

San Francisco Public Utilities Commission

Water Utility Climate Change Summit 2007

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California Department of Water Resources

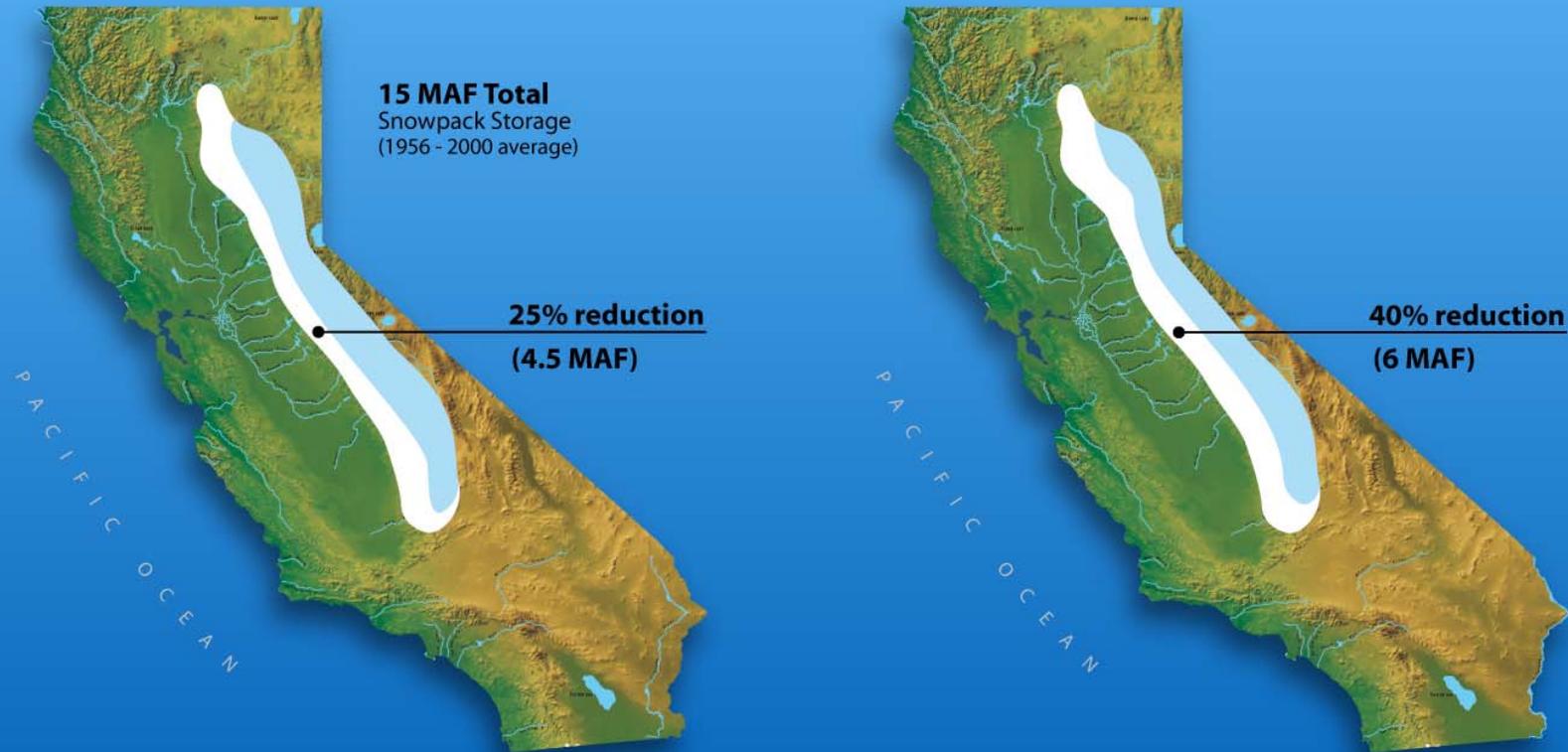


Climate Change Impacts on California's Water Resources



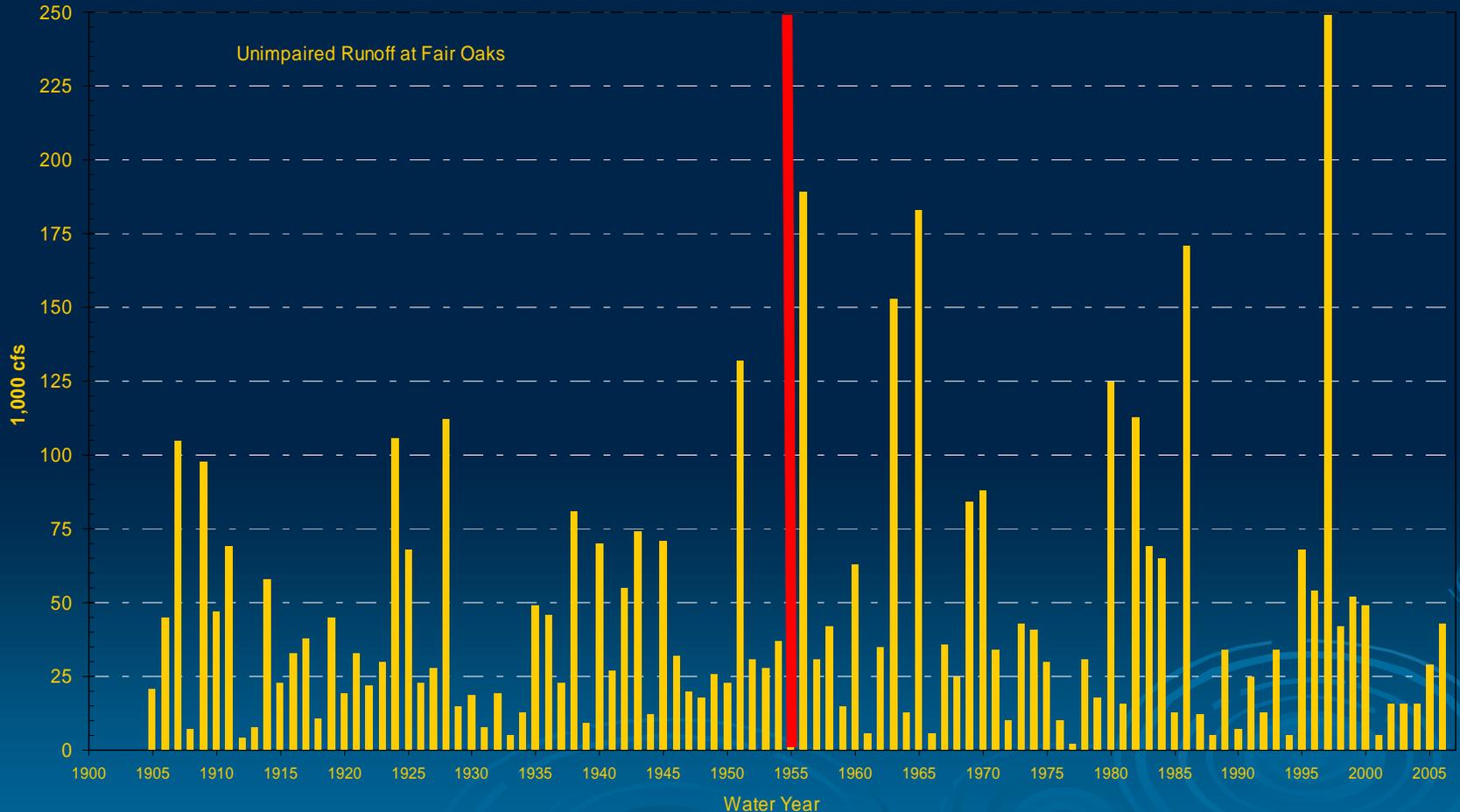
- Reduced snowpack
- Earlier snowmelt results in increased flood control demand on reservoir space
- Higher water temperatures impacts ecosystem
- Sea level rise impacts the Delta, threatens levees and increases salinity

Range of Snowpack Reductions Projected by 2050



Changes in Peak Flows American River

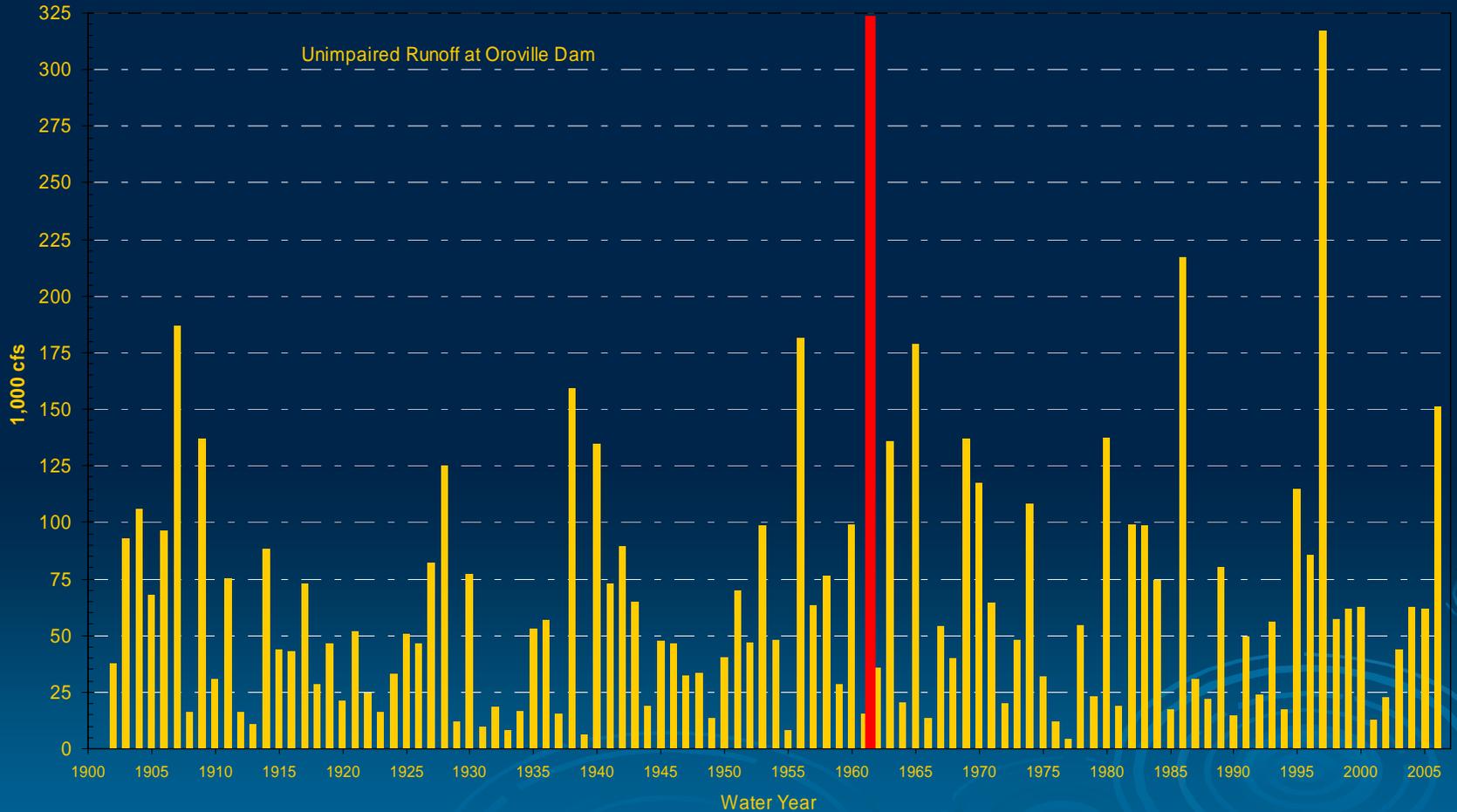
American River Runoff
Annual Maximum 1-Day Flow



Red Line = Construction of Folsom Dam

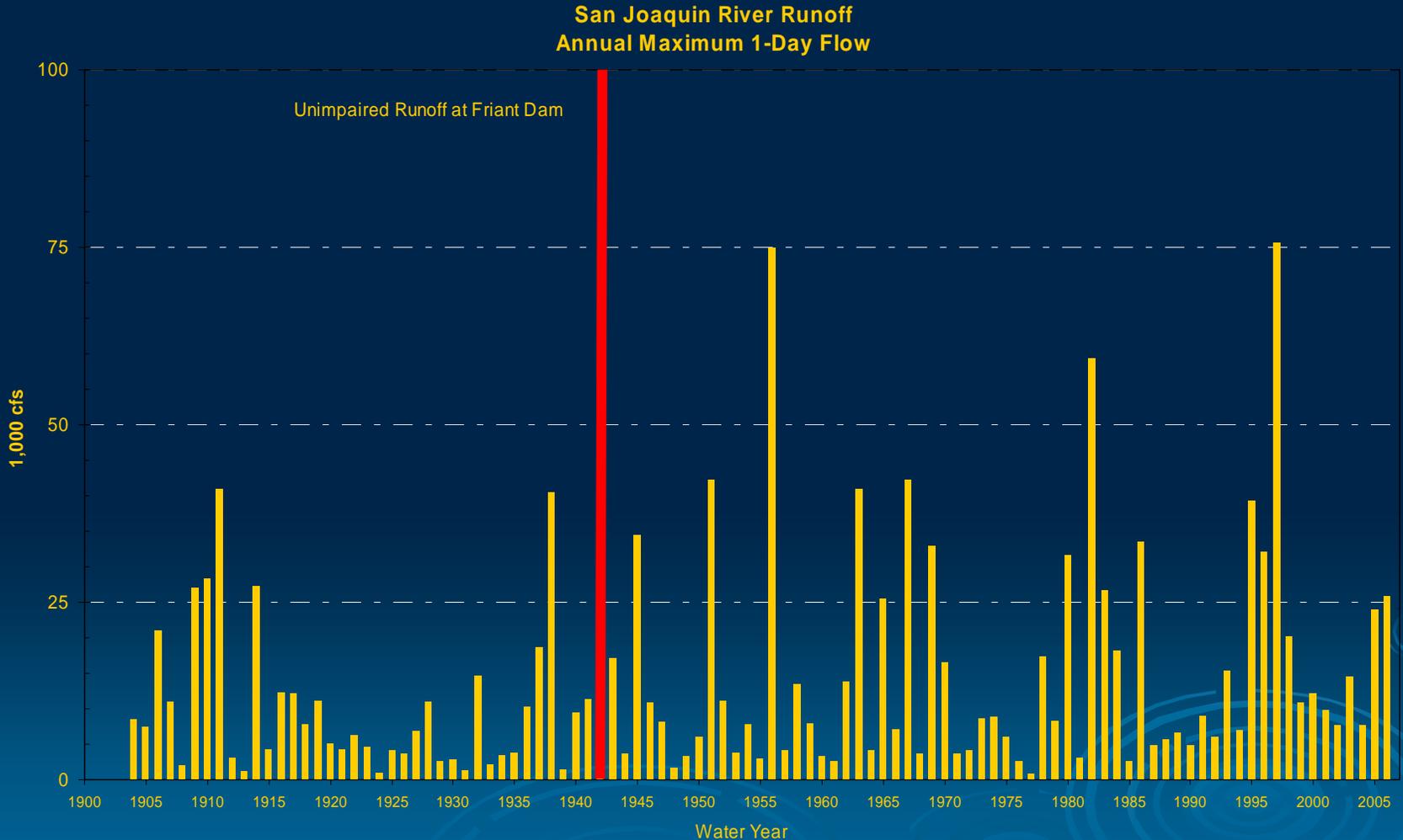
Changes in Peak Flows Feather River

Feather River Runoff
Annual Maximum 1-Day Flow



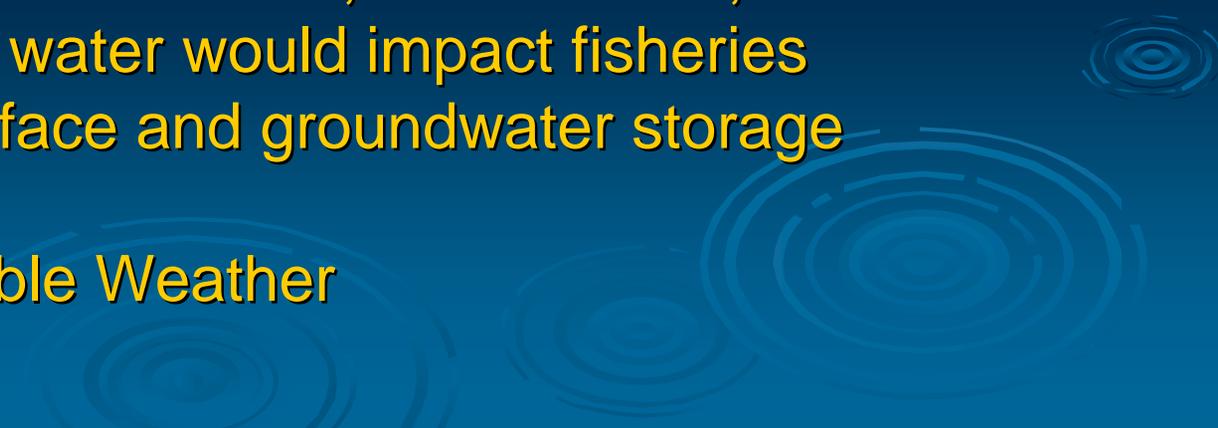
Red Line = Construction of Oroville Dam

Changes in Peak Flows San Joaquin River



Red Line = Construction of Friant Dam

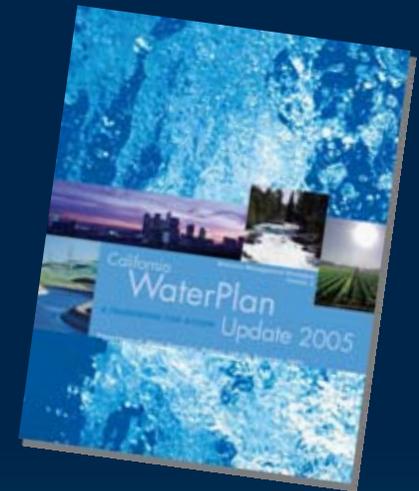
Future Challenges

- Higher Inflows During Winter, Early Spring
 - Maintain greater flood control space
 - Re-operate current reservoirs
 - Accommodate higher flows downstream
 - Lower Inflows During Late Spring, Summer
 - Less water for farms, environment, cities
 - Warmer water would impact fisheries
 - New surface and groundwater storage
 - More Variable Weather
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Water Management Actions

Consistent with California Water Plan Update 2005

- Reduce water demand
- Increase water supply
- Improve water quality
- Practice resource stewardship
- Improve operational efficiency and transfers



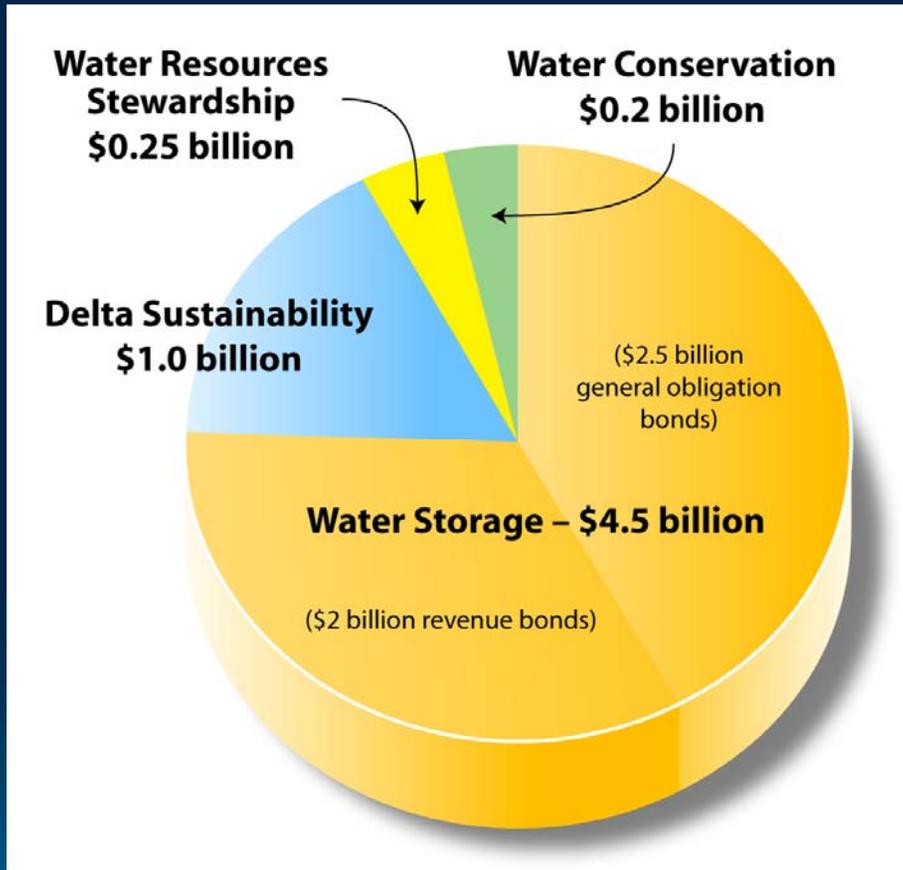
Strategic Growth Plan

Governor
Schwarzenegger has
made new investments
in water management
and flood protection



Prop. 1E and 84 provide \$4.9 billion for flood management and \$1 billion for integrated regional water management including wastewater recycling, groundwater storage and conservation

Strategic Growth Plan



This year, the Governor is proposing an additional \$5.95 billion to ensure reliable water supplies and address climate change effects

Water, Energy and Climate Change



Future water management activities must consider strategies to reduce greenhouse gas emissions

