

Delta Independent Science Board Educational Briefing Questionnaire

1. Program Title: Total Maximum Daily Load Program (TMDL)
2. Lead Agency/Department for Program: Central Valley Regional Water Quality Control Board
3. Brief Description of Program: Section 303(d) of the Clean Water Act requires States to list water bodies that do not meet beneficial uses and develop Total Maximum Daily Loads (TMDLs) for each of these. Section 13000 of the Porter-Cologne Water Quality Control Act requires the State of California to develop and implement control programs to correct TMDL impairments. All or portions of the Delta are listed for 15 different beneficial use impairments on the 2008-2010 Statewide 303(d) list. The impairments are: (1) toxic concentrations to people and wildlife from consumption of fish with elevated DDT, chlordane, dieldrin, dioxins, PCBs, and mercury, (2) toxic concentrations of waterborne diazinon, chlorpyrifos, copper and zinc to sensitive aquatic biota, (3) dissolved oxygen concentrations below water quality objectives, (4) salinity and human pathogen concentrations above water quality objectives, (5) sediment and water column toxicity from unidentified pollutants, and (6) invasive species. TMDL control programs have been adopted and are being implemented for diazinon and chlorpyrifos, dissolved oxygen in the Stockton Deepwater Ship Channel and human pathogens in back sloughs around the City of Stockton. The mercury TMDL has been adopted by the Regional Board and is awaiting approval by the U.S. EPA before being implemented. Control programs are due for the remainder of the TMDL impairments by 2019.
4. Purpose and Objectives of Program: The purpose of the TMDL program is to develop and implement a series of scientifically defensible control programs to eliminate all beneficial use impairments in the Delta. Each TMDL and the associated control program includes a numeric target, source analysis, determination of the assimilative capacity of the water body, establishment of load allocations for all sources, a schedule and monitoring plan to assess compliance. Most adopted TMDLs have periodic review by the Regional Board in a public forum to insure that satisfactory progress is being achieved. Some TMDLs have been phased to allow more time to gather additional information while at the same time moving forward on making improvements now to the impairment. Phasing allows the Regional Board to make adaptive management changes to the program as more information becomes available.
5. Timeline for Program Objectives: The State and Regional Water Boards periodically (every 2 to 3 years) review water quality data for surface waters of the State to determine if they contain pollutants at levels that exceed water quality objectives. This assessment is required under Section 303(d) of the Clean Water Act. The statute also requires states to prioritize the impairments and include a completion date for each TMDL.
6. Current Status of Program: Ongoing and active
7. Contact Information for Lead Staff of this Program:

Name	Jerry Bruns
Title	Environmental Program Manager
Phone	916-464-4831
Email	jbruns@waterboards.ca.gov

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8. Associated Total Annual Budget for Program: Typically, TMDLs require that dischargers develop control plans to address water quality impairments. The plans that are developed include varying degrees of monitoring. Estimated costs to the regulated community for implementing each control plan are summarized below. The estimated costs include costs for monitoring and other costs, such as report preparation, evaluation of management practices, etc.

Control Plan	Costs (\$ Million)		Comments
	Low	High	
Mercury Phase I	7.3	18.5	Total for about a 9-year period
Mercury Phase II	3.9	26.5	Per year
Diazinon and Chlorpyrifos	6.4	14.4	Per year
Stockton Deepwater Ship Channel Dissolved Oxygen		16.0	Total for about a 4-year period

9. URL, if a Website is Available: The 2010 303(d) list for the State of California, including the Central Valley and Delta, can be viewed at:

http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml.

Individual TMDLs and their associated implementation plans are at:

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/index.shtml

Thank you very much for taking the time to respond to this questionnaire. Please return your completed questionnaire to Gina Ford (gina.ford@deltacouncil.ca.gov) no later than October 6, 2011.