

A satellite-style map of California and the Sierra Nevada mountain range. The map shows the coastline on the left, green forested areas, and brownish-tan mountainous terrain. A blue rectangular box in the top right corner contains the title text. A thin black line outlines a specific region in the Sierra Nevada mountains.

Climate change & potential effects on the Valley

Temperature rise
Sea level rise
Sierra snowpack
Water availability

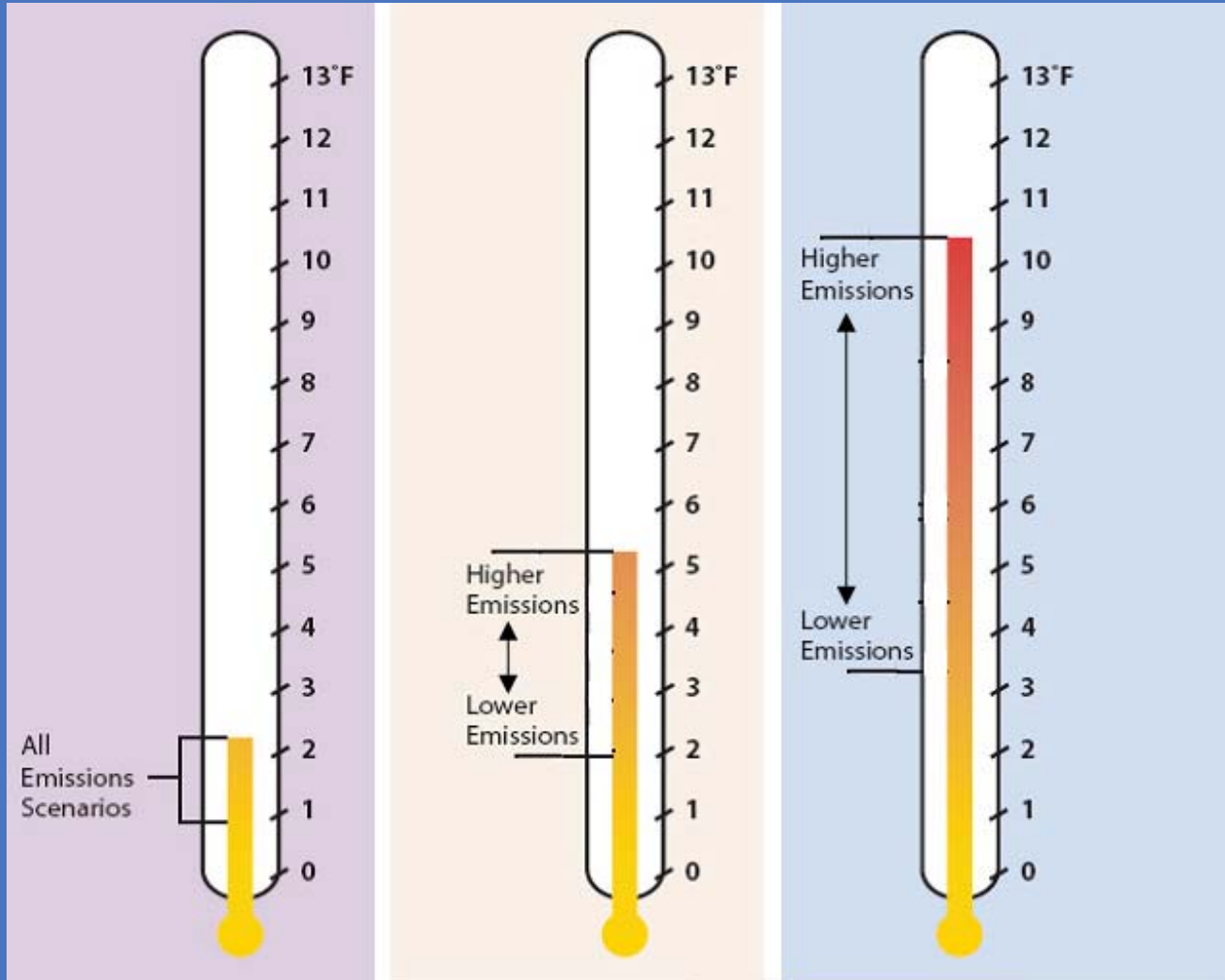
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Climate warming scenarios for California

2005-2034

2035-2064

2070-2099



Increase above 1961-1990 average

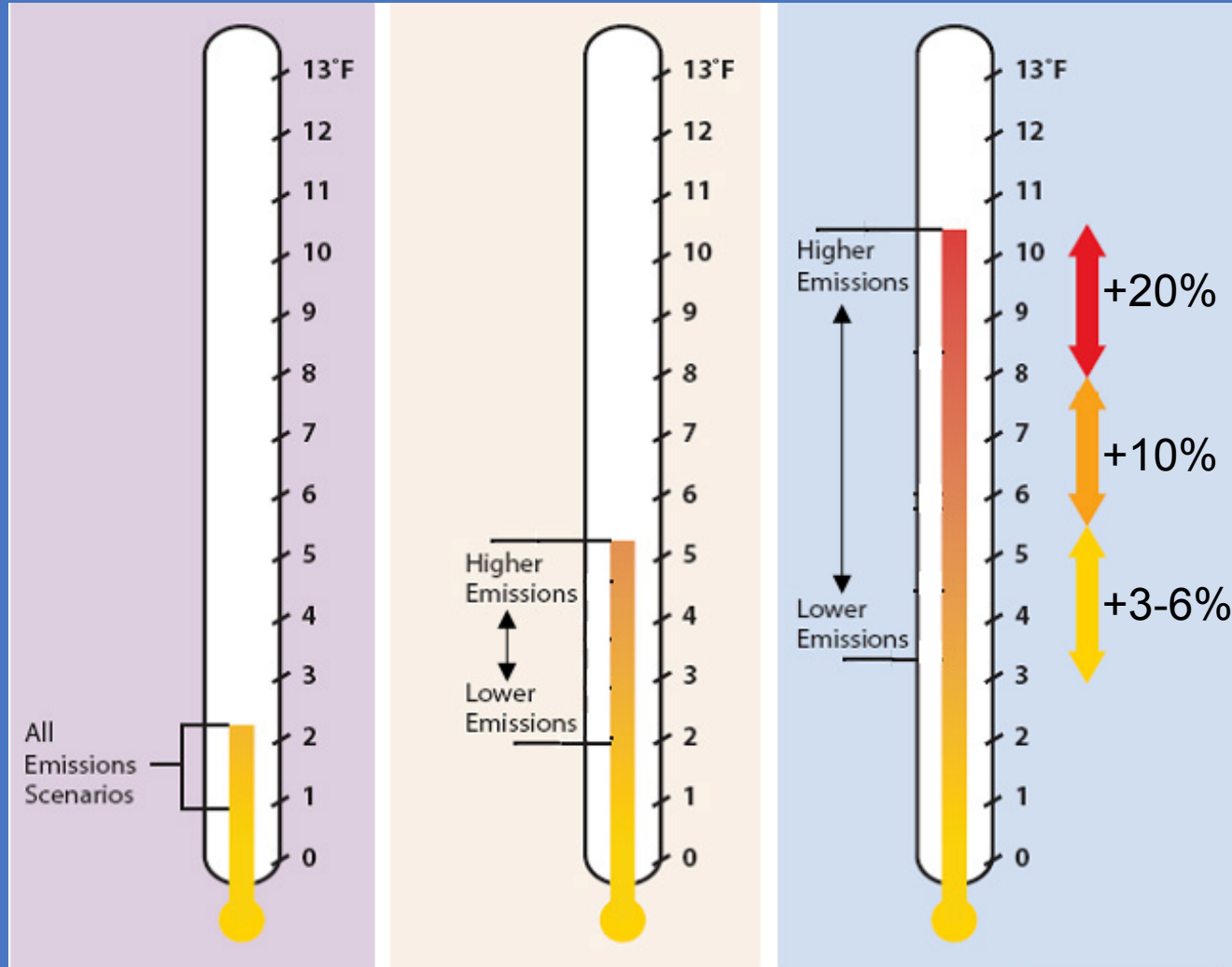
Source: CA Climate Change Center

Increased electricity demand due to warming

2005-2034

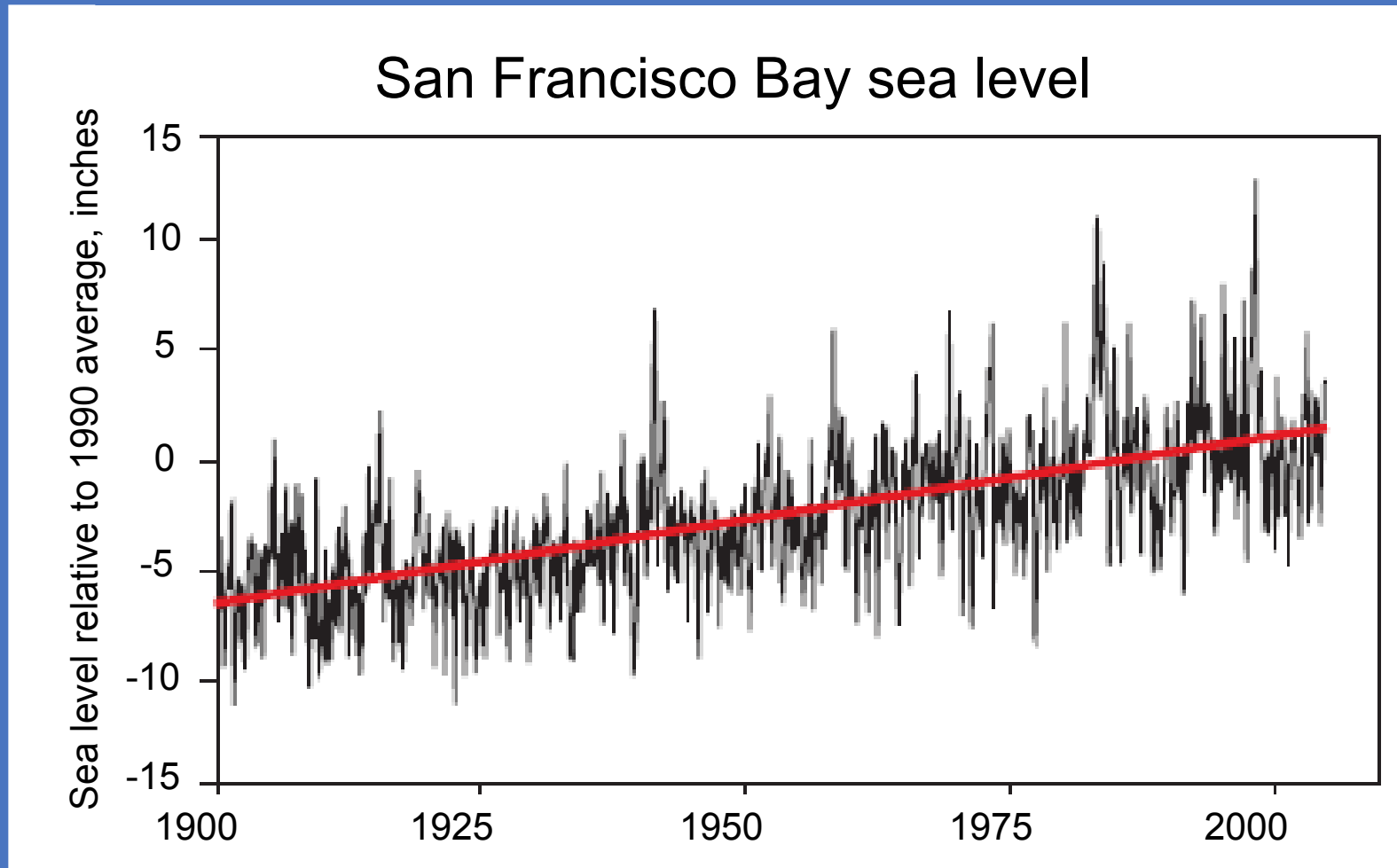
2035-2064

2070-2099



Increase above 1961-1990 average

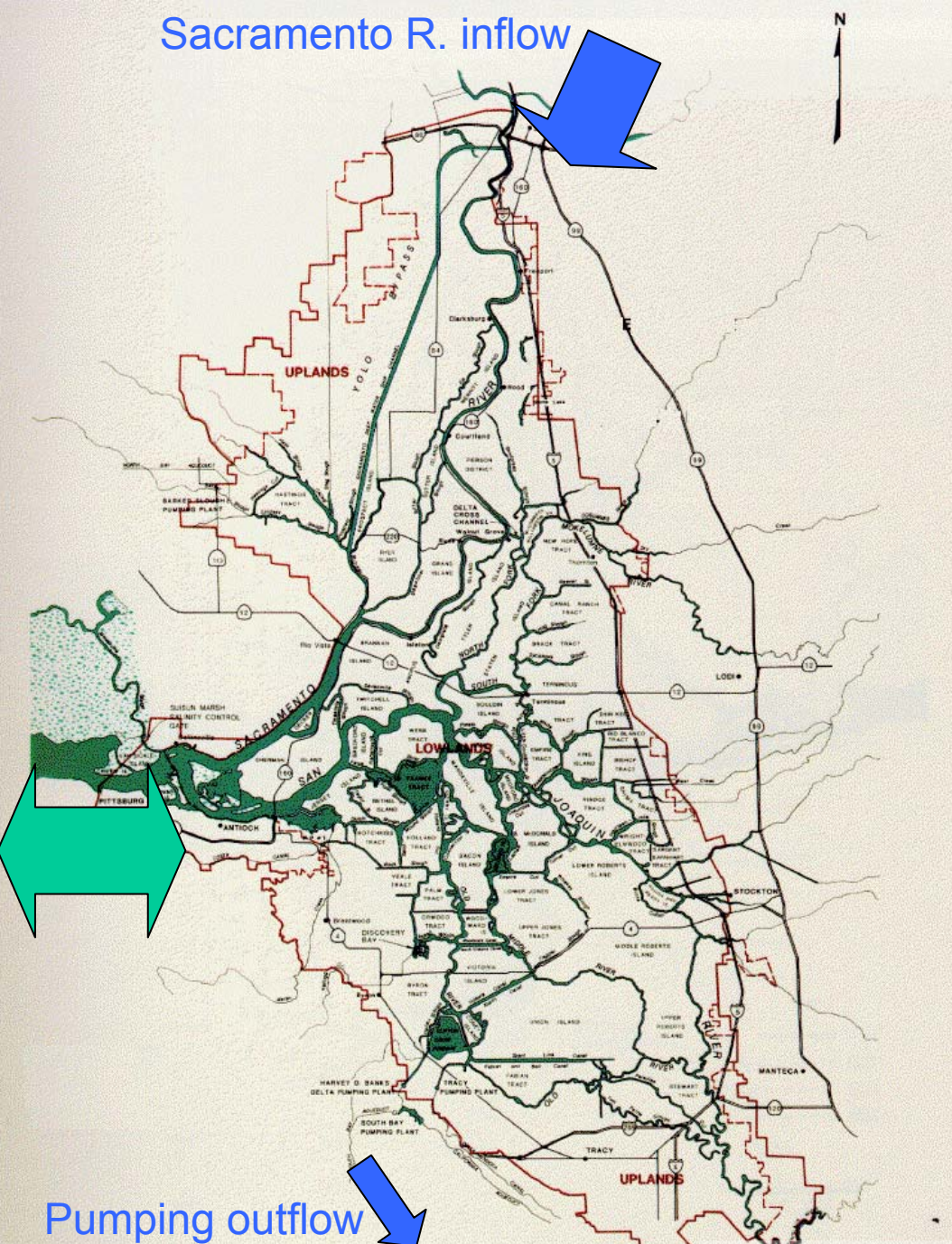
Rising sea level threatens Delta & water supplies



Sea level scenarios:

- + 6-10 inches by mid century
- + 20-30 inches by end of century

Sacramento R. inflow



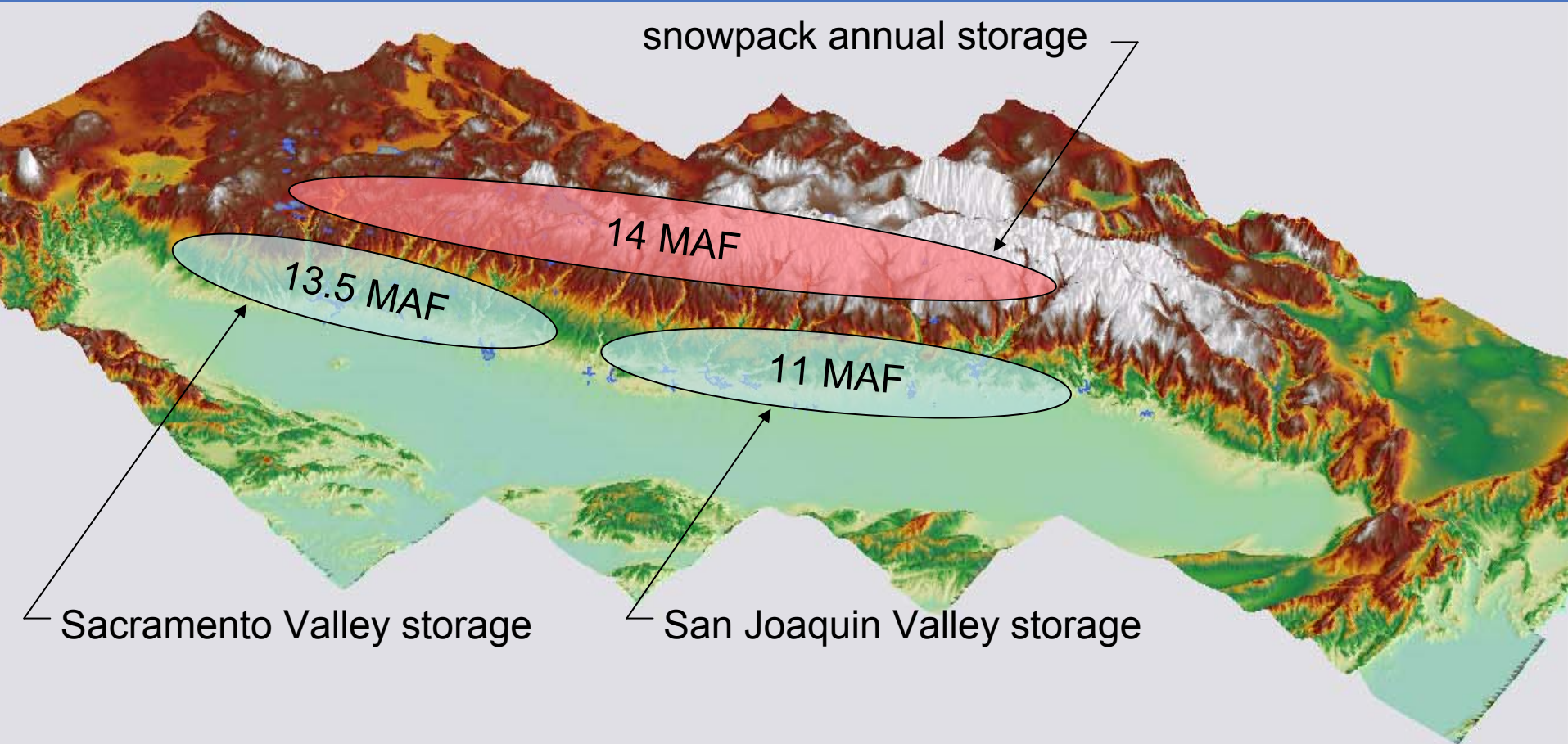
Rising sea level threatens Delta & water supplies



Pumping outflow

Map from DWR

Snowpack loss & water storage: 30-yr horizon



Likely loss of ~3.5 MAF of snowpack storage in next 1-3 decades

MAF: million acre feet

Data from DWR

Summary: Climate change & potential effects on the Valley

- Shift in mountain runoff impacts ag, hydropower
- Sea level rise threatens CVP & SWP pumping plants
- Rise in energy demand stresses peak production capacity

- 2 to 4 times current number of heat-wave days
- 50-150% more critically dry years
- Warmer nighttime & daytime temperature effects on ag
- 25-85% more days conducive to high ozone levels