California Regional Water Quality Control Board
North Coast Region

ORDER NO. R1-2009-0049
WASTE DISCHARGE REQUIREMENTS

AND

401 WATER QUALITY CERTIFICATION

FOR

SONOMA COUNTY WATER AGENCY
STREAM MAINTENANCE PROGRAM
WDID NO.1B09026WNSO

Sonoma County

APPLICANT:	Sonoma County Water Agency
RECEIVING WATER:	Multiple Streams and Waterbodies
HYDROLOGIC AREA:	Russian River Hydrologic Area No. 114.00, Bodega Hydrologic Area No. 115.00, and Gualala River Hydrologic Area No. 113.80
COUNTY:	Sonoma County
FILE NAME:	Sonoma County Water Agency Stream Maintenance Program

The California Regional Water Quality Control Board, North Coast Region (hereinafter the Regional Water Board), finds that:

1. The Sonoma County Water Agency (Applicant) has applied to the California Regional Water Quality Control Board, North Coast Region (Regional Water Board) for approval to conduct routine stream maintenance activities, including sediment management, vegetation management, bank stabilization, and a group of minor activities in streams within its maintenance jurisdiction. Routine maintenance activities are anticipated, expected, and consistent annual activities, in different locations, that provide flood protection and maintain channel conveyance capacity while enhancing natural resources and recreational opportunities. The portions of the Russian River, Bodega Bay, and Gualala River located within Sonoma County, are in the jurisdiction of the North Coast Regional Water Board. The San Pablo Bay Basin draining portions of Sonoma County (including the Petaluma River and Sonoma Creek watersheds) are located within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board. A separate application is being developed for the San Francisco Bay Regional Water Quality Control Board for stream maintenance activities conducted in their jurisdiction. Therefore all descriptions, findings and provisions in this Order apply only to the Russian River Basin, Bodega Bay, and Gualala River portions of Sonoma County within the jurisdiction of the Regional Water Board.

2. The Applicant developed a Stream Maintenance Program (SMP) Manual[1] dated January, 2009 which describes program activities, impact avoidance measures, best management practices (BMPs), program mitigation, program oversight and management, and program-area resources, including a characterization of channels. The SMP Manual is one of the major guiding documents within their overall Stream Maintenance Program (SMP). As lead agency, the Applicant also completed the Stream Maintenance Program Draft Environmental Impact Report (EIR)[1] dated January 2009, for compliance with the California Environmental Quality Act (CEQA), which disclosed potential significant adverse environmental impacts and identified mitigation measures to reduce any potential significant adverse environmental impacts to levels of insignificance.

3. The Santa Clara Valley Water District, in Santa Clara County, implements a stream maintenance program similar to the one proposed by the Applicant. In 2002, the San Francisco Bay and Central Coast Regional Water Quality Control Boards issued Orders R2-2002-0028 and R3-2002-0008, respectively, to the Santa Clara Valley Water District for authorization of routine stream maintenance activities. This program and the corresponding regulatory authorizations informed the development of the Applicant's stream maintenance program and this Order. Both stream maintenance programs seek to streamline permitting for routine stream maintenance activities while reducing environmental impacts and enhancing beneficial uses. The Applicant's SMP Manual and this Order were developed for the specific channel conditions, resource conditions, and maintenance needs of the Sonoma County Program Area.

4. In 2006, the Applicant began working with state and federal regulatory agencies to develop a stream maintenance program that could be implemented and permitted for up to ten years by other agencies, and for five years for the respective Regional Water Boards, with the possibility of a streamlined renewal process for an additional five years. Staff from the Regional Water Board provided guidance on program development, including: designing effective routine maintenance techniques; considering potential impacts to beneficial uses; identifying impact avoidance and minimization methods; developing a multi-objective mitigation program; and clearly articulating the reporting and oversight responsibilities of the program. The development of the SMP occurred concurrently with ongoing interim stream maintenance permitting for the three years 2006-2008. During that period, 46 projects were reviewed and permitted by the Regional Water Board. The 3-year interim permitting period was used to refine the programmatic approaches of the SMP as summarized in the SMP Manual, memorialized in the permits for the 2006-2008 period, and used as the basis for this Order.

5. The Applicant applied to the U.S. Army Corps of Engineers for a ten-year individual permit under Section 404 of the Clean Water Act (33 U.S.C. § 1344). On February

[1] All noted documents are hereby incorporated into this Order by reference, and will be found at: http://www.scwa.ca.gov/projects/#SMP

27, 2009, the Applicant filed an application for Water Quality Certification and/or Waste Discharge Requirements (Dredge/Fill) with the California Regional Water Quality Control Board, North Coast Region (Regional Water Board). For the purposes of this Order, the SMP is a ten-year program, with a major review/renewal at the end of each five-year period of implementation.

6. The Regional Water Board provided public notice of the application and posted information describing the SMP on the Regional Water Board's website. No public comments were received.

7. This Order supersedes and replaces the previous Waste Discharge Requirements Order 81-73, issued to the Applicant.

Stream Maintenance Program Description, Impacts, and Mitigation

8. The Applicant's SMP is composed of three primary maintenance activities: sediment removal, vegetation management, and bank stabilization. These primary maintenance activities occur mainly in engineered flood control channels, but may also occur in other engineered structures, sediment basins, natural watercourses, or other facilities within the Applicant's jurisdiction on an as-needed basis. In addition to the primary maintenance activities, the SMP also includes other smaller maintenance activities such as: road maintenance for accessibility and drainage; debris and trash removal; application of herbicides to top-of-bank access roads via truck-mounted sprayers and to willow stumps by hand-painting, and for Himalayan blackberry removal; removing sediment around reservoir inlet structures; repairing fences along the channels; and removing or covering graffiti. The SMP also includes the transport and disposal of removed sediment and vegetation. Only the routine maintenance activities that have the potential to discharge fill to waters of the U.S. or discharge "waste" to waters of the State are covered by this Order.

9. Sediment removal from channels owned by the Applicant, or easements maintained by them, occurs when sediment accumulates and significantly reduces the capacity of the channel or prevents facilities or appurtenant structures from functioning as designed to control flood waters. The number of sediment removal projects undertaken annually and the quantity of sediment removed in a given year depend on past weather and hydrologic conditions, as well as the frequency and extent of past maintenance activities. There are three general types of sediment removal projects: (1) reach-scale projects where sediment is removed from a reach, typically 1,000 to 3,000 linear feet; (2) intermediate-scale sediment removal projects, which are typically 500 to 750 linear feet and involve shaping of in-channel features to remove sediment, reduce flow deflection, and enhance channel habitat; and (3) smaller localized sediment removal projects, involving typically 100 to 200 linear feet where sediment is removed from individual crossings, culverts, or other in-channel facilities.

10. Vegetation management refers to maintaining, trimming, mowing, and removal of vegetation that constricts flows within the flood control channels and other

constructed facilities. Vegetation management activities are conducted to maintain flow conveyance capacity, establish a canopy of native riparian trees and native understory plants, and control invasive vegetation. Vegetation management and removal activities are relatively consistent from year to year, though locations change depending on recent growth and blockages. Vegetation management also includes planting of new trees and shrubs in engineered channels and application of approved herbicides. Applicant's vegetation management activities are covered by this Order, as these activities may have impacts to waters of the State. The Applicant will follow the Vegetation Management Plan section included in the SMP Manual.

11. Bank stabilization involves the repair and stabilization of stream or reservoir banks when a weakened, unstable, or failing bank: causes or threatens damage to an adjacent property; generates erosion which 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. These activities occur in engineered channels and other facilities, including culvert outlets along stream banks or banks around reservoirs. Bank stabilization techniques defined in the SMP utilize bioengineering techniques to the maximum extent possible, and reduce the practice of bank hardening.

12. The following activities are not included in the SMP and therefore not covered in this Order: maintenance activities on the main stems of the Russian River and Dry Creek; maintenance activities on streams where no maintenance agreement with the Applicant exists; capital improvement projects; and emergency activities and procedures. A situation is considered an "emergency" if it is a sudden, unexpected occurrence involving a clear and imminent danger that demands immediate action to prevent or mitigate loss of or damage to life, health, property, or essential public services. (California Public Resources Code Section 21060.3) Routine stream maintenance does not include projects that would alter the designed flood conveyance capacity of a channel.

13. Maintenance activities that involve ground disturbance activities occurring in the channel below top-of-bank (including sediment removal, bank stabilization, and some vegetation management) must take place during the low-flow or dry season, which will be considered between June 15 and October 31, unless an exception is provided. Exceptions may be made for emergencies or on a project-by-project basis with advance approval of federal and state regulatory agencies as appropriate. Non ground-disturbing work (vegetation thinning/pruning) may be conducted in the channel zone, but outside the low-flow channel, during periods in addition to the low-flow or dry season. Vegetation management, such as pruning and the removal of select non-native invasive plant species, such as those noted within the Vegetation Management Plan section of the SMP Manual, and other work (such as maintaining channel access roads for drainage and accessibility, maintaining function of drop-inlet culverts, maintaining culverts from sediment or vegetative blockages, and, repairing fences), along either side of access roads, including the upper portion of stream banks where access is from the service road,

may be done at any time, provided there is no discharge of waste that may have an adverse impact to water quality or beneficial uses. Planting of riparian vegetation may be done at any time. Debris removal *immediately* necessary to prevent flooding may be done at any time.

14. For most sediment removal projects, excavators are used from the top-of-bank. For projects where use of excavators from the top-of-bank is not possible, or would cause major vegetation impacts, sediment removal equipment is used within the channel. For larger equipment, this requires the construction of temporary access ramps. 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. 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). If repair activities affect the active channel, the work area will be isolated from flowing stream segments using silt fences, wattles, and/or cofferdams and restored to pre-project conditions after maintenance is complete.

15. The SMP includes an inventory and assessment of each stream reach in the program area that describes water quality, geomorphic, habitat, and species conditions. Conditions for each stream reach, including engineered sections, other engineered structures, sediment basins, natural watercourses, or other facilities within the Applicant's jurisdiction are characterized in the SMP Manual and updated during the program period to reflect changes and progress in achieving the goals of the SMP. Understanding stream resources, their locations, and interactions is fundamental to the SMP's approach to avoid, minimize, and mitigate environmental impacts of routine maintenance activities. With input from the Regional Water Board and other regulatory agencies, the Applicant developed these channel characterizations to provide enough detail and photo documentation to support the review and approval of annual maintenance projects.

16. The SMP includes planning guidelines or principles to determine how, where, and when routine maintenance activities should occur. These principles are used in the development of each year's maintenance workplan, prior to any work. When applied, 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. The SMP will implement adaptive management, and may be updated to include these solutions and changes beneficial to water quality.

17. The SMP has been crafted to minimize detrimental impacts to beneficial uses. The SMP proposes activities that, when compared with past practices, should result in long-term beneficial effects on riparian and aquatic habitat for a suite of fish and wildlife species. Strategic sediment reduction activities, such as stabilization of

slide-prone areas and improved land use practices conducted in upper watersheds and along reaches currently delivering sediment, will reduce the amount of sediment delivered to maintained streams. These benefits will be realized through the reduction of maintenance over time, the reduction in need to conduct reach-scale sediment removal in creeks, the removal of migratory barriers or impediments, and the creation of more natural stream channels and stream corridors. When considered collectively, the beneficial effects achieved through implementation of the SMP will help build a healthier and more functional stream network and watershed within the flood control constraints implemented by SCWA. Through naturalization effects of the improved maintenance activities, the SMP should result in the existing channels that SCWA maintains providing more ecological functions and values than originally designed and constructed.

18. Impacts on Beneficial Uses from SMP activities that cannot be entirely avoided through pre-maintenance planning will be mitigated through implementation of the mitigation measures and best management practices described within Chapter 8 and throughout the SMP Manual.

19. A discharge of wastewater (also called effluent) into the channel, stream or groundwater could result from the handling and placement of removed sediment at a temporary stockpile site (if used). Any wastewater discharged during placement and temporary storage is referred to as “decant water.” This Order regulates decant water.

20. This Order is conditioned upon payment of any fees required under 23 CCR and owed by the Applicant.

Regulatory Framework

21. The Regional Water Board, in January of 2007, adopted a revised Basin Plan in accordance with Section 13244 et seq. of the California Water Code. The State Water Resources Control Board and the Office of Administrative Law approved this revised Basin Plan in 2007. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. This Order is in compliance with the Basin Plan.

22. The Water Quality Control Plan for the North Coast Basin (Basin Plan) lists the following existing and potential beneficial uses for surfaces waters within the geographic scope of the SMP:

    a. Agricultural Supply (AGR)
    b. Municipal and Domestic Supply (MUN)
    c. Industrial Service Supply (IND)
    d. Industrial Process Supply (PRO)
    e. Groundwater Recharge (GWR)
    f. Freshwater Replenishment (FRSH)
    g. Navigation (NAV)

h. Hydropower Generation (POW)
i. Water Contact Recreation (REC-1)
j. Non-contact Water Recreation (REC-2)
k. Commercial and Sport Fishing (COMM)
l. Aquaculture (AQUA)
m. Warm Freshwater Habitat (WARM)
n. Cold Freshwater Habitat (COLD)
o. Wildlife Habitat (WILD)
p. Estuarine Habitat (EST)
q. Marine Habitat (MAR)
r. Rare, Threatened, or Endangered Species (RARE)
s. Migration of Aquatic Organisms (MIGR)
t. Spawning, Reproduction, and/or Early Development (SPWN)
u. Shellfish Harvesting (SHELL)
v. Water Quality Enhancement (WQE)
w. Flood Peak Attenuation/Flood Water Storage (FLD)
x. Wetland Habitat (WET)

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

a. Groundwater Recharge (GWR)
b. Water Contact Recreation (REC-1)
c. Non-contact Water Recreation (REC-2)
d. Commercial and Sport Fishing (COMM)
e. Warm Freshwater Habitat (WARM)
f. Cold Freshwater Habitat (COLD)
g. Wildlife Habitat (WILD)
h. Estuarine Habitat (EST)
i. Marine Habitat (MAR)
j. Rare, Threatened, or Endangered Species (RARE)
k. Migration of Aquatic Organisms (MIGR)
l. Spawning, Reproduction, and/or Early Development (SPWN)
m. Water Quality Enhancement (WQE)
n. Flood Peak Attenuation/Flood Water Storage (FLD)
o. Wetland Habitat (WET)

23. CEQA requires that before any agency gives its discretionary approval for a project, it must review the project's potential to cause any foreseeable direct or indirect significant impacts on the environment, and mitigate the impacts of any potentially significant impacts to levels of insignificance, where possible. On June 16, 2009, the Applicant certified the Final EIR, and the Regional Water Board, using its independent judgment, considered this Final EIR. Changes or alterations have been required in, or incorporated into, the SMP that avoid or lessen significant adverse environmental effects to levels of insignificance, as identified in the Final EIR. This Order requires the implementation of mitigation measures to mitigate or avoid any potential impacts to water quality, and the monitoring and

reports required by this Order and the SMP will serve as a mitigation monitoring plan to ensure all mitigation requirements are met. The Regional Water Board will file a Notice of Determination within 5 days of adoption of this Order.

24. Pursuant to Title 23, California Code of Regulations sections 3857, 3859 the Regional Water Board is issuing Waste Discharge Requirements and Water Quality Certification for the SMP.

25. The Regional Water Board has notified the Applicant and interested parties of its intent to issue Waste Discharge Requirements and Water Quality Certification for the SMP.

26. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that, the Regional Water Board certifies that the Stream Maintenance Program described herein will comply with Sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law, provided that Applicant complies with the following terms and conditions:

A. Discharge Prohibitions

1. The direct and indirect discharge of waste, as described in Section 13050(d) of the California Water Code, outside of the active project site, to waters of the State, are prohibited, unless otherwise specifically approved.

2. Excavated sediment shall remain within designated disposal areas at all times. The designated disposal areas are: (a) an off-site, temporary or permanent location maintained in compliance with federal and state regulations, (b) any on-site, 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.

3. Maintenance activities subject to these requirements shall not cause a nuisance as defined in Section 13050(m) of the California Water Code.

4. The discharge of runoff, sediment, or decant water from the excavated materials from any on-site temporary sediment stockpile or storage areas to waters of the State, including surface waters or surface water drainage courses, outside of the active project site is prohibited. Discharge of decant water or sediment from the permanent disposal site to waters of the State is prohibited.

5. Groundwater beneficial uses shall not be degraded as a result of the SMP.

6. The discharge of soil, silt, bark, slash, sawdust, or other organic and earthen material from any activity of whatever nature into any stream or watercourse in quantities deleterious to fish, wildlife, or other beneficial uses is prohibited.

7. The placing or disposal of soil, silt, bark, slash, sawdust, or other organic and earthen material from any activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities which could be deleterious to fish, wildlife, or other beneficial uses is prohibited.

B. Effluent Limitations

1. All discharges to waters of the State shall not exceed the water quality objectives stated in the Basin Plan.

C. Receiving Water Limitations

1. In implementing the SMP, the Applicant shall not cause exceedance of water quality objectives in receiving waters such that beneficial uses are impaired or degraded, including:

   a. Alteration of color that causes nuisance or adversely affects beneficial uses more than 100 feet from the point of discharge of diverted flow.
   b. Visible floating, suspended, settleable, or oil and grease, or other materials that causes nuisance or otherwise adversely affect beneficial uses more than 100 feet from the point of discharge of diverted flow.
   c. Waters shall not contain biostimulatory substances in concentration that promote aquatic growth to the extent that such growth cause nuisance or adversely affect beneficial uses.
   d. Suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
   e. Turbidity shall not be increased more than 20 percent above naturally occurring background levels more than 100 feet from the point of discharge of diverted flow.
   f. The pH shall not be depressed below 6.5 nor raised above 8.5 more than 100 feet from the point of discharge of diverted flow.
   g. 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.
   h. Dissolved Oxygen, with the following beneficial use designations, shall not be reduced below the following minimums, more than 100 feet from the point of discharge of diverted flow:

o WARM, MAR, or SAL	5.0 mg/l
o COLD	6.0 mg/l
o SPWN	7.0 mg/l
o SPWN during critical spawning and egg incubation periods	9.0 mg/l

D. Provisions

Sediment Management

1. The Applicant shall implement and comply with the Sediment Sampling and Analysis Guidelines for the Stream Maintenance Program section Vegetation Management Plan section of the SMP Manual during the entirety of the SMP.

2. The Applicant 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. Discharge of runoff, sediment, or decant water from the excavated materials, at the temporary off-site disposal site to waters of the State, is prohibited.

3. Sediment removed as part of maintenance activities must be properly characterized through laboratory analytical testing, as described in the Sediment Sampling and Analysis Guidelines section of the SMP Manual and be hauled off-site to suitable upland disposal sites, to the Sonoma County Central Landfill, or another approved location. Proposed disposal locations will be submitted by Applicant within each Annual Notification of Proposed Projects package and shall be reviewed by Regional Water Board staff, and approved by signature of the Executive Officer.

4. The Applicant must have equipment and supplies on-site (or readily available nearby) that could be quickly deployed to provide additional filtration if turbidity is observed.

5. 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). If repair activities affect the active channel, the work area will be isolated from flowing stream segments using silt fences, wattles, and/or cofferdams and restored to pre-project conditions after maintenance is complete.

6. 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.

7. The Applicant shall remove and relocate any wastes that are discharged in violation of this Order.

8. The Applicant 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.

9. The Applicant shall demonstrate compliance with all permitting and CEQA review requirements for off-site sediment disposal sites proposed for the SMP and for any alternative off-site sediment disposal sites. If requested by the Executive Officer, a delineation of existing jurisdictional waters of the State and United States at any temporary or permanent sediment disposal site, verified according to U.S. Army Corps of Engineers delineation standards, shall be conducted prior to the preparation for disposal and submitted for the Executive Officer's acceptance prior to the disposal of sediment.

Vegetation Management

10. The Applicant shall select and apply herbicides according to the product label directions and uses approved by the United States Environmental Protection Agency and the California Department of Pesticide Regulation, and per applicable provisions of this Order.

11. All vegetation management activities that could result in the runoff of pesticides that are not registered for aquatic use into waters of the State are prohibited.

12. Vegetation management activities that could result in the destabilization of stream banks or increase sediment input into waters of the State are prohibited.

13. The Applicant shall follow the vegetation removal and management guidelines described in the Vegetation Management Plan section of the SMP Manual.

14. Vegetation management activities shall not adversely impact the riparian zone, shade, canopy coverage, or habitat. Overall impacts of vegetation management activities shall improve beneficial uses.

Bank Stabilization

15. The Applicant shall use the bank stabilization methods described within the SMP Manual. Changes to the 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.

Minor Activities

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

Best Management Practices

17. The Applicant shall implement and comply with the BMPs contained within the SMP Manual and additional BMPs included in the Final EIR, during the entirety of the SMP. Proposed changes to the BMPs shall be submitted for Executive Officer approval.

18. The Applicant shall implement BMPs to prevent pollutants from draining or being washed into waters of the State, including the discharge of pollutants from temporary sediment stockpile sites and during transport of removed sediment, during application of herbicides, from vegetation cuttings, and from other maintenance-related materials. BMPs for erosion, sediment and turbidity control shall be implemented and in place at commencement of, during and after any ground clearing activities, construction activities, or any other SMP activities that could result in erosion or sediment discharges to surface water.

19. The Applicant shall divert any flow at the site around the active maintenance site in a non-erosive manner using a pipe, or other BMP measure such that the flow does not flow across the active maintenance site.

20. The Applicant shall halt work activities if dead or dying fish (fish, amphibian or other aquatic organism) or fish exhibiting stress are observed within 1,000 feet of work activity or discharge. The Applicant shall immediately assign a qualified biologist to investigate the cause of the problem and define an acceptable corrective action plan, if the cause is related to SMP activities. The Applicant shall immediately report all incidents involving dead or dying fish or fish exhibiting stress, as well as prescribed action plans to the Regional Water Board and the California Department of Fish and Game.

Compensatory Mitigation

21. The Applicant shall implement the Mitigation Monitoring and Reporting Program included in the SMP Manual and within the Final EIR. Any substantive changes to this program must be approved in writing by the Executive Officer.

22. The Applicant shall implement on-site (Tier 1) mitigation that provides in-kind replacement of ecological functions and values affected by sediment removal and bank stabilization projects at a ratio of 1:1. On-site, in-kind mitigation may include planting of riparian trees, understory shrubs, or aquatic plants; removal of exotic and invasive species and corresponding riparian planting mitigation; construction of low-flow channels and other geomorphic features to enhance instream habitat and hydrologic function; and removal of migration barriers. Additionally, if on-site in-kind mitigation is not possible at the work site area, then off-site, in-kind (Tier 2) mitigation will be implemented, at a ratio of 1:1, at a location within the Program area that would benefit from this type of mitigation.

23. To account for the temporary loss of beneficial uses during the time delay between when potential impacts from any SMP activities occur and when the on-site (Tier 1) or off-site (Tier 2) mitigation will occur as described in Paragraph D22 of this Order, above, the Applicant shall implement off-site mitigation (Tier 3 - Watershed Partnership Program). Off-site temporal impact mitigation will be funded by Applicant, based on providing mitigation funding of 10% of the implementation costs for sediment removal and bank stabilization projects. This funding will be applied to off-site mitigation projects as described in the SMP Manual. In general, off-site mitigation opportunities may include projects at other SCWA reaches, or at other suitable watershed project locations (Tier 3) described in Paragraph D24 of this Order, below. Off-site mitigation used to account for the temporary loss of beneficial uses will occur at least a ratio of 0.1:1 of acres restored/enhanced compared to acres impacted.

24. Tier 3 watershed mitigation projects may include such activities as headwater area erosion control, revegetation of riparian corridors, invasive plant removal, or other stream restoration practices. Watershed-based mitigation shall provide restorative and mitigating watershed solutions by partnering with local non-profit agencies, municipalities, restoration organizations, creek groups, schools, and Resource Conservation Districts. Applicant is developing a Low Impact Development (LID) manual. There may be post-construction stormwater treatment/LID projects that would provide improvements to water quality, and which may be considered as Tier 3 mitigation projects. This additional mitigation option will be given consideration by the Executive Officer after Applicant's LID manual is completed.

25. The Applicant shall submit proposed mitigation sites (Tiers 1, 2, and 3, if applicable) to the Executive Officer for consideration as part of annual notification reporting. As necessary, the Applicant shall demonstrate compliance with permitting and CEQA review requirements for proposed mitigation sites and for alternative mitigation proposals. In the event that permitting for a proposed mitigation site is denied, or a site is rescinded for any reason, an alternative mitigation proposal that provides comparable levels of mitigation shall be submitted to the Executive Officer for concurrence no later than 90 days following denial or rescission. The Applicant shall implement those alternative mitigation proposals that the Executive Officer has concurred with, upon receiving all necessary approvals.

26. The Applicant shall mitigate for impacts to water quality and beneficial uses from its vegetation management activities. Mitigation shall be by revegetation with native vegetation, and other methods, as described in the Vegetation Management Plan section of the SMP Manual.

Monitoring and Reporting

27. The Applicant shall submit annual reports according to the SMP Manual Annual Report Outlines.

28. For each sediment removal project, the Applicant shall characterize the sediment and summarize all sediment sampling analyses, and submit a report, including all laboratory analysis reports, to Regional Water Board Staff at least fifteen days prior to proposed sediment removal activities.

29. Annual Notification Reports, including the Annual Notification of Proposed Projects for that year's proposed projects shall be submitted by April 30 of each year. The Regional Water Board Executive Officer will confirm the Annual Notification of Proposed Projects for that year's projects and provide a notice to proceed, or indicate needed modifications to the notification, within 45 days (by June 15). If no response is received by June 15 (or within 45 days of receiving the Annual Notification of Proposed Projects if it was received after April 30), the Applicant shall assume that the workplan was reviewed and approved and is able to proceed with the planned maintenance work.

30. The following activities are exempt from annual notification requirements and may occur any time at the discretion of the Applicant: maintenance of existing access roads located along the top-of-bank where there will be no impact on waters of the State; maintenance of V-ditches along existing service 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

31. Before June 15 of each year, the Applicant shall organize a meeting and field tour with the agencies listed in Paragraph D44 of this Order, below, to discuss the projects scheduled for that year.

32. Annual post-maintenance reports, including the sediment sampling and mitigation monitoring reports shall be submitted no later than January 15 of the following year.

33. The Applicant shall notify involved agencies and stakeholders/interested persons annually of proposed modifications to BMPs, and monitoring and reporting components of the SMP, which are subject to review and the written approval of the Executive Officer. Notifications should provide information that changes will occur and provide them an opportunity to request information for review.

34. After each maintenance season, the Applicant and the Regional Water Board staff shall meet to discuss the performance of SMP components, review lessons learned from the completed construction season, and to determine the need to incorporate improved stream maintenance techniques and BMPs into the SMP. All improvements and modifications shall be incorporated into the SMP upon written approval of the Executive Officer, or this Order may be re-opened and amended by the Regional Water Board, if the modifications are considered

significant by the Executive Officer.

35. After five years of SMP implementation, the Applicant and Regional Water Board, along with other regulatory agencies, will review the SMP to evaluate its overall effectiveness, and the Regional Water Board will consider reissuing the 401 Water Quality Certification for an additional five (5) years to allow continuation of SMP implementation for another five (5) years. The review will include an assessment of maintenance activities conducted to date, best management practices, adequacy of the SMP mitigation program, SMP data management, adaptive updates and revisions of the SMP, and overall program coordination and communication between the Applicant and regulatory agencies. The SMP, the water quality certification and the WDRs, may be revised or updated based on this review and with the written approval of the Executive Officer. Although the Executive Officer has been delegated the authority to issue water quality certifications, the Executive Officer cannot issue waste discharge requirements, and if significant changes are proposed to the Waste Discharge Requirements, those would need to go before the Regional Water Board for approval. Significant program changes that may cause new or additional significant adverse environmental impacts that have not been previously considered within the Final EIR for the SMP will require additional CEQA review.

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

    a) Annual Notification of Proposed Projects,
    b) Post-Maintenance Report, including GIS data of work areas and corresponding mitigation areas,
    c) Sediment Sampling Report, and,
    d) Any other Self-monitoring Reports required or deemed necessary.

37. The SMP Manual includes procedures and outlines for reporting on the activities performed under the SMP for the current projects. These sections are included in Appendix F of the SMP Manual, Annual Report Outlines and include: *Outline for Annual Notification Report*, *Outline for Annual Post-Maintenance Summary Report*, and *Outline for Sediment Sampling Report*. These outlines describe the contents and protocols for all annual reports submitted to the Executive Officer as part of the SMP. The contents of the Annual Reports Outlines sections may be revised with the written approval of the Executive Officer.

38. The SMP Manual includes the section Sediment Sampling and Analysis Guidelines. The purpose of this section is to provide requirements for sampling, analysis, and characterization of removed sediment as part of SMP activities. Sediment disposal options are based on the chemical quality of the sediment removed. Sediment disposal locations and site specific disposal criteria will be submitted within each Annual Notification of Proposed Projects package. These documents may be amended with the written approval of the Executive Officer .

Fees

39. This Order combines Waste Discharge Requirements and Clean Water Act Section 401 Water Quality Certification provisions. The annual fee shall reflect this, and consist of the following:

    - The fee amount for the Waste Discharge Requirements portion 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 be rated as 3C, and shall remain at this level throughout the period of this Order. After the initial year, this portion of the fee will be billed annually to the Applicant and shall be paid separately from the Clean Water Act Section 401 Water Quality Certification portion. The fee payment shall indicate the Order number, WDID number, and the applicable season.

    - The fee amount for the Clean Water Act Section 401 Water Quality Certification portion shall be in accordance with the current dredge and fill fee schedule, per California Code of Regulations, Division 3, Chapter 9, Article 1, section 2200(a)(3), based on the maintenance projects proposed/completed within each reporting period. This portion of the fee shall accompany each notification report. The fee payment shall indicate the Order number, WDID number, and the applicable season. If all of the projects are not completed during that annual cycle, the fee for those remaining projects shall be applicable to when the project is completed, or if a specific project is not undertaken, that fee amount may be applied to another future project. Fees only apply to ground-disturbing projects (primarily sediment removal and bank stabilization projects). Activities listed in Paragraph D30 of this Order, above, as not requiring notification in the Annual Notification Reports are also exempt from the fee requirement.

Records Provisions

40. The Applicant will maintain a data management system to monitor stream maintenance activities, natural resources in the program area, permitting requirements, and mitigation efforts. Data shall be provided at request of Regional Water Board staff.

41. Applicant shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least five (5) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time.

General Provisions

42. The following activities are not included in the SMP and therefore not covered in this Order: maintenance activities on the main stems of the Russian River and Dry Creek; maintenance activities on streams where no maintenance agreement with the Applicant exists; capital improvement projects; and emergency activities and procedures.

43. The Applicant shall comply with all the Prohibitions, Effluent and Receiving Water Limitations, and Provisions of this Order immediately upon adoption of this Order or as provided in this Order.

44. The Applicant shall comply with all necessary approvals and/or permits for the SMP and its mitigation projects from applicable government agencies, including, but not limited to, North Coast Regional Water Quality Control Board, California Department of Fish and Game, United States Army Corps of Engineers, United States Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration - National Marine Fisheries Service, and submit copies of such approvals and/or permits to the Regional Water Board's Executive Officer prior to SMP implementation.
45. The Applicant shall implement the SMP in accordance with the conditions described in the SMP Manual and the findings herein, and shall comply with all applicable water quality standards.

46. Any change to the SMP operation 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.

47. SMP activities occurring within the channel below the ordinary high water mark shall only occur from June 15th to October 31st or the first significant rainfall after October 15th, whichever occurs first (significant rainfall is defined as 0.5 inch of rain in a 24 hour period). Once significant rainfall occurs, or by October 31st, all diversion structures shall be removed and all project sites shall be winterized to prevent erosion. No new instream sediment removal or bank stabilization work shall start after October 15th of any year, but work already underway will have until October 31st to be completed. Disturbed soil related to SMP activities shall be stabilized and winterized no later than October 31st, or by the first significant rainfall after October 15th, whichever comes first. All necessary BMPs for winterization shall be available to be implemented by October 1st. Required planting shall be performed no later than the fall/winter planting season in the year following project installation.

48. If, at any time, an unauthorized discharge to surface water (including wetlands, rivers or streams) occurs, or any water quality problem arises, the associated SMP activities shall cease immediately until adequate BMPs are implemented. The Regional Water Board shall be notified promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises.

49. Applicant shall incorporate and implement Low Impact Development (LID) principals and techniques to the extent practicable. SMP activities and LID implementation shall be coordinated with Applicant's development of their LID manual and its implementation. LID techniques that may be applicable and beneficial to the SMP may include installation /retrofitting of stormwater/flood control basins to reduce peak flood flow hydromodification impacts, and implementation of stormwater treatment BMPs to reduce impacts of sediment and contaminants to maintained waters, and other appropriate activities.

50. Applicant shall coordinate development of their Flood Control Design Criteria (FCDC) guidelines/manual to comply with principals within the SMP.

51. All mitigation activities shall be completed as proposed in the Mitigation Monitoring and Reporting Program and the SMP Manual.

52. This water quality certification and issuance of WDRs is 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.

53. 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.

54. The Russian River and some of its tributaries, including the Laguna de Santa Rosa, along with the Gualala River, Estero Americano, Lake Sonoma, and Stemple Creek/Estero de San Antonio, are identified as impaired on the Clean Water Act Section 303(d) list. These water bodies are listed as impaired for various constituents, including sediment/siltation, temperature, nutrients, low dissolved oxygen, pathogens, and mercury. At present, some of these water bodies have had total maximum daily loads (TMDLs) established, while others have not. If implementation plans are adopted for these water bodies prior to the expiration of this Order, the Regional Water Board may revise the provisions of this Order to address activities identified in such action plans.

55. 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.

56. Except as may be modified by any preceding conditions, all certification actions are contingent on: a) the discharge being limited and all proposed mitigation

being completed in strict compliance with the Applicant's SMP Manual, the Final EIR, and this Order, and b) compliance with all applicable Water Quality Requirements, including the Basin Plan.

57. The Applicant shall maintain a copy of this Order, and all relevant plans and BMPs at SMP work sites so as to be available at all times to site operating personnel.

58. The Applicant shall correct any and all problems that arise from a SMP maintenance activity failure, including a failure to meet the conditions of this Order that results in an unauthorized release of waste or wastewater.

59. The Applicant shall permit the Regional Water Board 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.

60. 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 holder of any federal permit or license subject to this Order 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.

61. The Applicant shall comply with the Monitoring and Reporting Program and any modifications to these documents as specified by the Executive Officer. Such documents are attached to this Order and incorporated herein.

62. This Order is not transferable. In the event of any change in control of ownership of land presently owned or controlled by the Applicant, the Applicant shall notify

the successor-in-interest of the existence of this Order by letter and shall forward a copy of the letter to the Regional Water Board. The successor-in-interest must send to the Regional Water Board Executive Officer a written request for transfer of this Order to discharge dredged or fill material under this Order. The request must contain the following:

a) requesting entity's full legal name.
b) the state of incorporation, if a corporation.
c) address and phone number of contact person.
d) description of any changes to the Project or confirmation that the successor-in-interest intends to implement the Project as described in this Order.

63. The authorization of this Order for any 401 Water Quality Certification dredge and fill activities expires on July 23, 2014, with the option for a five year renewal by approval of the Executive Officer. The Waste Discharge Requirements portion of this Order expires on July 23, 2019. Mitigation and monitoring requirements that extend beyond the term of the WDRs outlined in this Order are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

I, Catherine Kuhlman, 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, North Coast Region, on July 23, 2009.

_____
Catherine Kuhlman
Executive Officer

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