

---

**North Coast Regional Water Quality Control Board**

September 6, 2012

---

In the Matter of  
**Water Quality Certification**  
for

**USFWS – Humboldt Bay National Wildlife Refuge, Salmon Creek Estuary  
Enhancement Phase III, Cattail Creek  
WDID No. 1B12130WNHU**

APPLICANT: Eric Nelson, U.S. Fish and Wildlife Service  
RECEIVING WATER: Salmon Creek, Cattail Creek, Long Pond, and wetlands  
HYDROLOGIC UNIT: Eureka Plain Hydrologic Unit No. 110.00  
COUNTY: Humboldt  
FILE NAME: USFWS – Humboldt Bay National Wildlife Refuge, Salmon  
Creek Estuary Enhancement Phase III - Cattail Creek

---

BY THE EXECUTIVE OFFICER:

1. On July 12, 2012, the U.S. Fish and Wildlife Service (USFWS/Applicant) filed an application for water quality certification (certification) under section 401 of the Clean Water Act (33 U.S.C. § 1341) with the California Regional Water Quality Control Board, North Coast Region (Regional Water Board) for activities associated with implementation of the Salmon Creek Estuary Enhancement Phase III - Cattail Creek Project. The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on August 10, 2012, and posted information describing the project on the Regional Water Board's website. We did not receive any public comments on this project.
2. Phase I of the multi-phase Salmon Creek Estuary Enhancement Project was constructed in 2006 and 2007. Phase I increased Salmon Creek's tidal prism, tidal connectivity, and tidal influence by replacing tide gate structures, constructing a new tide gate structure in the Salmon Creek overflow area, excavating an upstream channel knick point, and reconnecting several off-channel ponds to the

Salmon Creek channel. Phase II construction began in 2011 and will be completed in 2012. Phase II included realignment of a previously straightened section of the Salmon Creek channel, restoration of salt marsh habitat, construction of new stream channels and off-channel ponds to create additional fish rearing habitat, and an interconnecting stream channel between Salmon Creek and a water control structure (Middle Diversion) on Cattail Creek was constructed to facilitate movement of overwintering juvenile salmonids between these channels.

3. Salmon Creek is the largest freshwater inflow to the Refuge that drains to Hookton Slough. Cattail Creek is another freshwater inflow source that flows to Long Pond and eventually to Hookton Slough. In addition to flows originating in its upper watershed, Cattail Creek intercepts overland flood waters from Salmon Creek. The primary purpose of Phase III is to increase and enhance the estuarine, palustrine, and riverine environments in Cattail Creek and Long Pond. The project will create 5,060 linear feet of new stream channel and 7.05 acres of stream and floodplain habitats. The project will also enhance 650 linear feet of stream channel and 0.27 acre of stream and floodplain habitats. Phase III habitat enhancement goals are to: 1) improve aquatic habitat by increasing channel complexity and diversity of wetland vegetation; 2) create winter-rearing habitat for juvenile salmonids; 3) improve water quality in Cattail Creek; and, 4) improve habitat for migratory water birds.
4. The upper Cattail Creek project area consists of a trapezoidal channel beginning near Ranch Road and extending downstream to the Middle Diversion structure that is used to divert flow into a diversion channel and wetlands to the north or through lower Cattail Creek to wetlands and Long Pond to the west. The lower Cattail Creek project area also begins in the trapezoidal ditch beginning near Middle Diversion and then follows a historical channel to Long Pond, a historical tidal slough that is diked off from Hookton Slough. At Hookton Slough there is a tide gate and diversion channel to convey winter flows from Long Pond to wetlands to the north. The tide gate leaks and creates a brackish water environment in Long Pond and lower Cattail Creek. The Refuge artificially maintains water levels in Cattail Creek and manages wetland areas through the manipulation of flash boards in water control structures at Long Pond and Middle Diversion.
5. Activities to enhance upper Cattail Creek consist of realignment of the existing trapezoidal channel into 1,234 linear feet of new channel excavated in existing seasonal freshwater emergent wetlands consisting of pasture in diked former tidelands. The new channel will follow a meandering alignment with an undulating bottom profile. The new channel will contain a pilot channel designed to remain flooded at all times and variable width floodplain benches. An in-line pond will be constructed at the location of an existing wet depression. Wood structures consisting of sections of whole trees will be placed in the channel to create habitat complexity. Material excavated during channel realignment will be used to

construct two ditch plugs to block portions of the existing channel where the new alignment leaves and returns to the existing channel. A connecting channel will be constructed from the realigned channel to the undisturbed central portion of the existing channel to provide additional off-channel refuge for juvenile salmonids during major storm flows. Surplus materials not used in ditch plugs will be used for maintenance and repair of levees along the bay-front side of the Refuge.

6. Activities to enhance lower Cattail Creek consist of realignment of the existing trapezoidal channel into 4,356 linear feet of new channel that will follow a meandering alignment with an undulating bottom profile. The new channel will begin downstream of Middle Diversion and extend north where it enters a historical channel occupied by seasonal wetlands. Two existing off-channel seasonal wetland areas will be excavated and connected to the new channel to provide off-channel rearing and water bird habitat during the winter. The new channel will contain a pilot channel designed to remain flooded at all times and variable width floodplain benches. Wood structures will be placed in the channel to create habitat complexity. The new channel will re-enter the existing Cattail Creek channel and traverse along the existing channel for several hundred feet. The new channel will then turn north and eventually connect to a different existing channel that flows into Long Pond through a water control structure at the eastern end of Long Pond. Large sections of the existing Cattail Creek channel will remain intact and provide additional seasonal off-channel habitat through the connections with the new channel. Material excavated during channel realignment will be used to construct two ditch plugs to block portions of the existing channel and a guide berm on the west side of the realigned channel to separate Cattail Creek from the brackish water areas to the west, and to direct flood flows into the east end of Long Pond. Surplus materials not used in ditch plugs or the guide berm will be used on the Refuge for maintenance and repair of levees along the bay-front side of the Refuge.
7. The project will result in temporary impacts to 650 linear feet and 0.27 acre of existing streambank and channel, and 7.55 acres of seasonal wetlands consisting of pasture in diked former tidelands. The project will permanently impact 2,240 linear feet and 1.12 acre of existing streambank and channel, 0.73 acre of riparian habitat, and 1.08 acres of seasonal wetlands in diked former tidelands. The project is self-mitigating as most activities are designed to increase and enhance the estuarine, palustrine, and riverine habitats of Cattail Creek and Long Pond. Phase III activities will create 5,060 linear feet and 7.05 acres of new riverine habitat, enhance 650 linear feet and 0.27 acre of existing riverine habitat, and enhance 0.68 acres of freshwater emergent wetland/pond habitat. A 0.73 acre area located south of Cattail Creek and north of Salmon Creek will be planted with riparian forest and shrub species.
8. The Applicant has applied for authorization from the ACOE to perform the project under Individual Permit, pursuant to Clean Water Act, section 404. The Applicant

has also applied to California Department of Fish and Game (CDFG) for a Lake or Streambed Alteration Agreement amendment (1600-2010-0139-R1).

9. On July 9, 2010, CDFG approved a Mitigated Negative Declaration (SCH No. 2010062030) for the project in order to comply with CEQA. CDFG has prepared an addendum to the Mitigated Negative Declaration for Phase III activities. CDFG determined that there are no new significant environmental effects, no substantial increase in the severity of previously identified significant effects, and no substantial changes proposed in Phase III. Therefore the proposed changes do not require significant revisions of the previously approved Mitigated Negative Declaration. The Regional Water Board has considered the environmental documents and any proposed changes incorporated into the project or required as a condition of approval to avoid significant effects to the environment.
10. 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, and does not otherwise authorize degradation of the waters affected by this project.
11. 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.  
[http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2003/wqo/wqo2003-0017.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf)

Receiving Water: Seasonal wetlands, Cattail Creek, and Long Pond in the Eureka Plain Hydrologic Unit No. 110.00

Filled or Excavated Area: Area Temporarily Impacted: 0.27 acre of streambank and channel, and 7.55 acres of seasonal wetlands consisting of pasture in diked former tidelands  
Area Permanently Impacted: 1.12 acre of streambank and channel, 1.08 acres of seasonal wetlands in diked former tidelands, and 0.73 acre of riparian habitat

Total Linear Impacts: Length Temporarily Impacted: 650 linear feet of streambank and channel  
Length Permanently Impacted: 2,240 linear feet of streambank and channel

Created/Enhanced Wetland Areas: 5,060 linear feet of new stream channel and 7.05 acres of stream and floodplain habitats will be created, 650 linear feet of stream channel and 0.27 acre of stream and floodplain habitats will be enhanced, and a 0.73 acre area will be planted with riparian forest and shrub species

Dredge Volume: None

Latitude/Longitude: 40.67956 N/124.20705 W

Expiration: September 6, 2017

Accordingly, based on its independent review of the record, the Regional Water Board certifies that the USFWS Humboldt Bay National Wildlife Refuge – Salmon Creek Estuary Enhancement Phase III, Cattail Creek Project (WDID No. 1B12130WNHU), 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. 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 Regional Water Board shall be notified at least five working days (working days are Monday – Friday) 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.
5. No debris, soil, silt, sand, bark, 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.
6. Best Management Practices (BMPs) for sediment and turbidity control shall be implemented and in place at commencement of, during and after any project activities that could result in sediment discharges to surface water.
7. All activities and BMPs shall be implemented according to the submitted application and the conditions in this certification.
8. 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.
9. The Applicant shall implement the Mitigation Measures for Biological Resources and Hydrology/Water Quality as described in the Initial Study/Mitigated Negative Declaration.
10. The Applicant shall implement the Department of Fish and Game Mitigation Monitoring and Reporting Program submitted June 10, 2010 and shall submit copies of all Status Reports and the Final Mitigation Report to the Regional Water Board.
11. 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.
12. 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.

13. 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.
14. 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.
15. The Applicant shall provide Regional Water Board staff access to the project site to document compliance with this certification.
16. 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.
17. 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.

18. 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).
19. The authorization of this certification for any dredge and fill activities expires on September 6, 2017. 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 Dean Prat at (707) 576-2801.

Original Signed By

---

Matthias St. John  
Executive Officer

120906\_DLP\_ef\_usfws\_hbnwr\_phse3\_401

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

Original to: Mr. Eric Nelson, P.O. Box 756, Loleta, CA 95551

cc: Mr. Aldaron Laird, Trinity Associates, 980 7<sup>th</sup> Street, Arcata, CA 95521

Electronic

Copy to: U.S. Army Corps of Engineers, District Engineer, 601 Startare Drive,  
Box 14, Eureka, CA 95501  
Ms. Jane Hicks, U.S. Army Corps of Engineers, Regulatory Functions,  
1455 Market Street, San Francisco, CA 94103-1398