Water Plan Update 2013

Sketching Out The Highlights Booklet

California Water Plan Plenary

October 30, 2013
Receive input regarding what should be in the Highlights booklet

Sharpen and tailor the Water Plan message for key audiences
Water Plan Update 2013 Highlights Primary Audiences

- State Legislature
- State government agencies
- Local and regional water managers
- Tribal and federal governments
- Academic Institutions
- Local land use decision-makers
- General public/voters
Highlights Content

Using Update 2013 PRD Executive Summary as Starting Point
Update 2013 provides a roadmap that:

- Informs legislative action
- Supports planning and decision-making at all levels of government
Defining the Challenges

*Imperative to Invest*
Recent investment has yielded benefits, however.....

Many water conditions and trends in many areas of California need improvement.

Significant threats to future prosperity (public safety, environment and economy).

All Californians *(and the Nation)* have a stake.

The future is highly uncertain.
California water managers are being asked to do more with less at a time of:

- Economic downturn
- Rising public sector debt
- Weakening public support for additional investments

Update 2013 - State’s long-term strategic plan for guiding decisions under these challenging circumstances
Water Uses and Supply Sources (2001 – 2010)

- **Applied Water Use**
  - Required Delta Outflow
  - Instream Flow
  - Managed Wetlands
  - Irrigated Agriculture
  - Urban
  - Wild & Scenic Rivers

- **Dedicated and Developed Water Supply**
  - Projects
    - Colorado
    - Federal
    - State
  - Local Imports
  - Groundwater Extraction
  - Reuse
  - Recycled
    - Recycling
  - Instream Environmental

**Legend**
- Stippling in bars indicates depleted (irrecoverable) water use (water consumed through evapotranspiration, flowing to salt sinks like saline aquifers, or otherwise not available as a source of supply).

**Note:** For water years 2001-2010, recycled municipal water varied from 0.2 to 0.5 MAF of the water supply.
Regional Water Uses and Supplies (2010)
Challenges – Threats to Prosperity

Increasing Drought Impacts

Rising Flood Risk

Declining Groundwater Storage

Declining Ecosystems
Figure 3-23 Sea Level Rise CA Study Bars

projection location

<table>
<thead>
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<th>Location</th>
<th>Bar Color</th>
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<tbody>
<tr>
<td>California</td>
<td>Blue</td>
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<td>South of Mendocino</td>
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<tr>
<td>Global</td>
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<td>Yellow</td>
</tr>
</tbody>
</table>

...by 2030...

Figure 3-24 The Water and Energy Connection

- Energy for treating and delivering drinking water
- Energy for collecting, treating, and disposing of wastewater
- Energy for advanced treatment and delivery of recycled water
- Energy for energy generation from anaerobic digestion or wastewater treatment plants
- Energy for desalination of water
- Energy for use in the process of energy generation
- Water used for energy generation from anaerobic digestion or wastewater treatment plants
- Irrigation for cultivation of tomatoes fuels
- Energy for preparing water for use in dry irrigation systems

Figure 3-21 How Earlier Runoff Affects Water Availability

The conceptual impact of earlier runoff and increased summertime water demand is shown in the two curves. The curves show the general shape and timing of runoff and demand in California (individual watersheds will each have unique characteristics). Under “Current Conditions” (top box) runoff peaks in early spring only a few months before demand peaks in early summer. Much of the difference between high runoff and low demand in fall and winter can be captured and stored in the state’s existing surface and groundwater storage facilities. That storage meets most of the demands later in spring and summer and shortages are minimal. Under “Projected Conditions” (lower box) runoff peaks in mid-winter, months before demand peaks in spring and summer. Summer-time demand is higher due to higher temperatures and high demand lasts longer into early fall due to longer growing seasons. Much of the earlier runoff is captured in storage facilities, but because the runoff arrives while reservoirs are being managed for flood protection, much of the runoff is spilled. In spring and summer demand far exceeds runoff and releases from storage, making shortages much more common.
Future is Uncertain - Statewide Water Demand in 2050
Future is Uncertain - Regional Water Demand in 2050

The figure represents change in urban and agricultural water demand for each Hydrologic Region across 117 future scenarios comprised of 13 scenarios of future climate change, 3 population projections, and 3 alternative assumptions about future land use density.
Framing the Solution
Water Plan Update 2013 Highlights

Framing the Solution

Update 2013:
- Vision
- Goals
- Guiding Principles
- Objectives
- Related Actions
Water Plan Update 2013 Highlights

Defining a Sustainable Future

**Public Safety**
- Reduce flood risk statewide
- Provide safe drinking water
- Improve water quality for fisheries and recreation

**Environmental Stewardship**
- Enhance Bay-Delta ecosystem
- Restore terrestrial and aquatic habitats
- Improve watershed management
- Raise awareness and increase stewardship

**Economic Stability**
- Enhance State economic output
- Contribute to job creation and security
- Promote food production security
- Provide stable funding for infrastructure
Integrated water management
provides a set of principles
and practices that include
government agency alignment
through open and transparent
planning process. This leads to
stakeholder and decision-maker
support for investment …

in innovation and infrastructure.

Integrated Water Management
System flexibility and resiliency
Advocacy from implementers and financiers
Delivery of benefits using fewer resources

Government Agency Alignment
Clarification of state roles
Reduction in implementation time and costs
Efficient achievement of multiple objectives

Investment in Innovation and Infrastructure
Stable and strategic funding
Priority-driven funding decisions
Equitable and innovative finance strategies
Water Plan Update 2013 Highlights  
*Advancing Integrated Water Management*

- Broad-based Knowledge
- High Value, Multiple Benefits
- Broad Access to Funding Sources
- Collaboration and Alignment
Expedite implementation

Help assure efficient achievement of multiple objectives

Reduce implementation cost while protecting and enhancing natural resources
Water Plan Update 2013 Highlights

*Invest In Innovation and Infrastructure*

- Stable and strategic funding
- Priority driven funding decisions
- Equitable and innovative funding strategies
Water Plan Update 2013 Highlights Role of Public Funding For Innovation and Infrastructure

<table>
<thead>
<tr>
<th>Project type</th>
<th>Funding type</th>
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<tr>
<td>Self-Funding Programs</td>
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<tr>
<td>supported through local users’ fees</td>
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<tr>
<td>Cost-Sharing Programs</td>
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<tr>
<td>supported through a combination of local and public funding</td>
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<tr>
<td>Public Benefits Programs</td>
<td>public</td>
</tr>
<tr>
<td>supported through public funding (State or federal)</td>
<td></td>
</tr>
</tbody>
</table>
State, regional, and local entities must come together to deliver the resources needed to implement IWM actions

(A two page summary from each regional report will be included in the Highlights booklet)

Sustainable water management requires interaction, cooperation, collaboration, alignment
Water Plan Update 2013 Highlights

Integrated Water Management in Action

- Awareness of health and safety risks
- Clarified State government roles
- Aligned policy, plans and regulations
- Greater funding flexibility
- Demonstrated value/return on investment
- Outcome-based regulatory approach
Integrated Water Management in Action

**Alignment**
- Heightened awareness of health and safety risks
- Clarified state government role
- Aligned policy, plans and regulations
- Greater funding reliability
- Demonstrated value/return on investment
- Outcome-based regulatory approaches

**Collaboration**

**Interaction**

**State Government IWM Role & Investment**

**Regional and Local IWM Role & Investment**

**Sustainable Resource Management**
Message #1: Significant threats to California’s future prosperity

Message #2: All Californians have a stake

Message #3: Water managers are expected to do more with less
Water Plan Update 2013 Highlights
Knitting 6 Central Messages Into Story

Message #4: Complex challenges require integrated solutions

Message #5: State needs to innovate and adapt

Message #6: Funding must be more stable and strategic
Water Plan Update 2013 Highlights
Stakeholder Input

What else do you think key people need to know about the Water Plan?

How can the Highlights more clearly or thoroughly represent the intended message/story?