

In-Delta Storage Program Status Report

Bay Delta Public Advisory Committee
Water Supply Subcommittee

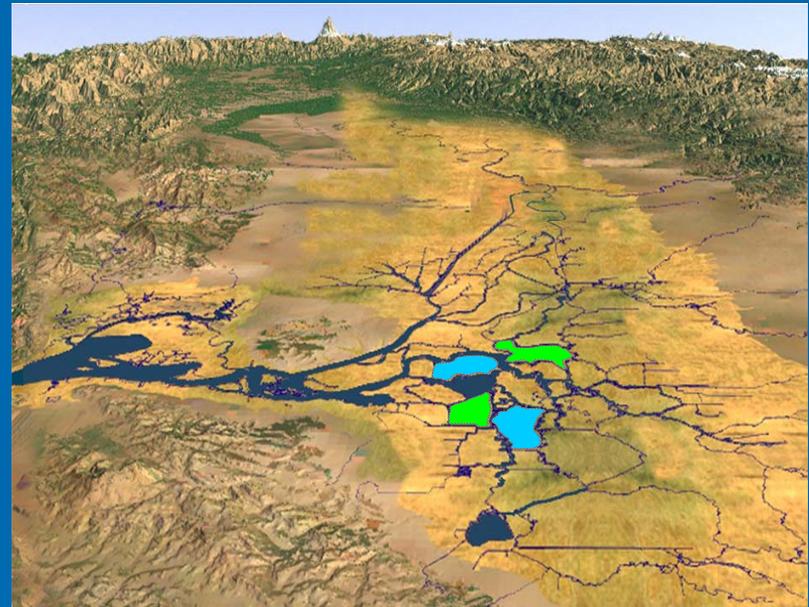
Stephen Roberts, Chief
Surface Storage Branch

California Department of Water Resources

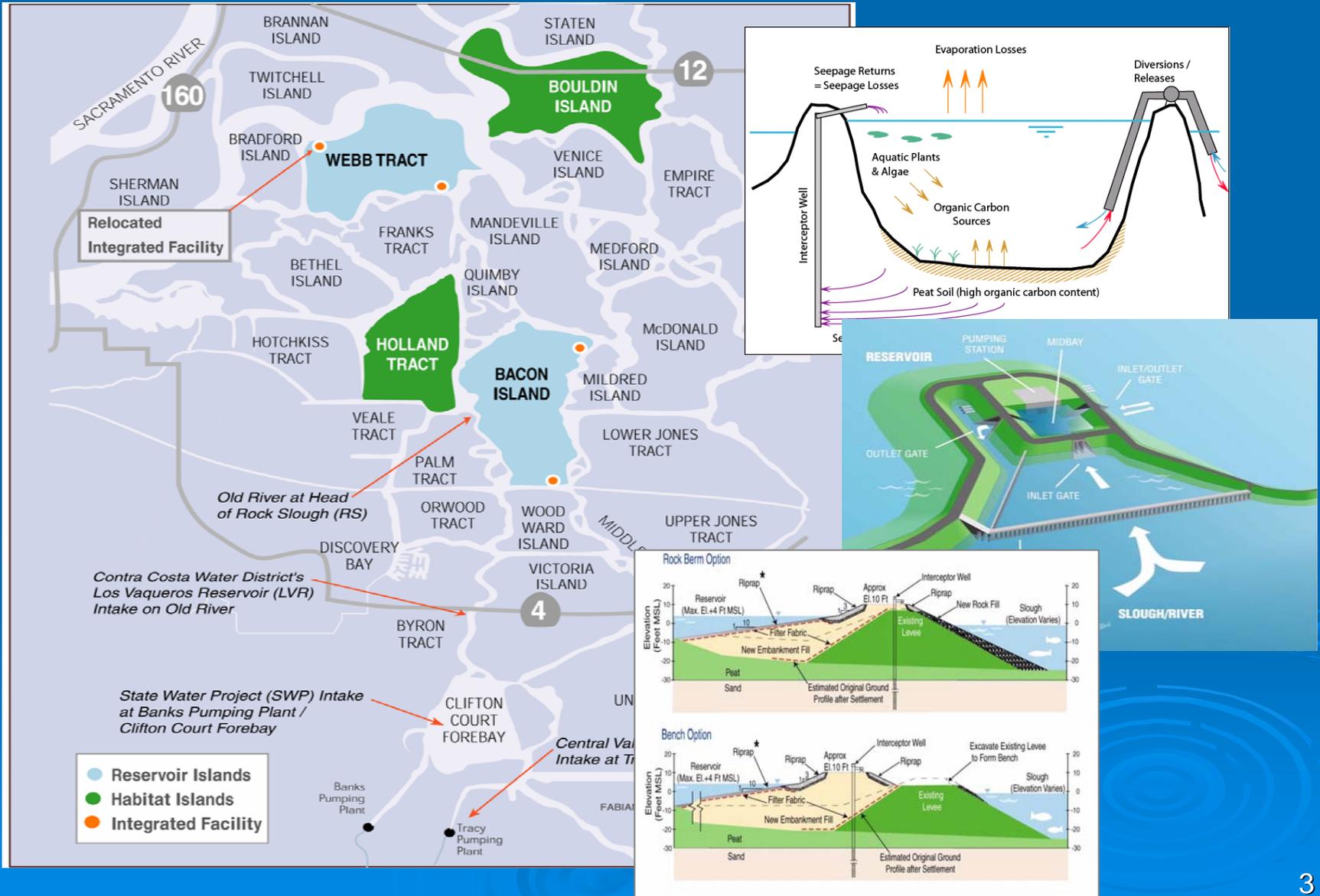


Presentation Outline

- Overview
- Key Findings
- Recommendations
- Action by WSS



Proposed In-Delta Storage Project



Overview

- 2006 Supplemental Report
 - Prepared in response to comments received on 2004 *Draft In-Delta Storage Program State Feasibility Study*.
 - Describes new/revised studies on water supply and quality, project design, risk analysis, environmental evaluations, construction costs
 - Contains new information gathered by DWR during the 2004 Jones Tract flood.
 - Includes revised project cost estimates, refined project operations, revised risk analysis, and additional information on specific technical issues.

Key Findings

➤ Water Supply Operations

- Average annual yield varies—107,000 acre-feet (initially) to 120,000 acre-feet (long-term)—due to decreasing carbon loading rates
- Water supply, EWA, ERP, and water quality benefits can occur simultaneously under each operational scenario.
- Reaffirms many of the conclusions stated in the 2004 *Draft In-Delta Storage Program State Feasibility Study*.

Key Findings (cont.)

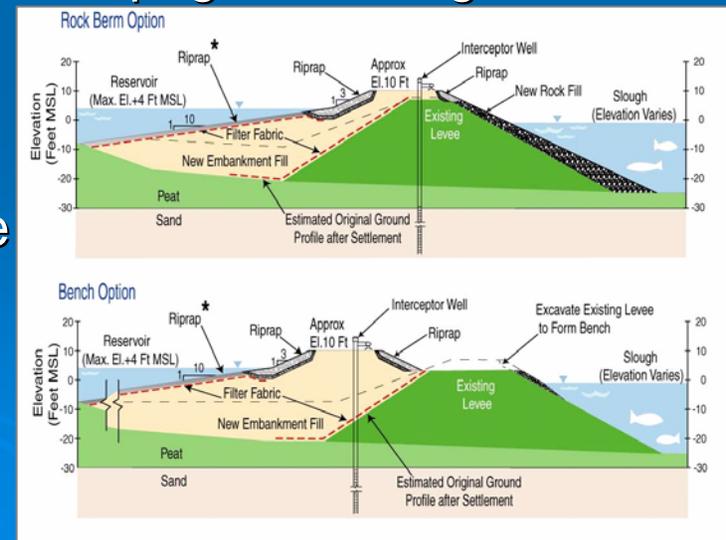
➤ Water Quality

- Water quality data collected during the Jones Tract flood indicate that dissolved oxygen and temperature of water stored on Delta islands may vary significantly with time of day.
- Dissolved Organic Carbon
 - Experimental results indicate that organic carbon loading rates may decrease over time.
 - Results from Jones Tract flood closely resembled initial rates of experiment.

Key Findings (cont.)

➤ Engineering Considerations

- Project Cost: Technically feasible-- DWR can safely design, construct and operate an In-Delta Storage Project.
 - \$789 million
- Seepage to Adjacent Islands:
 - Seepage conditions at McDonald Island during Jones Tract flooding indicates that current seepage modeling is reasonable.
- Embankment Stability:
 - Rip rap recommended over soil cement for reservoir side slope protection



Key Findings (cont.)

➤ Engineering Considerations

- Risk Analysis:
 - Updated to consider additional infrastructure (aqueducts, railway and pipelines) and recent Jones Tract Flood information.
 - The cost of a failure is now projected to be much higher than estimated in the original risk analysis.
 - Project reduces the failure probability and the economic losses by factors of 6 to 10 compared to existing conditions.

Key Findings (cont.)

➤ Environmental Evaluations

- The California Environmental Quality Act requires a subsequent Environmental Impact Report (EIR) due to changes to the original Delta Wetlands proposal.



Key Findings (cont.)

➤ Economic Uncertainty

- Additional work would be necessary to further reduce the economic uncertainty regarding project operations and thereby better define project benefits.
- The existing economic analysis does not capture all of the potential project benefits and, therefore, fails to demonstrate the full economic value of the project.

Recommendations

The Department of Water Resources, acting as the State implementing agency for the CALFED Bay-Delta Program surface storage projects, has refined the In-Delta Storage project proposal and developed a substantial body of information to facilitate its evaluation and consideration.

Additional work to add to the existing body of information and further reduce uncertainty regarding the In-Delta Storage project proposal would require significant new investment in field testing, data collection, and modeling to better understand the effects of DOC, DO, temperature, and taste and odor on project operations and potential water supply benefits.

Recommendations (continued)

To date, DWR has received no expression of interest from potential project participants willing to use water developed by the project and share in project costs.

Therefore, DWR recommends that further detailed study of the In-Delta Storage project be suspended until a proposal is submitted by potential participants detailing their specific interests, needs and objectives that support reinitiating In-Delta Storage Project studies. The proposal shall also include a work plan, schedule and budget necessary to complete the Next Steps discussed below.

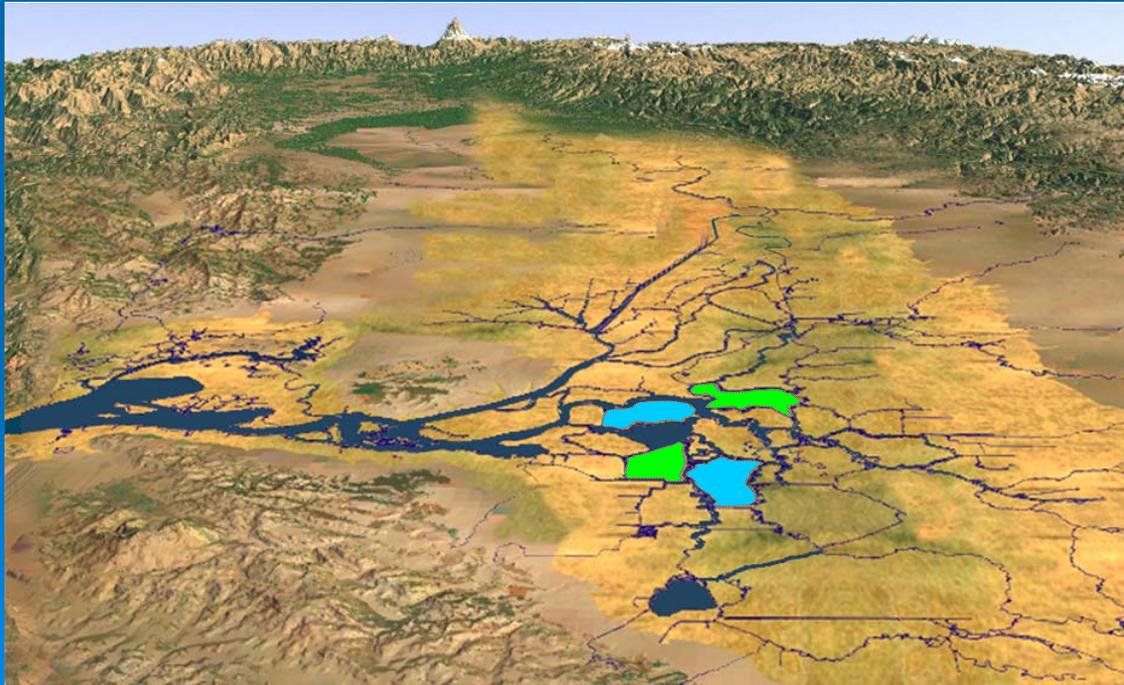
Recommendations (continued)

DWR acknowledges that some potential project participants may be reluctant to express an interest in any CALFED surface storage proposal until equivalent, comparable information is available for other CALFED surface storage proposals.

Therefore, DWR further recommends that limited economic study and operations modeling of the In-Delta Storage project proposal continue through the CALFED Surface Storage Program Common Assumptions effort. This information will allow DWR and potential project participants to continue to compare the In-Delta Storage project proposal to other CALFED surface storage proposals as work on those proposals advances.

WSS Action

- The WSS Subcommittee did concur with the Supplemental Report recommendations, with minor modifications.



Contact information

Steve Roberts, Manager
Surface Storage Investigations
Department of Water Resources
(916) 651-9249
sroberts@water.ca.gov