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# California Water Projects Survey



Presentation to the California Water Commission  
June 18, 2014

# Background

- + Collaboration between ACWA, California Water Commission, Department of Water Resources, Delta Stewardship Council and other state agencies
- + Consistent with a recommendation in the state's recently adopted Delta Plan (WR R14):

“The California Department of Water Resources, in coordination with the California Water Commission, Bureau of Reclamation, State Water Resources Control Board, California Department of Public Health, the Delta Stewardship Council, and other agencies and stakeholders, should conduct a survey to identify projects throughout California that could be implemented within the next 5 to 10 years to expand existing surface and groundwater storage facilities, create new storage, improve operation of existing Delta conveyance facilities, and enhance opportunities for conjunctive use programs and water transfers in furtherance of the coequal goals. The California Water Commission should hold hearings and provide recommendations to the California Department of Water Resources on priority projects and funding.”

# Background

- + Goal: to identify and compile a comprehensive inventory of projects that includes existing CALFED surface storage projects such as Sites Reservoir, Temperance Flat and the enlargement of Shasta Reservoir, in addition to *local and regional projects* that can significantly improve storage capacity, flood protection, water supply reliability, hydroelectric generation, ecosystem health, water quality and recreation.
- + Local public water agencies have a wealth of knowledge and information about near- and long-term opportunities that potentially could provide local and/or statewide benefits.
- + Launched February 27, 2014
- + First deadline for responses: March 31, 2014 (extended to April 11)

# Survey Results

- + Nearly 70 responses
- + 26 counties represented
- + Types of projects:
  - + conjunctive use and groundwater storage (11)
  - + groundwater recharge (10)
  - + operational efficiency improvements (5)
  - + surface storage reservoirs (20)
  - + water quality improvements (5)
  - + water transfers (7)
  - + "other" (9)
- + Additional project information provided via agency report summaries from USEPA Infrastructure Needs Survey



# Survey Results

## + Sample Water Storage Projects

### + Paradise Irrigation District (Butte County)

- + Magalia Dam Rehabilitation and Enlargement: construct a new dam to replace the Division of Safety of Dams (DSOD) restricted 1918 dam and increase storage from the reduced 800 acre-feet of storage to 6,000 acre-feet. Cost: \$80 million
- + Stirling Reservoir: off-stream storage reservoir off of the Little West Branch of the Feather River capable of storing up to 380,000 acre-feet. The reservoir could provide surface storage and hydro facilities. Cost: \$750 million

# Survey Results

## + Sample Water Storage Projects

### + Foresthill Public Utility District (Placer County)

- + Sugar Pine Dam Raise Project: Install radial gates anticipated in original construction and design of Sugar Pine Dam; would increase storage by 3,000 acre-feet. Cost: \$5 million

### + South Sutter Water District (Nevada County)

- + Garden Bar Reservoir: The Garden Bar project would include the construction and operation of a rockfill dam, creating a new 310,000 af surface storage reservoir, associated hydroelectric power facility and opportunity for water transfers. Cost: \$500 million

# Survey Results

- + Sample Water Storage Projects
  - + Upper Mokelumne River Water Authority (Amador County)
    - + Raise Lower Bear Reservoir: Raises the dam height to a maximum of 32 feet, increasing storage capacity by more than 26,000 AF. Water would be captured and either used as a direct water supply or as conjunctive use project. This project may transfer and store water in the San Joaquin basin. Cost: \$50 million (preliminary estimate)
  - + Responses also included Sites Reservoir and Los Vaqueros Reservoir Expansion

# Survey Results

## + Sample Conjunctive Use/Groundwater Storage Projects

### + Colusa Basin Drainage District (Glenn County)

- + South Fork Willow Creek Detention Basin #2047: Designed to capture high flow runoff from the South Fork Willow Creek which reduces flood loads in the valley. Water is released slowly which increases ground water recharge in the area. Project additionally provides habitat characteristics. Cost: \$28 million (last estimate)

### + Eastern Municipal Water District (EMWD) (Riverside County)

- + Hemet-San Jacinto Local Groundwater Bank: Recharge facilities and expanded extraction capacity for use with the Local Groundwater Bank project in the Hemet-San Jacinto basin. Intended primarily for water supply reliability during dry years when MWD implements supply reductions but would also provide emergency supplies and could include a conjunctive use component. It will provide groundwater supplies for up to three years during an MWD reduction of up to 15 percent. The size of the bank will be between 60,000 and 90,000 af. Cost: \$110 to \$150 million (excluding the cost of the water).

# Survey Results

- + Sample Water Transfer Project
  - + Inland Empire Utilities Agency (IEUA) (San Bernardino County)
    - + Regional Interconnection Projects: Two interconnections between Monte Vista Water District (MVWD)/ Ontario/Chino water systems to facilitate transfers, groundwater storage dry year yield participation, and reliability. Cost: \$920,000
- + Sample Water Quality Improvement Project
  - + Metropolitan Water District of Southern California (Los Angeles County)
    - + Weymouth Oxidation Retrofit: Provide ozone disinfection capability at the 520-mgd F.E. Weymouth Water Treatment Plant in La Verne. Using ozone as the primary disinfectant substantially reduces the formation of disinfection by-products for compliance with the USEPA's rule and enhances Metropolitan's ability to treat water with varying source-water quality. Provides critical operational flexibility to meet treatment challenges resulting from periodic water supply events such as drought or other source-water limitations. Cost: \$250 million/\$95 million for the ongoing construction of ozonation facilities

# Other Data Collection Efforts

- + Drought Action Group (DAG) Report –  
***2014 Drought: Impacts and Strategies for Resilience***
  - + DAG established in January 2014 to focus on identifying impacted areas along with short- and long-term alternatives/solutions
  - + Report outlines needed actions for combating this and future droughts
  - + Highlights needed infrastructure investments including surface and groundwater storage, water transfers and operational efficiency improvements
  - + Submitted to Brown Administration on June 9

# Other Data Collection Efforts

- + Existing DWR Project List
- + 2011/2012 ACWA/DWR Groundwater Management/Banking Survey
- + 2013 ACWA Groundwater Recharge Survey
- + Over 200 projects currently in database

# ACWA's Next Steps

- + Results indicate numerous local/regional projects could be implemented in the next 5-10 years
- + Results of this and other surveys also demonstrate the urgent and extensive need for water infrastructure investments to combat drought conditions and further the coequal goals
- + Information collected will be used to help ongoing planning efforts and support integrated water planning
- + ACWA plans to collaborate with California Water Commission to collect and follow up on projects as appropriate

# Contact & More Information

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