

California Reservoir System Re-Operation

Climate Prediction Applications Workshop

March 2, 2010

Michael Anderson

State Climatologist

CA Department of Water Resources



Talk Overview

- What is System Re-Operation?
- What is the System?
- Operational Considerations
- Re-Operation as a Response to Climate Change

What is System Re-Operation?

System Reoperation

Goal:

To support improvements to water management activities by providing insight to the impacts and uncertainty of potential:

- (1) managed actions / operations, &
- (2) environmental / climate changes.

Objectives:

1. Develop new tools,
2. Design methodology to perform studies,
3. Conduct pilot project studies, &
4. Evaluate improvements in system operation & understanding of system.

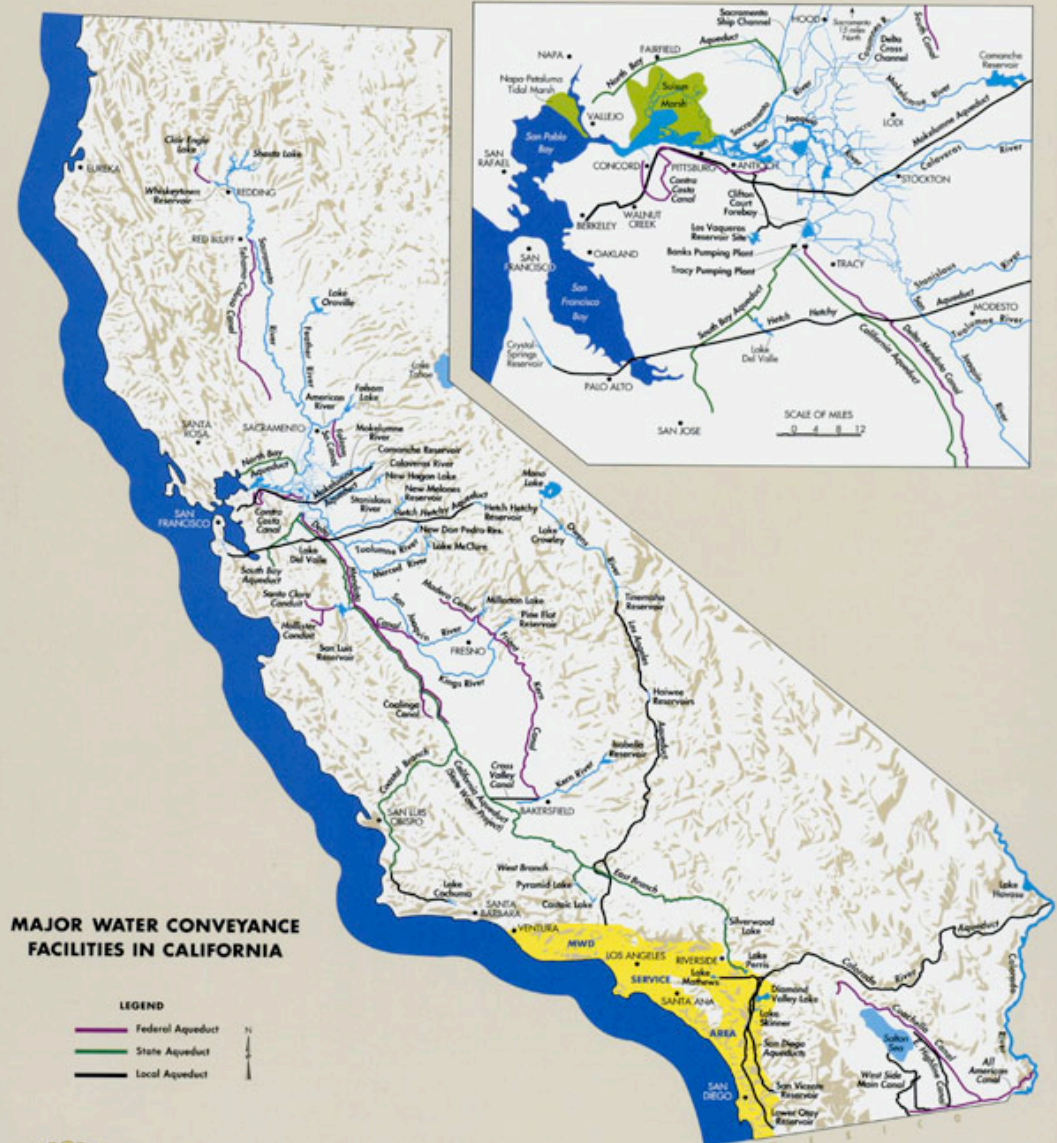
The River Systems



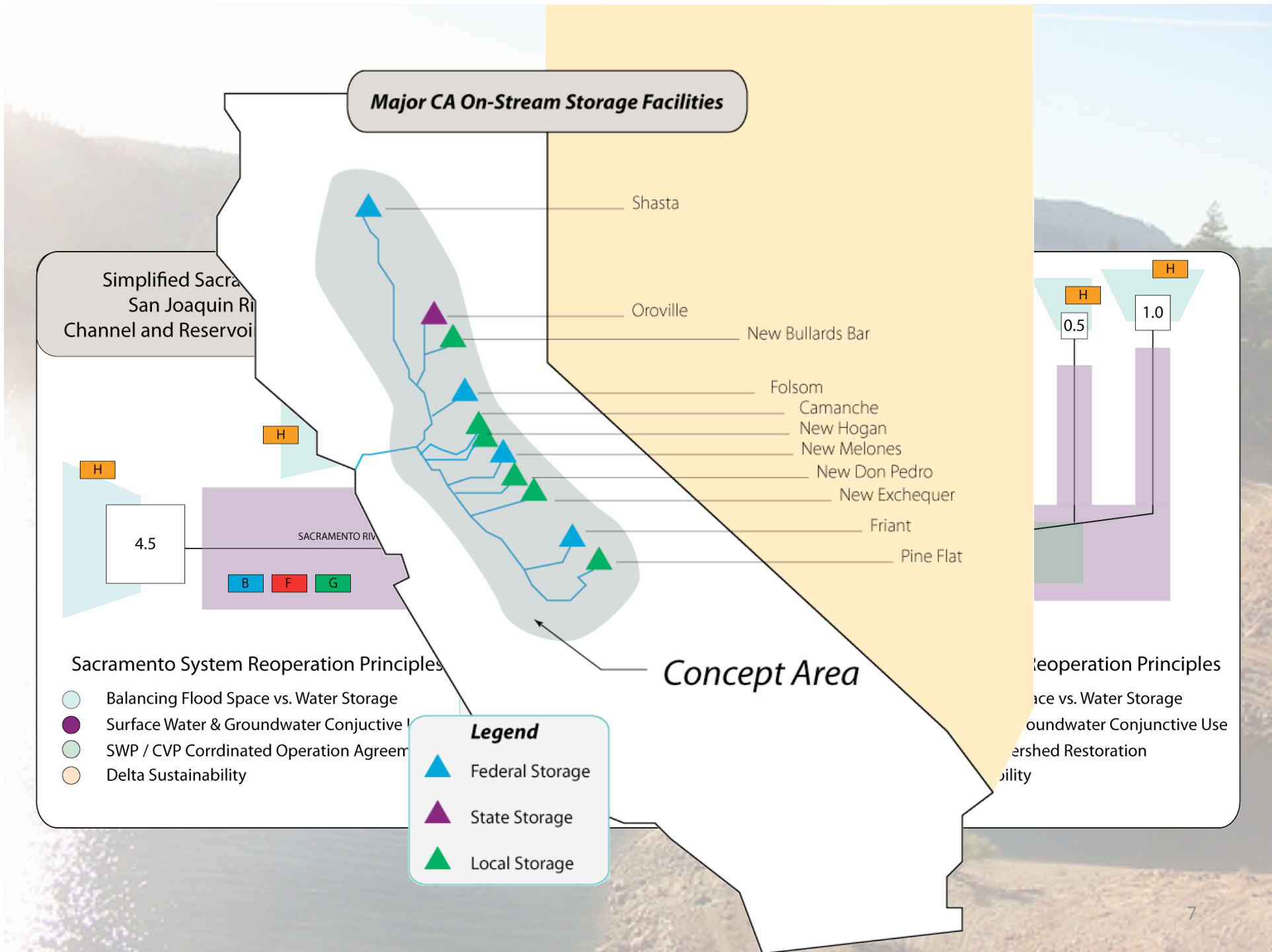
The Sacramento River Systems









Conveyance Systems

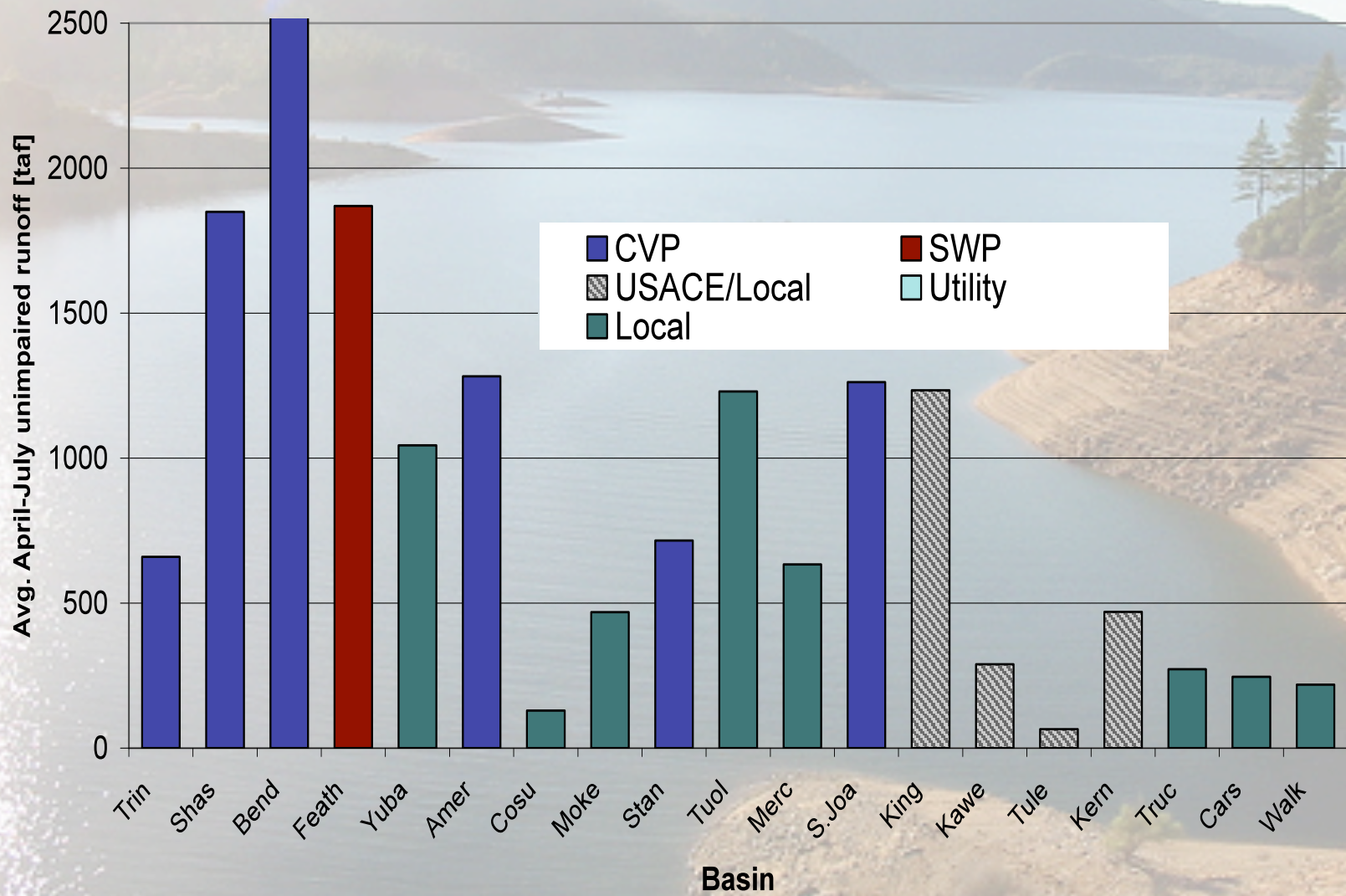


MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
www.mwdh2o.com



 Flood	Component Type		Other Water Management Objectives				
	Structural	Non-Structural	 Agriculture	 Municipal & Industrial	 Navigation & Power	 Environment	 Recreation
Monitoring Network		✓	✓		✓		
Reservoirs	✓	✓	✓		✓	✓	✓
Levee System	✓					✓	✓
Weirs & Control Gates	✓				✓		
Flood Bypasses & Diversion Canals	✓		✓			✓	
Sediment & Debris Control	✓				✓		
Maintenance, Evaluation, & Repair Programs		✓					

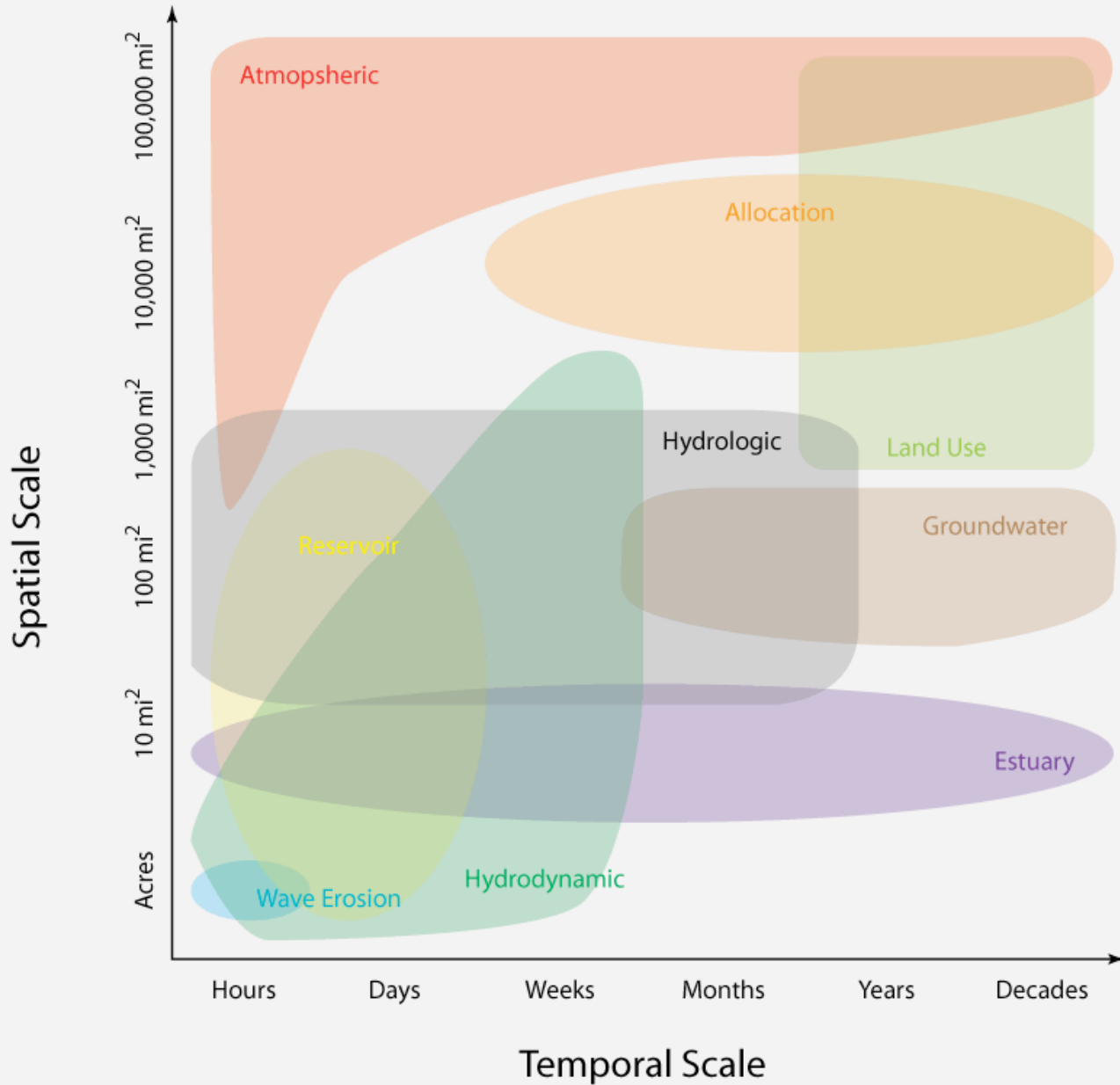




A wide-angle photograph of a large reservoir or dam. The water level is significantly lower than normal, exposing large areas of dry, sandy, and rocky banks. In the background, there are several forested hills under a clear blue sky. The overall scene suggests a period of low water, likely due to drought or climate change.

Re-Operation as a Response to Climate Change

Planning & Operational Tools





Existing Programs and Planning Activities in DWR

- CVHS – Central Valley Hydrology Study
- CVFED – Central Valley Floodplain Mapping
- CVFPP – Central Valley Flood Protection Plan
- BDCP – Bay Delta Conservation Plan
- OCAP – Water Supply Operations Planning Program
- FCO – Forecast Coordinated Operations Projects

What is System Re-Operation?

System Reoperation

Goal:

To support improvements to water management activities by providing insight to the impacts and uncertainty of potential:

- (1) managed actions / operations, &
- (2) environmental / climate changes.

Objectives:

1. Develop new tools,
2. Design methodology to perform studies,
3. Conduct pilot project studies, &
4. Evaluate improvements in system operation & understanding of system.

A photograph of a sunset over a body of water. The sun is low on the horizon, creating a bright orange and yellow glow in the sky and a shimmering reflection on the water's surface. The sky transitions from a deep orange near the horizon to a pale, hazy grey at the top. The water is dark with small ripples, and the reflection of the sun is a vertical line of bright, shimmering light.

Questions?

Email: manderso@water.ca.gov