DRAFT – CHANNEL MAINTENANCE ACTIVITIES WHICH POSE MINIMAL THREAT TO WATER QUALITY AND BENEFICIAL USES

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OPERATIONAL PERMITS COMMITTEE (OPC)

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2006

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PREAMBLE

This draft memorandum outlines the types of channel maintenance activities that typically have minimal impact on water quality and wetlands or riparian habitat when appropriate "Best Management Practices" (BMPs) are applied. These channel maintenance activities are grouped into five categories: 1) sediment and debris removal, 2) vegetation management, 3) maintenance of structures, 4) bank stabilization, and 5) temporary water diversions. With implementation of appropriate BMPs, and pursuant to the conditions specified below, these activities typically would not require compensatory habitat mitigation, and accordingly, should require minimal direct oversight by Regional Board staff. Channel maintenance activities will only be considered minimal threat where there is no permanent loss or significant temporal loss of wetland or riparian habitat in terms of acreage, function, and value. A significant temporal loss or impact is defined as one that causes substantial or potentially substantial adverse change in the quantity and/or quality of the wetland or riparian habitat at the project site. This is consistent with the California Environmental Quality Act (CEQA) definition of significance and requires professional judgment. Professional judgment is guided by best available science and by State and federal wetlands and water quality protection policy and guidance.

The California Water Code provides for issuance of general waste discharge requirements for categories of activities where the following criteria apply to the discharges in that category:

1. The discharges are produced by the same or similar operations.
2. The discharges involve the same or similar types of waste.
3. The discharges require the same or similar treatment standards.
4. The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.

Regional Board staff intends to develop general waste discharge requirements and water quality certification for Board consideration to regulate the incidental discharges of sediment and other pollutants, and the unavoidable temporal impacts to wetlands and riparian habitat resulting from the minimal threat channel maintenance activities discussed herein. Only the major Bay Area flood control districts which have adequately trained their maintenance crews and project designers would be eligible for coverage under such general waste discharge requirements. At present, these types of channel maintenance activities are typically regulated by the Board through individual project specific water quality certifications or waste discharge requirements. The general waste discharge requirements will be consistent with the conditions of current California Department of Fish and Game Streambed Alteration Agreements and Memorandums

of Understanding issued for these activities. Such general waste discharge requirements would require the implementation of appropriate BMPs and implementation of a monitoring and reporting program designed to evaluate BMP effectiveness. The BASMAA Operational Permits Committee has developed a BMP guidance document applicable to these channel maintenance activities. Implementation of effective BMPs is necessary to minimize impacts to water quality and riparian habitat. The San Francisco Bay Regional Water Quality Control Board will act as lead agency under the California Environmental Quality Act (CEQA).

GENERAL CONDITIONS (applicable to all activities)

1) Appropriate BMPs shall be incorporated into each project to minimize the resuspension and discharge of sediments and other pollutants downstream.

2) Sediment and debris removed from a channel must be handled, stored and disposed of in accordance with applicable regulatory requirements (e.g., dredge material should never be temporarily stockpiled without adequate containment, and there should be no discharge of sediment laden water from storage impoundments in violation of applicable water quality standards).

3) Existing stream and riparian habitat such as pools, riffles and wetlands shall be protected to the maximum extent. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. The channel and banks shall be stabilized as necessary through use of appropriate post-construction BMPs, including the successful reestablishment of native vegetation as appropriate, to enhance fish and wildlife habitat values, and to prevent and control erosion and sedimentation.

4) Appropriate post-construction BMPs shall be implemented to prevent channel erosion or destabilization.

5) A California Department of Fish and Game (CDFG) Stream Bed Alteration Agreement or routine maintenance MOU shall be obtained prior to the initiation of any construction activities in the channel, unless: 1) the project proponent has an equivalent agreement with CDFG, or 2) CDFG has determined that a Stream Bed Alteration Agreement is not required for the project.

6) Decant water (nuisance water) that results from excavation shall be pumped from the project area using appropriate BMPs to prevent turbidity levels in the receiving water that exceed San Francisco Bay Basin Plan water quality objectives.

PROHIBITIONS (applicable to all activities)

1) There shall be no permanent loss or significant temporal loss of wetland or riparian habitat in terms of acreage, function, or value.

2) Endangered, threatened, rare, and candidate species habitat shall not be adversely impacted by maintenance activities.

3) No heavy equipment shall be operated in stream channels where there is flowing or standing water.

4) 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.

5) There shall be no significant tree or shrub removal except as necessary to maintain channel stability or where applicable, design capacity. There shall be no permanent channel alteration resulting from channel maintenance activities.

6) No materials deleterious to fish or wildlife shall be permitted to enter waters of the State.

7) Activities shall not result in any permanent barriers to upstream or downstream migration of anadromous fish.

8) Activities shall not result in greater than minimal impacts to water quality standards as described in the San Francisco Bay Basin Plan.

I. SEDIMENT AND DEBRIS REMOVAL ACTIVITIES

A. Removal of sediment and debris from a lined concrete channel for the purpose of maintaining the channel's design flow.

Activity Specific Conditions

1) This activity is limited to 3000 linear feet of a watercourse, once per year. (Note: 3000 linear feet is the distance commonly specified by CDFG in sediment removal routine maintenance MOUs for major Bay Area flood control districts)

B. Removal of sediment and debris from engineered in-channel siltation basins.

Activity Specific Conditions

2) This activity is limited to basins less than 2 acres.

C. Removal of debris from a natural channel

II. VEGETATION MANAGEMENT

A. Cutting and removing vegetation above the ground by hand or low impact mechanical means which does not result in incidental fill of waters. Such vegetation control methods include: a) Hand removal or pruning of aquatic and terrestrial woody vegetation by use of loppers, hand saws, chainsaws, weed eaters and other tools; and, b) Repeat disturbance by mowing, or mulching of woody vegetation.

Activity Specific Conditions

1) This activity shall neither substantially disturb vegetation root systems nor involve mechanized pushing, dragging, or similar activities that redeposit excavated soil material.

2) This activity does not include the use of dozers, loaders, excavators and other heavy tracked or rubber tired equipment other than those identified as appropriate in the BASMAA Channel Maintenance BMP Manual "BMP Manual."

3) Vegetation management and debris removal activities shall minimize disturbance of the channel banks and bottom, and shall not result in erosion or additional sedimentation of the channel.

4) Where feasible, vegetation management should consist of pruning trees and shrubs to remove lower brushy growth and encourage higher canopy development.

5) In engineered channels, vegetation management shall not exceed that necessary to accommodate the design flows.

6) Vegetation management shall be conducted to meet the objective of flood capacity while maximizing the shade, erosion control, water quality, and habitat functions of the vegetation.

B. Selective removal of vegetation in accordance with a vegetation management plan developed specifically for that water body or channel reach, and designed to optimize the habitat value of appropriate vegetation cover types unless channel is subject to implementation of Corps Operations and Maintenance (O&M) manual.

Activity Specific Conditions

1) Site-specific vegetation management plans and/or habitat conservation plans should clearly specify maintenance activities that will facilitate or preserve a targeted vegetation cover type or a succession of cover types over time.

C. Creek or riparian enhancement projects, including eradication of exotic species, enhancement of fish and wildlife habitat values and routine maintenance of riparian enhancement projects such as pruning, replanting, new planting.

Activity Specific Conditions

1) Bare soils shall be re-vegetated with appropriate California native species and protected using appropriate erosion control methods, to the maximum extent possible, following removal of invasive or exotic species.

2) Planting pallets shall consist of watershed specific and appropriate California native species.

III. MAINTENANCE, REPAIR, REHABILITATION & REPLACEMENT OF STRUCTURES

A. Maintenance, repair or rehabilitation of flood control structures such as weirs or gates, including tidegates, diversion structures, trash racks, stream gauge structures, fish ladders, fish screens, grade control structures, energy dissipaters, utility line crossings, bridge structures, culverts, outfalls, and stormdrain or pump station inlet/outlet structures. Work not to exceed 100 lineal feet upstream or downstream of said structure.

Activity Specific Conditions

1) Maintenance activities shall be conducted in coordination with the California Department of Fish and Game and/or National Marine Fisheries Service, as appropriate, in accordance with approved maintenance schedules.

2) Maintenance activities shall not result in an increase in the facility footprint.

3) During culvert maintenance operations, where there is evidence that a culvert outfall or other structure is causing channel erosion or having other destabilizing effects on a salmonid bearing channel, a corrective action plan shall be developed and implemented to remediate the situation. The activities in the Correction action plan are not covered by this minimal threats document.

B. In-kind replacement of weirs or gates, including tidegates, trash racks, stream gauge structures, energy dissipaters, utility lines, diversion structures, culverts, outfalls and replacement of stormdrain or pump station inlet/outlet structures of the same dimension, or with minor deviations in dimension, configuration or alignment.

Activity Specific Conditions

1) Replacement is limited to currently serviceable structures. Replacement of structures so degraded as to essentially require reconstruction does not constitute a minimum threat activity addressed in this document.

2) Where there is evidence that a structure is causing channel erosion or having other destabilizing effects on a salmonid bearing channel, a corrective action plan shall be developed and implemented to remediate the situation. The activities in the Correction action plan are not covered by this minimal threats document.

3) Minor deviations in the structure's configuration or filled area including those due to changes in materials, construction techniques, or current construction codes or safety standards which are necessary for replacement are allowed provided the adverse impacts resulting from such replacement are minimal.

C. Replacement of culvert with arched culvert or clear-span bridge in accordance with NMFS guidelines.

1) Arched culvert must have an earthen bottom. Arched culverts involving buried bottoms are not included under this activity.

2) Concrete must be allowed to cure prior to being exposed to channel flow for a sufficient period of time to eliminate adverse impacts.

D. Bridge Replacement

1) Consistent with US Army Corps NWP 14 conditions *(?and Condition 14.f?) Insert actual language of NWP 14, part f.*

2) Replacement activities shall have a minimal impact on riparian and aquatic habitat.

E. Maintenance, repair, or in-kind replacement of piers and pilings, including the existing footings

Activity Specific Conditions

1) Replacement piers and pilings shall not be treated with creosote. Replacement piers and pilings must be constructed with or treated with materials approved by CDFG.

F. Maintenance or repair of engineered silt basins, debris basins, groundwater recharge basins, flood attenuation basins and retention basins. This includes basins constructed of earth sides and bottoms, and basins lined with hard lining materials.

Activity Specific Conditions

1) The discharge of sediment or other pollutants downstream shall be minimized.

G. Removal of debris, sediment and other obstructions to flow upstream and downstream of structures including streamflow measuring stations, culverts, outfalls, bridges, diversion structures, energy dissipaters, trash racks, utility lines, silt basins, dams, access ramps, bridges, and weirs and gates, including tidegates.

Activity Specific Conditions

1) The area of activity shall be appropriately marked so as to minimize disturbance to surrounding sensitive areas.

2) Woody material (such as live leaning trees, dead trees, tree trunks, large limbs, and stumps) will be retained unless impacting or threatening to impact a structure or a structure's ability to function properly, or impedes channel design flows or reasonable access.

IV. BANK STABILIZATION ACTIVITIES

A. Repair or replacement of bank stabilization structures with in-kind structures or materials, or with less hardened alternatives (i.e., replacement of rip-rap with in-kind rip-rap, or with vegetated rip-rap, vegetated earthen banks or biotechnical alternatives such as wooden crib walls).

B. New stabilization of channel banks where the failing banks are composed of earthen materials and the stabilization activity is designed to restore and enhance the habitat values of the project area using biotechnical stabilization techniques.

Activity Specific Conditions for Bank Stabilization

1) The length of the bank stabilization activities shall not exceed 500 feet. (Note: This is consistent with current Corps NWP 13 length limitation).

2) The activity is part of a single and complete project (e.g., implementing contiguous projects in series exceeding 500 feet in length is not acceptable).

3) The use of grouted rip-rap, sackrete, concrete, concrete blocks and mattresses, gabions, and gunnite shall be prohibited for new construction.

C. Installation of hardscape structure for earthen bank failures that directly threaten facilities.

1) An analysis of the failure and justification that softer forms of repair are not feasible from an engineering /public safety standpoint.

2) Native riparian vegetation is incorporated into the design where channel design standards allow.

V. TEMPORARY WATER DIVERSIONS AND ACCESS

A. Temporary water diversions using appropriate dewatering structures (such as cofferdams) or temporary access roads or structures associated with other channel maintenance activities.

Activity Specific Conditions for Temporary Water Diversions

1) The channel shall be restored as near as possible to its original configuration after the work is complete, unless the overall project includes realignment or configuration of the channel to provide increased stability and habitat values and functions.

2) Passage for anadromous fish shall be maintained at all times in streams where they are known to occur in accordance with NMFS guidelines for dewatering. http://swr.nmfs.noaa.gov/hcd/fishscrn.htm.

MONITORING REQUIREMENTS

Monitoring and documenting the implementation of these minimal impact activities is necessary to: 1) demonstrate that impacts associated with these conditioned activities are minimal; 2) verify that appropriate BMPs are being implemented by the maintenance crews; and 3) confirm that implemented BMPs are effective at minimizing impacts and provide feedback to enable refinement of the BMPs and project designs.

REPORTING REQUIREMENTS

Annual, post-project reporting will be required as part of the permitting requirements of the activities outlined in this memorandum. Reporting requirements will vary for the different types of activities based upon an activity's potential to impact water quality or riparian habitat. For example, descriptions of the specific BMPs implemented along with photo documentation may be required for certain bank stabilization, sediment removal, or culvert replacement activities, while activities posing a lesser threat to beneficial uses, such as maintenance of structures, might only need to be identified.