

WATER & FIRE

MANAGING DROUGHT IN THE GOLDEN STATE

**Association of California
Water Agencies**

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San Luis Reservoir 2008

California's Drought

- Current conditions
- Other stressors
- Impacts
- Necessary actions



Current Water Conditions

- 2008 statewide driest spring/summer on record
 - 3.4 inches of rainfall
 - 24% of average
- 2007 Southern CA driest year on record
- Sacramento and San Joaquin Rivers – 2 year streamflow in the lowest 10% of historical range



Lake Shasta

Current Reservoir Conditions

Oroville – lowest carryover storage since 1977

- Shasta **29%** of capacity
- Oroville **29%** of capacity
- Folsom **23%** of capacity
- San Luis **16%** of capacity



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Lake Oroville

November 2008



2005



August 2008



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San Luis Reservoir

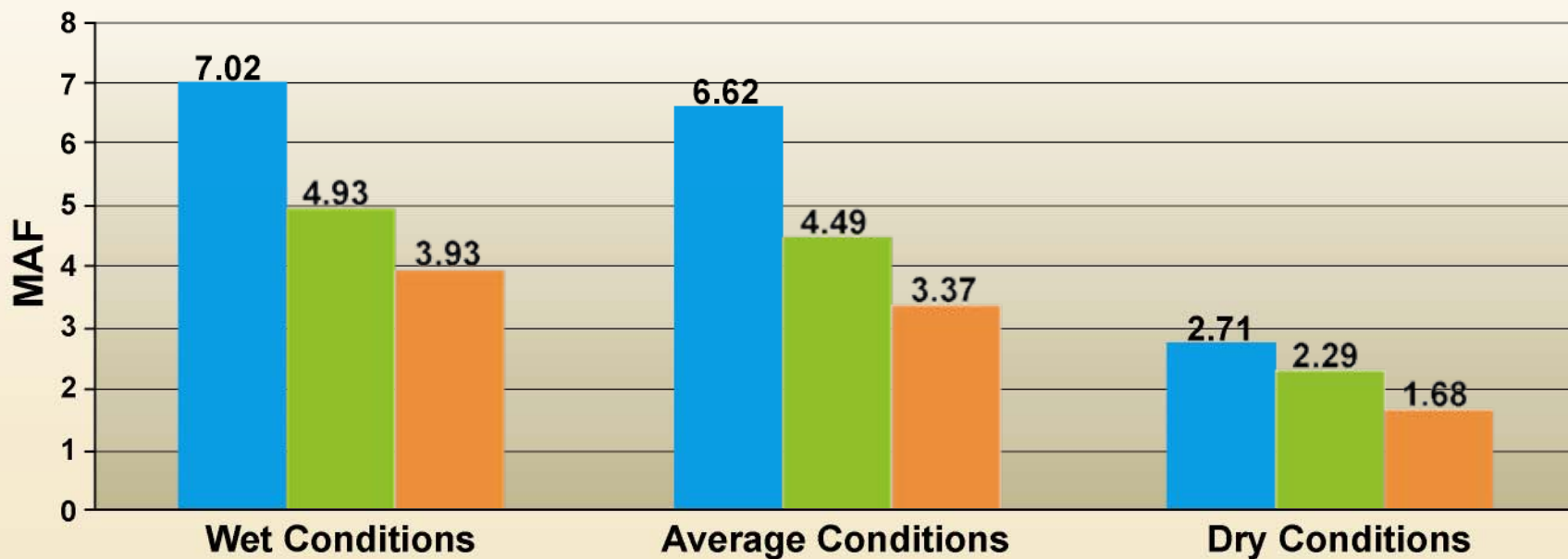
August 2008

March 1995

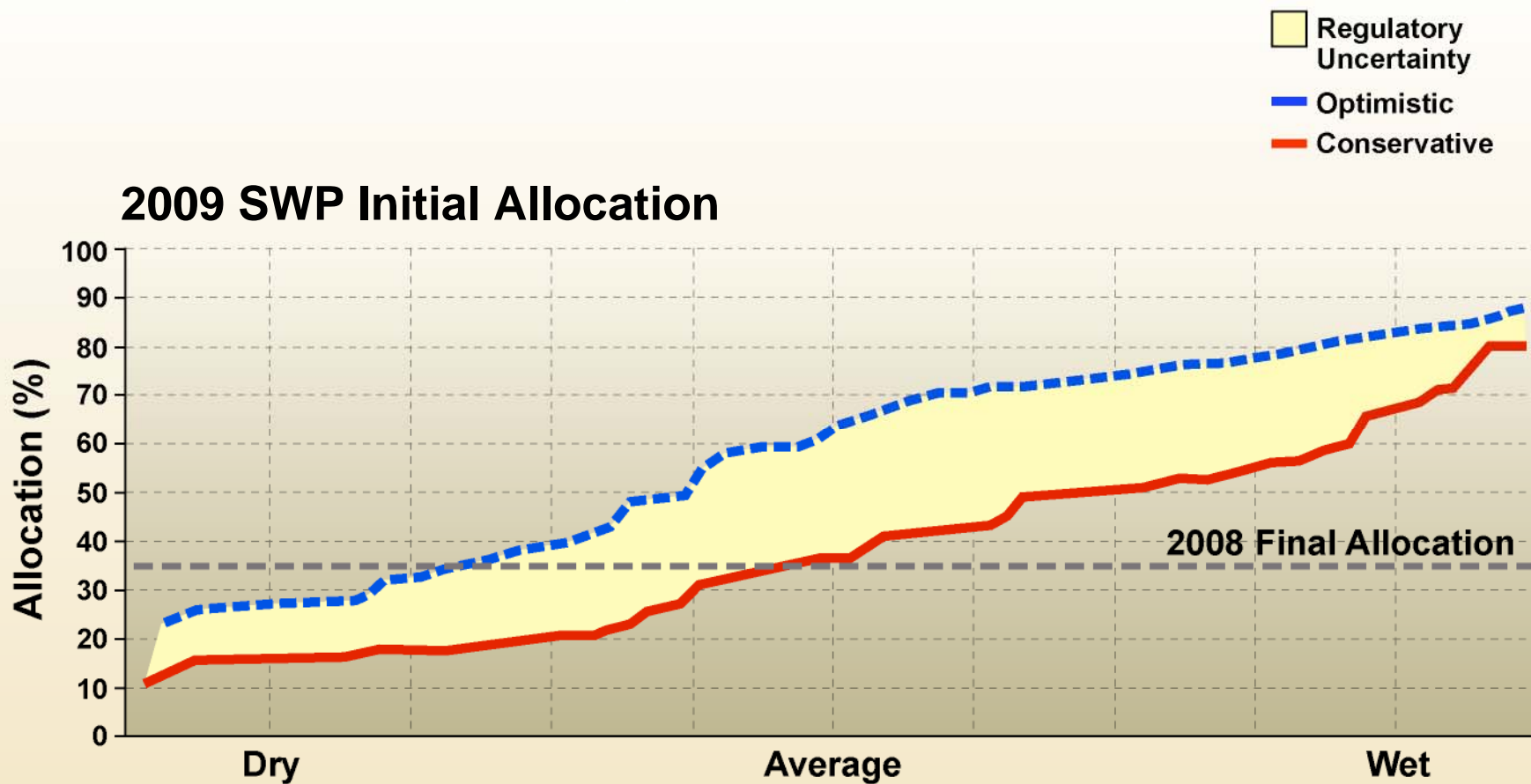
SWP/CVP forecasted delivery



Forecasted SWP/CVP 2009 Delivery Capability



2009 State Water Project Initial Allocation



Climate Change Impacts to Water Resources

- Diminishing snowpack
- More extreme weather patterns
- Rising sea level
- Higher air/water temperatures impacting ecosystem health

Folsom Lake

November 2008



Snow surveying in the Sierra Nevada

Range of Snowpack Predictions by 2050

- **Average annual total snowpack storage:**
15 MAF (1956-2000)
- **Low end:**
25% reduction (4.5 MAF)
- **High end:**
40% reduction (6 MAF)



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Mount Shasta

2008



1995



Apricot tree stumps

2008 Drought Agricultural Impacts

- Total estimated agricultural losses - \$260M (as of 9/1/08)
 - Rangeland \$95M
 - Cotton \$62M
- Largest losses Fresno \$74M and Kern \$70M
- Almost 80,000 acres unplanted or abandoned



Construction industry impacted

2008 Other Drought Impacts

- Local rationing
- Economic development
- Hydropower generation
- Recreation
- Small systems at risk

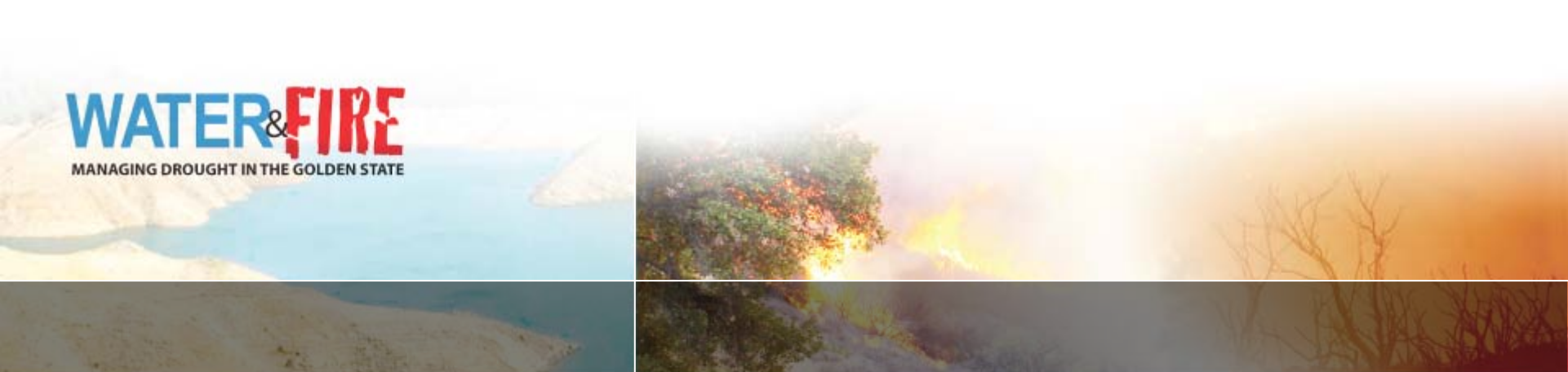


Governor Schwarzenegger signs drought declaration

Drought Response

- Conservation
- Drought water bank
- Regional transfers
- Expedited grants
- Workshops/public outreach





Hope is not a strategy.

California Aqueduct

Long Term Actions

- Sustain conservation
- Diversify regional supplies
- Increase storage
- Fix the Delta
- Sustain investment



Questions?

<http://water.ca.gov/drought>

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Photo by Jody Gomez







Photo by Tim Walton

San Luis Reservoir

























Photo by Tim Walton



Photo by Tim Walton

Folsom Lake























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Lake Shasta



















Photo by Tim Walton



Photo by Tim Walton



Photo by Tim Walton



Lake Oroville





































