Proposal for a Statewide Water Analysis Network

Last Meeting!
Update 2005
December 9, 2005
Presentation Topics

- Improving Water Plan analysis
- Where we want to be
- DWR’s strategy
- SWAN proposal
Improving Water Plan Analysis
Identified Limitations In Water Plan Analysis

- No broad acceptance of prior analytical procedures
- Need detailed quantitative information about the costs, benefits, and broad social, environmental, and economic tradeoffs
- Data, analytical tool development, and data management have not kept pace
- Lack a consistent framework and standards for collecting, managing, and accessing data
Specific Problem Areas

- Data, data, data
- Water flow and operations models
- Future water use forecasts
- Scenarios
- Consumptive vs. non-consumptive use
- Economic efficiency
- Hydrologic variability
- Water quality
- Planning objectives
- Groundwater management
- Transparency
Where We Want To Be
Multiple Quantitative Views

- **Water Portfolios**
  - Describe where water originates, where it flows, and what it is used for based on recent data

- **Future Baseline Scenarios**
  - Describe expected changes by 2030 if water managers do not take additional action

- **Alternative Response Packages**
  - Describe packages of promising actions, predict expected outcomes, and compare performance under each scenario
Analysis in Phases

Update 2005
- Water portfolios of current conditions
- Describe quantitative approach
- Illustrate part of the approach – future scenarios

Future Updates
- Refine quantitative approach
- Refine future scenarios
- Quantify response packages
- Compare performance
The Point

- Multiple views of water management system will:
  - Help inform policy discussions
  - Promote rational decisions regarding investments to meet objectives
  - Support regional planning
  - Support statewide planning
## DWR’s Strategy

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<td>Develop Conceptual Model</td>
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<td>Develop Theoretical Models for Short-term and Long-term Approach</td>
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Next Steps for Quantitative Information

Goals

Promote Collaboration

Facilitate Information Exchange

Improve Numbers
Next Steps for Quantitative Information

Deliverables

Water NET
Analytical Network

Water PIE
Information Exchange

Water TOOLS
Analytical Tools
Statewide Water Analysis Network

● Why a network?
● How a network can help the Water Plan
● November 22 workshop

Key workshop outcomes

Proposed objectives

Potential SWAN representation
Why a Network?

- Problems identified for Water Plan are not unique
- Solution requires better integration and consistency at federal, state, regional, and local scales
- Difficult to reach consensus on specifics
- Expertise and funding are diffuse
How a Network Can Help the Water Plan

- Describe conceptual design of critical components
- Identify appropriate scales for water plan analysis
- Provide options for making water plan analysis transparent
- Develop guidelines for integrating information
November 22 workshop

- Attended by over 20 experts in data management and analytical tools
- Representatives of federal, State, local agencies, nongovernmental and academic organizations
- Discussed SWAN concept
- Reviewed work and findings by CWEMF from Strategic Analysis Framework report (September 2005)
Key Workshop Outcomes

- Participants generally agreed that California could benefit from SWAN.
- Recommended DWR convene a specific project of limited scope to test.
- Recommended that initial participation be ad hoc.
- Decide later if necessary to formalize.
- Report back to stakeholder groups.
3 Proposed objectives

- Conduct pilot project to integrate UWMPs with Water Plan
- Develop common physical schematic of California’s water management system
- Develop conceptual description of water demands
# Potential Participation

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<tr>
<th>Category</th>
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<td>Federal</td>
<td>Bureau of Reclamation, Geologic Survey, Army Corps of Engineers, Fish and Wildlife Service, Environmental Protection Agency</td>
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<tr>
<td>State</td>
<td>Water Resources, State Water Resources Control Board, Regional Water Quality Control Boards, Fish and Game, Energy Commission, Public Utilities Commission</td>
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<td>Local</td>
<td>Metropolitan Water District of Southern California, Kern County Water Agency</td>
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<td>Universities</td>
<td>UC Davis, UC Santa Barbara</td>
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<td>Nongovernmental Organizations</td>
<td>California Water and Environmental Modeling Forum, Natural Heritage Institute, RAND Corporation, Environmental Defense</td>
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<td>California Native Tribes</td>
<td>TBD</td>
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Reference Information

- [http://www.waterplan.water.ca.gov/tools/swan.cfm](http://www.waterplan.water.ca.gov/tools/swan.cfm)
  - Recommended Next Steps ...
  - Quantified Scenarios of 2030 Water Demand ...
  - Improving Analytical Procedures ...
  - Future Quantitative Analysis ...

- Chapter 4, Volume 1, Update 2005 (soon)

- [http://www.cwemf.org](http://www.cwemf.org)
  - Strategic Analysis Framework ...

- [http://www.cwemf.org](http://www.cwemf.org)