

# Central Valley Drinking Water Policy Technical Studies

*Public Workshop*  
*October 3, 2006*

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## Technical Studies

- ✓ Compile available data
- ✓ Prioritize constituents of concern
- ~ Develop conceptual models
- ~ Develop spreadsheet models
- ~ Identify monitoring needs
- Conduct monitoring
- Update database
- Identify water quality goals
- Refine loads
- Evaluate control strategies

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## Prioritize Constituents

Occurrence AND public health/aesthetic concern

Data available and accessible

Current regulations not adequate

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Organic carbon

Nutrients

Salinity & bromide

Pathogens

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## Conceptual Models

- Describe how the constituent behaves in the system
- Preliminary estimates of loads of each constituent from sources in the watersheds
- Identification of data and information needs

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## Status of Conceptual Models

- ✓ Organic Carbon – Completed by Tetra Tech  
[http://www.waterboards.ca.gov/centralvalley/available\\_documents/dw-policy/index.html](http://www.waterboards.ca.gov/centralvalley/available_documents/dw-policy/index.html)
- ✓ Nutrients – Completed by Tetra Tech
- Pathogens – In progress by Tetra Tech
- Salinity – In progress by CALFED

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## Delta DOC Model

- Can determine what % of water and % of DOC at the Delta pumping plants comes from Sac R., San Joaquin R., Delta ag drainage, eastside streams, and the Bay
- Sac R. @ Hood & San Joaquin R @ Vernalis are inputs

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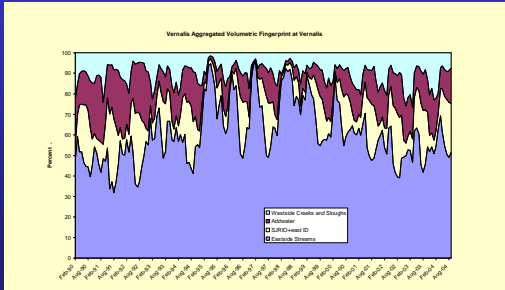
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## San Joaquin Model



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## Monitoring Needs

- Wastewater Treatment Plants – limited data on TOC and nutrients
- Fish Hatcheries – no data on TOC, nutrients, indicator bacteria
- Using modeling exercise to identify other critical data needs
- Next steps – conduct monitoring and update database

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## Water Quality Goals

- Identify objectives, standards, goals, etc. established in other states and countries
- Develop range of goals for each constituent of concern that may be appropriate for Central Valley

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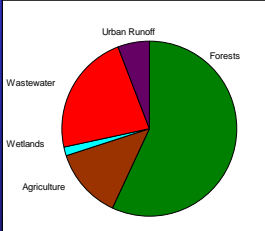
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## Refine Load Evaluation



Update loads  
Identify controllable sources  
Model impacts at drinking  
water intakes

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## Evaluate Control Strategies

- Focus on significant sources that can be cost-effectively controlled
- Evaluate cost of controlling at the source vs. cost of treating at drinking water treatment plants; however.....

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## Multiple Barrier Principle

Source Protection



Treatment Effectiveness



Distribution Integrity



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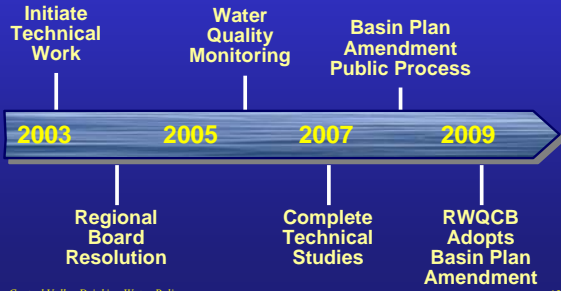
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## Schedule



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We may be slow but we are making progress!



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