

August 4, 2011

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

Humboldt County DPW – Williams Creek Bridge Replacement at Williams Creek Road  
WDID No. 1B11048WNHU

Humboldt County

On April 18, 2011, 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 for proposed activities associated with removal and replacement of the Williams Creek Road Bridge over Williams Creek at Post Mile 0.10. The proposed project will cause disturbances to waters of the United States associated with Williams Creek in the Ferndale Hydrologic Subarea No. 111.11.

The existing bridge is 80-feet long by 20-feet wide with roadway approaches consisting of 20-foot wide travel lanes with no shoulders. Structural evaluation of the existing bridge under the Local Seismic Safety Retrofit Program determined that it is seismically deficient and in need of repairs. A cost analysis determined that replacement of the bridge is the most cost effective alternative.

The proposed project involves construction of a new single-span, 80-foot long by 30-foot wide reinforced concrete box-girder bridge structure with no piers in the stream channel. The new bridge will be located on approximately the same alignment as the existing bridge. The roadway approaches on both ends will be widened to accommodate two 10-foot wide paved travel lanes, 4-foot wide paved shoulders, and 3-foot wide unpaved shoulders. The bridge includes curbs with guardrails along both sides and is designed such that storm water runoff will flow to the sides of the bridge and then to the ends of the bridge where the runoff will exit the bridge deck through scupper drains located over vegetated slopes. The bridge deck will not include any scupper drains over the active channel.

A temporary detour will be installed to accommodate traffic during bridge replacement activities. The detour will consist of a temporary 89-foot long by 13-foot wide flatcar bridge with 20-foot wide roadway approaches. The detour will be located approximately 50-feet downstream of the existing bridge. The flatcar bridge will span the creek and rest on grade beams made of pre-cast concrete or abutment pads comprised of crushed rock placed on filter fabric. Vegetation within the temporary detour alignment will be cut and no scraping or grading will be done for the traffic detour. Filter fabric will be placed over the streambank surface and along the detour route. Crushed rock will be placed over the filter fabric, ramping up to the detour bridge approaches. Installation of the temporary detour will require removal of several large alder trees from the right streambank. Trees will only be cut and the roots and stumps will be left in place for bank stabilization. The traffic detour will result in temporary impacts to 1,690 square feet of streambank above the elevation of ordinary high water (OHW).

Williams Creek is a perennial stream and it will be necessary to temporarily divert the stream flow through the project area. A coffer dam will be installed upstream of the bridge using a water bladder, or sandbags and straw bales covered with plastic. A minimum 24-inch diameter (or two 18-inch diameter) diversion pipe will be installed through the upstream cofferdam and stream flows will be routed through the diversion pipe to the downstream side of the temporary detour bridge. The diversion pipe may be buried within the stream channel or placed in a larger "sleeve" pipe to protect it from damage from equipment and bridge demolition debris. Fish exclusion fence will be installed a short distance above and below the diversion reach. The diversion reach will be visually surveyed for the presence of fish and other aquatic life. Aquatic life will be relocated above or below the fish exclusion fence. The temporary detour crossing will be located within the dewatered channel area. The temporary diversion will be up to 150-feet long including the fish exclusion fences and will result in temporary impacts to up to 3,000 square feet of the stream channel.

The existing bridge will be demolished once the temporary diversion and detour are installed. Demolition will be accomplished using a bulldozer, an excavator with a jack-hammer, and potentially a crane to remove the larger pieces. Prior to the start of demolition activities, a catchment will be installed below the bridge to prevent concrete and other demolition debris from entering the stream channel. Filter fabric, canvas material, or a similar type of material will be laid underneath the bridge to collect falling debris. The jack-hammer will break apart the bridge with concrete pieces falling onto the catchment. The existing bridge piers and abutments will also be broken with a jack-hammer and removed. Piers will be removed to a depth of at least 2 feet below the final surface elevations. Removal of the existing bridge piers will eliminate 16 square feet of existing permanent fill material within the stream channel. All bridge demolition debris will be removed from the streambed and transported to an appropriate disposal facility.

A large sediment (silt) deposit has formed on the upstream side of the bridge along the right stream bank, between the existing piers and bridge abutment. The surface elevation of the deposit is nearly as high as the bridge deck. Approximately 790 cubic yards of silt (265 cubic yards below OHW) will be excavated and removed from the streambank prior to construction of the new bridge to restore the channel width and capacity under the bridge. Proposed activities associated with removal of the silt deposit will result in temporary impacts to 1,440 square feet of wetlands.

Construction of the new bridge will begin once the bridge demolition activities are complete. Construction of the new bridge involves excavation of the upper streambanks for installation of the new bridge abutments. A pile driver will drive six piles into the upper stream bank for each new abutment. Piles will be driven 50 to 100 feet deep. After all the piles are installed the temporary falsework for the new poured-in-place concrete abutments and bridge deck will be installed. The bridge deck falsework will include vertical supports anchored to the streambed with pads to distribute the weight.

Once the falsework is in place the concrete will be poured. The concrete truck and associated equipment will be stationed at the top of the stream bank. A containment system will be installed beneath the falsework to prevent spilled or leaked concrete from coming into contact with surface waters and the native stream channel materials. Concrete work will take about one month to complete including approximately one-week for curing. All the falsework materials will be removed once the concrete has cured.

Approximately 730 cubic yards of quarter-ton and half-ton rock will be placed as rock slope protection (RSP) around and below the bases of the new bridge abutments to protect the abutments from scour during high flows. Approximately 320 square feet and 30 linear feet of existing concrete slabs and RSP materials that currently exists under the existing bridge abutments will be removed. Approximately 400 square feet and 50 linear feet of RSP will be placed to protect the new abutments. An approximately 50-foot long toe trench will be excavated along both sides of the stream channel to provide a stable foundation for the RSP. The proposed RSP for both abutments will result in 160 square feet and 40 linear feet of additional permanent impacts to the streambanks.

Once the new bridge is complete, traffic will be redirected onto the new bridge and the detour bridge and associated materials will be removed from the stream channel. The streambed and channel in the project area will be restored to a natural condition and disturbed areas will be revegetated. Revegetation will consist of seeding and mulching for erosion control, natural propagation of wetland plants, and plantings of alders and/or willow species. At least two trees will be planted for each tree that is cut. The wetland areas temporarily impacted for sediment removal and the detour will be graded and a revegetation specialist will assess site conditions to determine if natural propagation of wetland plants is likely to occur. If necessary, these wetland areas will be replanted with native wetland plants. All disturbed areas will be visited monthly during the winter months to monitor for establishment of erosion control vegetation and areas not achieving 80 percent coverage will be reseeded. Revegetation areas will be visited yearly for a minimum of three years to monitor wetland plant and riparian tree growth. A final monitoring report will be prepared containing observations and photos throughout the 3-year monitoring period. If wetland or riparian tree growth does result in replacement of cut trees and 1,440 square feet of wetlands a revised or supplemental revegetation and monitoring plan will be implemented. Monitoring will continue annually until success the criteria has been achieved.

Compensatory mitigation is not required. Non-compensatory mitigation measures include revegetation as described above and the use of Best Management Practices for containment of bridge demolition debris, use of heavy equipment and concrete in a waterway, and sediment and erosion control. The proposed project is scheduled for construction between 2012 and 2014 and is expected to take approximately 60 days to complete.

The applicant has obtained authorization from the U.S. Army Corps of Engineers to perform the project under Nationwide Permit No. 3 (File No. 2009-00346N) pursuant to

Clean Water Act, section 404. The applicant has applied for a Lake or Streambed Alteration Agreement from the California Department of Fish and Game. Humboldt County determined that this project is categorically exempt from CEQA review (Section 15301 – existing facilities and 15304 – minor alterations to land). Regional Water Board staff have determined that this project is categorically exempt from CEQA review (Section 15301 – existing facilities) and anticipate filing a Notice of Exemption for the proposed 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 activities including maps and detailed 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.