California Regional Water Quality Control Board
North Coast Region
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Secretary for Environmental Protection

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Edmund G. Brown Jr.
Governor

August 26, 2011

In the Matter of

Water Quality Certification

For

Manuel and Carol Diaz
Bank Stabilization, Riparian Revegetation Project
WDID No. 1B11087WNSO

APPLICANT:	Manuel and Carol Diaz
RECEIVING WATER:	Russian River
HYDROLOGIC AREA:	Geyserville Hydrologic Subarea No. 114.25, Russian River Hydrologic Area 114.00
COUNTY:	Sonoma County
FILE NAME:	Manuel and Carol Diaz Bank Stabilization, Riparian Revegetation Project

BY THE EXECUTIVE OFFICER:

1. On June 6, 2011, the North Coast Regional Water Quality Control Board (Regional Water Board) received an application from Mr. Evan Engber, of BioEngineering Associates, on behalf of Manuel and Carol Diaz (applicant), requesting Federal Clean Water Act, Section 401, Water Quality Certification (certification) for activities associated with the Manuel and Carol Diaz Bank Stabilization, Riparian Revegetation Project (project). The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on July 6, 2011, and posted information describing the Project on the Regional Water Board's website. No comments were received. The project will cause disturbances to approximately 0.18 acres, 260 linear feet, of waters of the United States and waters of the State.

2. The project site is located on the left (east) bank of the Russian River, 26607 River Road, Cloverdale, Sonoma County, California (APN 117-080-005), latitude 38.76950°N, longitude 122.97845°W.

3. The primary purpose of the project is to replace the lost riparian vegetation, enhance fish habitat, and eliminate the severe and ongoing erosion of the bank along 260 linear feet of the river bank.

4. The project employs the use of bioengineering techniques to stabilize the bank. The project consists of the construction of a combination of deflection and absorption structures as described below:

   - Three live willow brushes will be installed at the upstream end of the project, each 8-10 feet long, perpendicular to the bank, with approximately 10 feet space in-between;

   - Adjacent and downstream of the three live willow brushes will be a vegetated boulder wing deflector. This structure will be 20 feet in width and extend from the top of the bluff, 25 feet out to just past where existing undercut willows are growing on the bank. This structure will act to slow the velocity along the eroding willow bank section. It will incorporate the already fallen willows and additional willow branches to create a stable structure that will protect the bank and create a high quality instream fish habitat;

   - The central section is a 175 foot long arc of bare bank with a three-foot high scarp at its back. The bank will be revegetated to capture fine sediments from high flows and prevent further bank sediment erosion. This will be achieved by reshaping the bank at a 2.5:1 slope and installing a 175 foot long by 65 foot wide (maximum) live willow brush mattress. This consists of four-foot long live willow stakes driven into the entire surface on three foot centers as tie down attachments. A three foot wide by three foot deep by 175 foot long toe trench will be installed at the bottom of the slope. Live willow cuttings 12-18 foot in length will be placed perpendicular to the bank with the butt ends extending into the toe trench. The toe trench will be keyed into the water table so that the willow branches will be in contact with water to ensure successful rooting. After the willow branches have been placed in the toe trench, 1.5-3 ton rock will be gently laid on top of them to hold them in place while they become well-rooted. The willow branches will be laid on the slope and held by long willow branches laid horizontally and secured with sisal twine to the tie-down stakes. A further layer of branches will be laid upslope, with a minimum two-foot overlap. A thin layer of gravel will be placed on top of the willow mattress to reduce the sun's drying effect on the live material and evaporation of ground moisture will the willow

takes root. This gravel will be skimmed from the opposing gravel bar witch is on the landowner's property. The amount of gravel will be less than 200 cubic yards. All willow will be harvested from locally adapted species within the watershed at the rate of harvest not to exceed 1 cut for every 3 standing;

- The downstream-most structure consists of a second vegetated boulder wing deflector, 57 feet long and extending 35 feet out from the bank top. This will wrap around the point of the bank and connect the existing bank vegetation with a downed cottonwood tree and the downstream end of the live willow mattress. This deflector will also incorporate sprigs of willow into the structure, ensuring capture of fine sediments during floods.

5. The project will reduce sediment delivery, stabilize the bank, increase shade and habitat, and reduce temperature; thus, no compensatory mitigation is required.

6. Non-compensatory mitigation measures include the use of Best Management Practices (BMPs) to be employed during construction to minimize sediment production and prevent the movement of loose soil off-site. All erosion control measures will be installed and in place by October 15, or during non-construction periods as necessary, and maintained thereafter by the contractor/Applicant. All disturbed soil will be revegetated with native species or seeded with native grasses. If vegetation cannot be reestablished before expected rainfall, mulching, erosion control fabric, or other sediment control measures will be implemented to prevent delivery of sediment to the river. All equipment will be maintained in good working order and spill kits will be on hand during construction. Equipment shall not be staged, or fueled, near waters of the State. Additionally, all required BMPs shall be on-site and ready for timely deployment before the start of construction activities.

7. The Applicant has applied to the California Department of Fish and Game for a Lake and Streambed Alteration Agreement (No. 1600-2011-0199-R3).

8. The applicant has applied for authorization from the U.S. Army Corps of Engineers (File No. 2011-00205) to perform the project pursuant to Clean Water Act, section 404, under NWP-13, Bank Stabilization.

9. On August 1, 2011, The Sotoyome Resource Conservation District submitted a Negative Declaration to the State Clearinghouse (No. 2011082003) for the project pursuant to CEQA guidelines. The Regional Water Board has reviewed and considered the environmental document and any proposed changes incorporated into the project are required as a condition of approval to avoid significant effects to the environment.

Because the Project involves construction that may adversely affect waters of the State, the Regional Water Board has regulatory jurisdiction under Water Code Section 13269.

Receiving Water:	Russian River; Geyserville Hydrologic Subarea No. 114.25, Russian River Hydrologic Area 114.00.
Filled or Excavated Area:	Permanent impacts to 0.18 acres, 260 linear feet, of stream bank
Latitude/Longitude:	38.76950°N, 122.97845°W

Accordingly, based on its independent review of the record, the Regional Water Board certifies that the Manuel and Carol Diaz Bank Stabilization, Riparian Revegetation Project (WDID No. 1B11087WNSO), as described in the application, will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law, provided that the Applicant complies with the following terms and conditions:

1. This certification action is subject to modification or revocation upon administrative or judicial review; including review and amendment pursuant to Water Code section 13330 and title 23, California Code of Regulations, section 3867.

2. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 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.

3. This certification is conditioned upon total payment of any fee required under title 23, California Code of Regulations, section 2200, and owed by the Applicant.

4. The Russian River is identified as impaired on the Clean Water Act Section 303(d) list. The Russian River is listed as impaired for sediment and temperature. At present, total maximum daily loads (TMDLs) have not been established for this water body. If TMDLs are established and implementation plans are adopted for this watershed prior to the expiration date of this Order, the Regional Water Board may revise the provisions of this Order to address actions identified in such action plans. Roads and bank erosion are identified as sources contributing to the sediment impairment. Removal of riparian vegetation is identified as a source contributing to temperature impairment. Actions authorized by this Order require

implementation of Best Management Practices (BMPs) for sediment control and planting of more riparian zone shade vegetation at and near the project site. Accordingly, this Order is consistent with, and implements BMPs that would attenuate sediment and temperature adverse impacts.

5. Pursuant to Regional Water Board Resolution R1-2004-0087, Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters within the North Coast Region (Sediment TMDL Implementation Policy), the Executive Officer is directed to "rely on the use of all available authorities, including existing regulatory standards, and permitting and enforcement tools to more effectively and efficaciously pursue compliance with sediment-related standards by all dischargers of sediment waste."

6. The federal antidegradation policy requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. This Order is consistent with applicable federal and State antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater.

7. Applicant shall prioritize use of wildlife-friendly 100% biodegradable erosion control products/BMPs wherever feasible. For purposes of this Order, photodegradable synthetic products are not considered biodegradable. Applicant shall not use or allow the use of erosion control products, that contain synthetic (e.g., plastic or nylon) netting or materials for permanent erosion control (i.e., erosion control materials to be left in place for two years or after the completion date of the project). If the Applicant finds that erosion control netting or products have entrapped or harmed wildlife, the Applicant shall remove the netting or product and replace it with wildlife-friendly biodegradable products. The Applicant shall not use or allow the use of soil stabilization products that contain synthetic materials within waters of the United States or waters of the State at any time. Applicant shall remove any remaining synthetic netting or materials remaining at the end of two years, or sooner.

8. All disturbed or constructed areas of the bank that result in bare soil, will be mulched and seeded with a native grass and wildflower mixture, and planted with native trees and shrubs. Existing mature trees will be protected in place,

younger/smaller willow and cottonwood will either be transplanted further back from the edge or integrated as live material into the bank restoration design. Further mitigation measures will include removal of *Arundo donax* and Armenian blackberry from the project area, as necessary.

9. Work within the wetted channel will be isolated from the river by use of a continuous silt curtain that floats from the surface and is attached within the river bottom.

10. U.S. Army Core of Engineers has requested consultation with the National Oceanic and Atmospheric Administration National Marine Fisheries Service. The applicant shall implement recommendations resulting from the consultation.

11. Work in the stream channel shall be confined to the low flow season, between June 15 and October 15, and is expected to take approximately four weeks. Work period may be extended by permission of the Executive Officer.

12. Revegetation/restoration will be implemented at and above top-of-bank , at all equipment access areas, and at any disturbed areas at each restoration site. As outlined in the Diaz Bank Stabilization and Riparian Revegetation Project; Revegetation Plan (07/28/2011), *Baccharis pilularis* (Coyote Brush), *Pinus sabiniana* (Gray Pine), and a variety of *Salix sp*. (native willow species) harvested locally, will be planted along 200 linear feet of bank, from within the wetted channel, up the river bank, and include top of bank (from top of bank to 40 feet back from top of bank). Re-establishment of the riparian zone, and the stabilization of the bank, are the objectives.

13. To ensure a successful revegetation/stabilization effort, plantings shall be monitored and maintained (including irrigation if necessary) for five years. All plantings shall have a minimum of 85% success of thriving growth at the end of five years with a minimum of two consecutive years (2 growing seasons) of monitoring after the removal of irrigation. The Applicant is responsible for replacement planting, additional watering, weeding, invasive exotic plant eradication, or other practices to achieve these goals. Replacement plants shall be monitored with the same survival success for an additional five years from the year of installation. A thorough status report, including an evaluation of the bioengineering features performance and any related impacts, as well as the status of all of the plantings, shall be submitted to the Regional Water Board by December 31st of the each year. Photos shall be submitted with the report.

14. The Regional Water Board shall be notified prior to the commencement of ground disturbing activities, with details regarding the construction schedule, in order to

allow staff to be present onsite during construction, and to answer any public inquiries that may arise regarding the project.

15. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this Order, shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the State. When operations are completed, any excess material or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream.

16. BMPs for erosion, sediment and turbidity control shall be implemented and in place at commencement of, during and after any ground clearing activities or any other project activities that could result in erosion or sediment discharges to surface water.

17. A copy of this Order and the application documents submitted by the Applicant for this certification shall be provided to all contractors and subcontractors conducting the work, and shall be in their possession at the work site.

18. If, at any time, an unauthorized discharge to surface water (including wetlands, rivers or streams) occurs, or any water quality problem arises, the associated project 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.

19. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete the project.

20. Prior to implementing any change to the project that may have a significant or material effect on the findings, conclusions, or conditions of this Order, the Applicant shall obtain the written approval of the Regional Water Board Executive Officer.

21. All project work shall be conducted as described in this Order and in the application submitted by the Applicant. If the Regional Water Board is not notified of a significant alteration to the project, it will be considered a violation of this Order, and the Applicant may be subject to Regional Water Board enforcement actions.

22. 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 and approved pursuant to the Porter-Cologne Water Quality Control Act or Section 303 of the Clean Water Act.

23. The Applicant shall provide Regional Water Board staff access to the project site to document compliance with this certification.

24. In the event of any violation or threatened violation of the conditions of this certification, 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 certification. In response to a suspected violation of any condition of this certification, the Regional Water Board may require the holder of any federal permit or license subject to this certification 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 certification, the Regional Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

25. 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 at the above address.

    To discharge dredged or fill material under this Order, the successor-in-interest must send to the Regional Water Board Executive Officer a written request for transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, and the address and telephone number of the person(s) responsible for contact with the Regional Water Board. The request must also describe any changes to the project proposed by the successor-in-interest or confirm that the successor-in-interest intends to implement the project as described in this Order.

26. Except as may be modified by any preceding conditions, all certification actions are contingent on: a) the discharge being limited to and all proposed mitigation being completed in strict compliance with the Applicant's project description, and b) compliance with all applicable requirements of the Water Quality Control Plan for the North Coast Region (Basin Plan).

27. The authorization of this certification for any dredge and fill activities expires on August 26, 2016. Conditions and monitoring requirements outlined in this certification are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

If you have any questions or comments please call Stephen Bargsten at (707) 576-2653.

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Catherine Kuhlman
Executive Officer

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Web link: State Water Resources Control Board Order No. 2003-0017 -DWQ, General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification may be found at: **http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf**

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