Integrating Science and Management in the CALFED Drinking Water Quality Program

> Presentation at the CALFED Bay-Delta Program Science Conference by Sam Harader California Bay-Delta Authority October 5, 2004

### **Science Program Goal**

...develop and provide the best scientific information possible to guide decisions regarding CALFED actions and to evaluate the results of the implemented actions. (2004 Science Program Multi-Year Program Plan)

#### Science in the CALFED Program Elements

Each program element is responsible for implementing the best possible science available to address critical issues and gaps in information within the program element.

#### Drinking Water Quality Program Goal

... to advance efforts to provide safe, reliable, and affordable drinking water to the millions of Californians who rely on waters from the Delta watershed through cost-effective continuous improvement to source water quality, water management, and treatment. (2004 DWQP Multi-Year Program Plan)

# **DWQP** Agencies

- Implementing Agencies
  - U.S. Environmental Protection Agency
  - State Water Resources Control Board
  - Regional Water Quality Control Boards
  - Department of Health Services
- Participating Agencies DWR, USBR, CDFA, USGS, and NRCS



## **Constituents of Concern**

- bromide
- organic carbon
- pathogens
- nutrients
- salinity
- turbidity
- taste and odor



### **DWQP** Action Areas

- Science and Improved Understanding
- Source Improvement
- Treatment Technology
- Institutional & Program Management
- Regional Planning

# **Identifying Science Needs**

- Committees and Workgroups
- Workshops
- White papers
- Studies
- Water Management/Drinking Water Quality Science Board
- Implementing agencies
- Regional planning

### **Some DWQP critical issues**

- What are the sources and fates of organic carbon in the system?
- What can we do to reduce the salinity of exported water?
- What can new treatment technologies do to improve drinking water quality?
- How are we doing? Is water quality improving?

#### Example project – organic carbon

"Management of DOC, DBPP and nutrients loads from major agricultural land uses and development of BMPs"

Brian Bergamaschi USGS

## **Example project – salinity**

"Adaptive Real-Time Monitoring and Management of Seasonal Wetlands and the San Luis National Wildlife Refuge to Quantify Contaminant Sources and Improve Water Quality in the SJR"

Nigel Quinn Lawrence Berkeley National Laboratory

#### Addressing Science Needs Projects by Category

- 17 Science
- 28 Source Improvement
- 3 Treatment Technology (n=69)

# **Projects by Region**

- 2 Bay Area
- 10 Delta
- 6 Sacramento Valley
- 20 San Joaquin Valley
- 3 Southern California
- 7 Multiple/statewide

## Communicating

- PACs, TACs, and other Meetings
- Conferences
- Workshop Proceedings
- Papers
- Outreach Materials
- Web
- PSPs, RFPs, and Guidelines
- Program Plans
- Data
- Reports

#### Current DWQP Science Activities

- Performance Measures
- Science Panel
- Central Valley Drinking Water Policy Workgroup (conceptual models)

## **Contacts and information**

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Drinking Water Quality Program web site http://calwater.ca.gov/Programs/DrinkingWater/DrinkingWater.shtm