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Secretary for
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**California Regional Water Quality Control Board
North Coast Region
Geoffrey M. Hales, Chairman**

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Edmund G. Brown Jr.
Governor

September 12, 2011

In the Matter of

Water Quality Certification

for the

**Humboldt County DPW – Williams Creek Bridge Replacement at Williams Creek
Road
WDID No. 1B11048NHU**

APPLICANT: Humboldt County Public Works Department
RECEIVING WATER: Williams Creek
HYDROLOGIC AREA: Ferndale Hydrologic Subarea No. 111.11
COUNTY: Humboldt
FILE NAME: Humboldt Co. DPW – Williams Creek Road at Williams
Creek, Bridge Replacement Project

BY THE EXECUTIVE OFFICER:

1. On April 18, 2011, the Humboldt County Public Works Department (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 removal and replacement of the Williams Creek Road Bridge over Williams Creek at Post Mile 0.10. The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on August 4, 2011, and posted information describing the project on the Regional Water Board's website. We did not receive any public comments on this project.
2. 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

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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.

3. The 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.
4. 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).
5. 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.

6. 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.
7. 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. Activities associated with removal of the silt deposit will result in temporary impacts to 1,440 square feet of wetlands.
8. 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.
9. 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.

10. 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 RSP for both abutments will result in 160 square feet and 40 linear feet of additional permanent impacts to the streambanks.
11. 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 the success criteria are achieved.
12. 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 project is scheduled for construction between 2012 and 2014 and is expected to take approximately 60 days to complete.
13. The Regional Water Board, as the lead California Environmental Quality Act (CEQA) agency, has determined that this project is categorically exempt from CEQA review, section 15302 – replacement or reconstruction, pursuant to CEQA. The Regional Water Board will file a Notice of Exemption in accordance with the California Code of Regulations, title 14, section 15602 upon issuance of this order.

14. 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.
15. The Lower Eel River Total Maximum Daily Loads (TMDL) for temperature and sediment was established in 2007 by the United States Environmental Protection Agency in accordance with section 303(d) of the Clean Water Act, because the State of California determined that the water quality standards for the Lower Eel River are exceeded due to excessive temperature and sediment. Roads and bank erosion are identified as sources contributing to the sediment impairment. In addition, activities that impact the riparian zone and reduce riparian vegetation are identified as sources contributing to increased stream temperatures. The primary adverse impacts associated with excessive temperature and sediment in the Lower Eel River pertain to cold freshwater habitat, primarily anadromous salmonid habitat. Activities authorized by this certification require implementation of Best Management Practices (BMPs) for sediment and turbidity control, and implementation of impact avoidance measures as described above. Accordingly, this Order is consistent with, and implements portions of the Lower Eel River TMDL.
16. 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.
17. 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. Order No. 2003-0017-DWQ can be found at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf.

Receiving Waters: Williams Creek in the Ferndale Hydrologic Subarea No. 111.11

Filled or Excavated Area: Area Temporarily Impacted: 1,440 square feet of wetlands, 1,690 square feet of streambank, and 3,000 square feet of stream channel
Area Permanently Impacted: 160 square feet of streambank

Total Linear Impacts: Length Temporarily Impacted: 150 linear feet of stream channel
Length Permanently Impacted: 40 linear feet of streambank

Dredge Volume: None

Latitude/Longitude: 40.56960 N/124.24924 W

Accordingly, based on its independent review of the record, the Regional Water Board certifies that the Humboldt County Public Works Department – Williams Creek Bridge Replacement at Williams Creek Road (WDID No.1B11048WNHU), 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. The validity this certification is conditioned upon total payment of any fee required under title 23, California Code of Regulations, section 3833, and owed by the Applicant.
4. The Regional Water Board staff shall be notified in writing 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. The Applicant shall provide Regional Water Board staff access to the project site to document compliance with this certification.
6. 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. 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 action(s).
7. The Applicant shall provide a copy of this Order and State Water Resources Control Board (SWRCB) Order No. 2003-0017-DWQ to any contractor(s), subcontractor(s), and utility company(ies) conducting work on the project, and shall require that copies remain in their possession at the work site. The Applicant shall be responsible for ensuring that all work conducted by its contractor(s), subcontractor(s), and utility companies is performed in accordance with the information provided by the Applicant to the Regional Water Board.
8. The Applicant shall construct the project in accordance with the project described in the application and the findings above, and shall comply with all applicable water quality standards as detailed in the Basin Plan.
9. BMPs for erosion, sediment and turbidity control shall be implemented and in place at commencement of, during and after any ground clearing activities or any other project activities that could result in erosion or sediment discharges to surface waters. All BMPs shall be installed properly and in accordance with the manufacturer's specifications.
10. The Applicant shall prioritize the use of wildlife-friendly biodegradable (not photo-degradable) erosion control products wherever feasible. The Applicant shall not use or allow the use of erosion control products that contain synthetic materials within waters of the United States or waters of the State at any time. The Applicant shall not use or allow the use of erosion control products that contain synthetic

netting for permanent erosion control (i.e. erosion control materials to be left in place for two years or after the completion date of the project). If the Applicant finds that erosion control netting or products have entrapped or harmed wildlife, personnel shall remove the netting or product and replace it with wildlife-friendly biodegradable products. The Applicant shall request approval from the Regional Water Board if an exception from this requirement is needed for a specific location.

11. Disturbance or removal of existing vegetation shall not exceed the minimum necessary to complete the project.
12. This Water Quality Certification does not authorize the Applicant to draft surface waters.
13. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, 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.
14. Fueling, lubrication, maintenance, storage, and staging of vehicles and equipment shall not result in a discharge or threatened discharge to any waters of the State including dry portions of the streambank and streambed. At no time shall the Applicant or its contractors allow use of any vehicle or equipment, which leaks any substance that may impact water quality.
15. 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 including stopping work. 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.
16. Spill kits are required at each fueling location and at each location that where power equipment will be working within waters of the State. In the event of an unauthorized release of fuel (spill or leak) to waters of the State, the Applicant shall immediately stop work and conduct the following measures:
 - a) notify the appropriate agencies including the Regional Water Board, CDFG, and the Office of Emergency Services (OES) at 1(800) 852-7550;
 - b) utilize the appropriate spill kits for containment and clean up of the release;

- c) collect samples within the immediate area of release, 50 feet downstream, and downstream to the full extent of the release if the release reaches surface waters; and,
 - d) analyze required surface water samples for all appropriate constituents including but not limited to total petroleum hydrocarbons as diesel (TPH-D), total petroleum hydrocarbons as gasoline (TPH-G), and benzene, toluene, ethylbenzene, total xylenes (BTEX).
17. 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.
18. In the event of any violation or threatened violation of the conditions of this Order, 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 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 Order. In response to a suspected violation of any condition of this certification, the State Water Board may require the holder of any federal permit or license subject to this Order to furnish, under penalty of perjury, any technical or monitoring reports the State 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 Order, the Regional Water Board may add to or modify the conditions of this Order as appropriate to ensure compliance.
19. 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.

20. 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).
21. The authorization of this certification for any dredge and fill activities expires on September 12, 2016. Conditions and monitoring requirements outlined in this Order 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.

Catherine Kuhlman
Executive Officer

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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

Original to: Mr. Andrew Bundschuh, Humboldt County Public Works Department,
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Electronic

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