

RECLAMATION

Managing Water in the West

CALFED Storage Program April 5, 2014

Facts

► Shasta

- **1938 -1945** – Reclamation constructs Shasta Dam and Reservoir
- **1980s** – Reclamation studies 200 foot raise; feasible but no partners to implement
- **2000** – Reclamation resumes feasibility studies in accord with CALFED ROD

► Upper San Joaquin

- **1942** – Reclamation completes Friant Dam and Millerton Lake
- **2003** – Reclamation and DWR fund studies to increase storage in the upper basin

► North of Delta

- **1996** – DWR initiates studies in the Sacramento Basin with Prop 204 funds
- **2003** –DWR and Reclamation fund studies in accord with CALFED ROD
- **2010** – Local agencies and counties form Sites Project Joint Powers Authority and fund continued studies with State grant

► Los Vaqueros

- **1997** – Contra Costa Water District (CCWD) completes 100 TAF Reservoir
- **2003** – CCWD, Reclamation, and DWR initiate studies in accord with CALFED ROD
- **2012** – CCWD funds and completes small expansion

The CALFED Bay-Delta Program Storage Program Element is advancing, and feasibility studies for four potential surface storage projects are nearing key milestones. Two proposals include on-stream alternatives, enlarging Shasta Dam and Reservoir on the Sacramento River, and constructing a new dam and reservoir on the San Joaquin River, upstream of Friant Dam. Two other proposals include off-stream alternatives, further expanding Los Vaqueros Reservoir, south of the Delta, and constructing a new reservoir in the vicinity of Sites north of the Delta. These projects were identified in the CALFED Bay-Delta Program Record of Decision (ROD) outlining a series of interrelated programs to provide comprehensive solutions to the problems of ecosystem quality, water supply reliability, water quality, and Delta levee and channel integrity.

The ongoing feasibility studies will culminate in Feasibility Reports and related environmental documentation that will address the potential effects of alternatives; determine the technical, environmental, economic, and financial feasibility of increasing surface storage; support recommendations, if any, for Federal involvement and/or investment in such projects; and describe related implementation and operations, maintenance, relocations, and replacement responsibilities for Federal and non-Federal partners. The studies are being conducted in cooperation with the State of California, Department of Water Resources (DWR), other interested agencies, and the public.

Common Objectives

Primary and Secondary:

- Increase anadromous fish survival
- Improve water supply and water supply reliability for human and environmental purposes
- Improve water quality in the study area and Delta
- Conserve, restore, and enhance ecosystem resources
- Provide flood damage protection
- Provide additional sustainable hydropower generation capability
- Provide opportunities to maintain and/or increase recreation
- Hydropower
- Flood Damage Reduction
- Recreation, and more

Features & Estimated Costs

- ▶ **Shasta**
 - New Storage: 634 thousand acre-feet (TAF)
 - New Inundation Area: 2,500 acres
 - Dry-Year Deliveries: 133.4 TAF
 - Average Annual Deliveries: 76.4 TAF
 - Time to Construct: ~5 years
 - Feasibility: High
 - Cost to Construct: \$1.1 Billion

- ▶ **Upper San Joaquin**
 - New Storage: 1,300 TAF
 - New Inundation Area: 5,700 acres
 - Dry-Year Deliveries: 21 TAF
 - Average annual Deliveries: 61 TAF
 - Time to Construct: ~8 years
 - Feasibility: High
 - Cost to Construct: \$2.5 Billion

- ▶ **North of Delta**
 - New Storage: 1,800 TAF
 - New Inundation Area: 14,000 acres
 - Dry-Year Deliveries: 246 TAF
 - Average Annual Deliveries: 383 TAF
 - Time to Construct: 10-13 years
 - Feasibility: Low
 - Cost to Construct: \$5-6.3 Billion

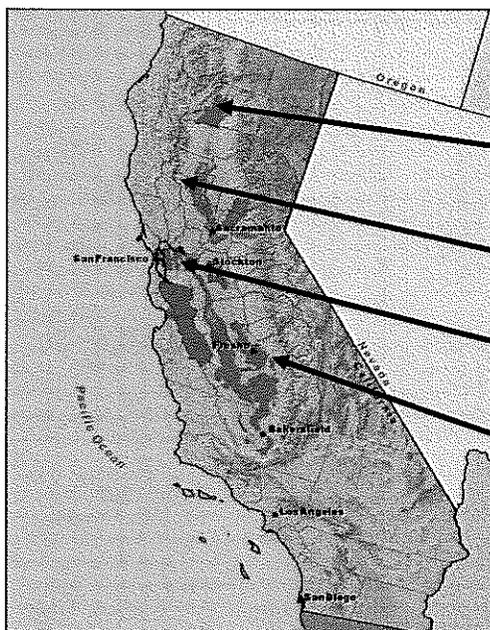
- ▶ **Los Vaqueros**
 - New Storage: 115 TAF
 - New Inundation Area: 600 acres
 - Dry-Year Deliveries: to be determined (TBD)
 - Average Annual Deliveries: TBD
 - Time to Construct: TBD
 - Feasibility: TBD
 - Cost to Construct: \$0.85 Billion

Schedules

- ▶ **Shasta**: Final Reports, December 2014
- ▶ **Upper San Joaquin**: Final Reports, July 2015
- ▶ **North of Delta**: Draft Reports, TBD
- ▶ **Los Vaqueros**: Draft Reports, TBD

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Shasta

North of Delta

Los Vaqueros

Upper San Joaquin