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**California Regional Water Quality Control Board  
North Coast Region  
Bob Anderson, Chairman**

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Arnold  
Schwarzenegger  
Governor

March 2, 2009

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In the Matter of  
**Revised - Water Quality Certification**

for the

**CALIFORNIA DEPARTMENT OF TRANSPORTATION  
Hwy 101, Mad River Bridges Replacement Project  
WDID No. 1B06134WNHU**

APPLICANT CONTACT: California Department of Transportation  
RECEIVING WATER: Mad River and Wetlands  
HYDROLOGIC AREA: Blue Lake Hydrologic Area No. 109.10  
COUNTY: Humboldt  
FILE NAME: Mad River Bridges Replacement Project

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BY THE EXECUTIVE OFFICER:

1. On September 7, 2006, the California Department of Transportation (Caltrans) filed an application for water quality 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 the Mad River Bridges Replacement project (project). Staff received additional project information on February 19, 2008, February 21, 2008, March 26, 2008, April 1, 2008 and May 8, 2008. The Water Quality Certification fee was received on March 13, 2008. The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on April 8, 2008, and posted information describing the project on the Regional Water Board's website. No comments were received.
2. On June 10, 2008, Caltrans requested an amendment to the 401 certification issued on May 28, 2008, to allow the fueling of cranes and stationary equipment near or over waters utilizing redundant Best Management Practices (BMPs) and a California Department of Fish and Game (CDFG) certified fueling outfit. Allowing large stationary equipment to have fuel delivered, would reduce the overall project construction time and reduce the cost to the State for time lost in mobilizing the large equipment. In addition, mobilizing the large equipment increases the risk in a large scale crane accident and increases soil disruption in the access roads.

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3. The project is located on Highway 101 post mile (PM) 89.1 to first realignment (R) PM 90.4, approximately 1 mile north of the town of Arcata in Humboldt County. The project is necessary in view of an evaluation that indicated the Mad River Bridges are structurally deficient and do not meet current seismic standards. The proposed bridges are designed to endure the strongest seismic event estimated for the area. The project will also extend on/off exit ramp lengths, since the current exit ramp lengths are not up to current standards and appear to contribute to traffic accidents within the project area. In addition, the bridge designs have wider vehicle lanes, shoulder widths, bicycle lanes, and include a pedestrian path. The bridges would be supported by two abutments and three piers, which require a total of 17 piles. Construction of temporary falsework, cofferdams, and trestles will be required for the construction of the new bridges. Additional vegetation clearing and grade change construction will be needed along the exit ramps, access roads, and staging areas within the project area.
4. The project will result in approximately 0.82 acres of temporary and 0.90 acres of permanent impacts to riparian vegetation within the project area. Approximately 0.04 acres of wetlands will be permanently impacted and it is anticipated that the project will temporarily impact 0.02 acres of wetlands. During the construction of the bridges, which is likely to be four working seasons, the temporary impacts to the Mad River (Waters of the U.S.) will be approximately 2.1 acres. However, newly designed bridges will result in an overall loss of permanent fill within the channel, since the new piers will take less area as compared to the area of the current piers. Over the lifetime of the bridges a scour hole (observed fish holding habitat) has developed along the northern pier of the northbound bridge. As part of the proposed project Caltrans will fill the scour hole to discourage fish from holding within the project area during construction.
5. As a compensatory mitigation measure Caltrans has proposed 1.72 acres of riparian restoration and 0.34 acres of wetland creation on-site. In addition, approximately 5.16 acres of riparian vegetation will be mitigated for off-site. Caltrans has proposed creating a new scour feature for fish habitat, to replace the area filled during bridge construction.
6. Non-compensatory mitigation measures have been incorporated into the project to reduce potential impacts to water quality, including erosion and sediment control BMPs to reduce the potential for turbid discharges to surface waters. All BMPs and control measures shall be implemented as described in the project description and in compliance with the Caltrans Construction Site Best Management Practices Manual (CCSBMPM).
7. The proposed project will slightly realign and add road surface to the highway. Approximately 1.8 acres of additional impervious surface will be added throughout the project area. Therefore, approximately 0.3 acres (13,241 square feet) of additional storm water treatment controls are proposed within the project area, which includes the addition of three biofiltration strips along the highway.

8. On June 17, 2005, the California Department of Transportation adopted a negative declaration (SCH No. 2003122015) for the project in order to comply with the California Environmental Quality Act. The Regional Water Board has considered the environmental document and any proposed changes incorporated into the project or required as a condition of approval to avoid significant effects to the environment. The United States Army Corps of Engineers has permitted this project under Nationwide Permit Numbers 3 and 33: Maintenance and Temporary Construction, Access and Dewatering Projects (File Number 283960N), pursuant to Clean Water Act, section 404. In addition, Caltrans has applied for a CDFG 1602 Streambed Alteration Agreement; the California Coastal Commission (CCC) Coastal Development Permit (CDP); and Biological Opinion from the National Marine Fisheries Service (NMFS).

Receiving Water: Wetlands and Waters of the U.S.: Mad River in the Blue Lake Hydrologic Area No. 109.10.

Filled or Excavated Area: Permanent Impacts: 0.90 Acres – Riparian Vegetation  
0.04 Acres – Wetlands

Temporary impacts: 2.1 Acres – Waters of the U.S.  
0.82 Acres – Riparian Vegetation  
0.02 Acres – Wetlands

Expiration: May 28, 2013

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE REGIONAL WATER BOARD CERTIFIES THAT THE CALTRANS HIGHWAY 101 – MAD RIVE BRIDGES REPLACEMENT PROJECT WDID No. 1B06134WNHU, 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 Caltrans complies with the following terms and conditions:

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 of any nondenial certification action (actions 1 and 2) shall be conditioned upon total payment of the full fee required under title 23, California

Code of Regulations, section 3833, unless otherwise stated in writing by the certifying agency.

4. Except 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 b) compliance with all applicable requirements of the Basin Plan.
5. Caltrans shall construct the project in accordance with the conditions described in the application and the findings above, and shall comply with all applicable water quality standards.
6. Any change in the implementation of the project that would have a significant or material effect on the findings, conclusions, or conditions of this Order shall be submitted to the Executive Officer of the Regional Water Board for prior review and written approval.
7. Caltrans shall provide Regional Water Board staff access to the project site to document compliance with this Order.
8. Caltrans shall provide a copy of this Order and attachments to the contractor and all subcontractors conducting the work, and require that copies remain in their possession at the work site. Caltrans shall be responsible for work conducted by its contractor or subcontractors.
9. 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. 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.
10. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or concrete washings, oil or petroleum products, welding slag, 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.
11. When operations are complete, any excess material or debris shall be removed from the work area and disposed of properly and in accordance with the Special Provisions for the project and/or Standard Specification 7-1.13, Disposal of Material Outside the Highway Right of Way. Caltrans shall submit to the Regional Water Board the satisfactory evidence provided to the Caltrans engineer by the Contractor referenced in Standard Specification 7-1.13.
12. Work in flowing or standing surface waters, unless otherwise proposed in the project description and approved by the Regional Water Board, is prohibited. If construction dewatering is found to be necessary, the Applicant shall use a method

of water disposal other than disposal to surface waters (such as land disposal) or the Applicant shall apply for coverage under the General Construction Dewatering Permit and receive notification of coverage to discharge to surface waters, prior to the discharge.

13. A copy of the Storm Water Pollution Prevention Plan (SWPPP) shall be submitted to the attention of Regional Water Board at least 30 days prior to the start of any project activity. Construction activities are authorized only if they are adequately addressed in the current SWPPP.
14. Visual observations of the Mad River shall be conducted whenever a project activity has the potential to mobilize sediment and increase the turbidity and/or pH of the Mad River. In order to demonstrate compliance with receiving water limitations, field turbidity and/or pH measurements shall be collected whenever a project activity causes turbidity and/or pH of the Mad River to be increased above background concentrations.
15. Whenever turbidity and/or pH in the Mad River is increased above background as a result of project activities, turbidity and pH measurements shall be collected upstream (within 50 feet) of project activities (background) and downstream (within 100 feet) of the source. The frequency of turbidity and pH monitoring shall be a minimum of every hour during periods of increased turbidity and/or pH and shall continue until measurements demonstrate compliance with receiving water limitations and turbidity and pH levels are no longer increasing as a result of project activities. If turbidity levels are greater than 20 percent above background or pH levels are beyond the water quality objective (6.5 – 8.5) 100 feet downstream of the source(s), all necessary steps shall be taken to install, repair, and/or modify BMPs to control the source(s) of sediment or increased pH. In addition, the overall distance from the source(s) of turbidity or pH to the downstream extent of the increased turbidity or pH (20 percent above background / 6.5 - 8.5) shall be measured.
16. Turbidity and pH monitoring results shall be reported to appropriate Regional Water Board staff person by telephone within 1 hour of taking any turbidity measurement higher than 20 percent above background or pH measurements outside of 6.5 – 8.5 at a point 100 feet or more downstream of the source(s). Pictures of the Mad River upstream, downstream and within the working and/or disturbed area shall be taken and submitted to the appropriate Regional Water Board staff via e-mail within 24 hours of the incident.
17. Monthly monitoring reports shall be submitted to the appropriate Regional Water Board staff person. The monthly monitoring reports shall include at a minimum a summary of discharges, a summary of corrective actions taken (if necessary), pictures, all field sampling measurements and/or results, project status (i.e. upcoming construction schedule and disturbed soil area updates), biological monitoring reports, changes to the SWPPP. Monthly monitoring reports are due to the Regional Water Board by the 15<sup>th</sup> of the following month.

18. Calibration logs for all field monitoring equipment shall be maintained and be available to the Regional Water Board on request.
19. When construction operations are completed, any excess material or debris shall be removed from the work area and disposed of properly. No rubbish shall be deposited within 100 feet of waters of the United States and the State.
20. All materials used for cleaning concrete from tools and equipment, and any wastes generated by this activity, shall be adequately contained to prevent contact with soil and surface water and shall be disposed of properly within a clearly designated area at least 100 feet beyond waters of the United States and the State.
21. Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall be outside of waters of the United States and the State with the exception of canes and stationary equipment, which shall be refueled using a company certified by the CDFG for marine over-water refueling. Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall not result in a discharge or a threatened discharge to any waters of the State or the United States. At no time shall Caltrans or its contractors use any vehicle or equipment which leaks any substance that may impact water quality.
22. BMPs for erosion, sediment and turbidity control shall be implemented and in place at commencement of, during and after any ground clearing activities, construction activities, or any other project activities that could result in erosion or sediment discharges to surface water. The BMPs shall be implemented in accordance with the CCSBMPM and all contractors and subcontractors shall comply with the CCSBMPM.
23. All conditions required by this Order shall be included in the Plans and Specifications prepared by Caltrans for the Contractor. In addition, Caltrans shall require compliance with all conditions included in this Order in the bid contract for this project.
24. The Resident Engineer shall hold on-site water quality permit compliance meetings (similar to tailgate safety meetings) to discuss permit compliance, including instructions on how to avoid violations and procedures for reporting violations. The meetings shall be held at least every other week, and particularly before forecasted storm events and when a new contractor or subcontractor arrives to begin work at the site. The contractors, subcontractors and their employees, as well as any inspectors or biological monitors assigned to the project, shall be present at the meetings. Caltrans shall maintain dated sign-in sheets for attendees at these meetings, and shall make them available to the Regional Water Board on request.
25. All mitigation activities shall be completed as proposed in the Caltrans-prepared *Mad River Bridges Replacement On-Site Wetland and Riparian Mitigation and Monitoring Plan*, dated November 2007. This includes utilizing a 0.34 acre area

on-site for wetland creation. In addition, the restoration of 1.72 acres of riparian vegetation will be achieved on-site, both under and adjacent to the new bridges. Mitigation monitoring reports shall be submitted to the Regional Water Board by December 31<sup>st</sup> of the monitoring year.

26. Modification of the areas designated for bioswales shall be conducted in accordance with the application and the supplemental information provided to the Regional Water Board dated February 06, 2008, March 26, 2008, and May 08, 2008.
27. Detailed plans for the creation of the scour hole, as in-kind replacement of fish habitat, shall be approved by the Regional Water Board prior to construction. Access for constructing the replacement scour hole shall be limited to the area of temporary impact as proposed in the application. Monitoring reports including the as built construction diagram, photos, and success criteria shall be submitted to the Regional Water Board annually by December 31<sup>st</sup> of the monitoring year.
28. 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 State Water Board may add to or modify the conditions of this Order as appropriate to ensure compliance.
29. 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 or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.
30. This Order is not transferable. 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. The successor-in-interest must send to the Regional Water Board Executive Office a written request for transfer of this Order to discharge dredged or fill material under this Order. The request must contain the following:
  - a. requesting entity's full legal name
  - b. the state of incorporation, if a corporation

- c. address and phone number of contact person
  - d. description of any changes to the project or confirmation that the successor-in-interest intends to implement the project as described in this Order.
31. The authorization of this certification for any dredge and fill activities expires on May 28, 2013. 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.
32. Please contact Jeremiah Puget of our staff at (707) 576-2835 or [JPuget@waterboards.ca.gov](mailto:JPuget@waterboards.ca.gov) if you have any questions.

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Catherine Kuhlman  
Executive Officer

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Web link: 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](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf)

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