



DEPARTMENT OF
WATER RESOURCES



U.S. Department of the Interior
Bureau of Reclamation

CALFED SURFACE STORAGE INVESTIGATIONS OVERVIEW

Bay-Delta Public Advisory Committee
Water Supply Subcommittee

May 17, 2007



Initial Planning and Screening

- State and Federal agencies considered 52 potential surface storage sites
- Many were eliminated based on estimated size, cost, and environmental impacts
- Five sites were selected for further study in the CALFED Programmatic EIS/EIR



**Shasta Lake
Enlargement**



**NODOS/Sites
Reservoir**



In-Delta Storage



**Los Vaqueros
Expansion**



**Upper San Joaquin
River Storage**

CALFED SURFACE STORAGE STUDY LOCATIONS



Need for New Surface Storage

➤ California Water Plan & Updates

- “The biggest challenge for California water resources management remains making sure that water is in the right places at the right time.”
- “California has not experienced the hardships and environmental pressures of a prolonged statewide drought since the early 1990s, but similar or worse conditions of unreliable water supplies will recur.”
- 1976-1977 drought = economic loss of \$6.5 Billion (today's dollars)

➤ Respond to Potential Effects of Climate Change

Need for New Surface Storage

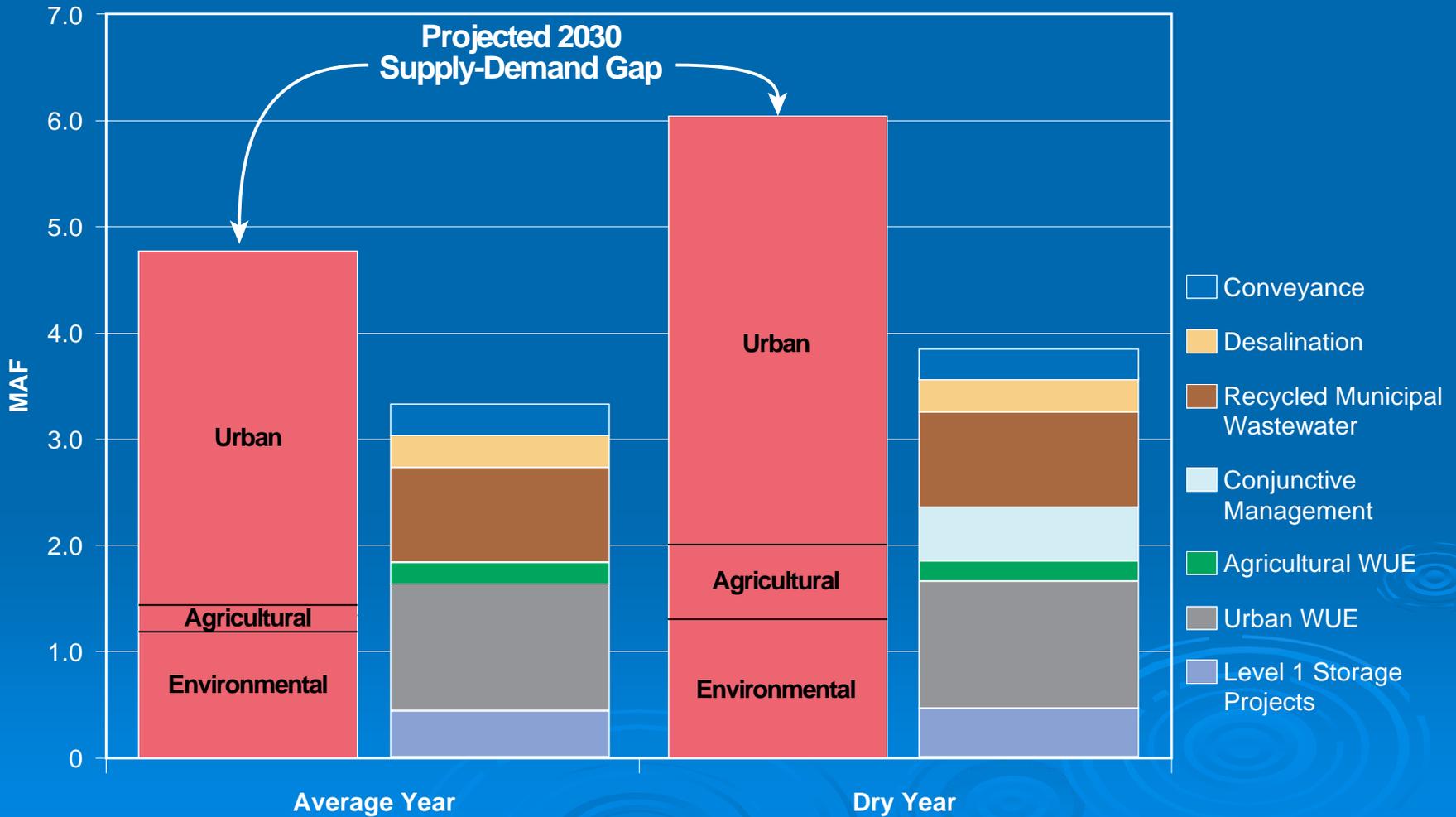
➤ CALFED Water Storage Program & Supply Reliability (Programmatic Record of Decision)

- “One of the primary goals...is to improve the reliability of...water supply...in the context of unpredictable hydrology and the competing needs of fish and wildlife and water users.”
- “Expanding water storage capacity is critical to the successful implementation of all aspects of the CALFED Program.”
- “...Additional storage is needed...to meet the needs of a growing population...flexibility in the system to improve water quality and support fish restoration efforts.”

➤ Reclamation's Preliminary Estimates of Demand

Supply-Demand Gap in 2030

(Preliminary- Subject to Change)



Status of Storage Investigations

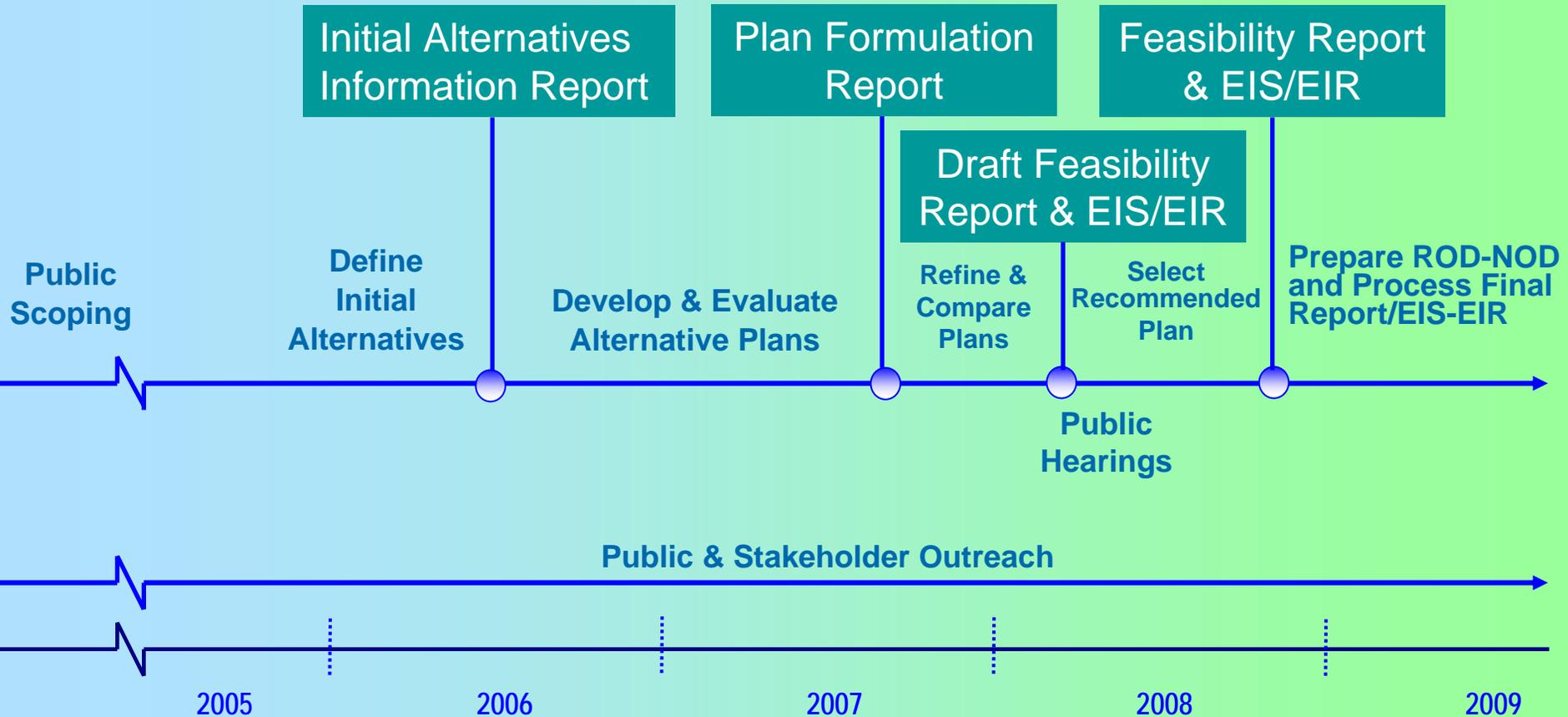
➤ Feasibility Studies' Focus

- Complete technical studies, planning process and reports
- Study teams are not prioritizing projects

➤ Ongoing Activities

- Engineering, environmental, social, economic, and financial analyses
- Iterative Planning/NEPA/CEQA process with stakeholders
- Common Assumptions Model Package development
- Preparation of interim progress reports and feasibility reports/environmental documentation
- Identify project beneficiaries, funding, O&M requirements

Planning Process and Key Milestones



Status of Documentation

Document	Shasta	NODOS (Sites)	Los Vaqueros	Upper San Joaquin
Initial Alts Info Rpt	June 2004	May 2006	Sept 2005	June 2005
Plan Form Report	Mid 2007	Late 2007	July 2006*	Late 2007
Draft FR – EIS/EIR	Early 2008*	Mid 2008	Early 2008*	Mid 2008
Final FR – EIS/EIR	Late 2008*	Late 2008	Late 2008*	Mid 2009

Objectives and Potential Benefits

- Increase water supply and reliability and management flexibility
- Increase survival of anadromous fish and other aquatic species
- Improve Delta water quality and EWA Assets
- Opportunities for ecosystem restoration, hydropower, flood damage reduction, emergency response, recreation, protect resources and habitats
- Improve system flexibility

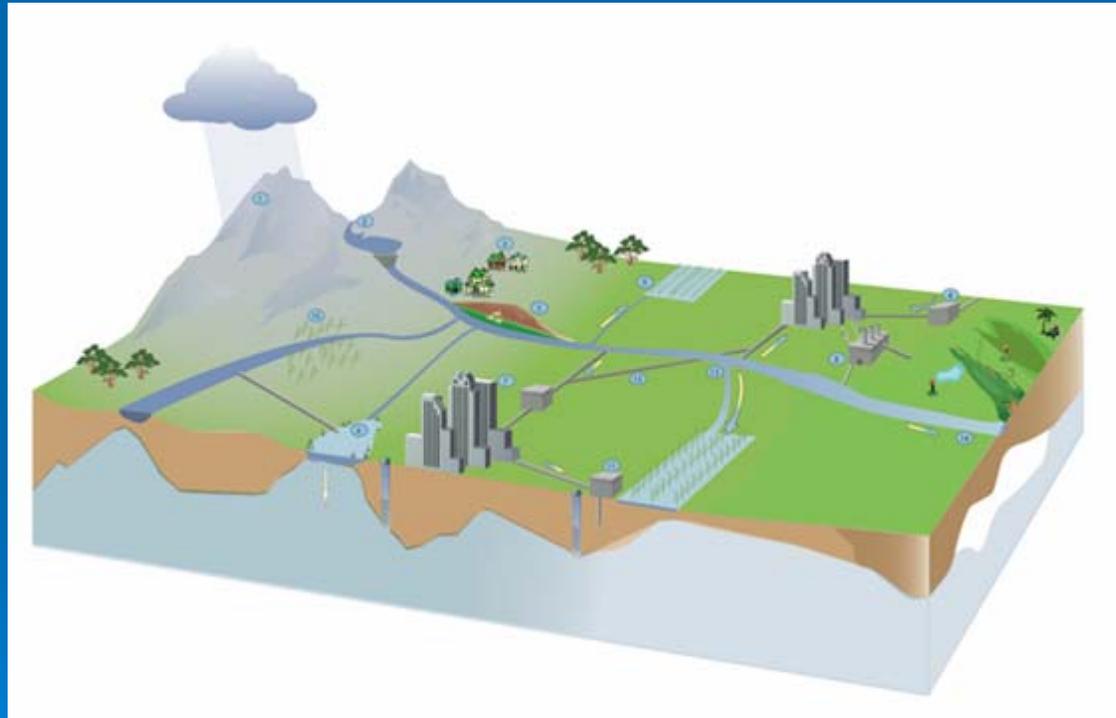


Key Findings at this Stage

- Projected water demand exceeds supply in many regions of California
- Focus on meeting dry year demand
- All investigations show potential feasibility with diverse local, regional, and national benefits
- Further study warranted to complete studies & reports

Integrated Regional Water Management

- Multiple purpose projects are needed
- No single strategy can meet all needs
- Water management actions and issues are interconnected
- Integrated diverse strategies contribute to sustainable solutions



Can Surface Storage Help Improve Delta Conditions?

- Surface Storage is one component of a broad array of water management tools
- Health of the Delta, in part, depends on flows from its tributaries, which cannot be ignored when considering Delta improvement measures
- Surface storage provides operational flexibility to constrained water management system, and Delta ecosystem, water quality & supply benefits
- Flexibility can also improve viability and effectiveness of water exchanges and transfers

Cost-Sharing Challenges

- Potential projects are complex, being refined & require State, Federal and Local partnerships
- FR/EIS-EIRs needed to define costs, benefits, allocations, responsibilities; basis for approvals
- Need to specify project beneficiaries, funding, and O&M requirements
- A framework for investment, like SB 59, would define State's cost share and give assurances that locals could benefit

Feasibility Report/EIS-EIR Phase

- Coordinate with concerned public, resource agencies, stakeholders, tribes
- Refine alternative plans & operations scenarios
 - Complete reservoir optimizations & features designs
 - Evaluate potential environmental effects
 - Complete estimates of costs and benefits
 - Perform climate change & other sensitivity analyses
 - Compare and rank alternatives
- Select recommended plan
- Prepare & process Feasibility Report/EIS-EIR
- Actions by Congress & Legislature, ROD-NOD

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Pertinent Websites:

<http://www.publicaffairs.water.ca.gov/storage/>

<http://www.usbr.gov/mp/storage/index.html>