



San Francisco Bay Regional Water Quality Control Board

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Suisun Resource Conservation District
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Suisun City, CA 94585
Attn: Mr. Steven Chappell, Executive Director
Email: schappell@suisunrcd.org

California Department of Fish and Wildlife
7329 Silverado Trail
Napa, CA 94558
Attn: Mr. Greg Martinelli
Email: greg.martinelli@wildlife.ca.gov

California Department of Water Resources
3500 Industrial Boulevard
West Sacramento, CA 95691
Attn: Mr. Cliff Feldheim
Email: cliff.feldheim@water.ca.gov

U.S. Bureau of Reclamation
801 I Street, Suite 140
Sacramento, CA 95814
Attn: Ms. Ann Stine
Email: astine@usbr.gov

Subject: Water Quality Certification for the Reissuance of Regional General Permit 3 for Suisun Marsh Managed Wetlands Operations and Maintenance, Suisun Marsh, Solano County

Dear Ladies and Gentlemen:

The Suisun Resource Conservation District (SRCD), California Department of Fish and Wildlife (CDFW), California Department of Water Resources (DWR), and U.S. Bureau of Reclamation (Reclamation) (Applicants) have applied to the San Francisco Bay Regional Water Quality Control Board (Water Board) for a Clean Water Act (CWA) section 401 Water Quality Certification (Certification) for the reissuance of Regional General Permit 3 (RGP 3) for Suisun Marsh Managed Wetlands Operations and Maintenance (Project). The Applicants have also applied to the U.S. Army Corps of Engineers (Corps), Regulatory Branch, for reissuance of RGP 3 pursuant to section 404 of the CWA (33 USC § 1344) and section 10 of the Rivers and Harbors Act (33 USC § 403).

DR. TERRY F. YOUNG, CHAIR | BRUCE H. WOLFE, EXECUTIVE OFFICER

1515 Clay St., Suite 1400, Oakland, CA 94612 | www.waterboards.ca.gov/sanfranciscobay

We received the Certification application (Application) on June 7, 2017. On January 8, 2018, we requested the application fee. We received the application fee on January 17, 2018.

Project Description: The Project is located within the primary and secondary management area of the Suisun Marsh, which is bounded by Interstate 680 to the west, Highway 12 to the north, Shiloh Road and Collinsville Road to the east, and Suisun Bay to the south. The purpose of the Project is to continue the maintenance of water control infrastructure, facilities, and levees in managed wetlands to protect and enhance existing managed wetland values, endangered species habitats, levee system integrity, and water quality in the Marsh. Maintenance activities will be conducted by landowners on private land and by SRCD, CDFW, and DWR on State-owned lands. In addition, Reclamation contributes funding to DWR to implement operations and maintenance of DWR facilities that mitigate the effects of the Central Valley and State Water projects, including the Roaring River Distribution System, the Morrow Island Distribution System, Goodyear Slough Outfall, salinity monitoring stations, the Suisun Marsh Salinity Control Gates, and other facilities or properties.

Maintenance activities are described in detail in the Application materials and in the Suisun Marsh Habitat Management, Preservation, and Restoration Plan. These maintenance activities include:

- Repairing existing interior and exterior levees;
- Grading pond bottoms for water circulation;
- Clearing existing interior ditches;
- Constructing new interior ditches;
- Creating pond bottom spreader v-ditches and swales;
- Repairing/replacing existing water control structures;
- Installing new water control structures;
- Replacing/relocating existing blinds or installing new blinds;
- Discing managed wetlands;
- Installing drain pumps and platforms;
- Replacing riprap on interior and exterior levees;
- Placing new riprap on interior and exterior levees;
- Installing, repairing, or re-installing water control bulkheads;
- Removing floating debris from pipes, trash racks, and other structures;
- Installing new fish screen facilities;
- Installing alternative bank protection;
- Installing temporary coffer dams in managed wetlands ditches during water control replacement;
- Repairing and maintaining salinity control gates;
- Cleaning, repairing, and maintaining the Roaring River Distribution System fish screen; and

- Installing, maintaining, repairing, replacing, relocating, and removing salinity monitoring stations.

Construction activities associated with implementation of tidal restoration are not authorized under RGP 3. However, the continued maintenance and interim operation of a managed wetland that is planned for future tidal restoration can be performed under RGP 3.

Impacts: The total amount of annual excavation and temporary fill for maintenance activities in managed wetlands will vary from year to year. However, RGP 3 imposes limits on the timing, types, and methods of allowed work and amounts of work. This Certification requires the Applicants to comply with the limits as expressed in the Application and RGP 3 and as conditioned herein. For example, RGP 3 imposes annual limits on the total volume of earthen material excavated throughout the Marsh for maintenance activities, such as the grading of pond bottoms, clearing of existing ditches, and creation of new ditches. RGP 3 also imposes annual limits on the placement of material (such as riprap) throughout the Marsh for maintenance activities.

In addition to the annual limits described above, RGP 3 imposes annual limits on the amount of material placed or work that can be done based on the size of each ownership. For example, the total volume of material that may be placed to repair exterior levees at a particular site is based on the total length of exterior levee at that site and limited to 1.5 cubic yards per linear foot of existing levee at the site.

The Suisun Marsh is listed as impaired by low dissolved oxygen (DO), organic enrichment, and mercury on the CWA section 303(d) list. Operations at managed wetlands, including duck clubs, have been identified as causing or contributing to lowered DO concentrations in receiving sloughs, thereby adversely affecting beneficial uses in the Suisun Marsh. Operations in managed wetlands often result in discharges of water with low DO (0-2 mg/L) and high methylmercury (MeHg) to tidal sloughs, primarily during the initial fall flood-up period. Past low DO events resulted in fish kills in tidal sloughs in the northwest Suisun Marsh, with Peytonia Slough, Boynton Slough, Goodyear Slough, lower Cordelia Slough, and the upper reaches of Suisun Slough exhibiting the most significant low DO problems.

Mitigation: Temporary and permanent impacts resulting from the ongoing operation and maintenance of public and private managed wetlands were previously mitigated for under the 2005 Suisun Marsh Mitigation Agreement (Agreement). The Agreement requires the Applicants to continue to preserve, manage, and maintain 2,500 acres of managed and tidal wetland habitats as conservation areas within the Marsh.

CDFW and SRCD staff prepared the *Conceptual Model for Managed Wetlands in Suisun Marsh* in 2007 that describes existing conditions and vegetation and water management best management practices (BMPs) to enhance waterfowl habitat in managed wetlands. The Applicants also participated in a study that evaluated the effectiveness of BMPs related to water management operations and soil and vegetation management practices. The final memorandum, *Strategies for Resolving Low Oxygen and Methylmercury Events in Northern Suisun Marsh* (May 2011), provides specific recommendations on BMPs to implement to improve water quality.

The Applicants continue to be engaged in the Water Quality Improvement Pilot Project funded by the U.S. Environmental Protection Agency (U.S. EPA), which deploys and tests appropriate BMPs. The Applicants are collaborating with Water Board staff to establish technically feasible

BMPs to attain water quality standards in the Marsh. This collaboration is expected to continue while the Water Board develops a Total Maximum Daily Load (TMDL) to address these water quality impairments.

To mitigate for potential impacts from low DO, this Certification requires the Applicants and private landowners to implement appropriate BMPs as discussed above to improve DO concentrations of managed wetland discharges and to avoid and minimize erosion, sedimentation, and pollutant transport to waters of the State. Since low DO and high organic content in the Marsh promotes mercury methylation, the Suisun Marsh TMDL proposes to address mercury impairment by ensuring that discharges from managed wetlands maintain DO at protective levels and, therefore, reduce the potential for conversion of mercury to toxic MeHg. As such, implementation of appropriate BMPs to improve DO concentrations in conjunction with monitoring is anticipated to address potential impacts from MeHg. Once the TMDL is completed and adopted, its implementation may result in additional requirements to improve water quality in the Suisun Marsh, and this Certification may be amended to reflect TMDL requirements.

Overall, the Project's activities will result in improved water quality and an environmental net benefit by improving water circulation and drainage patterns, reducing the volume of organic matter, increasing levee stability, preventing erosion at the toe of levees and ditch banks, and preserving and enhancing wildlife habitat within the Marsh.

California Environmental Quality Act (CEQA): CDFW, Reclamation, and U.S. Fish and Wildlife Service prepared the Suisun Marsh Habitat Management, Preservation, and Restoration Plan (SMP) Environmental Impact Statement/Environmental Impact Report (EIS/EIR) in November 2011. CDFW filed a Notice of Determination with the State Clearinghouse (SCH No. 2003112039) on December 22, 2011, certifying the EIS/EIR. The SMP provides a comprehensive 30-year plan for the management of activities within the Marsh and includes maintenance activities performed under RGP 3.

The Water Board, as a Responsible Agency under CEQA, has considered the EIS/EIR and finds that the Project's significant environmental effects that are within the Water Board's purview and jurisdiction have been identified and will be mitigated to less-than-significant levels. Specifically, significant impacts pertaining to wetland and aquatic habitat and water quality will be mitigated to less-than-significant levels through implementation of mitigation measures identified in the EIS/EIR and the mitigation identified above, all of which are required to be implemented and reported on by this Certification.

Certification: I hereby issue an order certifying that any discharge from the proposed Project will comply with the applicable provisions of CWA sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) and with other applicable requirements of State law. Any discharge of dredged or fill material is also considered to be a discharge to waters within the jurisdiction of this Water Board. Pursuant to Article 4 of Chapter 4, Division 7 of the California Water Code (Water Code) (Wat. Code § 13260 et seq.), the Water Board must issue waste discharge requirements for these discharges. Therefore, this Certification also enrolls the Project under 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" (General Order), which requires compliance with all conditions of this Certification. The only substantive requirement of the General Order is to comply with the limitations and monitoring requirements contained in this Certification. Fees paid to satisfy California Code of

Regulations (CCR), Title 23, section 3833(b) (fees associated with the Water Quality Certification) shall also be deemed to satisfy fees required by the General Order. The following conditions must be met to ensure the Project will comply with water quality standards, any applicable effluent limitation, limitation, standard of performance, prohibition, effluent standard, or pretreatment standard required pursuant to the CWA sections listed above and to ensure that the Project will comply with any other appropriate requirements:

1. The Project shall be constructed in conformance with the Project as described in the Application materials and abide by the conditions and limitations in RGP3. Any additional work or variation from the Project as described is not authorized unless approved in writing by the Water Board Executive Officer prior to implementation.
2. Disturbance or removal of vegetation shall be minimized. The site(s) shall be stabilized through incorporation of appropriate BMPs identified above in the Application materials and in the upcoming Suisun Marsh TMDL, including the successful reestablishment of native vegetation, to enhance wildlife habitat values and to prevent and control erosion and sedimentation.
3. No unauthorized construction-related materials or wastes shall be allowed to enter into or be placed where they may be washed by rainfall or runoff into waters of the State. When construction is completed, any excess material shall be removed from the work area and any areas adjacent to the work area where such material may be washed into waters of the State.
4. No equipment shall be operated in stream channels or other waters where there is flowing or standing water. No fueling, cleaning, or maintenance of vehicles or equipment shall take place within any areas where accidental discharge to waters of the State may occur.
5. The total amount of excavation and fill for maintenance activities shall not exceed the annual limits described in the Application materials and established in RGP 3. These include limits on the amount of material excavated or placed throughout the Marsh and limits on the amount of material excavated or placed based on the size of each ownership.
6. The Applicants shall implement water management and vegetation BMPs based on the (1) *Conceptual Model for Managed Wetlands in Suisun Marsh* (2007), (2) the *Strategies for Resolving Low Oxygen and Methylmercury Events in Northern Suisun Marsh* (2011), (3) the ongoing U.S. EPA Water Quality Improvement Pilot Project, and (4) the final adopted TMDL for dissolved oxygen and mercury in Suisun Marsh. In addition, the Goodyear Slough Outfall shall be cleaned prior to the fall discharge from the managed wetlands and as often as necessary throughout the year to maintain water circulation and attain water quality objectives for DO. The Applicants shall describe implemented actions and the effectiveness of BMPs in the annual monitoring report required by Condition 10.
7. No later than May 1 of each year, the Applicants shall submit a DO Monitoring Workplan acceptable to the Executive Officer. The DO Monitoring Workplan shall describe water management and vegetation BMPs that will be implemented to attain water quality objectives for DO, the locations of monitoring stations, include an implementation schedule, and incorporate Conditions 8 and 9 below. The DO Monitoring Workplan shall

be submitted via e-mail to RB2-401Reports@waterboards.ca.gov or by mail to the attention of 401 Certifications Reports at the Water Board (see the address on the letterhead). Any changes to the DO Monitoring Workplan shall be submitted, acceptable to the Executive Officer, two weeks prior to implementation.

8. Within the period of August through December of each year, the Applicants shall conduct continuous DO monitoring in the receiving sloughs to verify the effectiveness of BMPs and to demonstrate attainment of applicable water quality standards. Monitoring shall be conducted in Goodyear Slough and Boynton Slough and shall (1) be conducted for at least 90 days, and (2) include periods before, during, and after discharge from the managed wetlands. The Applicants shall notify the Water Board of the start date for DO monitoring via email to Agnes Farres at agnes.farres@waterboards.ca.gov and Barbara Baginska at barbara.baginska@waterboards.ca.gov.
9. Within the period of January through April of each year, the Applicants shall conduct continuous DO monitoring in Montezuma Slough or Nurse Slough, or Denverton Sloughs to demonstrate that DO conditions ensure the protection of listed juvenile salmonids. Monitoring shall be conducted for at least 90 days. The Applicants shall notify the Water Board of the start date for DO monitoring via email to Agnes Farres at agnes.farres@waterboards.ca.gov and Barbara Baginska at barbara.baginska@waterboards.ca.gov.
10. The Applicants shall submit an Annual Wetlands Maintenance Summary Report, acceptable to the Executive Officer, by January 31 following each monitoring year. These reports shall describe managed wetland maintenance activities performed as authorized under RGP 3 and include a summary table of the amount of material excavated or placed, the location of the work, and estimates of temporary and permanent impacts to wetlands and other waters of the State. Annual monitoring reports shall be submitted via e-mail to RB2-401Reports@waterboards.ca.gov, or by mail to the attention of 401 Certifications Reports at the Water Board (see address on the letterhead).
11. The Applicants shall submit an Annual DO Monitoring Report, acceptable to the Executive Officer, by January 31 following each monitoring year. These reports shall:
 - a) Describe water management and vegetation BMPs implemented to address low DO concentrations in discharges from managed wetlands on Boynton and Goodyear sloughs, including the location and the effectiveness of BMPs and a summary table with the total volume of material removed from ditches, the length of ditches cleaned, and estimates of temporary impacts to wetlands and waters of the State.
 - b) Describe the DO monitoring conducted, including monitoring methods, locations, and results. Daily and monthly DO concentrations shall be evaluated using the water quality objectives in the Basin Plan and targets set in the upcoming Suisun Marsh TMDL. If monitoring shows that DO concentrations in the sloughs are not meeting applicable water quality standards, then the report shall identify corrective actions such as additional or improved BMPs that will be implemented or increased level(s) of implementation, sufficient to ensure DO concentrations do not fall below water quality objectives in receiving waters. All corrective actions identified shall be implemented upon receiving written acceptance from the Executive Officer.

- c) Annual monitoring reports shall be submitted via e-mail to RB2-401Reports@waterboards.ca.gov, or by mail to the attention of 401 Certifications Reports at the Water Board (see the address on the letterhead).
- 12. The Water Board may add to or modify the conditions of this Certification, 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.
- 13. Before placement of imported soil to repair levees adjacent to aquatic habitat at the Project site, the Applicants shall submit a Source Material Characterization Report (SMCR), acceptable to the Executive Officer, to demonstrate that the soil is appropriate for reuse in the proposed location(s). The SMCR shall be prepared under the supervision of and signed by a California registered engineer, registered professional geologist, or certified engineering geologist, and shall contain a statement certifying compliance with the restrictions, site conditions, sampling and analysis, and evaluation criteria detailed in the Draft Technical Reference Document titled *Characterization and Reuse of Soil from Multiple Sources for Maintenance of Levees Adjacent to Aquatic Environments*. The SMCR shall include the following information: description of soil source area; estimate of the volume of soil proposed for levee reuse; description and justification of the sampling methodology and the sample location/selection process; a plot plan and/or photograph of each soil stockpile or area sampled with the sample locations clearly marked; a copy of all sample results, chain of custody documents, and QA/QC supporting data; a summary table of the laboratory results for the soil sampling; and a map of the reuse location and site showing where the soil is intended to be placed and a description of the method that will be used to offload, place, and grade it, if necessary.
- 14. The Applicant shall provide a copy of this Certification and all conditions to all contractors and all subcontractors conducting the work and require that a copy of the Certification remain in their possession at the work site. The Applicant shall be responsible for work conducted by its contractors and subcontractors.
- 15. The Applicant shall provide Water Board staff access to the Project site(s) to document compliance with this Certification.
- 16. 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 23 CCR section 3867.
- 17. Prior to implementing any change to the Project that may have a significant or material effect on the findings, conclusions, or conditions of this Certification, the Applicant shall obtain the written approval of the Executive Officer. If the Water Board is not notified of a significant alteration to the Project, it will be considered a violation of this Certification, and the Applicant may be subject to Water Board enforcement actions.
- 18. Certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

19. Certification is conditioned upon total payment of the full fee required in State regulations (23 CCR section 3833) and owed by the Applicant. The Application fee for this Project, \$400, was paid in full on January 17, 2018, and was based on the Low Impact Discharge fee category.

This Certification applies to the Project as proposed in the Application materials. Please be advised that failure to implement the Project as proposed is a violation of this Certification. Violation of water quality certification is a violation of State law and subject to administrative civil liability pursuant to Water Code section 13350. Failure to meet any condition of this Certification may subject you to civil liability imposed by the Water Board to a maximum of \$5,000 per day of violation or \$10 for each gallon of waste discharged in violation of this Certification. Also, any requirement for a report made as a condition of this action is a formal requirement pursuant to Water Code section 13267, and failure to submit, late or inadequate submittal, or falsification of such technical report(s) is also subject to civil liability pursuant to Water Code section 13268. The burden, including costs, of these reports bears a reasonable relationship to the need for the report and the benefits to be obtained.

Should new information come to our attention that indicates a water quality problem with this Project, the Water Board may issue Waste Discharge Requirements pursuant to 23 CCR section 3857.

If you have any questions concerning this letter, please contact Agnes Farres of my staff at (510) 622-2401 or agnes.farres@waterboards.ca.gov.

Sincerely,

Bruce H. Wolfe
Executive Officer

Cc: SWRCB, DWQ, Stateboard401@waterboards.ca.gov
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