

**Santa Ana Regional Water Quality Control Board**

March 10, 2015

Daniel Bott  
Principal Planner  
Orange County Water District  
18700 Ward Street  
Fountain Valley, CA 92708

**CLEAN WATER ACT SECTION 401 WATER QUALITY STANDARDS  
CERTIFICATION FOR THE PRADO BASIN SEDIMENT MANAGEMENT  
DEMONSTRATION PROJECT, UNINCORPORATED RIVERSIDE COUNTY,  
CALIFORNIA (OUR FILE NO. 33-2014-09) (U.S. ARMY CORPS OF ENGINEERS  
PERMIT NO. SPL-2013-00496-DPS)**

Dear Mr. Bott:

On April 30, 2014, Regional Board staff received an application for Clean Water Act (CWA) Section 401 Water Quality Standards Certification (401 Certification) from the Orange County Water District for the Prado Basin Sediment Management Demonstration project. Included with the application were the following:

- Documentation showing that a Notification for a California Department of Fish and Wildlife (CDFW) Lake or Streambed Alteration Agreement for the project had been submitted;
- \$4717 intended as the base fee<sup>1</sup> required for consideration of a 401 Certification, as specified by California Code of Regulations, Division 3, Chapter 9, Article 1, section 2200 (a) (3) and which is summarized on the State Water Resources Control Board (SWRCB) Dredge and Fill Fee Calculator, was submitted with the first application;
- A copy of the California Environmental Quality Act Mitigated Negative Declaration for the project, including the Notice of Determination; and

<sup>1</sup> At the time that this application was submitted, the base fee for a 401 certification action was \$1097; additional fees were to be assessed at the rate of \$4,717 per acre of excavated or filled jurisdictional area or \$10.97 per linear ft. of channel and shoreline impacts, whichever results in the higher fee. In addition, a 9.5% ambient surcharge was to be assessed to cover potential future monitoring costs. The applicant submitted the fee amount of \$4,717 apparently believing this amount was the base fee requirement.

- A copy of an Application for Department of the Army Permit completed for the project and submitted to the U.S. Army Corps of Engineers (USACE).

In May and June of 2014, the Environmental Impact Report and a revised water quality monitoring program report were submitted to our office.

On September 19, 2014, a Recirculated Draft Environmental Impact Report (DEIR) for the project was submitted to our office. In the recirculated DEIR OCWD staff described a new preferred project alternative. The new preferred alternative reduced the size and location of the dredging that is proposed to take place in the Prado Basin area.

As a result of the new project alternative a revised 401 Certification application was submitted on November 6, 2014. The revised 401 Certification application included the following:

- \$1,097 intended as the flat fee required for consideration of a 401 Certification application for a project considered to be solely an ecological restoration and enhancement project<sup>2</sup>, as specified by the California Code of Regulations as noted above and which is summarized by the SWRCB Dredge and Fill Fee Calculator ( 09/18/2014 revision);
- Revised Water Quality Monitoring Program for the project and;
- Revised documents required for federal permits, which consisted of the Environmental Assessment, 404 B1 Analysis, and Biological Assessment.

This letter responds to your request for certification, pursuant to Clean Water Act Section 401, that the proposed project, described 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 amendments.

#### 1. Project description:

The proposed project is a demonstration project to be conducted by the Orange County Water District to determine feasible methods to move significant amounts of sediment from the Prado Basin, just upstream of Prado Dam, to reaches of the Santa Ana River below Prado Dam. It is proposed that the project would remove approximately 200,000 cubic yards of sediment from the Prado Basin and re-entrain the sediment into the Santa Ana River just below Prado Dam. Project objectives are to provide sediment to downstream sections of the Santa Ana River to reduce erosion, improve habitat, improve infiltration and groundwater recharge, prevent further loss of storage capacity in the Prado Basin and provide sediment to coastal beaches. The proposed project duration is expected to last up to 8 years. This consists of one year for site preparation

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<sup>2</sup> Projects undertaken for the sole purpose of restoring or enhancing the beneficial uses of water. The project potentially will enhance aquatic habitat, groundwater recharge, recreation, and municipal and domestic supply beneficial uses.

and excavation and sediment removal, up to two years (depending upon sufficient storm frequency and intensity) for sediment re-entrainment, and up to five years for performance monitoring.

The project will be implemented in six phases: Phase 1- Pre-Construction Monitoring and Mitigation; Phase 2- Site Preparation; Phase 3- Infrastructure Construction and Dry Excavation; Phase 4- Sediment Removal; Phase 5-Sediment Re-entrainment; and, Phase 6-Monitoring and Site Restoration.

The first phase of the project involves surveys and data collection through implementation of the project mitigation program and monitoring program. Surveys will be conducted to identify the presence of special status species and the quantity and quality of habitat. Water quality and sediment monitoring data will be collected to establish baseline conditions in Prado Basin, in the area around Prado Dam and in the Lower Santa Ana River from Prado Dam to the Pacific Ocean.

The second project phase involves site preparation including clearing all vegetation, grubbing and rough grading in the proposed sediment removal channel area. The sediment removal channel alignment will be within the alignment of the Santa Ana River in the southeastern portion of Prado Basin. Most of the vegetation to be removed in the channel path will consist of the invasive giant reed plant (*Arundo donax*). The removed vegetation will be taken to an area to be processed as mulch or firewood. The proposed sediment removal channel will have a length of approximately 2,000 feet, a width of 560 feet and a depth ranging from 6 to 15 feet. A 30 foot wide dirt access road will be provided along both sides of the channel alignment and between the sediment removal channel and the sediment storage site.

The third project phase includes the construction of temporary above ground pipelines, sediment storage area and re-entrainment facility. In addition, once the vegetation has been removed from the alignment, excavation of the channel will be initiated. Earth moving equipment will be used to excavate and then remove the sediment to be stockpiled in the sediment storage area. These dry excavation techniques will be used until groundwater is encountered or until storm flows require de-mobilization of the earth moving equipment. If groundwater or storm flows are encountered, a pool 200 feet in length by 200 feet in width, and 12 feet deep will be excavated to allow a hydrologic dredge to operate.

The fourth project phase involves the activities within Prado Basin to remove wet sediments from the channel alignment and transport the sediment to the storage area. As noted, if enough water is present a hydraulic dredge will be used to remove the sediment from the pool created in the sediment removal channel. The removed sediment will be pumped through an above-ground pipeline to the sediment storage site. Each day the sediment will be allowed to settle in the storage site and the decanted water removed and returned to the stream channel. In order to control the amount of water entering the dredged alignment during excavation, existing sediments at the

upper end of the removal alignment will be manipulated to achieve the desired flow of water and sediment into the alignment. Dredging activities may last up to 1 year starting in the spring of the first year and ending once the sediment storage site is full. Once the dredging activities are completed a single, continuous river channel will be formed in the excavated area. It is anticipated that this will extend the existing River channel and steepen the grade of the river to promote sediment transport from upstream. In the event of significant storm events the dredging and other equipment will be de-mobilized and moved to upland areas.

The fifth project phase involves activities for the re-entrainment of sediment. Once adequate dam release flows occur, i.e., flow releases of 500 cfs or greater, the dried out sediment will be remixed into a slurry using water pumped from the Prado Basin to the sediment storage site. The re-mixed slurry will be pumped from the storage site through a temporary 12 to 18 inch diameter pipeline to below Prado Dam. The sediment slurry will then be discharged into the lower Santa Ana River immediately downstream of the Prado Dam concrete outlet channel.

The sixth phase of the project includes activities to collect data, monitor project performance and restore portions of the site disturbed by the project. All equipment will be removed from the site and the sediment storage area will be re-graded to pre-project conditions. The sediment removal alignment, access roads and sediment storage site will be managed to promote the growth of native vegetation growth. Performance monitoring will include regular aerial and ground surveys to track the movement of the re-entrained sediments and the collection of sampling water quality parameters.

2. Location: Longitude/Latitude: Sediment removal channel;  
117.37.26°W/33.53.56°N,  
Sediment storage site;  
117.37.26°W/33.53.32  
Sediment re-entrainment area;  
117.38.45°W/33.52.59  
Township/Range/Section/Quadrangle:  
7W/3S/S8, North Corona, California
3. Receiving water: Santa Ana River, Reaches 2 and 3, Prado Basin Management Zone, all tributary to the Pacific Ocean. The beneficial uses of: Reach 2 are ARG, GWR, REC1, REC2, WILD, WARM, RARE; Reach 3 are ARG, GWR, REC1, REC2, WARM, WILD, RARE, SPWN; and the Prado Basin Management Zone are REC1, REC2, WARM, WILD, RARE.
4. Fill Area: 26.11 acres wetlands, 1.97 acres streambed, waters of the United States

5. Dredge volume: 200,000 cubic yards
6. Federal permit: Individual Permit
7. Mitigation:

OCWD has agreed to develop a Habitat Management Plan, to be approved by USACE and CDFW, to implement the Project's compensatory mitigation requirements. OCWD has agreed to complete the following mitigation projects:

- Remove 1.09 acres of non-native vegetation and replant the area with native riparian vegetation within the open space buffer adjacent and to the north side of the sediment removal channel;
- Remove 2.3 acres of non-native vegetation and replace the vegetation with coastal sage scrub habitat in the Demonstration Garden Extension Mitigation Site located at the western end of Prado Basin;
- Over a five year period, enhance Santa Ana sucker habitat in Sunnyslope Creek<sup>3</sup> by periodically removing sediment plugs from the natural and adjacent upstream concrete channel sections. In addition, gravel and rock deposition and removal of non-native plants would be completed to enhance fish habitat; and
- Construct and place rock gabions in the Santa Ana River Channel upstream of the River Road Bridge to improve Santa Ana sucker habitat. The gabions are intended to function by deflecting the current to create localized scouring to expose gravel, cobbles, and rock to facilitate spawning, feeding, and refuge areas for the fish.

Construction de-watering discharges may be regulated under Regional Board Order No. R8-2009-0003, General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality. For more information, please review Order No. R8-2009-0003 NPDES No. CAG 998001, at the Regional Board's website: [www.waterboards.ca.gov/santaana](http://www.waterboards.ca.gov/santaana).

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 Wildlife will ensure that those impacts are mitigated to an acceptable level. Appropriate BMPs will be implemented to reduce construction-related impacts to Waters of the State according to the requirements of the State Water Resources Control Board's General Permit for Storm Water Discharges Associated with Construction Activity and Order No. R8-2010-0033 (NPDES Permit No. CAS618036), commonly known

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<sup>3</sup> A tributary to the Santa Ana River, Reach 3.

as the Riverside County Municipal Storm Water Permit, and subsequent iterations thereof.

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 the conditions contained in any other permit or approval issued by the State of California or any subdivision thereof may result in the revocation of this Certification and civil or criminal liability.

Pursuant to California Code of Regulations, Title 14, Chapter 3, Section 15096, as a responsible agency, the Regional Board is required to consider an Environmental Impact Report (EIR) or Negative Declaration prepared by the lead agency in determining whether to approve a project. A responsible agency has responsibility for mitigating and avoiding only the direct and indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve. Further, the responsible agency must make findings as required by Sections 15091 and, if necessary, 15093, for each and every significant impact of the project.

As required by Section 15096, the Regional Board has considered the environmental documentation prepared for the project, the Prado Basin Sediment Management Demonstration Project Environmental Impact Report (EIR). The recirculated EIR was certified in December 2014. Regional Board staff has reviewed the project EIR, especially the sections concerning impacts to water quality and aquatic habitat. As a result of staff's review, the Regional Board independently determines that the project, with the application of mitigation and avoidance measures as specified in the project 401 Certification application, will have a less than significant impact on the environment.

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

1. The applicant must implement the proposed mitigation in a timely manner. This includes implementing the Habitat Management Plan approved for the project and reporting implementation activities.
2. The discharger must comply with all conditions and provisions of a Department of Army Section 404 Individual Permit for the project.
3. The conditions of CDFW Streambed Alteration Agreement for the project must be implemented.
4. All aspects of the Project November 2014 Water Quality Monitoring Program, submitted by OCWD, must be implemented.

5. As specified in the Water Quality Monitoring Program, the proposed field monitoring results for turbidity and dissolved oxygen taken before, during and after the project must be emailed within 48 hours to Water Board Staff Dave Woelfel.
6. Implementation of the Project shall not cause violation of the Water Quality Control Plan (Basin Plan) objectives for turbidity and dissolved oxygen for Inland Surface Waters. The Basin Plan turbidity objective and as noted in the project Water Quality Monitoring Program is as follows:

*Increases in turbidity which result from controllable water quality factors shall comply with the following:*

<u>Natural Turbidity</u>	<u>Maximum Increase</u>
0-5 NTU	20%
50-100 NTU	10 NTU
Greater than 100 NTU	10%

The Basin Plan objective for dissolved oxygen is as follows:

*The dissolved oxygen content of surface waters shall not be depressed below 5mg/L for waters designated WARM as a result of controllable water quality factors. In addition, waste discharges shall not cause the median dissolved oxygen concentration to fall below 85% of saturation or the 95<sup>th</sup> percentile concentration or fall below 75% of saturation within a 30-day period.*

If exceedances of the Basin Plan turbidity and dissolved oxygen objectives are noted during the project, sediment entrainment activities shall cease and Water Board staff shall be contacted, as soon as possible for direction on further action to be taken.

7. Include in the proposed Sediment Movement Monitoring Implementation Plan analysis of the effect of the project on sediment accumulation in the Santa Ana River Channel in the furthest downstream reaches near the Pacific Ocean.
8. Impact avoidance and minimization measures and the site design, source control, and structural source control Best Management Practices (BMPs) described in the 401 application materials must be implemented for the project.
9. The applicant must utilize appropriate BMPs during project activities to minimize the controllable discharges of sediment and other wastes to drainage systems or other waters of the state and of the United States.
10. Substances resulting from project-related activities that could be harmful to aquatic life, including, but not limited to, petroleum lubricants and fuels, cured

and uncured cements, epoxies, paints and other protective coating materials, portland cement concrete or asphalt concrete, and washings and cuttings thereof, and metal cutting or forming wastes including grinding debris and slag, must not be discharged to soils or waters of the state. All waste concrete must be removed.

11. Motorized equipment shall not be maintained or parked within or near any stream crossing, channel or lake margin in such a manner that petroleum products or other pollutants from the equipment may enter these areas under any flow conditions. Vehicles shall not be driven or equipment operated in waters of the state on-site, except as necessary to complete the proposed project. Equipment must not be operated in areas of flowing water.

**Under California Water Code, Section 1058, and Pursuant to 23 CCR 3860, the following shall be included as conditions of all water quality standards 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.

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 State Water Quality Certification" which requires compliance with all conditions of this Water Quality Standards Certification. Order No. 2003-0017-DWQ is available at [www.swrcb.ca.gov/resdec/wqorders/2003/wqo/wqo2003-0017.pdf](http://www.swrcb.ca.gov/resdec/wqorders/2003/wqo/wqo2003-0017.pdf).

This letter constitutes a conditional water quality standards certification. Although we anticipate no further regulatory involvement, if the above 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, we may formulate Waste Discharge Requirements for the project.

In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation 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.

In response to a suspected violation of any condition of this certification, the Regional Board may require the holder of any permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional Board deems appropriate. The burden, including costs, of the reports shall be reasonable in relation 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 certification, the Regional Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

Pursuant to California Code of Regulations Section 3857, we will take no further action on your application. This letter constitutes a technically conditioned water quality certification. Please notify our office five (5) days before construction begins on this project.

If you have any questions, please call Dave Woelfel at (951) 782-7960.

Sincerely,



Kurt V. Berchtold  
Executive Officer

cc: U.S. Army Corps of Engineers – Jim Mace  
U.S. Army Corps of Engineers – Corice Farrar  
U.S. Environmental Protection Agency, Supervisor of the Wetlands Regulatory Office – Tim Vendlinski (WTR-8)  
State Water Resources Control Board, DWQ - Water Quality Certification Unit  
State Water Resources Control Board, OCC – David Rice  
California Department of Fish and Wildlife – Claire Ingels