This is a **strategic** long term planning framework and is **NOT intended to change or supplant:**

1. Ongoing State grant and loan activities
2. Specific State programs or projects that are currently being planned or implemented
3. Local or regional governance and finance
What is Integrated Water Management (IWM)?

Operational Explanation for Plenary

**Multiple Dimensions:**

**Topics:** Flood management, water supply and quality, environmental assets and systems, ........ more on this later

**Institutional:** Alignment of all State policies that pertain to the suite of IWM topics

**Planning:** Transparent and inclusive

**Principles:** Sustainability and multi-objective solutions
Update 2013 Finance Planning Framework

Water Plan Plenary - September 12 & 13:

- Framework Background and Scope of IWM
- History of Resource Management Funding
- Principles for Investment Priorities and Apportioning Costs
- Cost of Forgone Future Investment
- Future IWM Role of State Government & Criteria for Crafting Recommendations
Topics for this session:

- Where We Have Been
- Purpose and Applications of Finance Framework
- Content and Flow of Information
- Draft Framework Narrative
- Scope of IWM
- IWM Activities Categories
Update 2013 Finance Planning Framework
Where We Have Been - Summary

• IWM finance innovation is much more complex than determining the “who and how” of future funding

• A comprehensive IWM finance planning framework has been developed
Update 2013 Finance Planning Framework
Where We Have Been - Process

• Eight Finance Caucus Meetings
• Three Caucus Subcommittee Meetings
• Four Advisory Committee Meetings
• Five State Agency Steering Committee Meetings
• Joint Finance Caucus/State Agency Meeting
Draft Storyboard for Water Plan Update 2013 Finance Plan
June 1, 2012

Purpose and Use
This document is intended to enable diverse California Water Plan stakeholders and planning partners to: (1) initiate discussions and develop a common language and vision surrounding state integrated water management (IWM)-related activities and funding; and (2) collaboratively develop a framework for planning future State government IWM activities and funding. The purpose of the eventual finance planning framework will be to synthesize information and stakeholder input such that it supports actionable State-administered IWM finance recommendations for State policymakers.

Assumptions about the Future
In order to develop practical decision support for future State IWM activities, many assumptions must be made about future conditions. The framework for preparing the finance plan will include a method for articulating priorities at different scales (regional and statewide) and under different sets of assumptions about the future. Assumptions and, in some cases, estimates will be made regarding key drivers such as future funding levels, future climate expectations, planning horizons and perhaps more, as deemed relevant by water plan participants. Given that there are many different levels of uncertainty associated with various future assumptions and estimates, this framework will enable articulation of confidence levels (qualitative or quantitative) in conjunction with each assumption and estimate. The final recommendations will result from emerging patterns of activities/areas where future State IWM funding should be directed.

Overview
Eight components for developing the Update 2013 finance plan framework are listed below in the form of a storyboard. Note that the components indicate a logical order of information as opposed to work sequencing. The actual work plan will rely on parallel progress on several components. This document was refined based on many suggestions from the Public Advisory Committee, Finance Caucus and other participants. The following suggestions were used to guide the storyline presented below.

- Avoid presupposing any occurrence, scope or magnitude of future State IWM roles, programs, activities or funding.
- Establish key definitions early in the process.
- Build a framework that incorporates IWM perspectives of multiple jurisdictional scales (e.g., federal, State and local).
- Establish a framework that incorporates the many actors or policies typically associated with IWM.
- For Update 2013, focus on the most critical IWM activities/needs/plans.
- Clarify the role of State government and focus the finance plan recommenders on actions to be administered by the State government.
- Clarify the role of federal government in implementing and funding IWM activities in California.
- Include a method for making recommendations under a variety of possible future conditions, particularly regarding significant future funding constraints/limitations.

1 Integrated water management is a collection of policies, practices and tools applied to water resources planning and management to achieve multiple objectives and enhanced outcomes.

Draft 06/01/12

Update 2013 IWM Finance Scoping Storyboard
Compiled and Synthesized Historical Federal, State and Local Spending
Update 2013 Finance Planning Framework
Where We Have Been - Content

Defined Current G.O. Bond Debts/Debt Service
Update 2013 Finance Planning Framework
Where We Have Been - Content

Compiling Regional IRWM Plan Data
Update 2013 Finance Planning Framework
Where We Have Been - Content

Compiled State Companion Plans
Update 2013 Finance Planning Framework
Where We Have Been - Content

Building Update 2013 Report Narrative Around Finance Framework
Update 2013 IWM Finance Planning Framework
Purpose and Applications

- Inform future general obligation bonds
- Guide future legislation pertaining to finance planning and finance strategies
- Clarify and align State IWM funding and finance
- Prioritize future State IWM investment
Update 2013 Finance Planning Framework
A New Era* in CA Water Planning and Finance

Recent interest in statewide IWM finance planning due to:

- Sustained economic downturn
- Nearing full allocation of existing bond funds
- Reduced willingness of the public to pay for government activities
- Decades of deferred investment
- High uncertainty of future federal funding

*……more on historical and current eras of California resource management finance in Session 2 History of Resource Management Expenditures
Content and Flow of Information

Finance Storyboard
1. Scope and Outcomes
2. Integrated Water Management Activities
3. Existing Funding
4. Funding Sustainability
5. Future State Roles and Partnerships
6. Future Costs
7. Funding Who and How
8. Trade-offs
Volume 1 Outline

Finance Planning Framework
CONCEPTUAL DRAFT - Update 2013 Finance Framework - Introduction

Figure 1-2 Finance Planning Framework (Integrated into Volume 1)

The red text shows how the new sections of the Update 2013 finance planning framework and how it is integrated into Volume 1. It is also mapped to the storyboard as illustrated the in parentheses.

Where we are now

Ch. 1 – Introduction
  About This Chapter
  A Guide to Update 2013
  Building on a Framework
  Introduction to Integrated Water Management Finance Planning Framework
    Intended Applications of Finance Planning Framework
    Scope of Integrated Water Management
    Content and Flow of information

Ch. 2 - California Water Today
  Variable and Extreme Resources
  Land Use and Development Patterns
  Water Conditions
  Critical Challenges
  Responses and Opportunities
  Resource Management Funding History
    Resource Management Funding from 1850 – Present
    Federal, State and Local Government IWM Spending Summaries
    Summary of Key Observations

Where we want to be

Ch. 3 – Imperative to Invest (in Innovation and Infrastructure)
  A Critical Time
  Paramount Challenges
  Accomplishments
  An Urgent Roadmap
  Key Initiatives and Commitments
  Consequences of Limited or Forgone Investment
  Conclusion
Update 2013 Finance Planning Framework

CONCEPTUAL DRAFT - Update 2013 Finance Framework - Introduction

Ch. 4 - Companion Plans
   Water Management in California
   Companion State Plans and the California Water Plan
   Existing Finance Strategies
   Implications and Considerations

Ch. 5 - Managing an Uncertain Future
   Planning Approach
   Recognizing and Reducing Uncertainty
   Assessing Risk
   Managing for Sustainability
   Planning for an Uncertain Future
   Summary

Ch. 6 - Informed and Transparent Decision Making
   Purpose and Motivation
   Informing the Water Plan Policy Setting with Quality Information and Analysis [Vision]
   Developing new technology
   Finance Decision Support Tools
   Prioritizing Action on Informed and Transparent Decision Making
   Summary

How we will get there

Ch. 7 – Finance Planning Framework
   Approach for Prioritizing State Integrated Water Management Investment
   Role of Public (State government) Funding
   Estimated Cost of Future Integrated Water Management Activities
   Available Finance Strategies

Ch. 8 - Implementation Plan
   Implementation Plan Organization
   Objectives and Related Actions
   Finance Recommendations
   Qualification of Recommendations
Draft Finance Planning Narrative
## Update 2013 Finance Planning Framework

### Overview

This document represents the general approach for building the 2013 Finance Planning framework into Volume 1 of Update 2013. Water Plan Plenary Finance sessions are indicated in red. The text below each heading is instructional text, to describe the purpose and general idea of each section. It will not necessarily appear in the chapter.

The last row provides an indication of probability that each section of the finance planning framework will be completed for Update 2013. Sections that are not completed for Update 2013 will be recommended for advancement or completion for Update 2018. The color of the stakeholder involvement, data collection capacity, and recommendations with reasonable levels of uncertainty. Green = Higher Probability of Completion for Update 2013; Yellow = Moderate Probability; and Red = Lower Probability.

### Plenary Finance Session 1

**Framework Background and Scope of IWM**

Definition and Scope of Integrated Water Management; Finance Planning Framework

This section will describe:

1. The definition and scope of integrated water management (IWM).
2. How many policymakers and stakeholders have expressed a need for an IWM finance planning effort.
3. How California is expected to face significant challenges surrounding IWM financing due to the near full allocation of existing bond funds, protracted recession, deferred investment, etc.
4. The intended applications of the finance planning framework.

**IMPORTANT MESSAGE - Emphasis on the value of the storyboard to this and other future IWM finance efforts (as a useful framework for working through the layers of issues and complexities required to get to IWM funding and finance recommendations):**

- A detailed description of the Finance Plan storyboard.
- An explanation of the storyboard’s development.
- An illustration of how the finance planning framework reflects the storyboard.

### Plenary Finance Session 2

**Follow the Money**

Resource Management Funding History

This section will provide a description of historical federal, State, and local IWM investments as context for planning future State IWM investment. It will also include a narrative of data and information to provide a full understanding of the current conditions that have evolved to be (e.g., debt levels, funding sources, administrative constraints, etc.).

State, Local and Federal Government IWM Spending Summary

This subsection contains a generalized characterization of State IWM spending from fiscal years 2000/2001 through 2011/2012 using the categories developed in storyboard component 2 (e.g., innovative solutions, expenditure). To the extent possible, it will also include similar data for local and federal spending. Contextual messages will be articulated as necessary to help provide a full enough understanding to make informed decisions.

### Plenary Finance Session 3

**Consequences of little to no future investment**

Cost of Limited or Forgone Investment

This section will convey a sense of urgency to implement Update 2013 recommendations. It includes a description of the implications of very limited investment in IWM (e.g., that may not even begin to implement activities that are considered critical or high-priority). Implications or resulting conditions can be expressed in terms of environmental, economic, and social effects of deferred implementation; forgone opportunities or benefits; and other unfavorable consequences.

### Plenary Finance Session 4

**Description and Clarification of the Role of State Government in IWM**

Plenary Finance Session 5

Qualifier Only
Scope of IWM Finance Framework
## Scope of IWM Finance Framework

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordability</td>
<td>Occurrence of water supplies of sufficient quality, certainty and cost to serve disadvantaged communities as well as sustain a diverse portfolio of economic activity and quality of life for all Californians.</td>
</tr>
<tr>
<td>Drought Preparedness</td>
<td>The magnitude and probability of economic, social or environmental consequences that would occur as a result of a sustained drought.</td>
</tr>
<tr>
<td>Energy</td>
<td>Efficient use, or increases in production/recovery of, energy associated with managed and unmanaged water use, storage, treatment, distribution and/or reuse.</td>
</tr>
<tr>
<td>Environmental</td>
<td>Preservation or restoration of the fish, wildlife, natural processes/functions and other aquatic resources for the continued viability of natural heritage, self-sustaining ecosystems and/or biodiversity. (e.g. recovery of sensitive species, control of invasive species)</td>
</tr>
<tr>
<td>Flood Damage Reduction</td>
<td>Reduce the adverse impacts of floods to human and natural systems through a portfolio of structural and non-structural measures that address their vulnerability, exposure and recovery during flood events. This includes pre-flood planning and hazard mitigation, emergency preparedness and response activities, and post-event repairs (including environmental infrastructure repairs).</td>
</tr>
<tr>
<td>Food Security</td>
<td>Adequate reliability, affordability, and supply of water, land and other natural resources to support domestic production of food, fiber, livestock, and other farm products to meet current and forecasted consumer demands. (need clarification of geographic scale; (e.g. state, nation, or world)</td>
</tr>
<tr>
<td>Fuel Load Management</td>
<td>Fuel reduction involving the modification of vegetation in order to reduce potential fire threat, reduce the risk of high severity wildfires thereby; (1) preserving water quality and natural water treatment processes within watersheds; (2) avoidance of downstream sedimentation impacts on water supply; and/or (3) improve wildlife habitat capability, timber growth, or forage production.</td>
</tr>
<tr>
<td>Groundwater Overdraft Reduction</td>
<td>Avoidance of the condition of a groundwater basin in which the amount of water withdrawn by pumping exceeds the amount of water that recharges the basin over a period of years during which water supply conditions approximate average conditions.</td>
</tr>
</tbody>
</table>

Table 1-1: IWM Benefit Definitions
## Scope of IWM Finance Framework

<table>
<thead>
<tr>
<th>Scope of IWM Finance Framework</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational Flexibility and Efficiency</td>
<td>Optimization of existing legal, operational and management procedures for (and/or physical modifications to) existing water management facilities to improve the efficiency of existing water operations or uses (e.g., irrigation)</td>
</tr>
<tr>
<td>Reduce Climate Change Impacts</td>
<td>Development and implementation of strategies that improve resiliency, reduce risk, and increase sustainability for water and flood management systems and the ecosystems upon which they depend.</td>
</tr>
<tr>
<td>Water Dependent Recreational Opportunity</td>
<td>Opportunities for water-dependent recreation for California's residents, communities and visitors now and into the future (e.g. skiing, fishing, kayaking, etc)</td>
</tr>
<tr>
<td>Water Quality</td>
<td>Chemical, physical, and biological characteristics of water, usually in regard to its suitability for a particular purpose or beneficial use for the enhancement or preservation of public and environmental health</td>
</tr>
<tr>
<td>Water Supply and Supply Reliability</td>
<td>Occurrence of water supplies of sufficient quality and certainty to enhance or sustain a diverse portfolio of economic activity and ecosystem health and maintain quality of life.</td>
</tr>
</tbody>
</table>
IWM Activity Categories
IWM Activity Categories

Investing in Innovation and Infrastructure

- **Innovation and administrative activities**
  - Governance (for State Government investment decisions)
  - Planning and public process improvements
  - Information technology/data and tools
  - Water technology
IWM Activity Categories
Investing in Innovation and Infrastructure

- Infrastructure *(natural and human - implemented at various geographical and jurisdictional scales)*
  - Local
  - Groundwater basin
  - Watershed
  - Regional
  - Interregional
  - State
  - Interstate
  - International
  - Tribal
Questions for Participants:

How else can this integrated water management finance framework be used?

What additional content or themes do you recommend be included in the framework?
Next Finance Session

Follow the Money: Historical Resource Management Expenditures