Costa Counties include District lands.

Consequently, the District's eleven years of routine maintenance projects permanently impacted 0.287 acres of wetlands within California red-legged frog critical habitat designation, and 0.098 acres of wetland loss within the critical habitat designation for the California tiger salamander (Federal Register: August 23, 2005 – Volume 70, Number 162). However, most of the permanent wetland loss in critical habitat designation occurred at sites where we have not documented these species. In fact, the 0.098 acres of permanent impacts affected lotic habitat and in streams that do not support California tiger salamander breeding populations. Moreover, from 1998-2009 we have not documented any California red-legged frogs or California tiger salamanders at the projects sites. Nevertheless, to assist in the conservation and recovery, the District has restored and/or created 2.40 acres of California red-legged frog and 0.78 acres of California tiger salamander lentic water habitat.

Although District lands support populations of longhorn fairy shrimp (*Branchinecta longiantenna*), vernal pool fairy shrimp (*Branchinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardi*), these species are restricted to isolated rock out-crop waterbody depressions at Vasco Caves and Brushy Peak Regional Preserves (Federal Register: August 11, 2005 – Volume 70, Number 154). We have not documented any of these crustaceans in other waterbody sites. In addition, these rock out-crops are protected features and have not been impacted by anthropogenic effects associated with any project. While routine maintenance projects have occurred in the distributional range of these species, none of the projects have impacted any waterbodies known to support these species. Only one project occurred in critical habitat designation. However, it was within a high gradient seasonal stream which is considered not suitable aquatic habitat to support these species.

Many of the District's shoreline units are within the distributional range of California clapper rail (*Rallus longistrostris obsoletus*) and salt marsh harvest mouse (*Reithrodontomys raviventris*). The California clapper rail successfully nests at several shoreline units, most notably at Hayward and Martin Luther King Jr. Regional Shorelines where the dense vegetative cover supports high rail densities. Similarly, the salt marsh harvest mouse have been documented at Coyote Hills, Hayward Marsh, Salt Marsh Harvest Mouse Preserve, Oro Loma Marsh, Emeryville Crescent, Hoffman Marsh, Martinez East, Pittsburg West, and Waterbird (Shell) Marsh. These salt water emergent marshes are pickleweed (*Salicornia virginica*) dominated sites which provide habitat for the salt marsh harvest mouse. Typical routine maintenance projects along our shorelines have consisted of protecting or repairing existing levees and upland structures. During the eleven year permit periods, seven routine projects were completed in potentially suitable habitat and only one project resulted in 0.07 acres of permanent wetland loss within the distributional range of the California clapper rail. An additional 0.05 acres of wetlands were temporarily impacted during the construction period of replacing rip-rap on outboard eroded levees with no vegetation. Likewise, during this period, five routine projects were completed in distributional range of salt marsh harvest mouse and temporarily impacted 0.10 acres of potentially suitable habitat along levees. However, the vast majority of these maintenance project sites were along out-board exposed levees in areas where we have not documented California clapper rail or salt marsh harvest mouse in locations with suitable habitat to support these species.

The north eastern shoreline edge of Contra Costa County is just within the distributional range of the giant garter snake (*Thamnophis gigas*). Although Big Break Regional Shoreline contains suitable habitat to support this species, we have not documented giant garter snake at the shoreline. Moreover, no routine maintenance projects have occurred in this region with aquatic or terrestrial habitat potentially suitable for this species.

District shorelines from Suisun Bay to the Delta Region of the San Joaquin River are in the distribution range of Delta smelt (*Hypomesus transpacificus*) which occupy and disperse into stream channels and tidal backwater sloughs. During the eleven year permit period, four routine projects were completed in potentially suitable habitat and only one project resulted in 0.009 acres of permanent wetland loss within the distributional range of Delta smelt. An additional 0.01 acres of wetlands were temporarily impacted during the period of construction to replace existing rip-rap, culvert, and flapper gate. All four of these projects occurred in critical habitat designation for Delta smelt (Federal Register: December 19, 1994 – Volume 59, Number 242). However, these routine maintenance projects did not impact any submerged or emerged aquatic vegetation and had minimal disturbance or adverse affect to Delta smelt habitat.

The District's shorelines and several parklands are in watersheds with steelhead (*Oncorhynchus mykiss*) and Chinook salmon (*Oncorhynchus tshawytscha*), most notably in lower Alameda Creek and Delta Regions along the San Joaquin River. Though during the eleven year permit periods many routine maintenance projects have been performed in drainages and streams, none have occurred in reaches occupied by these salmonids or considered active spawning corridors. While six routine maintenance projects resulted in 0.07 acres of permanent wetland loss were completed in potentially suitable esturine salmonid habitat along shorelines of San Francisco and Suisun Bays, these projects consisted of protecting or repairing existing levees and flap gate structures. Additionally, the vast majority of rip-rap was placed above mean high water line with minimal affect to steelhead and Chinook salmon habitat.

Critical habitat designation for salmonids including steelhead and Chinook salmon has been determined throughout various regions of the San Francisco Bay Region (Federal Register: September 2, 2005 – Volume 70, Number 170 and Federal Register: January 5, 2006 – Volume 71, Number 3). However, the streams and drainages within District lands, including previously occupied steelhead habitat areas of Wildcat Creek and upper Alameda Creek are not considered Distinct Population Segments or included in the

critical habitat designation (Federal Register: September 2, 2005 – Volume 70, Number 170 and Federal Register: January 5, 2006 – Volume 71, Number 3). Similarly, District lands are not included in the critical habitat designation for Chinook salmon (Federal Register: September 2, 2005– Volume 70, Number 170). Nevertheless, the District has removed several migratory barriers and been very involved in efforts to re-establish an anadromous steelhead and possibly Chinook salmon to upper Alameda Creek.

Contra Costa goldfields *(Lasthenia conjugens)* are habitat limited to vernal pools in open grassy areas at elevations up to 470 meters. Although several Contra Costa goldfield populations are included in critical habitat designation (Federal Register: August 11, 2005 – Volume 70, Number 154), none of the sites are within District lands. In addition, we have not documented or confirmed any individual plants or populations of Contra Costa goldfields on District lands. Thus, routine maintenance projects have not impacted Contra Costa goldfields or critical habitat designation.

Soft bird's-beak *(Cordylanthus mollis ssp. mollis)* occurs on the upper reaches of coastal salt marshes, primarily at the limits of tidal influence. It is associated with *Salicornia virginica, Distichlis spicata, Jaumea carnosa, Frankenia salina, and Triglochin maritima.* The only District population occurs on the transition zone between shoreline sand and the pickleweed (*Salicornia virginica*) marsh along the northeast corner of Point Pinole Regional Shoreline, a location where no routine maintenance activities have occurred.

Here are other federally listed species that occur within Alameda and Contra Costa Counties and potentially on District lands and various project sites.

Santa Cruz tarplant *(Holocarpha macradenia)*
Large-flowered fiddleneck *(Amsinckia grandiflora)*
Presidio clarkia *(Clarkia franciscana)*
Antioch Dunes evening primrose *(Oenothera deltoides ssp. howellii)*
Pallid manzanita *(Arctostaphylos pallida)*
Alameda whipsnake (*Masticophis lateralis euryxanthus*)
Western snowy plover (*Charadrius alexandrinus nivosus*)
California least tern (*Sterna antillarum browni*)
San Joaquin kit fox (*Vulpes macrotis mutica*)

These additional nine species could potentially occur at various proposed routine maintenance project sites within the East Bay Regional Park District. However, most of these species, except for the Western snowy plover and California least tern, are generally associated with upland habitats. Moreover, excluding the Alameda whipsnake, these species have limited distributional range and/or occurrence on District lands.

Santa Cruz tarplant *(Holocarpha macradenia)* is found on coastal prairies and grasslands, often with clay or sandy-clay soils, between 10 meters and 220 meters elevations. This species is most frequently associated with non-native grasses and non-native French broom (*Genista monpessulana*). Several transplanted populations of Santa Cruz tarplant occur in the non-native annual grasslands of Wildcat Canyon Regional Park. This introduced Santa Cruz tarplant population is within critical habitat designation (Federal Register: October 16, 2002 – Volume 67, Number 200). However, no routine maintenance projects have occurred in this region with known populations or habitat potentially suitable for this species. Nevertheless, for many years the District has been implementing various management actions at the Santa Cruz tarplant population site to enhance the primary constituent elements to improve habitat conditions for this species.

Large-flowered fiddleneck *(Amsinckia grandiflora)* normally occurs in inner coast range grasslands with steep slopes and sandy soils. The only District population was planted on a relatively small site in a non-native annual grassland ridgetop within Black Diamond

Mines Regional Preserve. Moreover, no routine maintenance projects have occurred in this region with known populations or habitat potentially suitable for this species.

Presidio clarkia *(Clarkia franciscana)* grows in grassland communities with serpentine soils. The only District occurrence is a large population on the serpentine prairie of Redwood Regional Park. However, no routine maintenance projects have occurred in this region with known populations or habitat potentially suitable for this species. Instead, the District has implemented various management actions at the serpentine prairie site to enhance the primary constituent elements to improve habitat conditions for Presidio clarkia.

Antioch Dunes evening primrose *(Oenothera deltoides ssp. howellii)* occurs on inland sand dunes. The only District occurrence is a small population on the Southwest side of Browns Island in Contra Costa County. However, no routine maintenance projects have occurred in this region or where known populations exist.

Pallid manzanita *(Arctostaphylos pallida)* occurs in chaparral communities with somewhat mesic soils and in coastal scrub, with an elevation range of 200-445m. These soils are generally thin, silica-rich shales. Large populations (>450 individuals) are found in Huckleberry Botanic Preserve and Sobrante Ridge Regional Preserve. About 20 planted pallid manzanitas occur in Tilden Regional Park, and a single plant is found in both Redwood Regional Park and Sibley Volcanic Regional Preserve. However, no routine maintenance projects have occurred in any area with known populations.

The Alameda whipsnake (*Masticophis lateralis euryxanthus*) typically inhabits District parks throughout Alameda and Contra Costa Counties with suitable chaparral, scrub, and oak savanna habitats. This species is closely associated with these uplands habitats but also occurs in riparian and stream corridors. Vast regions of District lands are excluded from critical habitat designation for Alameda whipsnake (Federal Register: October 3, 2000 – Volume 65, Number 192 and Federal Register: October 2, 2006 – Volume 71, Number 190). While 221 routine projects were completed within the distributional

range of the Alameda whipsnake, these projects involve various aquatic habitat types and often in mesic locations without the essential primary constituent elements to support this species. Furthermore, most of these maintenance activities have occurred in areas where we have not documented Alameda whipsnake and had minimal disturbance to suitable upland habitat.

Historically, Western snowy plover (*Charadrius alexandrinus nivosus*) and California least tern (*Sterna antillarum browni*) infrequently occurred and had very limited nesting on District properties. Western snowy plovers nesting attempts at Hayward Regional Shoreline were restricted to an event on Island 5 and one nest attempt on the basin levee. Similarly in 1990, only one nest attempt was documented by California least terns on the same small island at Hayward Regional Shoreline. However, after the District completed a habitat enhancement project on Island 5, California least terns have successfully nested every year since 2007 and appears to have established a stable colony. Correspondingly, on Island 5, Western snowy plover successfully nested in 2008 and each of the subsequent years. During the eleven year permit periods, only two routine maintenance projects were completed at Hayward Regional Shoreline. While these projects resulted in 0.04 acres of temporary and permanent wetland impacts, both projects were on levees at considerable distances from the island supporting Western snowy nests and the California least tern colony. In addition, the construction occurred during the non-nesting season with no disturbance to either species. As a consequence, none of the projects or associated routine maintenance activities impacted Western snowy nests or the California least tern.

The eastern portions of Alameda and Contra Costa Counties are the extreme northern extent of the San Joaquin kit fox (*Vulpes macrotis mutica*) range. This species typically occur in xeric upland habitats, predominantly in the open grassland and oak savanna. Since 1990 only eight San Joaquin kit fox have been documented on District lands with occurrences at Black Diamond Mines, Round Valley, Brushy Peak, and Vasco Caves Regional Preserves. Considering, San Joaquin kit fox are associated with xeric upland habitats, their extremely low density throughout Alameda and Contra Costa Counties,

and the routine maintenance projects occur in aquatic habitats with little disturbance to uplands, it is unlikely the project activities had a measurable effect or impact San Joaquin kit fox habitat.

Summary and Discussion

The proposed activities associated with District's routine maintenance activities including bank stabilization, maintenance and minor modifications of existing boat docks-marinas, installation and maintenance of existing clear-span bridges, replacement and upgrades of existing culverts, minor maintenance dredging of silt basins, and levee maintenance appear to meet the criteria described in the U.S. Army Corps of Engineers programmatic consultation with U.S. Fish and Wildlife Service and NOAA-National Marine Fisheries Service. The District currently manages 66 regional parks, recreation areas, wilderness lands, shorelines, preserves, and land bank areas that encompass over 102,000 acres in Alameda and Contra Costa Counties. Approximately 80 percent of District lands are protected and operated as natural parklands which provide potential habitat for 22 federally listed species. This eleven year Regional General Permit analysis illustrates that the District's routine maintenance projects had minimal direct, indirect, and cumulative effects to these species. In effect, most temporary disturbance and permanent aquatic loss were largely limited within California red-legged frog habitat, with little effect to other aquatic and upland habitats potentially supporting other species.

In addition, many routine maintenance projects that quantitatively resulted in permanent wetland loss, actually improve habitat conditions by restoring natural flow regimes, reducing stream and shoreline erosion, minimizing sediment loading, and maintaining open water conditions. Projects such as replacing culverts with armored fords or clear-span bridges have daylighted stream reaches, prevented scouring, and often improved the hydrological conditions and lotic habitat suitability for California red-legged frog, Delta smelt, steelhead, and Chinook salmon. Other projects such as the stabilization of

existing levees actually protect several shoreline restoration sites including Oro Loma Marsh, Cogswell Marsh, and Hayward Marsh which provide habitat for California clapper rail, California least tern (i.e. Island 5), Western snowy plover (i.e. Island 5), and salt marsh harvest mouse.

Moreover, the District have conducted these routine maintenance projects with a variety of best management practices to avoid and minimize potential adverse affects to listed species (Attachment C). They include but are not limited to the following: Within the distributional range of California red-legged frog and/or California tiger salamander work is performed between August 1 and October 31 or under dry site conditions to avoid potential impacts to aquatic habitats and vulnerable life stages. Similarly, to avoid and minimize potential impacts to California clapper rail, Western snowy plover, and/or California least tern, routine maintenance activities are conducted during the non-nesting season (September 1 to January 1).

On August 6, 1998 the U.S. Fish and Wildlife Service concurred with the US Army Corps of Engineers determination that the District's routine maintenance activities performed under the Regional General Permit are not likely to impact the California red-legged frog (enclosed). In addition, U.S. Fish and Wildlife Service critical habitat designation for California red-legged frog (Federal Register: April 13, 2006 – Volume 71, Number 71 and Federal Register: March 17, 2010 – Volume 75, Number 511) and critical habitat designation for California tiger salamander (Federal Register: August 23, 2005 – Volume 70, Number 162) includes a Special 4d rule exemption for existing routine ranching activities including maintenance of existing waterbodies and water sources created to provide water for livestock. Also on May 5, 1998 the District received a Technical Assistance from U.S. Fish and Wildlife Service that determined the effects of annual road grading and maintenance activities of existing roads and trails are not likely to result in the take of Alameda whipsnake (enclosed).

Within the District's Master Plan 1997, the "conservation of rare, threatened, and endangered species of plants and animals and their supporting habitats will take

precedent over all other activities". Accordingly, District biologists are involved in the recovery of federally listed species. We have provided information and participated on the California red-legged frog Recovery Plan, developing the survey protocol, and critical habitat designations; California tiger salamander federal and state listing petitions and critical habitat designations; California clapper rail, salt marsh harvest mouse, and San Joaquin kit fox Recovery Plans; Alameda whipsnake Recovery Plan and critical habitat designation; steelhead, Chinook salmon and Santa Cruz tarplant critical habitat designations. In addition, we continue to conduct research and work with USFWS and NMFS biologists to assist in the conservation and recovery of steelhead, California red-legged frog, California tiger salamander, Alameda whipsnake, California clapper rail, California least terns, Western snowy plover, San Joaquin kit fox, Presidio clarkia, large-flowered fiddleneck, and Santa Cruz tarplant.

Because the District's routine maintenance projects are extremely small scale and work activities are performed with best management practices (Attachment C) which includes very specific avoidance measures to minimize potential impacts to listed species and their habitats, we believe it is unlikely the District's proposed routine maintenance activities would adversely affect these 22 federally listed species, any distinct population segment, evolutionary significant unit, or critical habitat designation.