



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

DEPARTMENT OF THE ARMY REGIONAL PERMIT 15
FOR
EAST BAY REGIONAL PARK DISTRICT ROUTINE MAINTENANCE PROJECTS

PERMITTEE: East Bay Regional Park District

PERMIT NO.: 28902S

ISSUING OFFICE: San Francisco District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate District or Division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below:

PROJECT DESCRIPTION: The East Bay Regional Park District (EBRPD) manages over 100,000 acres of open space and park lands within Contra Costa and Alameda Counties. EBRPD's mission is to acquire preserve, protect, and operate regional parklands in perpetuity for public use, while conserving these lands for the natural resource values they contain. The goal of the EBRPD resource enhancement projects is to conserve and enhance important resource values such as vegetation, wildlife and water to ensure that natural parkland ecosystems are maintained in a healthy and productive condition. On these lands, EBRPD performs various maintenance activities designed to improve watersheds and maintain existing structures.

AUTHORIZED WORK: This Regional General Permit (RGP) authorizes minor fill discharges into waters of the U.S. for routine maintenance activities within EBRPD-managed lands within Alameda and Contra Costa Counties. These activities include: maintenance of road crossings, culvert replacement and maintenance, bank stabilization, maintenance dredging, maintenance of other existing structures (wells, levees, swim dams, etc.) and other minor discharges of fill material for new structures as necessary. Thirteen specific activity types have been described for the purposes of this RGP (Attachments A and B). The number of projects performed under this RGP may vary by year. Routine maintenance projects involving streams, creeks, lakes, wetlands, bay shorelines or ponds will be annually identified in the field by park operations staff and/or EBRPD management who are intimately familiar with their park's infrastructure. EBRPD will submit a detailed list of proposed projects to the Corps at least 30 days prior to the start of construction season for review and approval. Construction season will correspond to the portion of the year when the potential for aquatic and aquatic species impacts would be minimal, normally from April 15 through October 31. At the conclusion of the construction season, EBRPD will submit a second report documenting which projects were actually constructed and the impacts associated with each, including the area and volume of permanent fill in waters of the U.S.

PERMIT CONDITIONS:**GENERAL CONDITIONS:**

1. The time limit for completing the work authorized ends on October 31, 2016. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must cease all work and immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.
7. You understand and agree that, if future operations by the United States require the removal, relocation or other alteration of the structure or work authorized herein, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, you will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

SPECIAL CONDITIONS:

1. A detailed annual report of the proposed maintenance activities to be performed each year shall be prepared. The report shall be prepared and submitted to the Corps at least 30 days prior to the start of construction season for review and approval. For all proposed projects, this report shall:
 - a. clearly describe the project,
 - b. show pictures of representative sites for the different types of maintenance activities requested,
 - c. show the project locations,

- d. identify wetland fill and associated mitigation,
- e. identify any special approaches or conditions to complete the project,
- f. identify measures taken to reduce the need for continued maintenance of the site, and
- g. identify any projects that may impact federal or state endangered species or their designated habitats,
- h. identify any projects that may impact any historic or cultural resources.

The Corps may distribute copies of the report to all appropriate agencies including, but not limited to the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), California Department of Fish and Game (CDFG), Bay Conservation and Development Commission (BCDC), State Historic Preservation Office (SHPO), and Native American Heritage Commission (NAHC). At the end of the 30-day review period (or when all comments are received), the Corps shall notify the EBRPD which projects are verified under this RGP and when project construction may proceed. Based upon these comments, the Corps may choose to exclude individual projects from processing under the RGP, if the proposed project will have greater than minimal impacts or may adversely affect endangered species or an historic or cultural resource. Authorization for these projects would need to be processed as a separate request.

2. An annual report on completed projects shall be submitted by December 1st of each year. This report shall include a description of the work performed, specifically noting any changes that were made in the project design that differs from what was outlined in the pre-construction report. The report shall also document the permanent fill within jurisdictional wetlands and other waters of the U.S. for each project. In addition, photographs shall be included of sites which are representative of each type of maintenance activity that was performed under this RGP. This report shall be reviewed by the resource agencies for compliance with the terms of the RGP. Field site visits may be performed, on representative sites, by the employees of these resource agencies, as a part of their compliance evaluation.

At any time, a meeting may be requested by the EBRPD, Corps, CDFG, USFWS, NMFS, BCDC, SHPO, Central Valley Regional Water Quality Control Board (CVRWQCB) or San Francisco Regional Water Quality Control Board (SFRWQCB) to discuss the terms of the permit and compliance with those terms. Based upon the results of these meetings, the Corps may choose to revoke or modify the RGP.

3. The footprint of individual projects to be authorized under this RGP shall not exceed 2000 square feet (0.05 acre) or 150 linear feet of impacts to waters of the U.S. per individual project site.
4. Work will be confined to the dry season (April 15 through October 31), or dry site conditions when possible.
5. If repair activities affect the active channel, the work area shall be isolated from flowing stream segments using cofferdams and shall be restored to pre-project conditions or better 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.
6. Activities covered under this permit will not be performed in streams that are known to contain anadromous fish.
7. All standard Best Management Practices shall be implemented to prevent the movement of sediment downstream. No debris, soil, silt, sand, bark, slash, sawdust, cement, concrete,

washings, 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 the waterways.

8. The following practices shall be used when removing debris from culverts and streams:
 - a. Debris removal during winter, while stream flows are high or as needed during other high flow events, will be performed by hand crews or by the use of a backhoe operated from the top of the bank.
 - b. The disturbance in streams shall be minimized by avoiding the use of equipment in the stream channel as such as possible.
 - c. Woody debris, which will not cause a problem of bank instability, flooding, or culvert blockage, will be left in the stream to provide habitat for aquatic species.
9. The following practices shall be used when replacing or installing culverts:
 - a. Projects which involve the installation of new culverts that may affect a federally-listed threatened or endangered species will be reviewed by the USFWS and/or NMFS on a case-by-case basis. USFWS and/or NMFS must concur that the project is not likely to result in the take of a species, before the project shall be approved under the RGP.
 - b. The culverts installed shall be large enough to accommodate anticipated 100-year frequency storm events, in order to minimize the need for follow up maintenance and disturbance of the stream channel.
 - c. The construction of head walls, discharge end splash pads, and culvert armoring, to stabilize culverts, will include porous materials or other techniques to allow plant growth and to avoid the permanent elimination of stream habitat.
 - d. Replacement of culverts shall be installed at the existing grade.
10. Bioengineering methods shall be used for bank stabilization projects. Repairs that require alternative structural reinforcement, such as placement of riprap, 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.
11. The following practices shall be used when performing erosion control activities:
 - a. Jute netting, whole grown, or other erosion control fabrics, that provide protection until plant growth can provide permanent protection, will be used when feasible.
 - b. Supplemental hydro-seeding (native mix) and/or willow, maple, and other native planting, will be utilized, if needed to assure rapid growth opportunities.
12. The following practices shall be used when performing work on stream crossings (fords):
 - a. The minimal grading or debris removal shall be performed, to make the crossing passable.

- b. Stream crossings shall be evaluated District-wide to determine the need for annual maintenance. For those situations that will result in the take of a federally-listed threatened or endangered species, no annual maintenance shall be performed until completion of consultation with the USFWS and/or NMFS.
 - c. Natural crossings (that require less intensive maintenance), without the use of culverts, will be preferred and used where feasible.
 - d. Gravels and sediments will be left within the dry portion of the stream channel rather than moved to upland areas.
13. EBRPD shall implement the terms and conditions of SFRWQCB's and CVRWQCB's Waste Discharge Requirements Permits and BCDC's Permit. Violations of either of these authorizations may result in the revocation of this Regional General Permit.
14. This RGP does not authorize take of any federally listed species or their designated habitat. The proposed activities associated with District's routine maintenance activities 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 for projects that are Not Likely to Adversely Affect ESA Listed Species or Critical Habitat. Yearly projects that the Corps determines may affect but are not likely to adversely affect an ESA Listed Species or Critical habitat will be forwarded on a case-by-case basis to the USFWS or NMFS for concurrence within the 30-day review period described in Special Condition 1. Should any project have the potential to adversely impact a federally listed species, EBRPD may not proceed until all required steps under Section 7 of the Endangered Species Act have been taken and written approval has been received from the Corps.

FURTHER INFORMATION:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 403).
 - (X) Section 404 of the Clean Water Act (33 U.S.C. Section 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. Section 1413).
2. Limits of this authorization:
 - a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate. (See Item 4 above.)
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 C.F.R. Section 325.7 or enforcement procedures such as those contained in 33 C.F.R. Sections 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 C.F.R. Section 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE)

(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Torrey A. DiCiro
Lieutenant Colonel, U.S. Army
District Commander

(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFeree)

(DATE)

**East Bay Regional Park District
Routine Maintenance Project Impact Assessment
US Army Corps of Engineers
Regional General Permit
(Attachment A)**

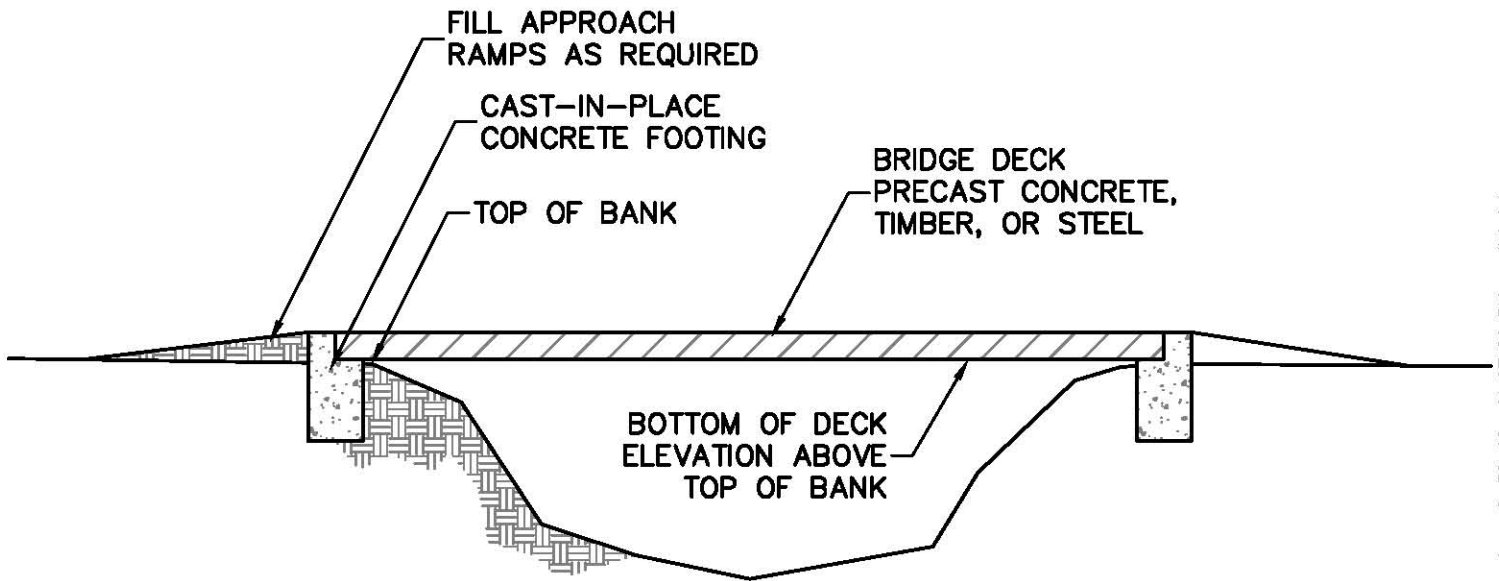
Maintenance Activity	Avoid and Minimizing Measures	Performance Objective(s)	Temporary Effects (Impacts)	Long-term and/or Permanent Effects (Impacts)	Predicted Five Year Effects and Impacts
Replacement of existing culverts: (same size culverts)	Replace with the appropriate size culvert. Install culverts at existing stream grade. In ephemeral or intermittent streams install culverts in dry site conditions. In perennial streams install culverts in low flow (dry season) conditions. Removal of riparian vegetation will be minimized.	To improve flow, reduce stream erosion, and sediment-loading.	Potential temporary loss of riparian and/or bankside vegetation. These impacts are minimal ranging from 0.0001 acres to 0.018 acres per culvert (mean per culvert = 0.007 acres).	Minimizes follow-up maintenance and no permanent wetland loss.	Temporary effects to small drainages and streams impacting approximately 0.07 – 0.084 acres wetlands.
Replacement of existing culverts: (upgrade size of culverts) and install new head and tailwalls	Replace with the appropriate size culvert. Install culverts at existing stream grade. In ephemeral or intermittent streams install culverts in dry site conditions. In perennial streams install culverts in low flow (dry season) conditions. Removal of riparian vegetation will be minimized.	To improve flow, reduce stream erosion, and sediment-loading.	Potential temporary loss of riparian and/or bankside vegetation. These impacts are minimal ranging from 0.0001 acres to 0.018 acres per culvert (mean per culvert = 0.007 acres).	These upgrades will significantly reduce follow-up maintenance with minimal permanent impacts to wetlands ranging from 0.0001 acres to 0.018 acres per culvert (mean per culvert = 0.007 acres).	Temporary and permanent effects to small drainages, and streams impacting approximately 0.20 – 0.25 acres of wetlands.
Installation of culvert headwalls and tailwalls:	In ephemeral or intermittent streams install culvert headwalls and tailwalls in dry site conditions. In perennial streams install culvert headwalls and tailwalls in low flow (dry season) conditions. When feasible use porous materials or other techniques to allow plant growth. Removal of riparian vegetation will be minimized.	Reduces bank and stream erosion, widening and down-cutting.	Potential temporary loss of riparian and/or bankside vegetation. These impacts are minimal ranging from 0.002 acres – 0.005 acres per project (mean = 0.0038 acres).	Stabilizes the culvert, minimizes follow-up maintenance and culvert clearing with minimal permanent impacts to wetlands ranging from 0.002 acres – 0.005 acres per project (mean = 0.0038 acres).	Temporary and permanent effects to small drainages and streams impacting approximately 0.020 – 0.03 acres of wetlands.
Installation of culvert discharge plates (energy dissipaters):	In ephemeral or intermittent streams install energy dissipaters in dry site conditions. In perennial streams install energy dissipaters in low flow (dry season) conditions. When feasible use porous materials or other techniques to allow plant growth. Removal of riparian vegetation will be minimized.	Reduces downstream erosion bank widening and down-cutting.	Potential temporary loss of riparian and/or bankside vegetation. These impacts are minimal ranging from 0.001 acres – 0.01 acres per project (mean = 0.0046 acres).	Reduces downstream erosion, bank widening, and down-cutting with minimal ranging from 0.001 acres – 0.01 acres per project (mean = 0.0046 acres).	Temporary and permanent effects to small drainages and streams impacting approximately 0.014 – 0.024 acres of wetlands.

Maintenance Activity	Avoid and Minimizing Measures	Performance Objective(s)	Temporary Effects (Impacts)	Long-term and/or Permanent Effects (Impacts)	Predicted Five Year Effects and Impacts
Installation of armored crossings, replacing culverts with articulated concrete fords or installing new armored fords in natural crossings.	In ephemeral or intermittent streams install fords in dry site conditions. In perennial streams install fords in low flow (dry season) conditions, and temporarily diverted water around the work area to maintain down stream flow. Stream crossing width and grading will be minimized and sediments are left in dry portion of the stream channel.	To restore and/or maintain stream channel, improves flow, reduces stream erosion, and sediment-loading.	Potential temporary increase in sediment discharge and loss of riparian or wetland vegetation. These impacts are minimal ranging from 0.004 acres – 0.009 acres per project (mean = 0.0058 acres).	Daylights stream reaches with culverts, reestablishes and maintains natural stream gradient and cross-sectional area, significantly reduces erosion, and follow-up maintenance. The permanent impacts are minimal ranging from 0.004 acres – 0.009 acres per project (mean = 0.0058 acres).	Temporary and permanent effects to small drainages and streams impacting approximately 0.035 – 0.06 acres of wetlands.
Maintenance of existing rock stream fords:	In ephemeral or intermittent streams install natural rock fords in dry site conditions. In perennial streams install natural fords in low flow (dry season) conditions, and temporarily divert water around the work area to maintain down stream flow. Stream crossing width and grading will be minimized and sediments are left in dry portion of the stream channel.	Maintain stream channel, improves flow, reduces stream erosion, and sediment-loading.	Potential temporary increase in sediment discharge and loss of riparian or wetland vegetation. These impacts are minimal ranging from 0.005 acres – 0.01 acres per project (mean = 0.0063 acres).	Maintains natural stream gradient and cross-sectional area, significantly reduces erosion, and follow-up maintenance. The permanent impacts are minimal ranging from 0.005 acres – 0.01 acres per project (mean = 0.0063 acres).	Temporary and permanent effects to small drainages and streams impacting approximately 0.02 – 0.04 acres of wetlands.
Bank stabilization:	Includes replacing existing rip-rap, installing log crib-walls, natural rock weirs, vegetative and riparian planting and other bio-engineering techniques involving shorelines, streams, and lakes. In ephemeral or intermittent streams replace rip-rap and/or install other stabilizing structures in low flow in dry site conditions. In perennial streams replace rip-rap and/or install other stabilizing structures in low flow (dry season) conditions, and temporarily diverted water around the work area to maintain down stream flow. Along coastal and inland shorelines replace rip-rap and/or install other stabilizing structures in dry season. When feasible use porous materials or other techniques to allow plant growth.	Provides streambank and/or shoreline protection, prevents erosion, reduces erosion, widening, down-cutting and sediment-loading.	Potential temporary loss of riparian and/or bank vegetation. These impacts are minimal ranging from 0.0001 acres – 0.09 acres per project (mean = 0.021 acres).	Stabilizes and protects banks from scour and significantly reduces erosion. The permanent impacts are minimal ranging from 0.0001 acres – 0.09 acres per project (mean = 0.021 acres).	Temporary and permanent effects to various waterbodies impacting approximately 0.172 – 0.252 acres of wetlands.

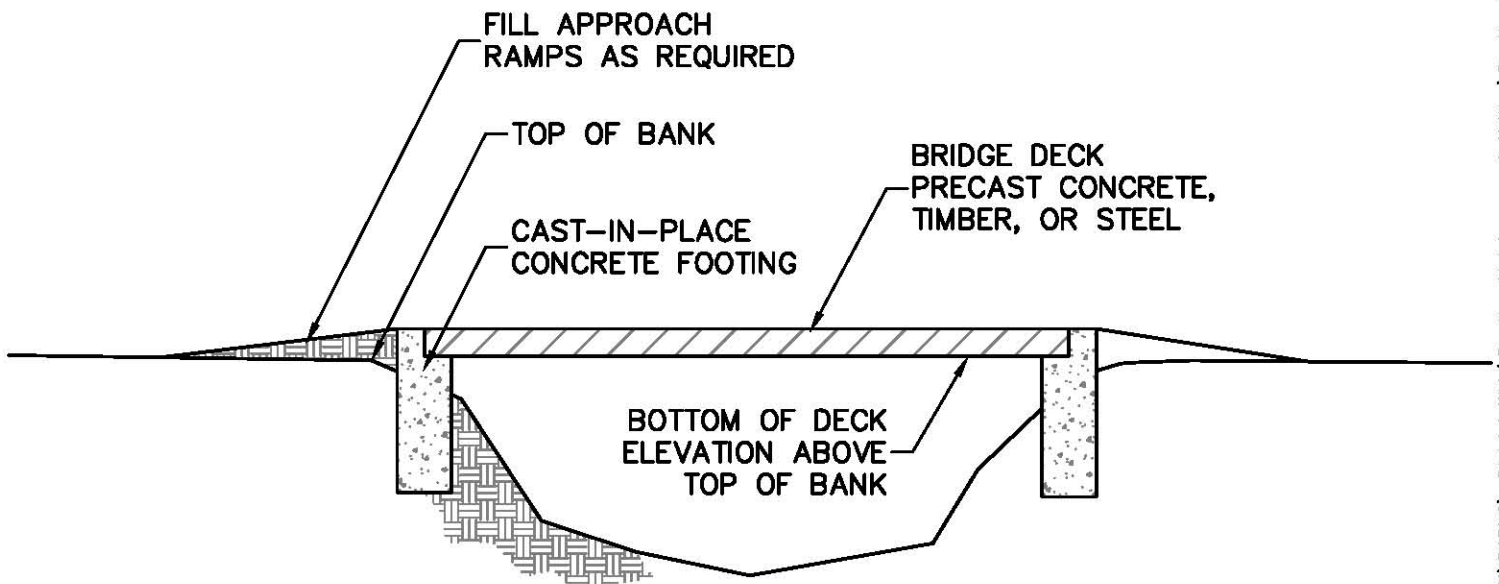
Maintenance Activity	Avoid and Minimizing Measures	Performance Objective(s)	Temporary Effects (Impacts)	Long-term and/or Permanent Effects (Impacts)	Predicted Five Year Effects and Impacts
Maintenance of existing culverts (sediment and debris removal from blocked culverts) in streams and other waterbodies:	During winter high flow debris is removed using equipment from top of bank or by hand crews. Woody debris that does not cause a problem is left in stream to provide habitat for aquatic species.	To clear culverts, restore flow, prevent flooding and bank instability.	Potential temporary increase sediment in discharge. These impacts are minimal ranging from 0.0001 acres – 0.043 acres per project (mean = 0.007 acres).	Maintains stream flow and transportation of sediments, protects streambank erosion or flooding with no permanent loss of wetlands.	Temporary effects to small drainages, streams, and other waterbodies impacting approximately 0.05 – 0.075 acres of wetlands.
Maintenance and installation of clear span bridges:	Equipment operation will avoid standing or flowing water. New concrete will not be poured in locations that contact natural waterbodies. Removal of riparian vegetation will be minimized.	Replace culverts or dysfunctional stream crossings with clear-span bridges to re-establish natural drainage cross section, gradient, flow, and reduce erosion.	Potential temporary impacts to streambanks and bankside vegetation. These impacts are minimal ranging from 0.001 acres – 0.01 acres per project (mean = 0.0042 acres).	Often removes culverts from drainages and daylights stream reaches, re-establishes and/or maintains natural conditions, stream cross section, gradient, flow conditions, reduces erosion and flooding, and significantly minimizes follow-up maintenance. Often no permanent wetland loss and the impacts are minimal ranging from 0.001 acres – 0.01 acres per project (mean = 0.0042 acres).	Overall can have a beneficial effect with minimal temporary and permanent impacts of approximately 0.003 – 0.031 acres of wetlands.
Routine maintenance dredging of ponds and lakes:	When feasible, work will be performed in dry conditions and above water. Removal of riparian vegetation will be minimized. Within listed species habitat only dry ponds unoccupied by California red-legged frogs and/or California tiger salamanders will be dredged. Wherever feasible, dredged ponds and earthen dams will be reconfigured to enhance habitat for federally listed species. All removed dredged sediments will be disposed in appropriate upland locations.	To maintain silt basins, restore and enhance open water conditions for special status and/or other aquatic species.	Potential temporary increase in sediment discharge and loss of riparian or wetland vegetation. These impacts are minimal ranging from 0.014 acres – 0.03 acres per project (mean = 0.026 acres).	Properly maintains existing silt basins to control sediment discharge in order to protect downstream water quality, and preserve open water habitat for special status and/or other aquatic species. Generally, no permanent wetland loss and the temporary impacts are minimal ranging from 0.014 acres – 0.03 acres per project (mean = 0.026 acres).	Overall can have a beneficial effect with minimal temporary and permanent impacts of approximately 0.592 acres of wetlands

Maintenance Activity	Avoid and Minimizing Measures	Performance Objective(s)	Temporary Effects (Impacts)	Long-term and/or Permanent Effects (Impacts)	Predicted Five Year Effects and Impacts
Maintenance of existing shoreline facilities: docks, fishing piers, boat launches, marsh board walks and overlooks:	Suitable (non-toxic) materials will be used. Appropriate erosion and sediment controls will be used during construction. When feasible, work will be performed in dry conditions and from above water.	To properly maintain existing structures, provide public access, and ensure public safety.	Potential temporary disturbance to substrate and increase in sediment discharge. These impacts are minimal ranging from 0.005 acres – 0.02 acres per project (mean = 0.01 acres).	Properly maintains existing structures and significantly increases the facilities longevity, which reduces impacts associated with major repairs or replacement. Generally, no permanent wetland loss and the temporary impacts are minimal ranging from 0.005 acres – 0.02 acres per project (mean = 0.01 acres).	Temporary effects to various waterbodies impacting approximately 0.04 – 0.08 acres of wetlands.
Removal of hazardous man-made structures from waterbodies:	Whenever possible structures and/or materials will be removed in their entirety. When feasible, work will be performed in dry conditions and from above water. Appropriate erosion and sediment controls will be used during removal. Affected areas will be returned to their pre-existing conditions. During winter high flow debris is removed using equipment from top of bank or by hand crews. Removal of natural riparian and/or shoreline vegetation will be minimized.	To remove in-stream barriers to fish and other aquatic species, and/or hazardous structures for public safety.	Potential temporary disturbance to substrate, increase in sediment discharge, and loss of riparian or wetland vegetation. These impacts vary and are minimal. There are no measurable adverse effects to wetlands.	Typically, the impacts are very minimal and no measurable adverse affects to wetlands. These projects reestablish natural conditions, may enhance habitat for special status and/or other aquatic species, and improve water quality.	No projected measurable adverse affects to wetlands.
Removal of Vessels:	When feasible, work will be performed in dry conditions and from above water. Appropriate erosion and sediment controls will be used during removal. Affected area(s) will be returned to their pre-existing conditions.	To remove hazardous vessels for public safety, restore and enhance habitat conditions for fish and other aquatic species.	Potential temporary disturbance to substrate, increase sediment discharge, and loss of riparian or wetland vegetation. These impacts vary and are minimal. There are no measurable adverse effects to wetlands.	Typically, the impacts vary and are minimal. There are no measurable adverse affects to wetlands. These projects reestablish natural conditions, may enhance habitat for special status and/or other aquatic species, and improve water quality.	No projected measurable adverse affects to wetlands.
SUMMARY: The Predicted Five Year Effects and Impacts to Various Waterbodies (Temporary 0.71 to 0.76 acres and Permanent 0.55 – 0.76 acres) an overall range of 1.266 to 1.518 acres					

ATTACHMENT B

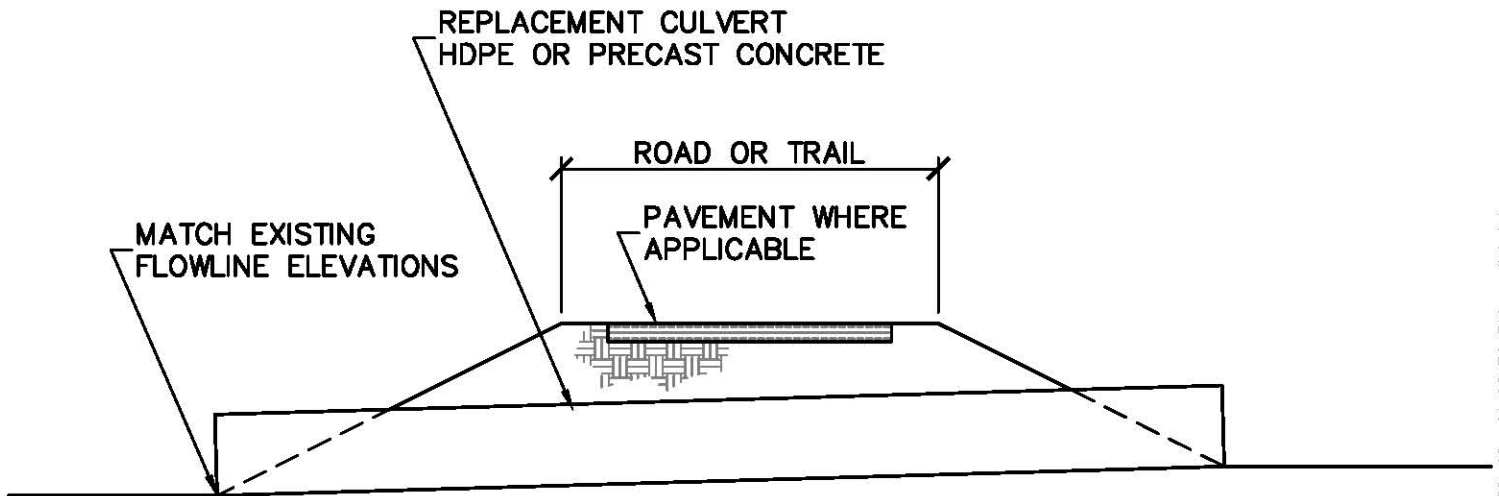


CLEAR-SPAN BRIDGE – FOOTINGS OUTSIDE OF TOP OF BANK

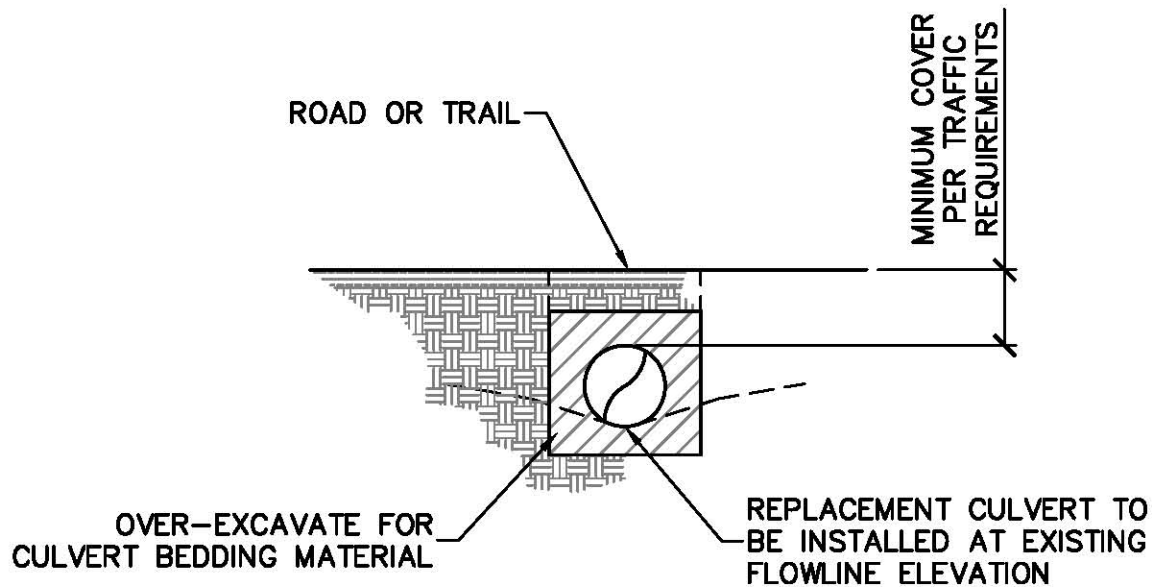


CLEAR-SPAN BRIDGE – FOOTINGS INSIDE OF TOP OF BANK

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

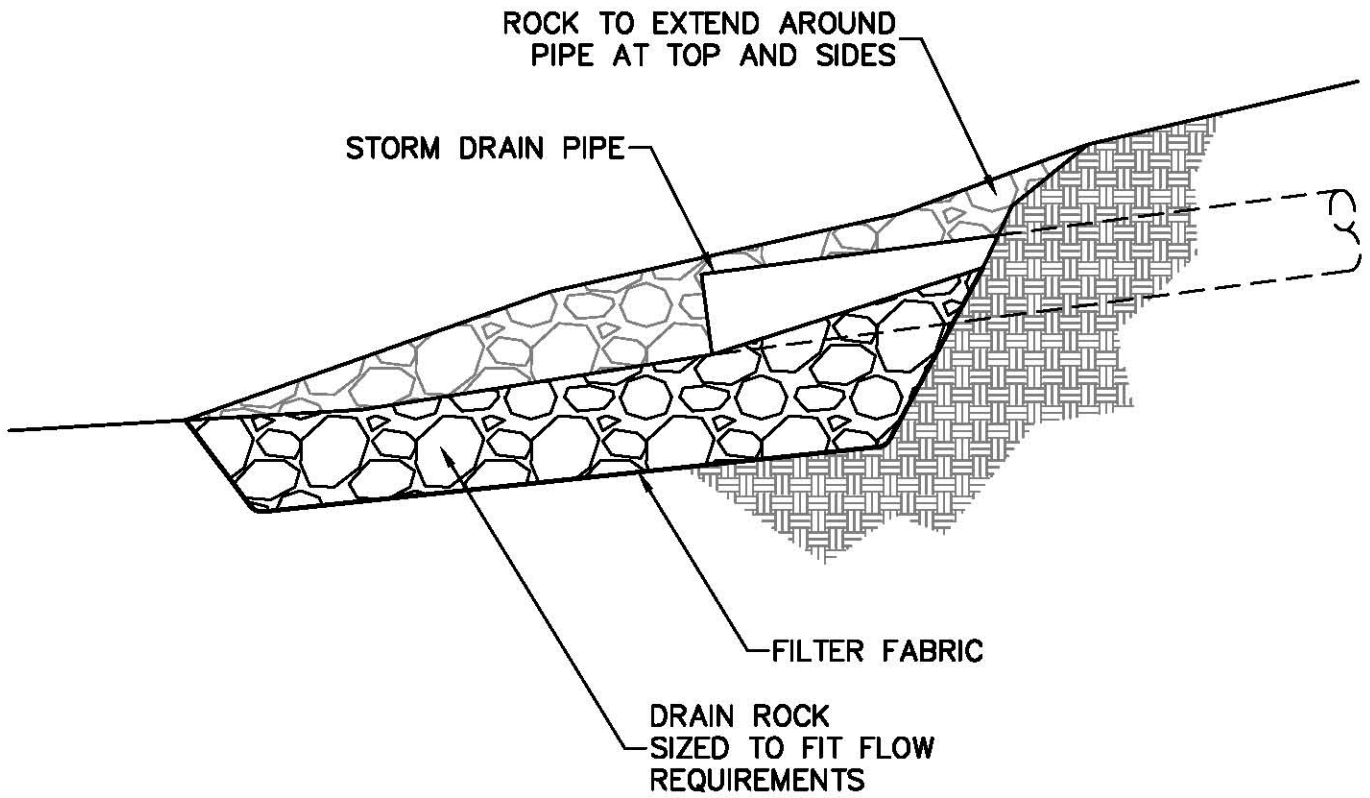


CULVERT – LONGITUDINAL SECTION

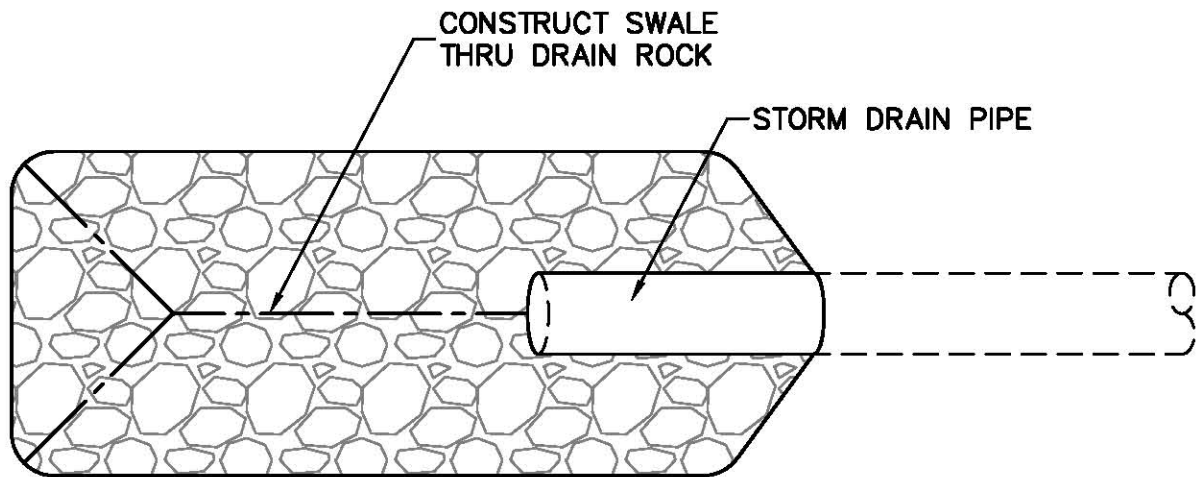


CULVERT – TRANSVERSE SECTION

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



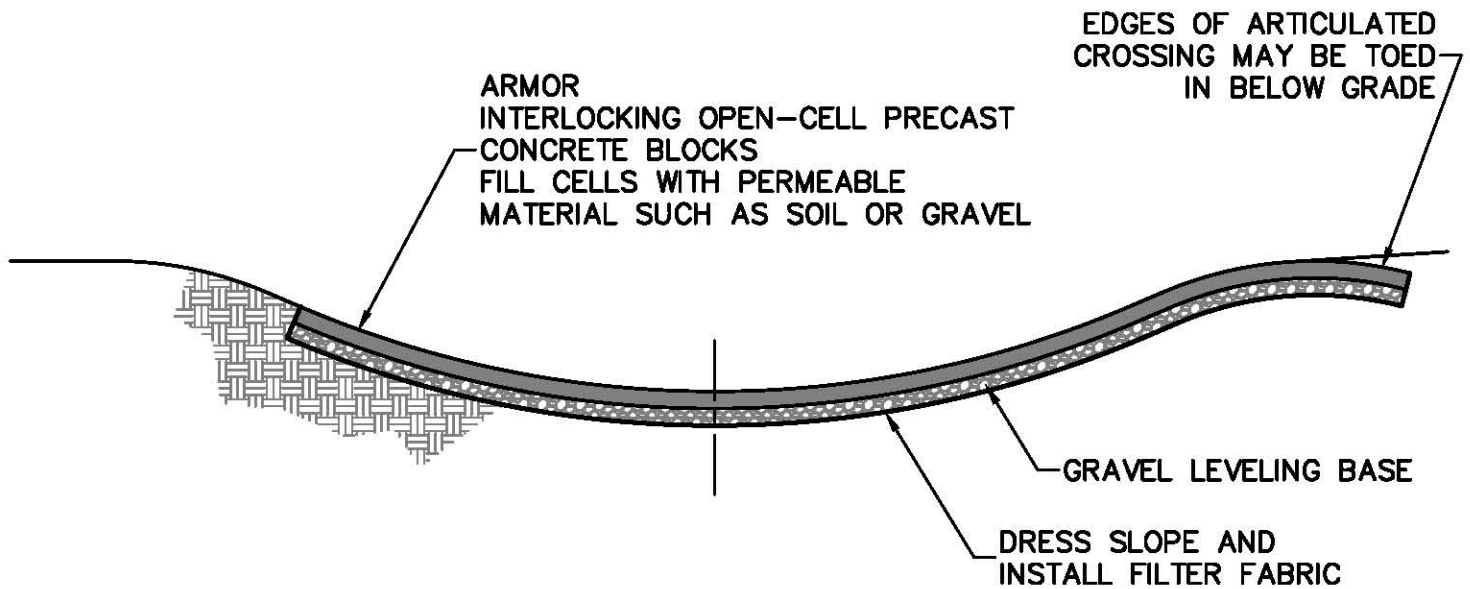
ENERGY DISSIPATER – LONGITUDINAL SECTION



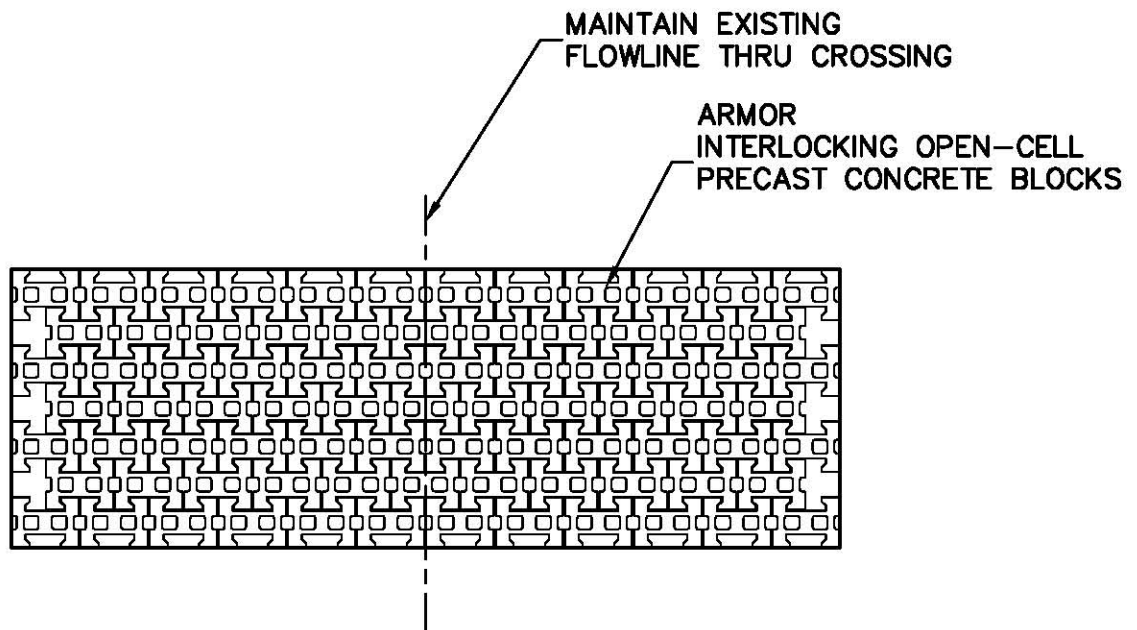
ENERGY DISSIPATER – PLAN VIEW

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

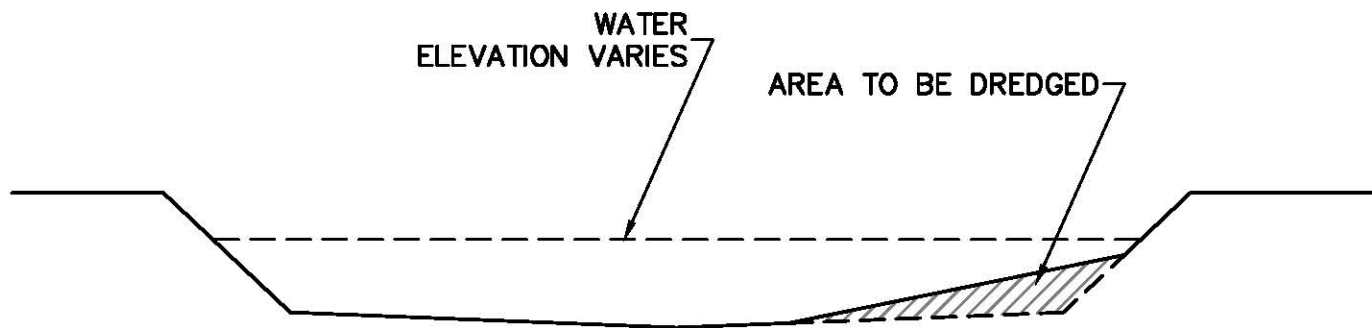


ARTICULATED CROSSING – LONGITUDINAL SECTION



ARTICULATED CROSSING – PLAN VIEW

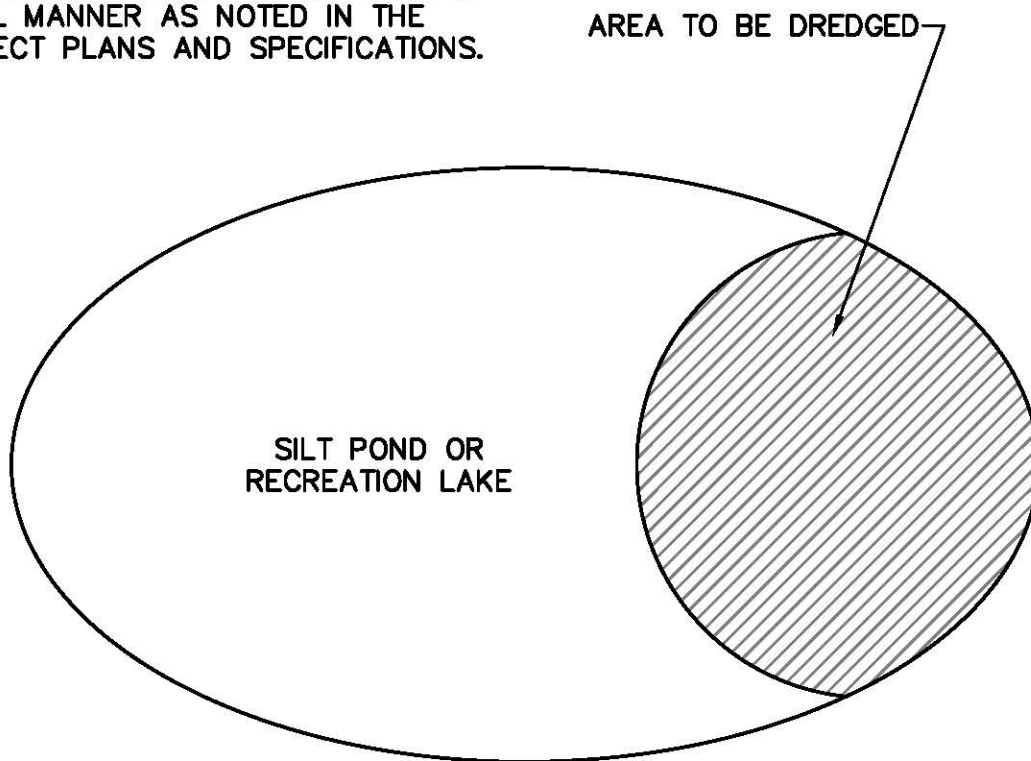
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	ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES		DATE	MARCH 2010		OF 4
	PROJECT NO.		CONTRACT NO.		EAST BAY REGIONAL PARK DISTRICT	



SILT DREDGING – SECTION

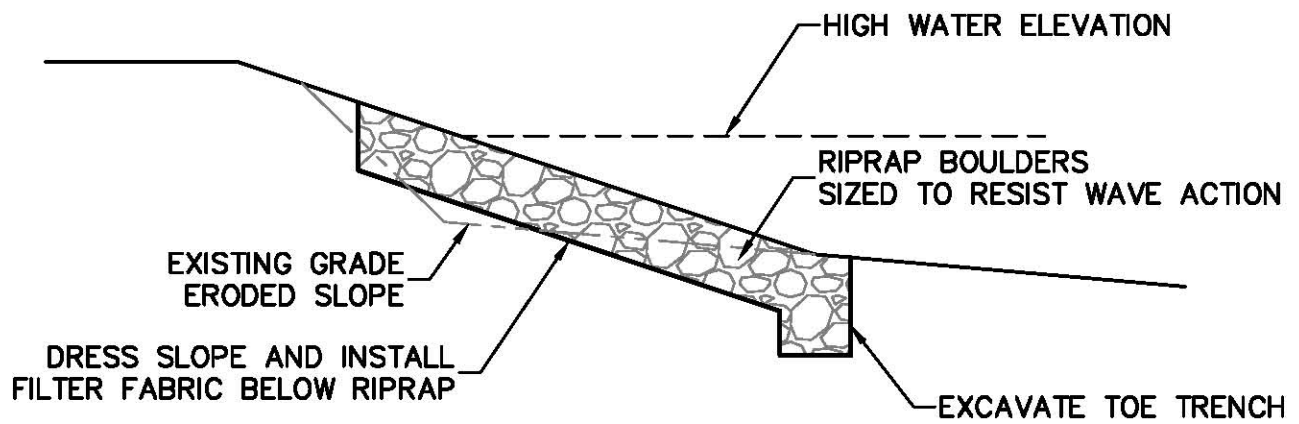
NOTES

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.

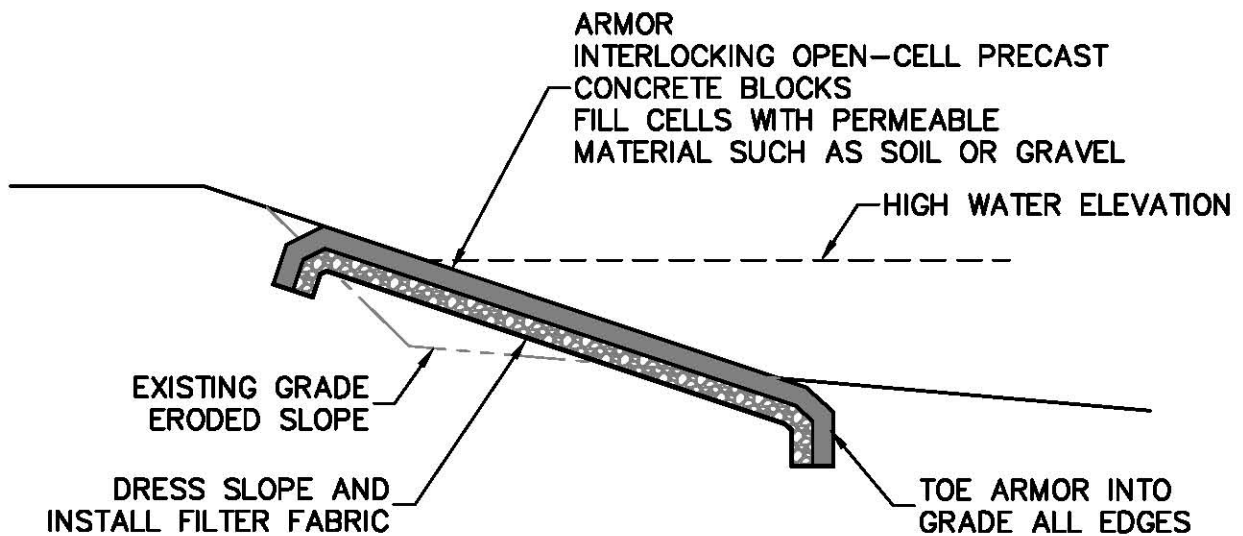


SILT DREDGING – PLAN VIEW

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

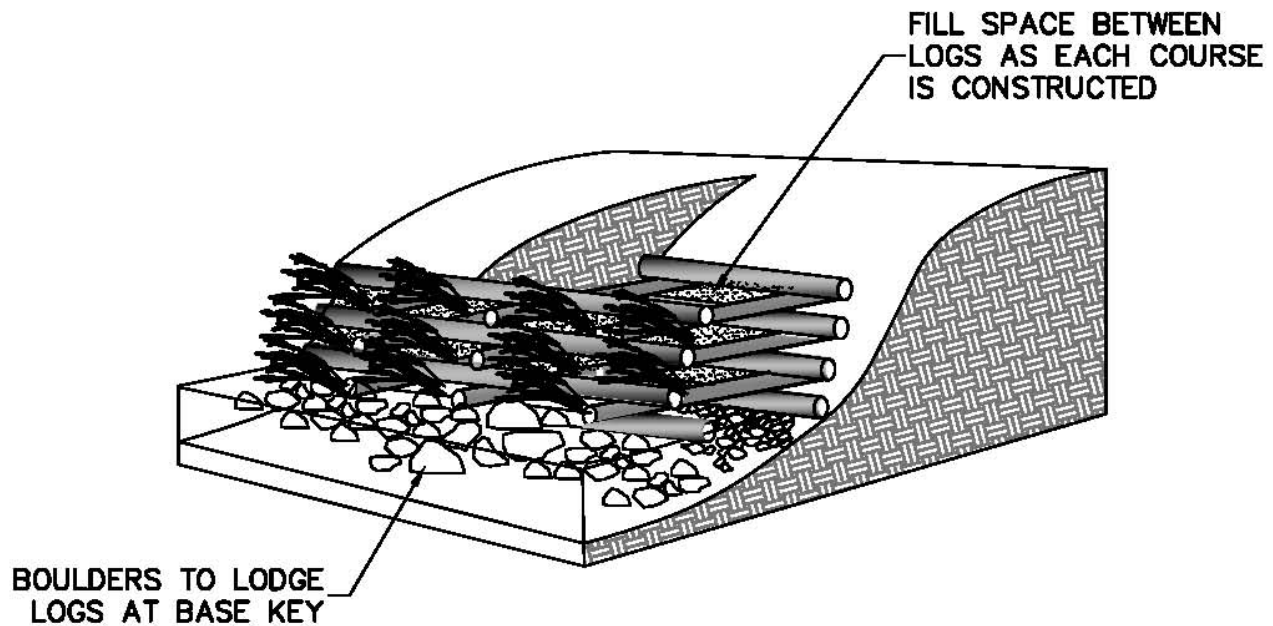


RIPRAP – SECTION

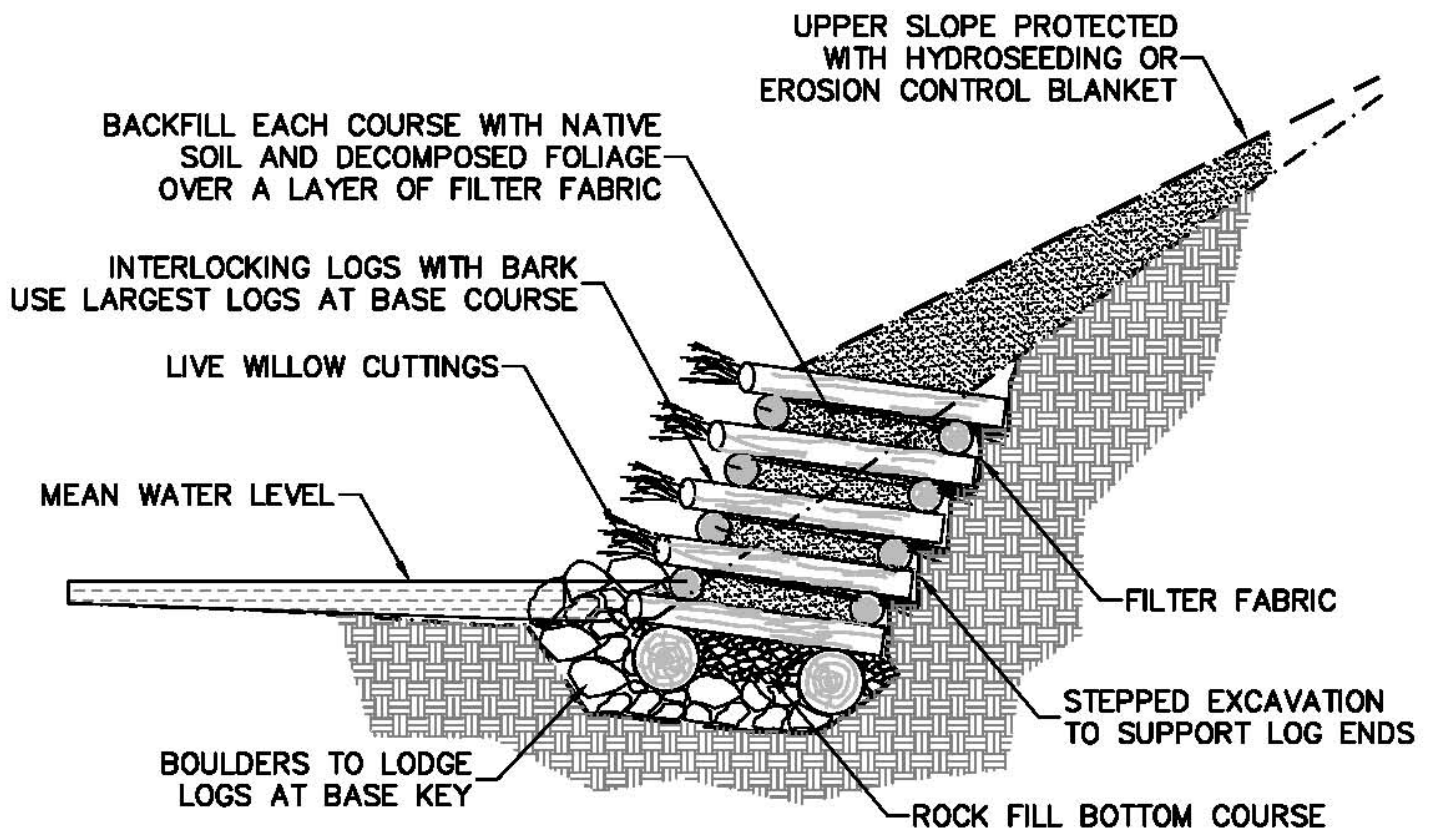


MODULAR CONCRETE UNIT ARMOR – SECTION

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	ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES		DATE	MARCH 2010		OF 6
	PROJECT NO.	CONTRACT NO.	EAST BAY REGIONAL PARK DISTRICT			



CRIBWALL – ISOMETRIC VIEW



LOG CRIB WALL – SECTION



BANK STABILIZATION & EROSION CONTROL

ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES

PROJECT NO.

CONTRACT NO.

SCALE

NONE

DATE

MARCH 2010

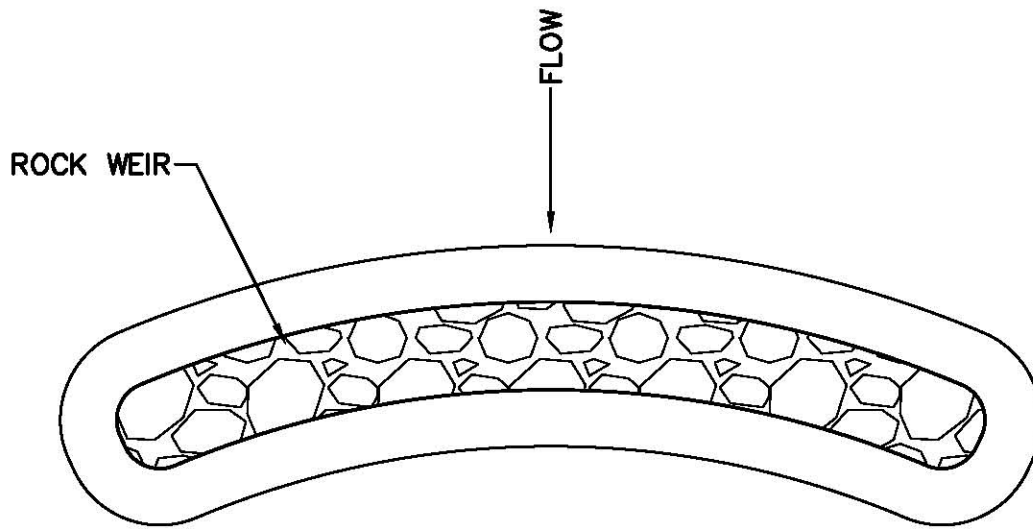
DRAWING NO.

SHEET NO.

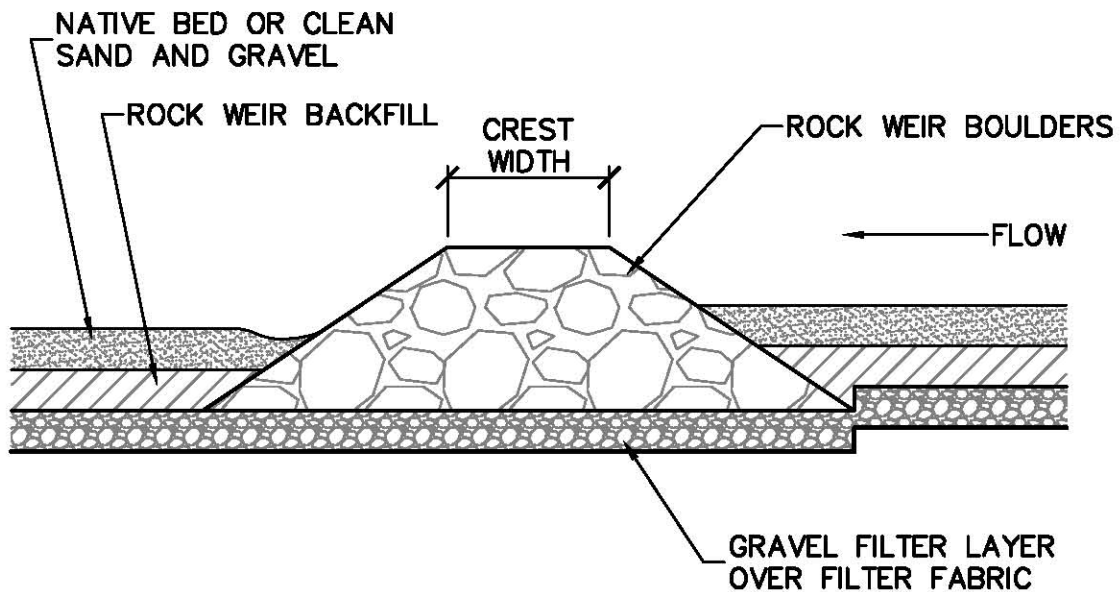
OF

7

EAST BAY REGIONAL PARK DISTRICT

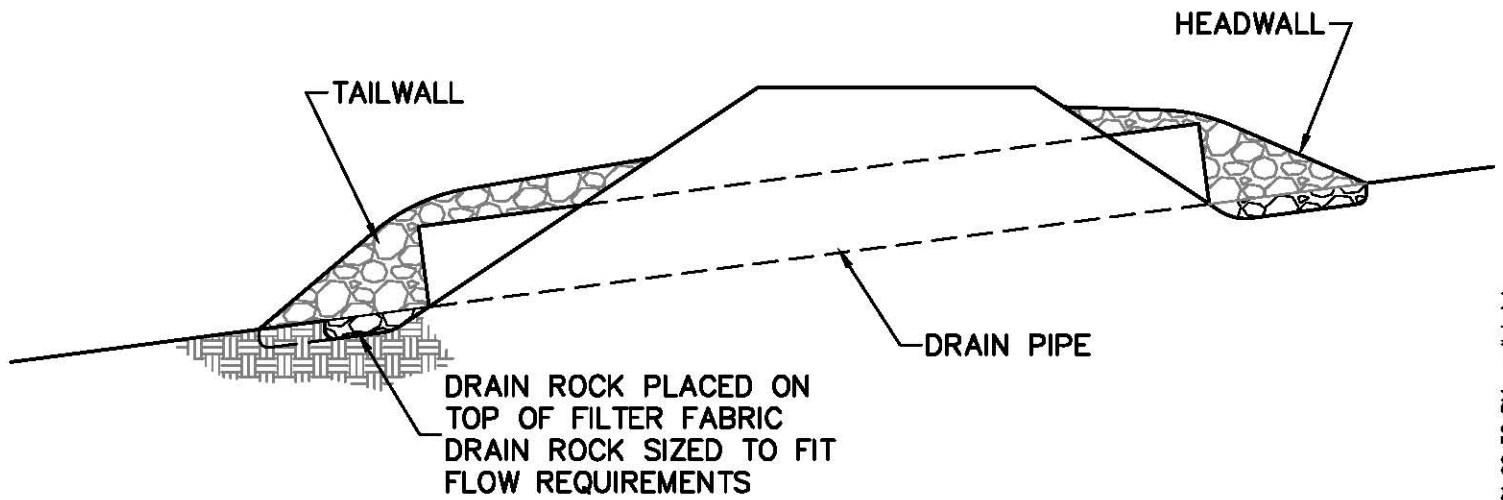


ROCK WEIR – PLAN VIEW

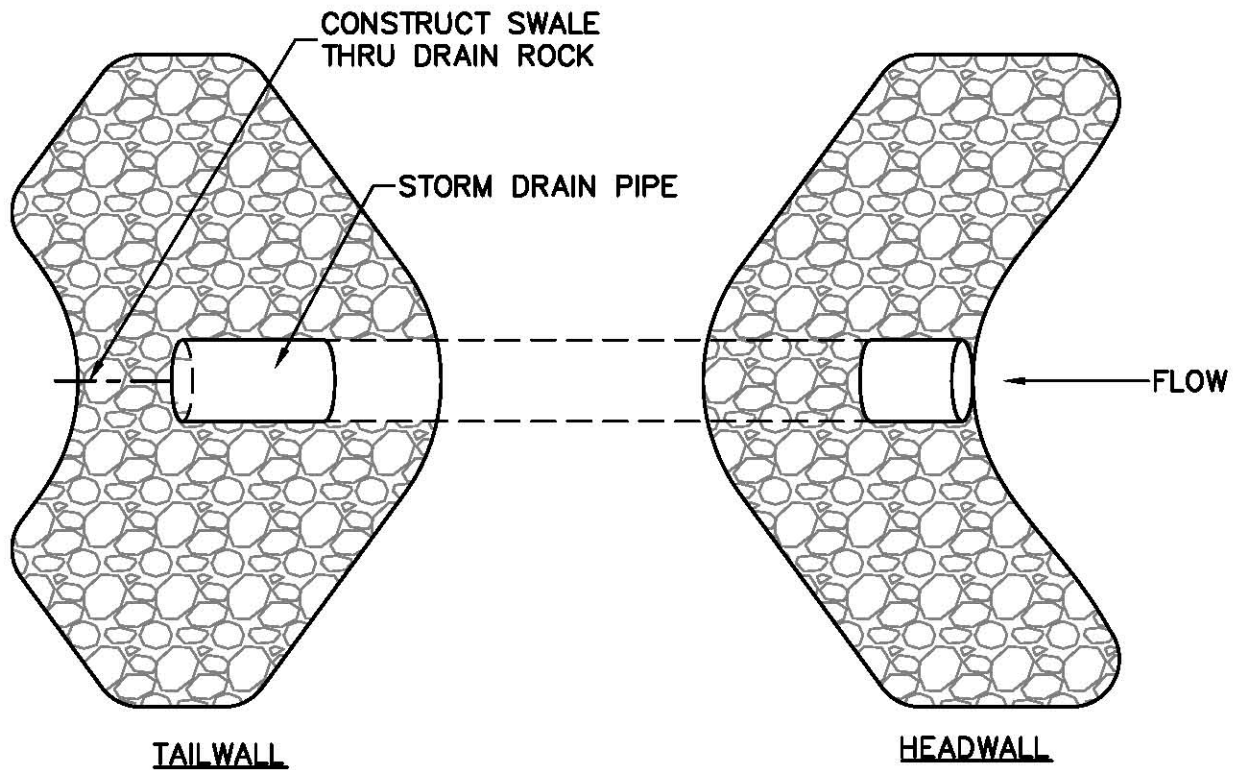


ROCK WEIR – SECTION VIEW

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



HEADWALL AND TAILWALL – LONGITUDINAL SECTION



HEADWALL AND TAILWALL – PLAN VIEW



HEADWALL AND TAILWALL

ROUTINE MAINTENANCE ACTIVITIES - CONCEPTUAL SKETCHES

PROJECT NO.

CONTRACT NO.

SCALE

NONE

DATE

MARCH 2010

DRAWING NO.

SHEET NO.

OF

9

EAST BAY REGIONAL PARK DISTRICT

ATTACHMENT C

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, CALIFORNIA.

The U.S. Army Corps of Engineers (ACOE) Regional General Permit authorization is required for routine maintenance activities in jurisdictional waterbodies within the East Bay Regional Park District (District) in Alameda and Contra Costa Counties, California. The District will follow the normal notification process and obtain separate authorizations for all projects that do not meet the routine maintenance criteria under the Regional General Permit. In addition, the District will comply with all conditions in the California Department of Fish and Game (CDFG) Lake and Streambed Agreement, the Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements and Water Quality Certification, and Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) and the U.S. National Marine Fisheries Service (NMFS). To avoid and minimize wetland disturbance the District has and will continue to use the following best management practices (BMPs).

The following practices will be used for all projects:

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

All District projects are reviewed by qualified Stewardship staff who works 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.

No routine maintenance activity is conducted that substantially disrupts the movements of aquatic indigenous life.

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 draytonii*), foothill yellow-legged frogs (*Rana boylei*), California tiger salamander (*Ambystoma californiense*), Western pond turtle (*Clemmys marmorata*) and minimize adverse impacts to fish and wildlife resources and their habitats.

Work within California clapper rail (*Rallus longirostris obsoletus*), California least tern (*Sterna antillarum browni*), and Western snowy plover (*Charadrius alexandrinus nivosus*) habitat will be performed only during the non-nesting season between September 1 and January 31 to avoid potential impacts to these species.

Work within Giant garter snake (*Thamnophis gigas*) in water habitat will be only performed between May 1 and October 1 to avoid potential impacts to this species.

Work within Delta smelt (*Hypomesus transpacificus*) in water habitat will be only performed between August 1 and November 30 to avoid potential impacts to this species.

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

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

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

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.

The District will avoid use of equipment in waterways, streams, ponds, and lakes as much as possible.

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

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

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

New concrete will not be placed or poured on-site in a location that may contact any natural waterbodies.

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

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

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.

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

When necessary to avoid and minimize disturbance and maintain down stream flow, water will be temporarily diverted around the work area using sand bag coffer-dams, hoses, and pumps.

The following practices will be used when performing work on natural stream crossings (fords):

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

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

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

Natural crossings (that require less intensive maintenance), through the use of culverts, will be preferred and used where feasible.

The following practices will be used when removing and replacing culverts:

Whenever feasible the District will replace old metal-galvanized culverts with modern plastic culverts. This will minimize the need for follow up maintenance and stream disturbance.

Whenever feasible the District will install replacement culverts large enough to accommodate anticipated 25-year frequency storms events. This will minimize the need for follow up maintenance and stream disturbance.

Replacement of culverts will be installed at the existing grade to maintain natural stream gradient and minimize under cutting and erosion.

Whenever feasible the District will remove culverts to restore and enhance the natural stream corridor and riparian vegetation.

Whenever feasible the District will remove culverts and replace them with clear-span bridges or armored articulated fords. This will re-establish typical stream flow and reduce erosion.

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

The following practices will be used to stabilize banks and prevent or control erosion:

Whenever feasible the District will use bio-engineering such as planting riparian woody vegetation, willow waddles and mattresses, log crib-walls, log and stump deflectors, or vortex weirs to stabilize banks and reduce erosion.

Where appropriate jute netting, whole grown, or other erosion control fabrics will be used to provide protection until adequate plant growth can provide permanent protection.

Where appropriate broadcast and/or hydro-seeding (native mix) and planting of willow, maple, alder, and other native riparian woody vegetation will be utilized to stabilize banks and prevent erosion.

The following practices will be used for routine maintenance dredging of ponds and lakes:

When feasible, the work will be performed in dry conditions and above water level. Otherwise, floating open water turbidity curtains will be used to contain sediment.

Other erosion, sediment and turbidity control measures and procedures may be implemented to contain sediments, minimize siltation, and prevent downstream turbidity.

Whenever feasible, dredging will be done with an excavator from top of bank.

All removed dredged sediments will be disposed of in the appropriate upland location(s).

Removal of riparian vegetation shall be minimized during dredging operations.

The following practices will be used for pond restoration and enhancement:

General pond restoration dredging will occur during dry site conditions.

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.

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

Proposed restoration and enhancement:

While conducting routine maintenance, the District is incorporating an adaptive management strategy to improve existing conditions. Overall, implementing the above BMPs reduce adverse affects to our parklands and nearby waterbodies. The District will also include restoration and enhancement of existing ponds, streams and other waterbodies to address or off-set any potential temporary impacts associated with our routine maintenance of existing facilities. Restoration and enhancement will include but not be limited to:

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

In addition, the District has identified seventeen wetland restoration sites to compensate for any potential temporary, permanent, and cumulative impacts associated with our routine maintenance projects for the next five years. The proposed wetland restoration and enhancement sites were selected to insure the high likelihood of success, within existing wetlands, ponds, or streams or expanding hydrologically functioning waterbodies. The District has calculated the total area (i.e. linear feet, square feet, acres) for each routine project determined to potentially have a temporary or permanent impact (see attached impact assessment). In addition, the total area of each enhancement and restoration project will be similarly calculated and directly applied at a 1:1 ratio to compensate for any permanent and cumulative impacts associated with a routine project. Consequently, for the duration of the five-year permit, the District will create, restore, and/or enhance lentic water, lotic water, and

inter-tidal emergent wetland habitats (see Proposed Regional General Permit Compensatory Restoration Projects). 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, permanent, and cumulative impacts associated with our routine maintenance projects. Any unused restoration credits that accrue can be used for future routine maintenance projects determined to have impacts. It is also important to recognize that although some may have temporary or permanent impacts, most of our routine maintenance projects are 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). Overall, this proposal represents a “self-mitigating” plan for habitat enhancement.