June 27, 2013
CIWQS Place ID: 792443
CORPS FILE NO. 2012-00258N

Sent via electronic mail: No hardcopy to follow

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Stockton, CA 95205
Attention: Mr. James Starr
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Department of Water Resources
Division of Environmental Services
3500 Industrial Blvd.
Sacramento, CA 956913
Attention: Ms. Kristin Garrison
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U.S. Bureau of Reclamation
801 I Street, Suite 140
Sacramento, CA 95814
Attention: Ms. Becky Victorine
rvictorine@usbr.gov

SUBJECT: CONDITIONAL WATER QUALITY CERTIFICATION FOR THE REGIONAL GENERAL PERMIT NUMBER 3 REISSUANCE PROJECT, SUISUN MARSH, SOLANO COUNTY

Dear Ladies and Messers:

We have reviewed the water quality certification application submitted by the Suisun Resource Conservation District (SRCD) on behalf of CA Department of Fish and Wildlife (CDFW), the Department of Water Resources (DWR), U.S. Bureau of Reclamation

(Reclamation), and SRCD (Applicants) for the proposed Regional General Permit Number 3 Reissuance Project (Project) in Suisun Marsh. We have determined that the Project, as proposed, will not violate State water quality standards, and accordingly issue conditional Clean Water Act Section 401 water quality certification for the Project. You have applied for U.S. Army Corps of Engineers (Corps) authorization under a Regional General Permit Number 3 (RGP3) pursuant to Section 404 of the Clean Water Act (33 U.S.C. § 1344) and Section 10 of the Rivers and Harbors Act (33 U.S.C. § 403).

Project Description: The Applicants propose to renew a 5 year RGP3 that authorizes the managed wetland operations and maintenance activities in Suisun Marsh. The proposed Project would maintain existing infrastructure and facilities, and improve management capabilities of existing wetland units within Suisun Marsh. The Project site encompasses approximately 52,000 acres of managed wetlands in the Primary Management Area in Suisun Marsh (38.154913N, -122.976042W). The Project site covers 158 privately owned duck clubs represented by SRCD, and state properties owned and/or operated by CDFW, DWR, and Reclamation. The proposed Project would continue the authorized operations and maintenance activities with some modifications that would add some new activities that were not covered under the expiring RGP3.

The proposed Project will include the following:

1. Activities in ditches:
   - Excavation from existing primary and secondary ditches and creation of new primary or secondary ditches. New activities would be associated with the clearing of material from interior ditches managed by DWR, including the Roaring River Distribution System (RRDS), the Morrow Island Distribution System (MIDS), and Goodyear Slough Outfall (GYS) facilities. Excavation would be limited to an average of 1.5 cubic yards per linear foot of DWR levee, which would amount to 3 cubic yards per linear foot of ditch for RRDS, MIDS, and GYS, which have levees on both sides;
   - Maintenance of existing spreader ditches and creation of new spreader ditches;
   - Replacement of rip-rap on interior ditch banks and placement of new rip-rap on interior ditch banks. These new impacts would not exceed 200 linear feet per year or 1000 linear feet over the life of the reissued RGP3.

2. Activities on levees:
   - Repair of interior and exterior levees. This activity is currently limited based on acreage of each parcel. The proposed change is to limit work for DWR's facilities (RRDS, MIDS, and GYS) based on lineal footage of each facility. Placement of up to 1.5 cubic yards of levee material per linear foot annually on the levees. Also, placement of up to 1.5 cubic yards of levee material per linear foot annually for exterior levee maintenance for each permittee;
   - Replacement of existing rip-rap on exterior levees, placement of new rip-rap, and installation of alternative bank protection controls. A new activity would place up to 334 linear feet of new riprap on exterior levees over the 5-year permit period, or 66 linear feet per year, on exterior levee slopes not previously riprapped. Riprap

placement would not affect emergent vegetation and would be conducted from June through September. New riprap would be placed on the side slopes of exterior levees only when it has been determined that the specific conditions of each site would not support other types of erosion control;
- Coring of levees;
- Installing, repairing, or reinstalling bulkheads on exterior levees;
- Maintenance of existing roads.

3. Activities in managed wetlands:
   - Grading, creating drainage swales and loafing islands, and raising the elevation of managed wetlands;
   - Discing;
   - Installation of permanent and portable pumps and pump platforms;
   - Relocation or installation of duck hunting blinds;
   - Construction of cofferdams in managed wetlands.

4. Activities associated with water control structures:
   - Replacement and maintenance of water control structures;
   - Installation of new interior or exterior water control structures;
   - Installation of fish screens;
   - Removal of floating debris;
   - Suisun Marsh salinity control gate repair and maintenance. A new activity conducted by DWR and Reclamation;
   - Roaring River Distribution System fish screening cleaning, repair and maintenance. A new activity conducted by DWR and Reclamation.

5. Salinity monitoring – new activities to be conducted by DWR and Reclamation:
   - Salinity monitoring, station maintenance, repair, and replacement. It would include equipment maintenance such as parts replacement, calibration, and cleaning. Many of these activities would be done above the water or adjacent to the water on the levee bank. Stilling well replacement and walkway/platform piling replacement would involve removal by tractors and trucks operated from the existing roadway/levee and excavators or cranes operated from the roadway/levee or barge and would only occur once every 5 to 10 years;
   - Salinity monitoring, station relocation, installation, and removal. Removal of a monitoring station would not disturb an area of greater than 400 square feet. New monitoring stations would not disturb an area of greater than 50 square feet.

Runoff from the Project site discharges into Suisun Bay. The Project is in the Suisun Bay hydrologic unit 207.10.

Impacts*:* The total amount of annual excavation and temporary fill for the project would vary from year to year, but would be limited to a maximum of 443,000 cubic yards of earthen material. This is the same cap currently allowed under the existing RGP3. Interior ditch cleaning by property owners of managed wetlands typically ranges between 60,000

and 200,000 cubic yards of excavation. However, in years when maintenance of the RRDS, MIDS, and GYS facilities is required, the amount of material excavated could approach the 443,000 cubic yard maximum. Placement of new riprap in areas not previously riprapped on the exterior side of levees would be limited to 67 linear feet per year on average for the RGP. Placement of riprap on the side slopes of interior ditches would not exceed 200 linear feet per year on average for the RGP.

The operations in the managed wetlands often result in discharges of water with low dissolved oxygen (DO) less than 5 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 Marsh. The Peytonia Slough, Boynton Slough, Goodyear Slough, Cordelia Slough, and the upper reaches of Suisun Slough have exhibited the most significant low DO problems.

Water Board staff finds that the Project proponents have taken appropriate steps to avoid and then to minimize impacts, as required by the San Francisco Bay Basin Water Quality Control Plan (Basin Plan).

Mitigation: Permanent and temporary impacts related to the current operation and maintenance of managed wetlands in the proposed Project area have been offset by the Suisun Marsh Mitigation Agreement of 2005. Under the agreement, the Applicants continue to preserve, manage and maintain 2500 acres of managed and tidal wetlands in Suisun Marsh as conservation areas. The Applicants will implement appropriate best management practices (BMPs) to minimize erosion, sedimentation, and pollutant transport to waters of the State while conducting the permitted activities.

The CDFW and SRCD staff prepared a Conceptual Model for Managed Wetlands in Suisun Marsh in 2007. The document describes existing conditions and operations on managed wetlands in Suisun Marsh. The Applicants have participated in a 2-year study in Suisun Marsh that resulted in the Final Evaluation Memorandum Strategies for Resolving Low Oxygen and Methylmercury Events in Northern Suisun Marsh (Report), dated May 2011. The study involved intensive field data collection in selected managed wetlands and their adjacent tidal sloughs with previously documented low DO and high MeHg concentrations. The study evaluated effectiveness of some BMPs related to water management operations, and soil and vegetation management practices. The Report provides specific information about BMPs for the initial flood-up period, which also involves maximizing the use of Fairfield-Suisun Sewer District treated wastewater. Additionally, the Report provides recommendations for implementation of selected BMPs that have improved water quality in the study area, the need for further evaluations, and the need to develop new site specific activities.

The Applicants have been collaborating with the Water Board staff to establish technically feasible BMPs to attain water quality standards in Suisun Marsh. This collaboration is expected to continue while working on a multi pollutant Total Maximum Load (TMDL) to address dissolved oxygen and mercury problems in Suisun Marsh. When completed and

approved, the TMDL may impose additional requirements necessary to improve water quality in Suisun Marsh.

CEQA: The Suisun Marsh Habitat Management, Preservation, and Restoration Plan EIS/EIR was prepared by the U.S. Bureau of Reclamation, the U.S. Fish and Wildlife Service, and CA Department of Fish and Game in November 2011. On December 22, 2011, CDFW filed a Notice of Determination of CEQA compliance (SCH#2003112039).

California Wetlands Portal: It has been determined through regional, state, and national studies that tracking of mitigation/restoration projects must be improved to better assess the performance of these projects, following monitoring periods that last several years. In addition, to effectively carry out the State's No Net Loss Policy for wetlands, the State needs to closely track both wetland losses and mitigation/restoration project success. Therefore, we require that the Applicant use the California Wetlands Form to provide Project information related to impacts and mitigation/restoration measures (see Condition No. 10 of this Certification). An electronic copy of the form and instructions can be downloaded at: http://www.waterboards.ca.gov/sanfranciscobay/certs.shtml. Project information concerning impacts and mitigation/restoration will be made available at the web link: http://www.californiawetlands.net.

Certification: I hereby issue an order certifying that any discharge from the referenced project will comply with the applicable provisions of 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) of the Clean Water Act, and with other applicable requirements of State law. This discharge is also regulated 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" which requires compliance with all conditions of this Water Quality Certification. The following conditions are associated with this certification:

1. The Project shall be constructed in conformance with the Project description in the application materials, which were received over the period July 20, 2012 through June 18, 2013. Any additional work or variation from the described work is not authorized unless approved in writing by the Water Board Executive Officer prior to implementation.

2. No debris, soil, sand, cement, concrete, or washings thereof, or other construction related materials or wastes, oil or petroleum products or other organic or earthen material shall be allowed to enter into, or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess material shall be removed from the work area and any areas adjacent to the work area where such material may be washed into waters of the State.

3. Disturbance or removal of vegetation shall be minimized. The Project site shall be stabilized through incorporation of appropriate BMPs, including the successful re-

establishment of native vegetation to enhance wildlife habitat values, and to prevent and control erosion and sedimentation.

4. No equipment shall be operated in areas of 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 Certification does not allow for the take, or incidental take, of any special status species. The Applicants shall utilize the appropriate protocols, as approved by CDFW, NMFS, and/or FWS, to ensure that project activities do not adversely impact water quality or the beneficial use of the Preservation of Rare and Endangered Species.

6. The Applicants shall implement water management and vegetation BMPs based on the Conceptual Model for Managed Wetlands in Suisun Marsh dated 2007, the Final Evaluation Memorandum Strategies for Resolving Low Oxygen and Methylmercury Events in Northern Suisun Marsh dated May 2011, and other new scientific information and regulatory requirements. The Applicants shall describe implemented actions and the effectiveness of BMPs in the annual report required under the Condition No. 8.

7. The Applicants shall propose a monitoring plan to measure DO concentrations in selected sloughs beginning in fall 2013. The monitoring should start one week prior to the fall flood-up cycle of the managed wetlands in tidal sloughs that have already exhibited significant low DO levels. The sloughs to be monitored are: Peytonia Slough, Boynton Slough, lower Cordelia Slough, Goodyear Slough, and the upper reaches of Suisun Slough north of Volanti Slough. Monitoring shall continue until mid-November when the temperatures are low. The DO monitoring must include locations at managed wetlands, and upstream and downstream of major points of discharge in the tidal sloughs. The sampling frequency and spatial extend must be sufficient to determine ambient DO levels before the discharge occurs and to determine whether water quality objectives for DO in the receiving waters within the discharge area are met after the release of water from the managed wetlands.
No later than August 15, 2013, the Applicants shall submit to the Water Board Executive Officer for review and approval a workplan for DO monitoring in the northwest Suisun Marsh.

8. The Applicants shall submit annual reports acceptable to the Executive Officer no later than March 31, starting in 2014. The annual reports shall describe activities performed during the previous calendar year. The annual reports must comprise the following: (a) description of managed wetlands operation and maintenance activities performed as authorized by the RGP3, including an estimate of the acreage of wetlands temporarily impacted, any new control measures used during the previous year to further minimize impacts to jurisdictional waters from permitted activities, and any new measures planned for the current year to further minimize these impacts; (b) detailed account of the implemented management actions and the

effectiveness of BMPs listed in the Condition No.6; (c) summarize the results of the DO monitoring including Executive Summary, description of the BMPs that were implemented to address low DO concentrations in discharges from managed wetlands, location of the BMPs, and the level of implementation. If monitoring shows that DO levels in the sloughs are not meeting the water quality standards established in the Basin Plan, then the report shall identify additional or improved BMPs that will be implemented, and/or at an increased level of implementation, to prevent lowering of DO in the receiving waters below Basin Plan water quality standards. The annual reports shall include an implementation schedule for the additional or improved BMPs.

9. The Applicants shall submit to the Water Board each month a work summary report about activities covered by the Permit that are proposed by various owners/operators by the first day of each month.

10. The Applicants are required to use the California Wetlands form to provide Project information describing impacts and mitigation/restoration measures. Within 14 days from the date of this certification, a completed California Wetlands form shall be submitted electronically to habitatdata@waterboards.ca.gov or shall be submitted as a hard copy to both: 1) the Water Board at the address specified on the letterhead, to the attention of California Wetlands Portal and 2) to the San Francisco Estuary Institute, 4911 Central Avenue, Richmond, CA, 94804 to the attention of California Wetlands Portal.

11. Before using any imported upland soil fill material to reinforce levees adjacent to the aquatic habitat at the Project site, the Applicants shall submit acceptable to the Executive Officer a Source Material Characterization Report demonstrating that the soil is appropriate for reuse in the proposed location(s). The report shall provide information about collected and test soil samples to assure that the reuse of soil at the site is protective of the beneficial uses of waters of the State. The Draft Sediment Screening and Testing Guidelines, available at: http://www.spn.usace.army.mil/conops/beneficialreuse.pdf will be used for determining the acceptability of reusing imported soils on site.

12. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Section 13330 and Section 3867of the California Water Code (CWC), Title 23 of the California Code of Regulations (23 C.C.R.).

13. 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 C.C.R. 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.

14. Certification is conditioned upon total payment of the full fee required in State regulations (23 CCR Section 3833) and owed by the applicant. The fee for the proposed Project is $1,776.00 and it has been paid in full.

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 water quality certification. Violation of water quality certification is a violation of state law and is subject to administrative civil liability pursuant to CWC Section 13350. Failure to meet any condition of a certification may subject you to civil liability imposed by the Water Board to a maximum of $5000 per day of violation or $10 for each gallon of waste discharged in violation of the certification. Also, any requirement for a report made as a condition to this action (Condition Nos. 6, 7, 8, 9, 10, 11) is a formal requirement pursuant to CWC Section 13267, and failure to submit, late or inadequate submittal, or falsification of such technical report(s) is also subject to civil liability.

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, please contact Jolanta Uchman at (510) 622-2432, or email JUchman@waterboards.ca.gov.

Sincerely,

William B. Hurley
Acting Division Chief *for*

Bruce H. Wolfe
Executive Officer

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