

State of California
California Regional Water Quality Control Board
Santa Ana Region

RESOLUTION NO. R8-2014-0045

In Support of the Request for Cleanup and Abatement Account Funds for the West Valley Water District's Wellhead Treatment Systems for Perchlorate in the Rialto Groundwater Management Zone, San Bernardino County

WHEREAS:

1. Sections 13440 and 13441 of the California Water Code established the State Water Pollution Cleanup and Abatement Account to be administered by the State Water Resources Control Board (State Board).
2. Section 13442 of the Water Code provides that grants to public agencies are available from the Cleanup and Abatement Account. The State Board may order monies to be paid from the Cleanup and Abatement Account to assist a public agency or a regional board to assist it in cleaning up waste or abating its effects on waters of the State.
3. The Rialto Groundwater Management Zone is beneficially used for municipal and domestic supply, in addition to other uses. A significant water quality problem currently exists in the Rialto Groundwater Management Zone, due to volatile organic compounds and perchlorate pollution. The perchlorate pollution has already impacted a number of municipal supply wells that are within the jurisdiction of the West Valley Water District (The District).
4. The State Board designated the Rialto area as an environmental justice community.
5. The U.S. EPA is addressing the plume of volatile organic compounds and perchlorate in the geographic area defined as Operable Unit 1 (OU1) in the Rialto Groundwater Management Zone, through an Interim Remedy for regional treatment of the plume under the National Contingency Plan.
6. Funding from the Department of Defense, in combination with previous State Board grants, has been utilized for the construction and operation of the combined wellhead treatment system for two of the impacted wells (Rialto No. 6 and WVWD No. 11). The treatment system utilizes a fluidized bed reactor (FBR) for biological treatment of perchlorate and nitrate. Biological treatment systems, such as the FBR, convert perchlorate to chloride and nitrate to nitrogen gas, thereby eliminating these contaminants from the environment, without producing a concentrated waste stream for disposal.
7. The Rialto FBR wellhead treatment system has been in operation since 2013 and it is needed to ensure that an adequate supply of drinking water is available to the public in the region, and to contain the pollutant plume.
8. Recently, the Department of Defense's Environmental Security Technology Certification Program developed and pilot-tested another biological treatment system, Fixed Bed Reactor or FXB. The results from the pilot studies of FXB indicate that the FXB system

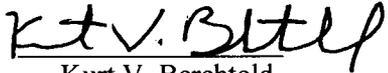
may be even more efficient than the FBR system for treating perchlorate and nitrate.

9. Currently there are no full-scale FXB systems in operation for treating drinking water. The Department of Defense has agreed to provide \$3.4 million to the District to construct and operate a full scale FXB system parallel to the FBR system. This would be the first-ever full-scale FXB treatment system and it would provide critical data to compare and evaluate the two systems for perchlorate and nitrate treatment.
10. The grant provided by the Department of Defense would only pay for the FXB reactor and does not cover the cost of design, construction, installation and source water. The District is requesting a grant of \$3.0 million from the Cleanup and Abatement Account to cover the cost of design, construction, installation and source water for the FXB system. The total cost of the project is estimated to be in excess of \$6.4 million. The District has indicated that the \$3 million grant from the State Board could be provided over the next three years. This approach would allow time for construction, and the District would be able to advance funds for the project, to be reimbursed by the grant funds over a three year period.
11. The local community will benefit by cleaning up its groundwater, by reducing reliance on imported water and by having a more reliable local water supply source.
12. The information obtained during the operation and monitoring of the FBR and FXB will provide a performance record that could be utilized to facilitate the use of such sustainable "green" technologies throughout the State and the nation.
13. The District has indicated that the proposed FXB construction project is shovel-ready, and could be in operation parallel to the existing FBR system in 2016.

THEREFORE, BE IT RESOLVED THAT:

1. The Regional Board supports the West Valley Water District's request for \$3 million from the State Board's Cleanup and Abatement Account Funds.
2. The Executive Officer is directed to forward a copy of this Resolution to the State Board.

I, Kurt V. Berchtold, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Santa Ana Region, on June 13, 2014.


Kurt V. Berchtold
Executive Officer