California Regional Water Quality Control Board
Santa Ana Region

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Secretary for
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July 22, 2010

Nardy Khan
Orange County Public Works
300 North Flower Street
Santa Ana, CA 92702

CLEAN WATER ACT SECTION 401 WATER QUALITY STANDARDS CERTIFICATION FOR HUNTINGTON BEACH CHANNEL (FACILITY D01) FROM THE CONFLUENCE WITH TALBERT CHANNEL (FACILITY D02) TO ADAMS AVENUE AND TALBERT CHANNEL FROM BROOKHURST STREET TO YORKTOWN AVENUE, CITY OF HUNTINGTON BEACH, ORANGE COUNTY (ACOE REFERENCE NO. NOT AVAILABLE) (SARWQCB REFERENCE NO. 302009-52)

Dear Ms. Khan:

On October 14, 2009, we received an application from URS Corporation, on behalf of Orange County Public Works Department, for Clean Water Act Section 401 Water Quality Standards Certification (Certification) for the Huntington Beach and Talbert Channel Cathodic Protection Project in the City of Huntington Beach, Orange County.

This letter responds to your request for certification that the proposed project, described in your application and summarized below, will comply with State water quality standards outlined in the Water Quality Control Plan for the Santa Ana River Basin (1995) (Basin Plan) and subsequent Basin Plan amendments:

Project Description: Major channel improvements began in 1990 and were completed in 2006. Steel sheet piles were installed and serve as walls to contain the 100-year flow. Cathodic protection (CP) systems were installed for most of Huntington Beach and Talbert Channels; however, the CP systems are not performing as required. Therefore, repair of the existing CP systems is required.

The existing CP system on D02, from Brookhurst Street to Adams Avenue, is a hybrid system consisting of both a Sacrificial Anode CP system and an Impressed Current CP system.

The Sacrificial Anode CP system consists of galvanic couples that are set up with two similar metals where one of the metals is allowed to corrode while protecting the other metal (in this case, this would be the sheet pile structure) from corrosion. The most common sacrificial anodes are specially developed alloys of magnesium, aluminum, and zinc. Aluminum anodes will be used for this project.

Impressed current CP systems use an external power source to transfer current into the structure being protected. A rectifier is the most common power source used. A rectifier is an electrical device that converts alternating current (AC) to a lower voltage direct current (DC). With pure electricity, current flows back and forth in a conductor with no net flow in any direction. The rectified DC current flows only in one direction. The existing CP system on D01 is a sacrificial anode system.

The project consists of:

- Removal of all existing impressed current portions of the hybrid system, followed by installation of additional anodes and cables to augment the existing sacrificial anode system, on D02 from Brookhurst to Adams. The removal work consists of removing existing anode junction boxes, removing adjacent anode grounded vent pipe boxes, removing the existing oil-cooled rectifier, and removing existing power meters.

- 210 new anodes will be installed within D01 channel from Indianapolis Avenue to Adams Avenue, where no anodes currently exist.

- 612 new anodes will be installed within D02 channel from Banning Avenue to Adams Avenue. Existing anodes within D02 are being left in place from Banning Avenue to Adams Avenue. 216 new anodes will be installed within D02 channel from Adams Avenue to Yorktown Avenue, where no anodes currently exist.

- The dimensions of the anodes are 8-inches square and 7-ft long. A total of 1038 anodes will be installed in both channels.

- The anodes will be lowered into the channel from a truck on the maintenance road. A worker will then be lowered into the channel and will weld a 6-in to 1-ft long steel cable between the anode and the existing steel sheetpile.

Receiving water:	The Project occurs within Huntington Beach (DO1) and Talbert Channels (DO2), both of which are directly tributary to the Pacific Ocean
Fill area:	The fill area consists of 0.11 acres which is (1038 x .67-ft x 7-ft)/43560 = 0.11 acres of a tidally influenced facility
Dredge/Fill volume:	There is no dredge associated with the Project. The fill volume is 120.8 cubic yards (cy), which is (1038 x 0.67-ft x 0.67-ft x 7-ft)/27 = 120.8 cy.
Federal permit:	NWP - PCN Form.

You have proposed to mitigate water quality impacts as described in your Certification application. The proposed mitigation is summarized below:

There are no known pollutants associated with the Project, nor are there any long-term water quality impacts on receiving waters. There will be no traditional excavation or dredging activities and no pollutants will be discharged into Waters of the U.S. as a result of the Project. Furthermore, upstream and downstream hydrologic connectivity will remain constant while work is completed. Short-term water quality impacts to receiving water bodies may include minor amounts of turbidity associated with anode installation. Negligible amounts of sediment may be disturbed as the anode is lowered into the channels and set in place; however, all types of Project-related activities will be conducted pursuant to appropriate Best Management Practices (BMPs) mandated by the County of Orange's National Pollutant Discharge Elimination System (NPDES) and the Regional Water Quality Control Plan for the Santa Ana Basin (Basin Plan). Requisite BMPs will be incorporated into the Project to address the potential impacts associated with anode installation activities. The implementation of these standard procedures will ensure that water quality standards are maintained. Nonetheless, it is possible that activities associated with the proposed Project may result in inadvertent, minor sediment discharges into the flood control channels. In order to ensure that potential water quality impacts are reduced or eliminated, care will be taken to capture any sediment that may enter the channels when construction activities are conducted.

No traditional mitigation is proposed because impacts due to the anodes are not expected to adversely impact water quality, beneficial uses, or existing wildlife

resources. Algae and marine growth (barnacles) will quickly establish on the anodes, as is evident from the existing anodes at the project site. Temporary impacts will be minimized to the maximum extent practicable. The worker will be in the channel at each anode only for several minutes or as long as it takes to weld a steel cable between the new anode and existing steel sheetpile wall.

Should the proposed project impact state- or federally-listed endangered species or their habitat, implementation of measures identified in consultation with U.S. Fish and Wildlife Service and the California Department of Fish and Game will ensure those impacts are mitigated to an acceptable level. Appropriate Best Management Practices will be implemented to reduce construction-related impacts to Waters of the State according to the requirements of Order No. R8-2009-0009-DWQ, commonly known as the Orange County Municipal Storm Water Permit. Order No. R8-2009-0030 requires that you substantially comply with the requirements of State Water Resources Control Board's General Permit for Storm Water Discharges Associated with Construction Activity, Water Quality Order No. 2009-0009-DWQ , including the preparation of a SWPPP, if required by the permit.

This Water Quality Certification is subject to the acquisition of all local, regional, state, and federal permits and approvals as required by law. Failure to meet any conditions contained herein, or any conditions contained in any other permit or approval for this project issued by the State of California, or any subdivision thereof, may result in appropriate enforcement action, including imposition of administrative civil liability.

You have applied for a Nationwide Permit from the U.S. Army Corps of Engineers in compliance with Section 404 of the Clean Water Act. You have applied for a Streambed Alteration Agreement from the California Department of Fish and Game. Pursuant to the California Environmental Quality Act (CEQA), the County of Orange adopted a Notice of Exemption for this project on November 17, 2009. The Executive Officer has considered the County's Notice of Exemption in the issuance of this Certification.

This 401 Certification is contingent upon the execution of the following conditions:

1. The applicant must comply with the requirements of the Clean Water Act section 404 permit.

2. A copy of this Certification and any subsequent amendments must be maintained on site for the duration of work.

3. County of Orange shall implement a program to prevent exotic, invasive and/or non-native plant or animal species from becoming established in areas temporarily or permanently impacted by project activities.

4. Maintenance of facilities authorized by this certification shall not result in the discharge of wastes to waters for the State or of the United States. This includes cured and uncured protective coatings and primers and similar materials necessary to assure proper performance of protective coatings.

5. Materials must not be placed in a manner where they could be discharged to surface waters except as authorized by this certification. In the event that trash or debris is discharged to surface waters, the discharger must recover the material.

1. Project-related activities must not cause the background natural turbidity, as measured in Nephelometric Turbidity Units (NTUs), in the receiving waters to be increased by values greater than the following Basin Plan objectives at a distance of 100 feet from the activity:
    a. If natural turbidity is between 0 and 50 NTU, the maximum increase must not exceed 20% of the measured natural turbidity.
    b. If natural turbidity is 50 to 100 NTU, the increase must not exceed 10 NTU.
    c. If natural turbidity is greater than 100 NTU, the maximum increase must not exceed 10% of the measured natural turbidity.

2. The County must ensure that algae and marine growth establish on the new anodes. The sides and top of each anode must have 75% cover of algae and/or marine organism within six months of installation. In the event that 75% cover of algae and/or marine growth (barnacles) is not present on the anodes then the County shall propose mitigation for the 0.11 acres of fill.

3. The County shall train the personnel in a manner as to not to mobilize excessive amounts of sediment, while lowering the anode down into the channel, positioning the anode in place, and welding the cable between the anode and existing steel sheetpile. At no time shall the anode be allowed to be dropped over the sheetpile wall and then be picked up from the channel floor and placed into position.

4. The County shall have a public works construction inspector on site inspecting the work whenever the construction contractor is working.

Under California Water Code, Section 1058, and Pursuant to 23 CCR §3860, the following shall be included as conditions of all water quality certification actions:

(a) Every certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Section §13330 of the Water Code and Article 6 (commencing with Section 3867) of this Chapter.

(b) Certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to Subsection §3855(b) of this Chapter and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

(c) Certification is conditioned upon total payment of any fee required under this Chapter and owed by the applicant.

If the above stated conditions are changed, any of the criteria or conditions as previously described are not met, or new information becomes available that indicates a water quality problem, the Regional Board may require the applicant to submit a report of waste discharge and obtain Waste Discharge Requirements.

In the event of any violation or threatened violation of the conditions of this certification, the holder of any permit or license subject to this certification shall be subject to any remedies, penalties, process or sanctions as provided for under state law.

For 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 certification. Violations of the conditions of this certification may subject the applicant to civil liability pursuant to Water Code section 13350 and/or 13385.

This letter constitutes a Water Quality Standards Certification issued pursuant to Clean Water Act Section 401. I hereby issue an order certifying that any discharge from the referenced project will comply with the applicable provisions of Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act, and with other applicable requirements of State law.

This discharge is also regulated under State Water Resources Control Board Order No. 2003-0017-DWQ (Order No. 2003-0017-DWQ), "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received Water Quality Certification" which requires compliance with all conditions of this Water Quality Standards Certification.

Should there be any questions, please contact Marc Brown at (951) 321-4584, or Mark Adelson at (951) 782-3234.

Sincerely,

Kurt V. Berchtold
Executive Officer

cc (via electronic mail):
U. S. Army Corps of Engineers, Los Angeles Office – Yvette Cardenas
Department of Fish and Game – Russell Barabe
State Water Resources Control Board, Office of Chief Counsel – David Rice
State Water Resources Control Board, DWQ-Water Quality Cert. Unit –Bill Orme
U.S. EPA, Supervisor of the Wetlands Regulatory Office WTR- 8 – Eric Raffini and David Smith

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