

Coleman National Fish Hatchery Water Intakes Rehabilitation Project

California Regional Water Quality Control Board

Clean Water Act Section 401 Water Quality Certification

DATE: APR 15 10:29 AM
OFFICE: WATER RESOURCES
CONTROL BOARD

2008 APR - 1 AM 10: 29

DR. J. W. WATKINS
SACRAMENTO



California Regional Water Quality Control Board

Central Valley Region

Karl E. Longley, ScD, P.E., Chair.



Linda S. Adams
Secretary for
Environmental Protection

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Arnold Schwarzenegger
Governor

20 December 2007

Mr. James De Staso III
U.S. Bureau of Reclamation,
Northern California Area Office
16349 Shasta Dam Boulevard
Shasta Lake, CA 96019

Mr. Scott Hamelberg
U.S. Fish and Wildlife Service
24411 Coleman National Fish Hatchery Road
Anderson, CA 96007

**ACTION ON REQUEST FOR CLEAN WATER ACT §401 WATER QUALITY
CERTIFICATION FOR DISCHARGE OF DREDGED AND/OR FILL MATERIALS FOR THE
COLEMAN NATIONAL FISH HATCHERY, WATER INTAKES REHABILITATION PROJECT,
WDID NO. 5A45CR00287, SHASTA AND TEHAMA COUNTIES**

ACTION:

- 1. Order for Standard Certification
- 2. Order for Technically-conditioned Certification
- 3. Order for Denial of Certification

WATER QUALITY CERTIFICATION STANDARD CONDITIONS:

- 1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to §13330 of the California Water Code and §3867 of Title 23 of the California Code of Regulations (23 CCR).
- 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 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- 3. The validity of any non-denial certification action shall be conditioned upon total payment of the full fee required under 23 CCR §3833, unless otherwise stated in writing by the certifying agency.
- 4. Certification is valid for the duration of the described project. The U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service shall notify the Regional Water Board in writing within 7 days of project completion.

STATE WATER RESOURCES
CONTROL BOARD
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D. J. WASHBURN
SACRAMENTO



ADDITIONAL CONDITIONS (for Certification Action 2):

In addition to the four standard conditions, the applicant shall satisfy the following:

1. U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service shall notify the Regional Water Board in writing of the start of any in-water activities.
2. Except for activities permitted by the U.S. Army Corps of Engineers (Corps) under §404 of the Clean Water Act, soil, silt, or other organic materials shall not be placed where such materials could pass into surface water or surface water drainage courses.
3. The discharge of petroleum products or other excavated materials to surface waters is prohibited.
4. Activities shall not cause turbidity increases in surface waters to exceed:
 - (a) where natural turbidity is between 0 and 5 Nephelometric Turbidity Units (NTUs), increases shall not exceed 1 NTU;
 - (b) where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;
 - (c) where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs;
 - (d) where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

Except that these limits will be eased during in-water working periods to allow a turbidity increase of 15 NTU over background turbidity as measured in surface waters 300 feet downstream from the working area. In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected.

5. Activities shall not cause settleable matter to exceed 0.1 mL/l in surface waters as measured in surface waters 300 feet downstream from the project.
6. Activities shall not cause visible oil, grease, or foam in the work area or downstream.
7. All areas disturbed by project activities shall be protected from washout or erosion.
8. In the event that project activities result in the deposition of soil materials or creation of a visible plume in surface waters, the following monitoring shall be conducted immediately upstream and 300 feet downstream of the work site and the results reported to this office within two weeks:

Parameter	Unit	Type of Sample	Frequency of Sample
Turbidity	NTU	Grab	Every 4 hours during in water work
Settleable Material	mL/l	Grab	Same as above.

9. U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service shall notify the Regional Water Board immediately if the above criteria for turbidity, settleable matter, oil/grease, or foam are exceeded.
10. U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service shall notify the Regional Water Board immediately of any spill of petroleum products or other organic or earthen materials.
11. U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service shall implement all compensatory and non-compensatory mitigation measures as outlined in the application submittal to the Regional Water Board, and Supplemental Information and Mitigation Agreement, prepared by North State Resources, Inc. dated 16 July 2007.
12. U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service shall provide the Regional Water Board with yearly Mitigation Monitoring Reports prepared to document whether the goals of the project are being met, compensatory mitigation measures have met the no-net-loss policy, and whether remedial measures need to be undertaken. Lawrence and Associates, or an equivalent qualified consulting firm or individual consultant, shall prepare the reports and submit them no later than December 31st of each season, for a total of three years.
13. 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 state law. For purposes §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 certification.
14. In response to a suspected violation of any condition of this certification, the Regional Water Board may require the holder of any 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 be a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
15. 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.
16. U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service complies with all Department of Fish and Game 1600 requirements for the project as required in the Lake & Streambed Alteration Agreement. U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service shall comply with all requirements of Corps Letter of Permission (LOP).



17. U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service shall comply with all conditions contained in the NPDES General Permit for Storm Water Discharges Associated with Construction Activities Order No. 99-08-DWQ, (General Permit) issued by the State Water Resources Control Board. U.S. Bureau of Reclamation obtained coverage on 31 October 2007 (WDID No. 5R45C349585).

REGIONAL WATER QUALITY CONTROL BOARD CONTACT PERSON:

George D. Day. Redding Branch Office, 415 Knollcrest Drive, Suite 100, Redding, California 96002, (530) 224-4859, gday@waterboards.ca.gov

WATER QUALITY CERTIFICATION:

I hereby issue an order certifying that any discharge from the Coleman National Fish Hatchery, Water Intakes Rehabilitation Project (WDID No. 5A45CR00287) will comply with the applicable provisions of §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. This discharge is also regulated under Regional Board Resolution No. R5-2003-0008 "*Waiver of Reports of Waste Discharge and Waste Discharge Requirements for Specific Types of Discharge: Type 12 Projects for which Water Quality Certification is issued by the Regional Board*", which requires compliance with all conditions of this Water Quality Certification.

Except insofar as may be modified by any preceding conditions, all certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicant's project description and the attached Project Information Sheet, and (b) compliance with all applicable requirements of the Regional Water Quality Control Board's Water Quality Control Plan (Basin Plan).


(for) PAMELA C. CREEDON
Executive Officer

GDD: knr

Enclosure: Project Information

cc: Mr. Matt Kelly, U.S. Army Corp of Engineers, Redding
U.S. Fish and Wildlife Service, Sacramento
Mr. Dave Smith, U.S. Environmental Protection Agency, Region 9, San Francisco
Mr. Don Reckt, U.S. Bureau of Reclamation, Northern California Area Office, Shasta Lake
Ms. Donna Cobb, Department of Fish and Game, Region 1, Redding
Mr. Bill Orme, State Water Resources Control Board, Certification Unit, Sacramento
Mr. Davis Munro, Tetra Tech, Portland
Mr. Bill Jennings, CALSPA, Stockton

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PROJECT INFORMATION

Application Date: 25 October 2007

Applicant: Mr. James De Staso, III, U.S. Bureau of Reclamation, Northern California Area Office, 16349 Shasta Dam Boulevard, Shasta Lake, CA 96019

Mr. Scott Hamelberg, U.S. Fish and Wildlife Service, 24411 Coleman National Fish Hatchery Road, Anderson, CA 96007

Applicant Representatives: David Munro, Tetra Tech, Inc., 1020 Taylor Street, Suite 530, Portland OR, 97205

Project Name: Coleman National Fish Hatchery, Water Intakes Rehabilitation Project

Regional Board: Central Valley Regional Water Quality Board-Redding Branch Office

Regional Board Application Number: WDID No. 5A45CR00287

U.S. Corps Application Number: Applicant proposes to utilize a Letter of Permission (LOP) (SPK-2007-1133)

Type of Project: Modify the water intakes and conveyance system at Coleman National Fish Hatchery.

Project Location: Section 1, Township 29N, Range 3W, M.D.B.&M., Latitude: 40°23'53.67" and Longitude: 122°8'37.76"

County: Shasta

Receiving Water (hydrologic unit): Coleman Powerhouse Tailrace, Orwick Diversion Canal, Battle Creek; Hydrologic Unit 508.10, Enterprise Flat Hydrologic Area

Water Body Type: Streambed

Designated Beneficial Uses: The Basin Plan for the Central Valley Regional Board has designated beneficial uses for surface and ground waters within the region. Beneficial uses that could be impacted by the project include: Municipal and Domestic Water Supply (MUN); Agricultural Irrigation Supply (AGR); Hydropower Generation (POW); Water Contact Recreation (REC-1); Non-contact Water Recreation (REC-2); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); Spawning, Reproduction, and /or Early Development (SPWN); and Wildlife Habitat (WILD).

Project Description (purpose/goal): Coleman National Fish Hatchery was opened in 1943 as mitigation to help preserve runs of Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead trout (*O. mykiss*) that were impacted by the loss of habitat resulting from the construction of Shasta and Keswick Dams on the Sacramento River. The hatchery annually



releases 12 to 14 million fish, covering three runs of salmon and one run of steelhead trout, to the Sacramento River system.

Operation of the hatchery requires a consistent supply of high quality water throughout the year. The water delivery system consists of two major diversions and conveyances: the Intake 1 and 2 system constructed in 1942 and the Intake 3 system constructed in 1963. The Intake 1 and 2 systems convey water through a 46-inch-diameter concrete pipeline by gravity to the hatchery canal. The Intake 3 system conveys water through a 48-inch-diameter steel pipeline by gravity to two sand settling basins.

The proposed project intends to modify the intakes and conveyance system at Coleman National Fish Hatchery. The purpose of the proposed project is accomplishing the following main objectives:

- Meet federal and state regulatory requirements for screens to reduce take of listed and nonlisted anadromous salmonids;
- Provide a reliable, high quality water supply to meet hatchery operational needs, within the confines of the hatchery's existing water rights (122 cfs); and,
- Provide sufficient, rapid access to intake structures to ensure proper operation and maintenance.

Meeting these objectives in a timely fashion would allow the US Fish & Wildlife Service to meet the broader goal of integrating Coleman operations with the Battle Creek Salmon and Steelhead Restoration Project.

The proposed project is needed to meet current requirements for fish screening, as required by National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (CDFG), and to provide the operational redundancy required in case of emergency shutdown of the Pacific Gas and Electric Company's Coleman Powerhouse or one or more of the intake structures.

Four alternatives were identified in the public draft EA for the modification of water intakes and conveyance system at Coleman. The alternatives presented a range of actions that were feasible, implement able, and distinct from one another, and are described below. The proposed action is Alternative C. Intake 1 would be expanded to increase its diversion capacity to 122 cfs, with a new pipeline, up to 36-inch-diameter, extending downstream to discharge into the existing 48-inch-diameter steel pipeline from Intake 3. Intake 2 would be abandoned in place. A new screened intake with a diversion capacity of up to 122 cfs would be constructed 2,000 feet upstream on the right bank to replace Intake 2, and a new pipeline, up to 66-inch-diameter, would extend downstream to discharge into the existing 46-inch-diameter concrete pipeline and the new pipeline, up to 36-inch-diameter, from Intake 1. Intake 3 would be modified to meet current screening criteria without increasing its current diversion capacity of 50 cfs. Intake 3 would be operated only when Intakes 1 and 2 are not operating to discharge to the settling basins.

In stream construction will occur between 1 May –1 September 2008, and 1 May-1 September 2009. The overall construction schedule calls for construction to occur from



1 May 2008 through 1 May 2010. Some clearing of brush in the upland and riparian zones may occur starting in January 2007.

The project will involve excavation of a pipeline corridor through upland, riparian wetland, and streambed on Battle Creek and a diversion canal (Orwick Diversion) from Battle Creek. Battle Creek will be crossed at two locations, and the Orwick Diversion will be crossed at one location.

Temporary cofferdams will be installed to allow portions of the stream to be dewatered. Cofferdams may be constructed from "super sacks" (very large sandbags), placed embankments, or porta-dams. Sheet piles will not be used. The cofferdams will isolate half of the width of the stream (average of 50 feet) at a time for a distance of 300 feet from the upstream end to the downstream end, and the isolated area will be dewatered to allow for pipeline excavation and placement. Once work is completed in that dewatered location, the cofferdams will be removed and the other half of the stream will be similarly isolated and dewatered, allowing for construction to occur there. This will occur at Intake 3 and also between Intakes 1 and 2. A small cofferdam may be installed to allow for construction of New Intake 2. Cofferdams will be installed beginning on May 1 of each project year and will be removed by September 1 of the same year. Decant water will be settled in settling ponds and routed back into Battle Creek. The location of the settling ponds has not been determined. Settling pond construction and dewatering will be described in greater detail in the associated Dewatering Permit Application, to be prepared by the construction contractor.

Permanent fill in the form of rip rap and concrete will be placed at the proposed location of a new water intake, and will also be placed around rebuilt intakes (figure 2-4 of the attached EA/IS). Rip rap will be installed in waters of the US on the river banks at the proposed location of New Intake 2, at the location of existing Intake 2, and at Intake 3. Concrete or shotcrete will be placed in waters of the US at Intake 1. The total area of waters of the US to be covered with rip rap or concrete will be approximately 6,945 sq. ft above the amount of rip rap and concrete that currently exists at the sites, while the total volume of rip rap or concrete in waters of the US will be approximately 2,838 cu. yds. At all permanently affected locations, the base of rip rap and concrete will be placed 5 feet below invert elevation. The rip rap will extend upward through the riparian edge of the stream and into upland areas. Following project completion, the bed of the stream will be restored to pre-project conditions with like-sized gravel and cobble.

Preliminary Water Quality Concerns: Project actions could degrade water quality by temporarily increasing the turbidity or erosion as a result of in-stream work, including stream bank modification, intake and fish screen installation, intake abandonment, pipeline construction, or actions near the stream channel, such as grading or excavation. There is also the potential of water quality degradation from accidental spills of hazardous materials or petroleum products. The construction site could contain various hazardous materials and petroleum products used in heavy machinery and construction. Specific controls to protect water quality are:



- A spill prevention control countermeasure plan (SPCC) will be developed
- Soils contaminated with fuel or other chemicals would be disposed of in a suitable manner and location to prevent them from being discharged into flowing waters or groundwater. The contractor would follow accepted disposal methods according to the SPCC plan;
- Hazardous materials and petroleum products would be stored in approved containers or chemical sheds and would be located at least 100 feet from the creek in an area protected from runoff;
- Equipment and machinery coming in contact with water would be inspected daily and cleaned of grease, oil, petroleum products, or other nonnative materials;
- Equipment that crosses the creek could be outfitted with "diapers" to catch oil or other petroleum products;
- Diversion channel construction could include the use of clean/washed spawning-sized gravel, riprap placement, and geotechnical fabric to avoid erosion and increases in downstream turbidity;
- Temporary sediment control measures, such as fiber rolls or silt fences, would be located downstream of disturbed areas to prevent sediment from entering Battle Creek. These measures would be kept in place until the disturbed areas are stabilized;
- Interim measures to control erosion and sedimentation over winter would include BMPs, such as mulch, straw waddles, and silt fences. All measures would be coordinated with an erosion control specialist and would adhere to our SWPPP;
- Settling ponds for dredge material would be constructed in accordance with established design criteria. Decant waters from the ponds would meet Basin Plan criteria before being discharged into Battle Creek. Excavated material would be stored using BMPs; and
- Concrete delivery and transfer equipment would be washed in contained areas protected from direct runoff.

Fill/Excavation Area: Project implementation will permanently impact 0.14 acres (495 linear feet) of vegetated riparian other waters, and 0.01 acres (20 linear feet) of un-vegetated streambed and temporarily impact 0.33 acres of riparian wetlands, 2.37 acres (2,050 linear feet) of vegetated riparian other waters, and 2.82 acres (1,150 linear feet) of un-vegetated streambed. Permanent discharge will be in the form of rip rap and concrete, and will total approximately 2,838 cu. yds.

Dredge Volume: Not applicable

Compensatory Mitigation: The U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service will purchase credits at a USACE approved mitigation bank at a ratio to be determined during the Section 404 permitting process, assuming that credits are available. If credits are not available for the entire amount needed to compensate for effects, the project proponent will work with USACE to find appropriate on-site or off-site restoration or enhancement areas. c) Other Mitigation, all wetlands and waters disturbed by the project will be restored to original conditions on-site, with the exception of the amount of other waters that would be permanently lost as a result of the project.

The U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service propose to create 0.33-acres of riparian wetland; they propose to create 2.51-acres and restore 1,555 linear feet



of vegetated riparian; and they propose to create 2.83-acres and restore 1,170 linear feet of un-vegetated other waters of the U.S.

U.S. Army Corps of Engineers Permit Number: The applicant proposes to utilize a Letter of Permission (LOP) for project activities Corps Regulatory No. SPK-2007-1133.

Regional Water Board Public Notice: Information regarding this project was noticed on the Central Valley Water Board's website from 2 November 2007 to 23 November 2007. No comments were received.

Department of Fish & Game Streambed Alteration Agreement: U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service applied for the Lake & Streambed Alteration Agreement with the Department of Fish and Game on 16 July 2007. The applicant must comply with all conditions in Lake and Streambed Alteration Agreement R1-07-0424 issued 28 August 2007.

Possible Listed Species: Threatened or Endangered Species impacted by this project (*list potential*): Central Valley spring-run Chinook salmon (*Onchorhynchus tshawytscha*), Central Valley steelhead (*Onchorhynchus mykiss*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). Section 7 Consultation is currently under way with U.S. Fish & Wildlife Service and NMFS.

Status of CEQA Compliance: The U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service issued a FONSI in 18 December 2007. A draft EIR/EIS was prepared pursuant to the requirements of the National Environmental Policy Act in December 2006. The draft EIR/EIS was circulated in accordance with California Environmental Quality Act from 13 March 2007 through 12 April 2007 (SCH#2007032067). A public meeting was held 19 March 2007 and 17 discrete comments contained in two comment letters were received following the meeting. The U.S. Bureau of Reclamation and the U.S. Fish & Wildlife Service has decided to implement the preferred alternative described in the Draft EIS/EIR and issue a FONSI/Mitigated Negative Declaration (MND). The Regional Water Board has determined that the proposed project alternative will not have a significant impact on the environment provided that mitigation measures are properly implemented and monitored. The FONSI/MND was prepared in pursuant to the provisions of the California Environmental Quality Act and reflects the Regional Water Board's independent judgment and analysis. On 18 December 2007, the FONSI/MND (State Clearinghouse No. 2007035084005) was certified by the Regional Water Board.

Application Fee Provided: A certification fee of \$500 was submitted on 25 October 2007 as required by 23 CCR §3833b(2)(A) and by 23 CCR § 2200(e).



