

# *Drinking Water Policy for Surface Waters of the Delta and its Tributaries*



**Sue McConnell**  
**Jay Simi**

# Introduction

- Need for a Policy
- Project History
- Technical Studies
- Policy Elements



# Why do we need a Drinking Water Policy?

- Importance of the Delta as a source of drinking water
- Concern that increasing population would lead to degrading water quality
- Concern that specific constituents of concern were not being addressed

# Project History

- 2000 – CALFED Record of Decision
- 2002 – CALFED Drinking Water Quality Program Memorandum of Understanding



# Why do we need a Drinking Water Policy?

- Safe Drinking Water Act
- Some drinking water regulations based on source water quality
- Stakeholder driven effort
  - Joint funding from California Urban Water Agencies and Sacramento Regional County Sanitation District

# Project History

- Central Valley Drinking Water Policy Workgroup formed in 2002
- Constituents of concern identified:
  - Salt
  - Nutrients
  - Organic carbon
  - *Cryptosporidium* & *Giardia*
- Other planning efforts to address salt and nutrients

# Project History

- Policy addresses surface water only
  - Different constituents affect surface water and ground water supplies
  - Different regulatory structure for surface and groundwater



# Technical Studies

- Technical Workplan developed in 2003
  - Conceptual Models – assess available data and direct future work
  - Source Evaluations – agriculture, urban runoff and POTW
  - Analytical Modeling – reservoir operations and water quality through the Delta
  - Water Treatment System Modeling – project required changes to drinking water treatment systems



# Technical Studies Result

## ➤ Based on:

- Conceptual models
- Source evaluations
- Analytical models
- Drinking water treatment model

## ➤ Water quality with respect to the drinking water constituents of concern is not likely to degrade despite increases in population

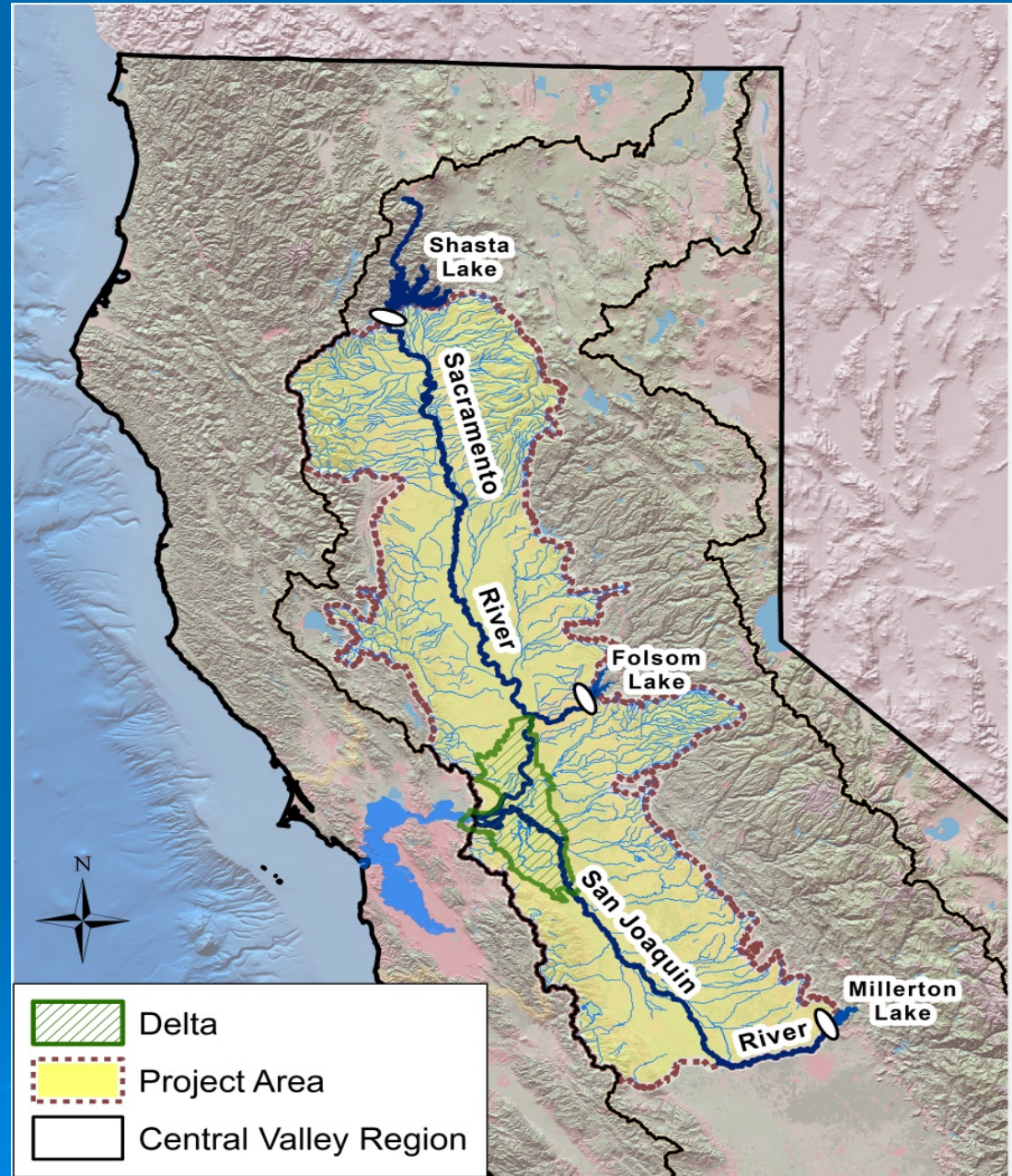
# Policy Elements

- Recognition of existing Basin Plan elements to protect MUN
- Recognition of the 'multi-barrier approach' to protecting public health
- Clarification of existing narrative water quality objective for chemical constituents
- New narrative water quality objective for *Cryptosporidium* and *Giardia*
- Implementation Plan for proposed objective

# Proposed Water Quality Objective

- New narrative water quality objective for *Cryptosporidium* and *Giardia*
  - Protects the public water system component of the MUN beneficial use
  - Implemented at existing and new public water system intakes.
  - Applies within the Sacramento-San Joaquin Delta and its tributaries below the first major dams

# Boundary for Application of Objective



# Objective Implementation

- Incorporates elements of the USEPA Long Term 2 Rule National Rule
  - Assigns 'Bin Levels' according to influent water quality
  - Higher Bin Levels require additional water treatment
  - Maximum running annual average from 24 months of *Cryptosporidium* data
  - 2 rounds of monitoring
- Maintain existing water quality as defined by Long Term 2 Rule Bin Classifications



# Policy Elements - Implementation

## Long Term 2 Rule Bin Thresholds and Associated Trigger Values

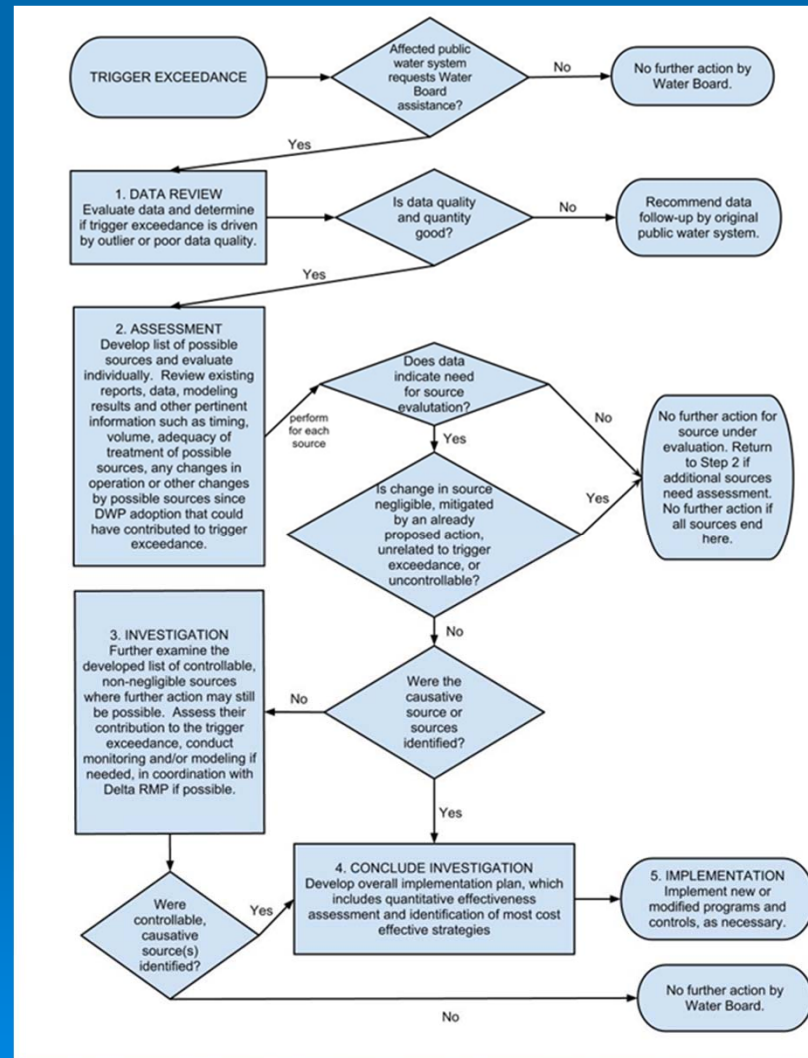
Bin Classification	Maximum Running Annual Average (oocysts/L)	80 Percent Trigger (oocysts/L)
1	< 0.075	0.06
2	0.075 to < 1.0	0.80
3	1.0 to < 3.0	2.4
4	> 3.0	N/A

# Policy Elements - Implementation

- Trigger exceedance is not a violation
- Trigger exceedance would initiate a process to address the issue
- Investigation partnership
  - Central Valley Water Board
  - Department of Public Health
  - Affected public water system
  - Potential sources



# Policy Elements - Implementation



# Policy Elements - Implementation

## ➤ Assessment

- Available information
- Operational changes
- New sources

## ➤ Investigation

- Controllable source?
- Relative Contribution

## ➤ Implementation

- Control Program
- Additional monitoring

# Policy Elements - Implementation

- Based upon current water quality, no actions expected to be required to comply
- Future actions may be required by some dischargers as part of the Implementation Program
- Potential costs to comply by agriculture were estimated

# Policy Elements – Monitoring & Surveillance

- Special Study to characterize ambient levels, linkage to sources, and movement through the system.
- Consider need to include monitoring for organic carbon, salinity, and nutrients.
- Consider need to require monitoring for organic carbon, salinity, and nutrients when BMP performance is evaluated for other constituents

# Informal Comments

## Estimated cost of compliance to be borne by agriculture

- Expected to be minimal as there are no current violations of the proposed objective
- Assumed BMP implementation along all water bodies in the project area as maximum potential cost
- Revise to account for land value and to assume BMP implementation on only 1% of water bodies in the project area



# Next Steps

- Comment Deadline: May 15, 2013
- Board Consideration: July 25-26



# Central Valley Drinking Water Policy

## ➤ More Information:

- [http://www.waterboards.ca.gov/centralvalley/water\\_is\\_sues/drinking\\_water\\_policy/](http://www.waterboards.ca.gov/centralvalley/water_is_sues/drinking_water_policy/)

## ➤ Contact Us:

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# Central Valley Drinking Water Policy Workgroup

## ➤ Panel Members

- Tim Johnson, Agricultural Interests
- Elaine Archibald, Drinking Water Interests
- Dave Tamayo, Municipal Storm Water Interests
- Debbie Webster, POTW Interests

## ➤ Other Workgroup Members in Attendance

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