

June 5, 2012

**Public Notice for Water Quality Certification and/or Waste  
Discharge Requirements (Dredge/Fill Projects)**

Bureau of Reclamation – Buckhorn Dam Toe Drain and Grass Valley Creek Channel  
Rehabilitation  
WDID No. 1A12025WNTR

Trinity County

On March 30, 2012, the North Coast Regional Water Quality Control Board (Regional Water Board) received an application from the Bureau of Reclamation – Northern California Area Office (Applicant), requesting Federal Clean Water Act, section 401, Water Quality Certification for activities associated with excavation of sediment and a bedrock grade control from the Buckhorn Dam outlet channel in order to lower the water surface elevation within the dam's outlet channel and toe-drain system. Proposed activities also include excavation in areas adjacent to the outlet channel to enhance and create additional habitat for fish, primarily coho salmon. The proposed project will cause disturbances to waters of the United States associated with the Buckhorn Dam outlet channel and Grass Valley Creek in the Douglas City Hydrologic Subarea No. 106.31.

Buckhorn Dam is located along the eastern border of Trinity County, approximately one mile south of Highway 299 at Buckhorn Summit. The Applicant completed construction of Buckhorn Dam in November 1991 for the purpose of trapping fine sediment, mainly decomposed granite, eroding from the upper Grass Valley Creek watershed in order to reduce fine sediment inputs into the mainstem Trinity River. The dam structure includes an uncontrolled "run of the river" concrete spillway that spills/overflows into Grass Valley Creek when the reservoir is filled to capacity during the winter-spring runoff period and storm events. The dam structure also includes a gated and controllable conduit system that operates as the main outlet works. The Applicant has managed the outlet works to constantly discharge between 6 and 10 cubic feet per second into the outlet channel. The outlet channel extends approximately 1,500 linear feet downstream from the outlet works to its confluence with Grass Valley Creek near the downstream end of the spillway plunge pool. The outlet channel has natural stream channel characteristics and functions as the upstream reach of the Grass Valley Creek stream channel.

Soon after construction of Buckhorn Dam was complete, sediment deposition in the outlet channel began to occur immediately downstream of the outlet works discharge pipe. Sediment deposition has resulted in approximately one to three feet of aggradation within the outlet channel for a distance of approximately 600 feet downstream from the outlet works. An exposed bedrock outcrop located approximately 600 linear feet downstream of the outlet works creates a natural hydraulic control that limits downstream sediment migration and maintains the elevated water surface elevation within the outlet channel. The increased water surface elevation within the upper 600 linear feet of outlet channel has results in ongoing flooding of the dam's toe-drain system.

The toe-drain system includes perforated piping buried horizontally within the base of the dam's fill structure and includes access manholes on the downstream slope to allow for inspection and measurement of seepage through the dam. The toe-drain system is designed to remain dry for inspection and serves as an indicator of dam integrity. The toe-drain system became submerged and unusable following completion of the dam due to the elevated water surface elevation within the outlet channel. The submerged toe-drain has hindered the Applicant's ability to assess the dam's structural integrity and has created a "safety of dams" issue. The primary purpose of the proposed project is to lower the water surface elevation in the outlet channel in order to drain the toe-drain piping and correct the "safety of dams" issue. Another purpose of the proposed project is to create and enhance habitat within and adjacent to the outlet channel from the outlet works to the bedrock grade control approximately 600 linear feet downstream.

Grass Valley Creek is currently one of the more vital tributaries to the Trinity River for coho salmon production. Buckhorn Dam completely blocks upstream fish migration. Grass Valley Creek is being used by coho salmon throughout most its 10.8 miles of stream length between the dam and confluence with the Trinity River; however, only a few juvenile steelhead have been observed within the outlet channel upstream of the bedrock outcrop. Beaver have also taken advantage of the bedrock outcrop feature and raised the water elevation approximately one foot above the bedrock surface, effectively blocking all coho salmon and all but a few steelhead from accessing the upper reach of the outlet channel.

Approximately 4,500 cubic yards of material will be excavated from the outlet channel for the purpose of lowering the water surface elevation and approximately 4,500 cubic yards of additional sediment and earthen material will be excavated to create and enhance habitat features for coho salmon including rearing ponds and side channels. The proposed channel creation and enhancement activities are designed to alter the existing center line alignment, create more channel sinuosity, build pool/riffle habitat, lower streambed elevations, increase channel slope, widen the cross-sectional area, and develop inset floodplain benches. The project area extends approximately 800 linear feet downstream of the outlet works.

Two juvenile salmonid rearing ponds are included in the project's design. The rearing ponds will be constructed in upland areas adjacent to the outlet channel, connected with side channels that will allow a percentage of flow to divert into the slow water pond habitat. Each pond will have a surface area of approximately 6,000 square feet with an average depth of six feet. Woody material will be placed in and around the ponds to provide shelter for rearing salmonids. Large wood debris will also be incorporated to create cover and provide hard points for purpose of flow diversion into the side channels and rearing pond areas.

Dewatering of the project area will be necessary during construction. The normal base flow will be pumped from the dam's outlet works, around the disturbed project area, and back into the channel approximately 800 linear feet downstream. Prior to dewatering,

fish and other aquatic life present within the area to be dewatered will be captured and relocated to an appropriate location downstream. All of the estimated 9,000 cubic yards of excavated sediment and earthen materials will be permanently placed and stabilized onsite within a strategically selected upland area located between the outlet channel and spillway channel.

Proposed dewatering activities will temporarily impact 9,600 square feet and 800 linear feet of existing stream channel. Activities associated with excavation of approximately 4,500 cubic yards of sediment (decomposed granite) from the outlet channel and approximately 75 cubic yards of bedrock at the channel intrusion will result in temporary impacts to 650 linear feet and 7,800 square feet of stream channel. An additional approximate 4,500 cubic yards of earthen material will be excavated to create side channel and rearing pool habitat, and to alter the existing center line alignment of the outlet channel to increase its sinuosity, build pool/riffle habitat, widen the cross-sectional area, and develop inset floodplain benches. The proposed project will create a slightly wider and longer outlet channel, resulting in a 13,300 square foot increase in the wetted channel, including an additional 12,000 square feet of rearing pond habitat. Compensatory mitigation is not required for the proposed activities. Noncompensatory mitigation includes the use of Best Management Practices (BMPs) for sediment and turbidity control and for operation of heavy equipment in a stream channel.

On November 16, 2011, a Draft Initial Study/Mitigated Negative Declaration (IS/MND)(SCH No. 2011112038) for the proposed project was distributed by the State Clearinghouse for a 30-day public review period. The Trinity County Resource Conservation District (TCRCD) was identified as the lead agency for compliance with CEQA requirements. The TCRCD received a comment letter from the California Department of Fish and Game indicating that the IS/MND is not clear regarding the TCRCD's role as Lead Agency. The TCRCD's response to DFG indicates that the TCRCD has been working closely with the Applicant on restoration activities within the Grass Valley Creek watershed and expected to have a larger role in implementation of the project than is presently envisioned. As the project developed, the role of TCRCD diminished such that the TCRCD is no longer an appropriate lead agency.

The only other comments to the TCRCD during public review of the IS/MND were submitted by Regional Water Board staff. Regional Water Board staff expressed concerns regarding a general lack of information and detail related to potential adverse effects associated with the proposed removal of the bedrock outcrop intrusion within the outlet channel. Regional Water Board staff had interpreted the project description in the IS/MND to include excavation of 4,500 cubic yards of bedrock for the purpose of lowering the bedrock grade control. Regional Water Board staff inspected the project area and bedrock intrusion location, and received additional data from the Applicant demonstrating that removal of the bedrock grade control intrusion will only involve removal of between 50 and 100 cubic yards. After considering the environmental document and comments received during the public review process, Regional Water Board staff determined that the proposed project, with implementation of mitigation

measures listed in the Mitigation Monitoring and Reporting Program, will not have a significant effect on the environment. The Regional Water Board has assumed the role of lead agency for compliance with CEQA requirements and will file a Notice of Determination within five days of issuance of a water quality certification order for the project.

The Applicant has applied for authorization from the United States Army Corps of Engineers (File No. 2005-29663N) to perform the project under Nationwide Permit Numbers 3 and 27, pursuant to Clean Water Act, section 404. A Lake and/or Streambed Alteration Agreement from the California Department of Fish and Game is not required for this federal project. The project is scheduled to begin on August 1, 2012 and is expected to take up to 80 days to complete.

The Trinity River Total Maximum Daily Load (TMDL) for sediment was established in 2001 by the United States Environmental Protection Agency (EPA) in accordance with section 303(d) of the Clean Water Act, because the State of California determined that the water quality standards for the Trinity River are exceeded due to excessive sediment. Roads and bank erosion are identified as sources contributing to the sediment impairment. The primary adverse impacts associated with excessive sediment in the Trinity River pertain to cold freshwater habitat, primarily anadromous salmonid habitat. Proposed activities include excavation of fine sediment from the stream channel, implementation of BMPs for sediment and turbidity control, and implementation of mitigation and impact avoidance measures as described above. Accordingly, the project is consistent with, and implements portions of the Trinity River TMDL.

The information contained in this public notice is only a summary of the Applicant's proposed activities. The application for Water Quality Certification in the Regional Water Board's file contains additional details about the proposed project including plans, maps and photos. The application and Regional Water Board file are available for public review.

Regional Water Board staff are proposing to regulate this project pursuant to Section 401 of the Clean Water Act (33 USC 1341) and/or Porter-Cologne Water Quality Control Act authority. In addition, staff will consider all comments submitted in writing and received at this office by mail during a 21-day comment period that begins on the first date of issuance of this letter and ends at 5:00 p.m. on the last day of the comment period. If you have any questions, please contact staff member Dean Prat at (707) 576-2801 within 21 days of the posting of this notice.