

August 6, 2008

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

Humboldt Co. DPW – Mad River Bluff, Streambank Protection Project
WDID No. 1B08119WNHU
Humboldt County

On July 21, 2008, the North Coast Regional Water Quality Control Board (Regional Water Board) received an application from the Humboldt County Public Works Department (applicant), requesting Federal Clean Water Act, Section 401, Water Quality Certification (certification) for activities related to an emergency streambank stabilization project along the north bank of Mad River in McKinleyville. The proposed project will cause disturbances to waters of the United States associated with the Mad River in the Blue Lake Hydrologic Area No. 109.10

The proposed project is located along the steep bluffs near the intersection of School Road and Verwer Court in western McKinleyville. The project area is approximately 1.5 miles upstream from the mouth of the Mad River in 2008. The streambank in the project area was damaged by high flows during the December 2005 and January 2006 storm. The severe storm event was declared a disaster by federal and state governments. Substantial streambank erosion and retreat of the adjacent bluff face occurred during the storm. The top of the bluff is currently within 15 feet of a single family residence and is also very close to several other residences and public infrastructure. At the project site, the steep bluff ranges in height from approximately 5 feet to 50 feet above the mean tide level.

A heavily vegetated gravel bar, located immediately upstream and on the opposite bank, is directing the channel's thalweg toward the bluff. The channel is also narrowing adjacent to the gravel bar which results in higher stream flow velocities through the bluff area of the streambank. These existing channel conditions are expected to continue into the foreseeable future. The applicant has conducted a geologic investigation and flow study. Investigation and modeling results indicate that without intervention the bluff area can be expected to experience substantial erosion during future high flow events. According to the investigation and study, it is not certain that every peak discharge event above the identified threshold will result in bluff erosion, but the experts that studied the area estimate that there is a greater than 50 percent probability that a peak discharge event will occur during the next winter with a reasonable likelihood of causing 10 feet of bluff erosion, a 10 to 33 percent probability that a peak discharge event will occur during the next winter that could cause up to 50 feet of bluff erosion, and 5 percent probability that a peak discharge event will occur that could cause up to 90 feet of bluff erosion. The study concluded that there is substantial evidence that potentially significant bluff erosion may occur in the next 12 months that will threaten property, essential services, and life and health.

The proposed project has been designed to improve the erosion resistance and streambank stability without causing adverse downstream impacts and to provide aquatic habitat, riparian habitat, and water quality benefits. The proposed project

involves installation of a 1,300-foot long streambank stabilization structure consisting of a combination of rock slope protection (RSP/revetment) and bioengineering components. Approximately 10 to 15 vertical feet of the upper bluff face will also be graded to a lower angle and revegetated to create a more stable slope along the top of the bluff. Construction of the stabilization structure involves excavating a 1,300-foot long and 8-foot deep toe trench along the streambank at the base of the bluff. The toe trench will be filled with large rocks (4 ton to 6 ton each). The upper and lower ends of the stabilization structure will be keyed into the streambank to prevent flows from back cutting and flanking behind the structure. The toe trench has been designed to protect the lower streambank area and subsurface from scour and undercutting, and to provide a stable foundation for placement of the upper layers of the streambank stabilization structure.

The upper layers of the structure will consist of an alternating series of rock groins (hard points) and sections of RSP/revetment covered with willow mattress. The hard points will be constructed with mounds of rock and large woody debris, such as logs with attached root wads, which will be secured together with cable anchors. The hard points will be spaced at approximately 60-foot intervals, and they will extend approximately 20 feet out from the streambank, approximately 20 feet along the streambank, and approximately 14 feet up the streambank from the top of the rock filled toe trench. The willow mattress and RPS/revetment sections will consist of layers of rock, soil and integrated willow mattresses. Soil removed from the upper bluff face will be incorporated into the RSP/revetment to provide a growth matrix for the willows and other riparian vegetation. Willow mattresses will be made from approximately 4 to 6-inch thick bundles of salt-tolerant willow branches or cuttings that are tied together with twine. RSP/revetment materials will be placed in lifts and the willow mattresses will be secured with 4-inch diameter willow stakes.

The primary best management practice (BMP) that will be implemented at the project to avoid significant adverse impacts to fish, marine mammals, and water quality, will be a temporary fish exclusion and sediment management barrier. The barrier will be placed in approximately 150 to 300-foot long sections of the project. The barrier will consist of parallel walls of silt fencing attached to steel fence posts that are mounted in the channel bottom. Depending on site specific conditions, the silt fencing will be draped over floating baffles that will raise and lower with the tides, or the fencing will be secured to posts with wire. Each section of barrier is built segment by segment until only the downstream end is open. Two small-meshed seines will be used to herd fish out of the containment area by starting at the upstream end and working the seines to the downstream end where they will remain to prevent fish from re-entering the containment area. Two passes will be made and the containment area will be visually inspected for fish. The seining procedure will be repeated until no fish are herded out or observed in the containment area.

Installation of the stabilization structure will result in approximately 1300 linear feet and 26,000 square feet of permanent impacts to the streambank. Grading a temporary access road from the south side of the river to the project area will result in 250 square

feet of temporary impacts to the streambed. Compensatory mitigation is not required for the proposed project. Noncompensatory mitigation for this project includes the use of Best Management Practices for sediment and erosion control and for the operation of heavy equipment in a waterway.

The applicant has applied for authorization from the United States Army Corps of Engineers to perform the project under Nationwide Permit Number 37, for emergency watershed protection and rehabilitation activities, pursuant to Clean Water Act, section 404. The applicant has also applied for a Lake or Streambed Alteration Agreement from the California Department of Fish and Game. The County of Humboldt determined that this project is statutorily exempt from California Environmental Quality Act (CEQA) review pursuant to Section 15269 – emergency projects, and also determined the project is categorically exempt from CEQA review pursuant to Section 15333 – Class 33, small habitat restoration projects. Regional Water Board staff have determined that this project is statutorily exempt from CEQA review (Section 15269 – emergency projects) and anticipate filing a Notice of Exemption for this project.

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 technical reports, maps, and design drawings. 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.