
North Coast Regional Water Quality Control Board

May 14, 2014

In the Matter of
Water Quality Certification

For

**Sonoma County Water Agency
Russian River Estuary Management Project
WDID 1B10122WNSO**

APPLICANT: Grant Davis, Sonoma County Water Agency (SCWA)
RECEIVING WATER: Russian River
HYDROLOGIC UNIT: Russian River, Guerneville Hydrologic Subarea 114.11
COUNTY: Sonoma
FILE NAME: SCWA Russian River Estuary Breaching Project

BY THE EXECUTIVE OFFICER:

1. On November 29, 2010, David Cook of the Sonoma County Water Agency (SCWA, applicant) filed an application for water quality certification (certification) under section 401 of the Clean Water Act (33 U.S.C. § 1341) with the North Coast Regional Water Quality Control Board (Regional Water Board) for activities associated with the Russian River Estuary Management Project (project).
2. The Regional Water Board provided public notice of the application pursuant to Title 23, California Code of Regulations, Section 3858 on April 1, 2014, and posted information describing the project on the Regional Water Board's website. No comments were received.
3. The primary purposes of the project are to provide freshwater habitat for rearing salmonids, particularly steelhead, and to manage estuary water levels to minimize flood risk to low-lying riverfront properties. The project involves maintaining an open tidal

inlet to minimize flood risk in the Russian River Estuary by mechanically breaching the river mouth through the barrier beach during winter and maintaining a perched lagoon with an outlet channel during summer to improve habitat for rearing Pacific salmonids. SCWA will not actively close the lagoon.

4. The beach management area consists of 1,500 feet of barrier beach at the north end of Goat Rock State Beach. There are two methods proposed for forming a channel connecting the Russian River to the Pacific Ocean, both channel breaching excavation methods involve the use of heavy equipment (e.g., bulldozer, excavator) at the river mouth.
 - The first method, the Pilot Channel method, which has been the method used to date, is to excavate a relatively steep, narrow pilot channel directly through the barrier beach that naturally forms at the mouth of the Russian River and allow the river to rush out through the cut channel quickly and scour a deep channel from the river to the ocean. An average of 6 artificial breaching events occurred annually over the 14-year period from 1996-2010. The Pilot Channel method is tidally influenced and allows both tidal inflow to the river and discharge from the river, and is done to rapidly lower the water elevation of the freshwater lagoon and alleviate flood risk. A maximum of 1,000 cubic yards of sand would be excavated when implementing the Pilot Channel method and may occur up to 13 times per year. The Pilot Channel method may be implemented year-round for flood risk management, but is intended to be implemented primarily outside the lagoon management period (October 16 through May14).
 - The second method, the Lagoon Outlet Channel method, is a new method to be used in conjunction with the Pilot Channel method to excavate a stable, shallow, wide, relatively low velocity lagoon outlet channel on a diagonal path across the beach to the ocean that will minimize scour. The channel would be at an elevation high enough to minimize the inflow of saline ocean water to the freshwater lagoon. The target elevation is to be approximately 7 feet above sea level to allow the formation of a freshwater lagoon, but will be below the point of flooding adjacent properties upstream. A maximum of 2,000 cubic yards of sand may be excavated when implementing the Lagoon Outlet Channel method and may occur up to 18 times per year during the lagoon management period of May 15 through October 15.
5. The Lagoon Outlet Channel method is intended to comply with Reasonable and Prudent Alternative 2 mandated by the National Marine Fisheries Service's 2008 Biological Opinion, and 2009 consistency determination from the California Department of Fish and Wildlife, with the goal to preserve beach sands and maintain productive rearing habitat for Pacific salmonids listed as threatened or endangered. Physical and biological monitoring would be conducted within the action area to determine, among other things, water quality dynamics and effects to fish and wildlife. In addition, water

level management will reduce flood risk to low-lying residential properties built along the estuary.

6. Adaptive techniques including monitoring of the Lagoon Outlet Channel will be used to optimize estuary management activities during the management season and for the following year.
7. Water quality will be monitored during the lagoon management period (May 15-October 15) to evaluate potential changes to water quality and available habitat resulting from the management of the estuary. In the event of potentially dangerous water quality conditions, the applicant will consult with Regional Water Board staff and with staff of the National Marine Fisheries Service, the California Department of Fish and Wildlife, and California State Parks. Potentially dangerous conditions may include high bacterial levels, the presence of cyanobacteria, or other conditions that could affect human health.
8. A draft water quality monitoring plan was submitted on December 23, 2013, which includes datasonde deployment, nutrient/bacterial/algal sampling, and sediment chemistry and benthic community indices. Regional Water Board staff issued a letter to SCWA on April 1, 2014, detailing the Regional Water Board's requirements for a water quality monitoring plan. A final water quality monitoring and reporting plan (WQMRP) must be submitted to the Regional Water Board by July 15, 2014, for approval by the Executive Officer. The intent is that the monitoring plan would be implemented beginning August 1, 2014.
9. The proposed project may result in a maximum of 49,000 cubic yards of dredged/excavated beach sand per year. The project would impact waters of the United States and state associated with the Russian River within the Guerneville Hydrologic Subarea 114.11.
10. The Regional Water Board is issuing this 401 Water Quality Certification for a period of five years. Each year's beach management work will be reviewed annually before March 31, by the approving agencies, and amendment to the 401 Water Quality Certification may be made to incorporate any changes that may be necessary to implement Adaptive Management measures for improvements to water quality, including changes to the WQMRP. This review will also facilitate calculation of the annual fee payment, to be based on the actual volume of beach dredging performed (see Condition 3, below).
11. As the purpose of the project is to improve conditions and habitat for rearing Pacific salmonids, no compensatory mitigation is proposed. Excavation will be limited to sand repositioning on the barrier sandbar. No riparian vegetation will be impacted and no erosion control measures are warranted.

12. On September 8, 2011, the applicant received a final Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife. On February 26, 2014, the California Coastal Commission issued a Coastal Development Permit for the project. On April 1, 2014, the applicant received authorization from the United States Army Corps of Engineers under section 404 of the Clean Water Act for the project.
13. On August 16, 2011, SCWA approved an Environmental Impact Report (SCH 2010052024) for the project in order to comply with CEQA. The Regional Water Board has considered the environmental document, BMPs, and any proposed changes incorporated into the project or required as a condition of approval to avoid significant effects to the environment.
14. The Russian River is identified as impaired for sediment and temperature under Clean Water Act Section 303(d). 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 the requested certification, the Regional Water Board may revise the provisions of that certification to address actions identified in such action plans. Bank erosion is identified as a source contributing to the sediment impairment. Removal of riparian vegetation is identified as a source contributing to temperature impairment. Activities that will be authorized by this Order are designed to reduce removal of riparian vegetation and reduce sediment discharges from bank erosion. Accordingly, this Order is consistent with, and implements, BMPs that would attenuate sediment and temperature adverse impacts.
15. 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.”
16. 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 68-16, which incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific finding. 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, and does not otherwise authorize degradation of the waters affected by this project.

17. This discharge is also regulated under State Water Board Order 2003-0017-DWQ, *General Waste Discharge Requirements for Dredge and Fill Discharges that have Received State Water Quality Certification*, which requires compliance with all conditions of this water quality certification.

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf

Receiving Water: Russian River, Guerneville Hydrologic Subarea 114.11

Filled or Excavated Area: Up to 0.07 acres per event

Dredge Volume: Up to 49,000 cubic yards per year

Latitude/Longitude: 38.4513182°N/123.1295920°W

Accordingly, based on its independent review of the record, the Regional Water Board certifies that the Sonoma County Water Agency Russian River Estuary Management Project (WDID 1B10122WNSO), 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:

All conditions of this order apply to the applicant (and all their employees) and all contractors (and their employees), sub-contractors (and their employees), and any other entity or agency that performs activities or work on the project as related to this water quality certification.

1. If monitoring results identify potentially dangerous water quality conditions, the applicant will promptly consult with Regional Water Board staff in addition to staff from other agencies identified in the application, including the National Marine Fisheries Service, the California Department of Fish and Wildlife, and California State Parks, with the intent of examining possible resolution through management action. Potentially dangerous conditions may include, but are not limited to, high bacterial levels, the presence of cyanobacteria, or other conditions that could affect human health.
2. The mitigation measures detailed in the Environmental Impact Report (SCH 2010052024) are hereby incorporated by reference and are conditions of approval of this certification. Notwithstanding any more specific conditions in this certification, the applicant shall comply with all mitigation measures identified in the Environmental Impact Report that are within the Regional Water Board's jurisdiction.
3. The annual fee amount for this Clean Water Act Section 401 Water Quality Certification shall be in accordance with the current dredge and fill fee schedule, per Division 3, Chapter 9, Article 1, section 2200(a)(3) of title 23 of the California Code of Regulations,

based on the maximum dredge amount of 49,000 cubic yards proposed for the first year, and each year following. This fee shall be submitted prior to authorization of that year's management period and shall be approved by amendment to this Order by signature of the Executive Officer. The fee payment shall indicate the WDID number, and which season it is for. If the entire proposed beach dredging work for that year is not completed during that management season, the fee for the remaining amount of beach dredging for that year shall be applicable to the remaining management season(s), until the remaining amount of the fee is exhausted. In the case the remaining amount of the fee is exhausted within the five year term of this Order, the appropriate fee amount shall be paid at that point to be based on the actual volume of beach dredging performed, and/or proposed to be performed. There shall be no fee refunded to the Applicant if at the expiration of this Order there is any unapplied fee.

4. A draft water quality monitoring plan was submitted on December 23, 2013, which includes datasonde deployment, nutrient/bacterial/algal sampling, and sediment chemistry and benthic community indices. Regional Water Board staff issued a letter to SCWA on April 1, 2014, detailing the Regional Water Board's requirements for a water quality monitoring plan. A final water quality monitoring and reporting plan (WQMRP) must be submitted to the Regional Water Board by July 15, 2014, for approval by the Executive Officer. The WQMRP must include the following:
 - a. Datasonde deployment – Since the size of estuary pool will increase at times under the new estuary management, it is expected that there will be an increase in shallow over-bank habitat along the new shoreline. Diel water temperature, dissolved oxygen, and pH levels in these expanded littoral regions should be evaluated for impacts to the COLD beneficial use during target water surface elevations. Sampling will consist of vertical profiles in shallow water areas to characterize lagoon backwater areas.
 - b. Stage measurements – The river reach near Monte Rio is expected to be affected by the backwater effects under the new estuary management. An additional water level measurement station should be placed in this river reach to evaluate when backwater effect on water quality conditions at stations sampled in the reach.
 - c. Bacteria Sampling
 - i. Duncans Mills and Bridgehaven stations should be replaced with public beach access locations at Patterson Point Preserve and Vacation Beach.
 - ii. The monitoring plan should specify that the USEPA (2012) Beach Action Value for *E.coli* bacteria concentration (i.e., 235 MPN/100mL) will be used to determine if sampling should proceed the next day.
 - iii. Water samples should be diluted when higher concentrations of bacteria are expected so that the results are not censored.
 - iv. Assessment of the human-host *Bacteroides* bacteria levels should also be conducted to determine if the new estuary management increases a threat to public health from human sources. Quantifiable levels of

human-host *Bacteroides* bacteria indicate recently deposited human waste. The assessment should be conducted at the public recreation beaches (i.e., Monte Rio, Patterson Point Preserve, and Vacation Beach) during the lagoon management period when the estuary is closed and the beaches are inundated. The Sonoma County Public Health Laboratory (as well as other labs) has the capability to quantify human-host *Bacteroides* bacteria that indicate recently deposited human waste.

- a. Algal sampling – Since the size of estuary pool will increase at times under the new estuary management, it is expected that there will be an increase in shallow over-bank habitat along the new shoreline. The larger areas of shallow habitat will provide additional habitat substrate for periphytic algal mats. The spatial extent of these algal mats and the resulting impact under the new estuary management should be evaluated. In addition, an evaluation of possible cyanobacteria within the periphytic algal mats should be conducted, and if found, the possibility of cyanotoxins should be evaluated.
 - b. A Quality Assurance Project Plan (QAPP) needs to be submitted with the final WQMRP (i.e., EPA/240/B-01/003).
5. 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.
 6. 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.
 7. The validity of this certification is conditioned upon total payment of any fee required under title 23, California Code of Regulations, section 3833, and owed by the applicant.
 8. Regional Water Board staff shall be notified in writing at least five working days, when conditions allow, prior to the commencement of ground disturbing activities, or as soon as possible prior to or upon initiating 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.
 9. No debris, soil, silt, sand, bar, slash, sawdust, 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.

10. All activities and best management practices (BMPs) shall be implemented according to the submitted application and the conditions in this certification. 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.
11. In accordance with state and federal laws and regulations, the applicant is liable and responsible for the proper disposal for project-generated waste. When handling, transporting, and disposing of project-generated waste, the applicant and their contractors shall comply with all applicable state and federal laws and regulations. When disposing of project-generated waste offsite, the applicant and its contractors shall:
 - a. Make appropriate arrangements to dispose of the material, including, but not limited to, property owner agreements, permits, licenses, and environmental clearances;
 - b. Obtain satisfactory evidence that the work in 11.a has been completed; and
 - c. Obtain a dated, signed manifest from the disposal site owner, or authorized representative, that identifies the type and quantity of disposed waste.
12. The applicant shall prioritize the use of wildlife-friendly, biodegradable (not photo-degradable) erosion control products wherever feasible. The applicant shall not use or allow the use of erosion control products that contain synthetic materials within waters of the United States or waters of the state at any time. The applicant shall not use or allow the use of erosion control products that contain synthetic netting for permanent erosion control (i.e. erosion control materials to be left in place for two years or more after the completion date of the project). If the applicant finds that erosion control netting or products have entrapped or harmed wildlife, personnel shall remove the netting or product and replace it with wildlife-friendly biodegradable products. The applicant shall request approval from the Regional Water Board if an exception from this requirement is needed for a specific location.
13. Disturbance or removal of existing vegetation shall not exceed the minimum necessary to complete the project.
14. If, at any time, an unauthorized discharge to surface water (including wetlands, lakes, rivers, or streams) occurs, or any water quality problem arises, the associated project activities shall cease immediately until adequate BMPs are implemented including stopping work. 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.

15. Fueling, lubrication, maintenance, storage, and staging of vehicles and equipment shall not result in a discharge or threatened discharge to any waters of the state including dry portions of the shoreline. At no time shall the applicant or its contractors allow use of any vehicle or equipment that leaks any substance that may impact water quality.
16. 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. 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.
17. 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.
18. The applicant shall provide Regional Water Board staff access to the project site to document compliance with this certification.
19. 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 for the violation or threatened violation 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 certification, the State 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 State 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.
20. The applicant shall provide a copy of this Order and State Water Board Order 2003-0017-DWQ to any contractor(s), subcontractor(s), and utility company(ies) conducting work on the project, and shall require that copies remain in their possession at the work site. The applicant shall be responsible for ensuring that all work conducted by its contractor(s), subcontractor(s), and utility companies is performed in accordance with the information provided by the applicant to the Regional Water Board.

21. 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. 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).

22. 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).
23. The authorization of this certification for any dredge and fill activities expires on May 14, 2019. Conditions and monitoring requirements outlined in this Order 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 or Kaete King at (707) 576-2848.

Original signed by Fred Blatt for

Matthias St. John
Executive Officer

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 can be found at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf

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