California Water Plan Update 2013

California Water Sustainability Indicators

Water Plan
Public Advisory Committee Meeting
March 30, 2011
A Recurring Question

“How can we ascertain that the resource management strategies and objectives of the CA Water Plan are providing sustainable water uses and reliable supplies for the State and its various hydrologic regions?”
In Water Plan Update 2009

One of the guiding principles established for decision-making:

“Determine values for economic, environmental, and social benefits, costs, and tradeoffs to base investment decisions on sustainability indicators.”
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- Objective
- Challenges
- Work Plan
- Process
- Participation
- Schedule
- Contact Information
Objective

Develop an analysis framework and identify, compute, and evaluate a set of sustainability indicators to monitor progress towards water resources sustainability through meeting the objectives of California Water Plan.
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Challenges

- No consistent terminologies & definitions
- No systematic analytic framework or methods for quantifying indicators
- Limited data
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Work Plan

- **Develop analytical framework:**
  - Identify goals and objectives.
  - Identify indicators.
  - Identify targets or desired future conditions.
  - Ensure vision and vision alignment.
  - Prepare Framework Document.

- **Conduct quantitative analysis:**
  - Calculate condition/status and trends.
  - Report indicators relative to desired future conditions.
  - Evaluate indicators towards water resources sustainability.

- **Identify issues and data gaps.**
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Learning from Other Efforts

- The Sustainable Water Resources Roundtable (SWRR)
- The Sacramento River Basin Report Card
- The Bay Institute Ecological Score Card
- The State of the Great Lakes
- 2010 Environmental Performance Index (EPI) – CIESIN, Columbia University
- Others
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Essential Attributes of Sustainability

- Objective
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Triple Bottom Lines of Sustainability
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Indicator Evaluation Framework

Target: Reference Condition or Desired Future Condition (DFC)

Indicator or Index Score

Distance to Target (D2T)

Time

Improving Condition

Objective
Challenges
Work Plan
Process
Participation
Schedule
Contact
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Indicator Information Pyramid

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Intuitive/Obvious

Stories (wisdom)

Status/Trend (knowledge)

Indicators/Indexes (information)

Measurements (data)
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Process

- Stakeholder driven.
- Collaborative.
- Transparent.
- Science based.
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Anticipated Participation

- Local agencies and regional water entities/groups.
- Delta Stewardship Council.
- The Bay Institute’s Ecological Score Card Effort.
- State Water Resources Control Board.
- The Sustainable Water Resources Roundtable (SWRR).
- U.S. EPA.
- U.S. Bureau of Reclamation.
- U.S. Geological Survey.
- Association of California Water Users (ACWA).
- California Native American Tribes.
- Others.
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Schedule

Phase 1:
- Workshop 1: Straw Proposal:
  - Goals/objectives/indicators review: Spring/2011
  - Sustainability indicator analysis framework: Fall/2011

Phase 2:
- Detailed scoping for quantitative analysis: Fall/2011
- Workshop 2: Proposal on a Pilot analysis: Late/2011
- Workshop 3: Pilot results &
  - a proposal for extended analysis: Summer/2012
- Workshop 4: Results from extended analysis: Summer/2013
- Final analysis and documentation: Fall/2013
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Contact Information

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Thank You!

Questions?