

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF SEPTEMBER 1, 2011
(Prepared on August 11, 2011)

ITEM NUMBER: 16

**SUBJECT: Status of the SBX2 1 Nitrate Project for the Tulare Lake Basin
and the Salinas Valley**

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DISCUSSION

This Information Item is to present preliminary findings of the SBX2 1 Nitrate Project for Salinas Valley and Tulare Lake Groundwater Basins. In 2008, SBX2 1 added Water Code Section 83002.5 which requires that the State Water Board, in consultation with other agencies, develop pilot projects in the Tulare Lake Basin and the Salinas Valley that focus on nitrate contamination using two million dollars (\$2,000,000) from Proposition 84. The purpose of the projects is "to improve understanding of the causes of groundwater contamination, identify potential remediation solutions and funding sources to recover costs expended by the state for the purposes of this section to clean up or treat groundwater, and ensure the provision of safe drinking water to all communities."

Specifically, the State Water Board must:

- (a) (1) In collaboration with relevant agencies and utilizing existing data, including groundwater ambient monitoring and assessment results along with the collection of new information as needed, do all of the following:
 - (A) Identify sources, by category of discharger, of groundwater contamination due to nitrates in the pilot project basins.
 - (B) Estimate proportionate contributions to groundwater contamination by source and category of discharger.
 - (C) Identify and analyze options within the board's current authority to reduce current nitrate levels and prevent continuing nitrate contamination of these basins and estimate the costs associated with exercising existing authority.
- (2) In collaboration with the State Department of Public Health, do all of the following:
 - (A) Identify methods and costs associated with the treatment of nitrate contaminated groundwater for use as drinking water.
 - (B) Identify methods and costs to provide an alternative water supply to groundwater reliant communities in each pilot project basin.
- (3) Identify all potential funding sources to provide resources for the cleanup of nitrates, groundwater treatment for nitrates, and the provision of alternative drinking water supply, including, but not

limited to, state bond funding, federal funds, water rates, and fees or fines on polluters.

- (4) Develop recommendations for developing a groundwater cleanup program for the Central Valley Water Quality Control Region and the Central Coast Water Quality Control Region based upon pilot project results.
- (b) Create an interagency task force, as needed, to oversee the pilot projects and develop recommendations for the Legislature. The interagency task force may include the State Water Board, the State Department of Public Health, the Department of Toxic Substances Control, the California Environmental Protection Agency, the Department of Water Resources, local public health officials, the Department of Food and Agriculture, and the Department of Pesticide Regulation.
- (c) Submit a report to the Legislature on the scope and findings of the pilot projects, including recommendations, within two years of receiving funding.
- (d) Implement recommendations in the Central Coast Water Quality Control Region and the Central Valley Water Quality Control Region pursuant to paragraph (4) of subdivision (a) within two years of submitting the report described in subdivision (c) to the Legislature.
- (e) For the Salinas Valley Pilot Project, the State Water Resources Control Board shall consult with the Monterey County Water Resources Agency.

The report to the Legislature is due Spring 2012. The State Water Board contracted with the University of California, Davis, to conduct the pilot projects in March 2010. The State Water Board staff manages the contract and leads the interagency oversight. UC Davis will submit its report to State Water Board staff who, with assistance from the Central Coast and Central Valley Regional Water Boards, will prepare the report to the Legislature. It is expected that the report to the Legislature will largely reflect the findings and recommendations of the UC Davis report, which will be independently published. The State Water Board has created an interagency task force as allowed by SB X2 1. The task force, along with other interested parties, provides input at certain points in the process. Regional Water Board staff engineer Matthew Keeling has represented our region at the task force meetings and Roger Briggs attended the initial meeting. The draft report is due by the time of this Board meeting.

Subdivision (d) of Water Code section 83002.5 requires implementation of the report recommendations. Funding is not currently available to implement the recommendations that will be contained in the final report to the Legislature. The report will assist our regional staff with implementation of the agricultural order and other source control actions, as well as with our efforts to assist in informing water well users of threats from nitrate contamination.

Dr. Thomas Harter, Professor of Hydrogeology, UCD Land, Air and Water Resources, is the principal investigator for this work. Dr. Harter will give a presentation (about 20 minutes) on the draft report. Dr. Harter has the following degrees:

B.S. Physical Geography, Hydrology, Physics, Botany - Universitat Freiburg, Germany
M.S. Physical Geography/Hydrogeology, Geology and Soil Science - Universitat Freiburg, Germany
Ph.D. Hydrology, Applied Mathematics - University of Arizona

Dr. Harter's areas of interest are: Flow and transport processes in groundwater and in the vadose zone; non-point source pollution of groundwater; groundwater remediation; groundwater resources management; geostatistics; stochastic analysis; numerical modeling. Projects: groundwater quality impacts from confined animal facilities; nitrogen fluxes in a deep heterogeneous vadose zone; transport of *Cryptosporidium parvum* in unconsolidated sediments; stochastic analysis of salinity migration in deep aquifer systems; conjunctive management of surface water and groundwater resources; fate and transport of emerging contaminants.

RECOMMENDATION:

No action – information item