

The Environmental Water Account:

Evaluating the First Four Years and
Scientific Needs for a Long-term EWA

September 8 – 9, 2004

California Bay-Delta Authority

Stanford Room

650 Capitol Mall, 1st floor

Sacramento, California



On November 5, 1913, the first Owens River water arrived in the San Fernando Valley. At the ceremony, Mulholland delivered one of the shortest speeches on record:
"There it is. Take it!"

—UC Berkeley Water Resources Archives





First School
House in San
Fernando,
1880



San Fernando, 1912



Residence (18' x 20') in
San Fernando Valley,
bought in 1939
for \$889



San Fernando Valley
Sepulveda Dam Basin, 1975

Water Development Timeline



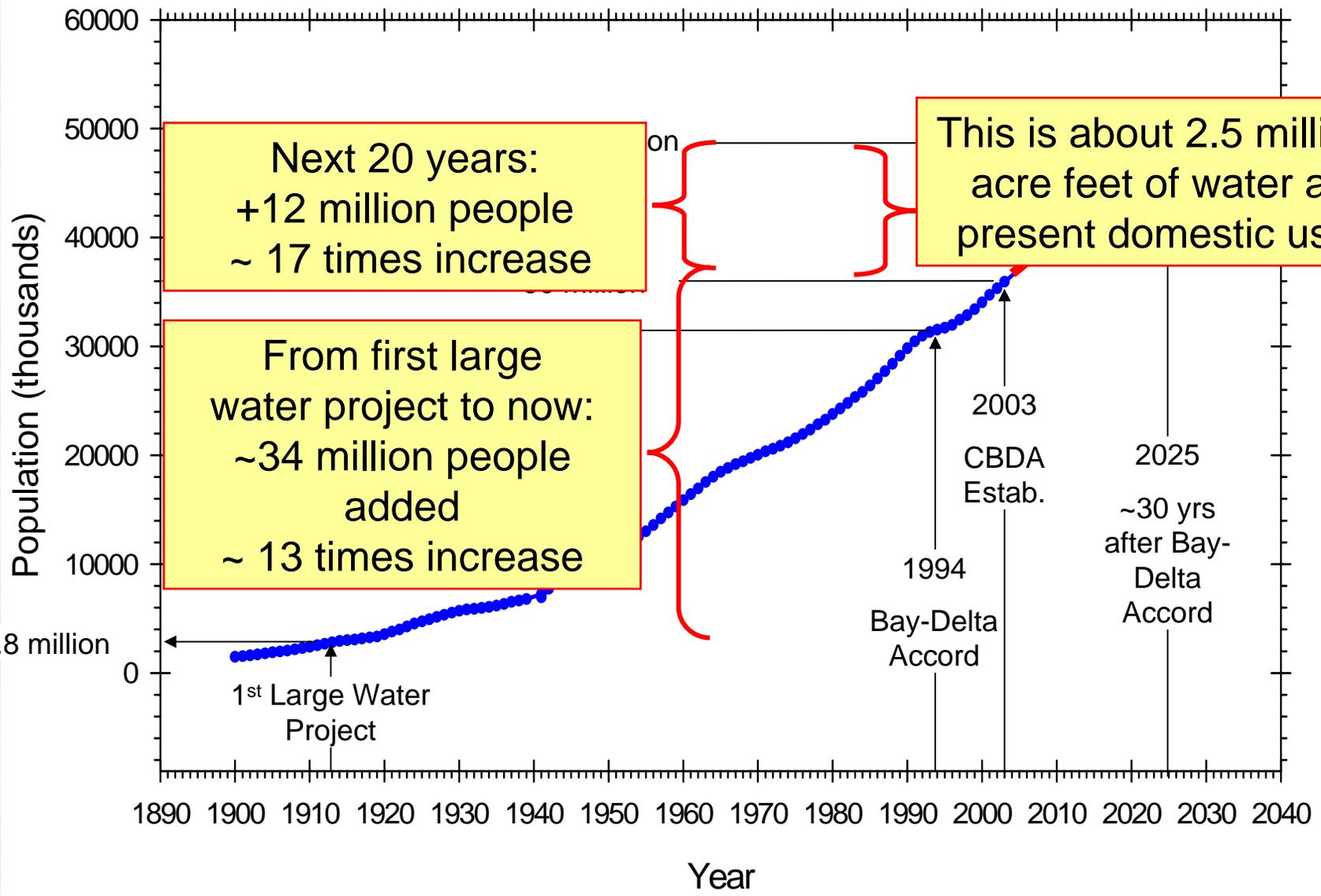
Sunol Water Temple. 1920s

<http://www.sunol.org/historicaldavis.html>

- 1913: Los Angeles aqueduct
- 1929: Mokelumne aqueducts
- 1914-34: Hetch Hetchy Reservoir project
- 1941: Colorado River aqueduct
- 1950s: Central Valley Project & Fed. Develop.
- 1960s: State Water Project

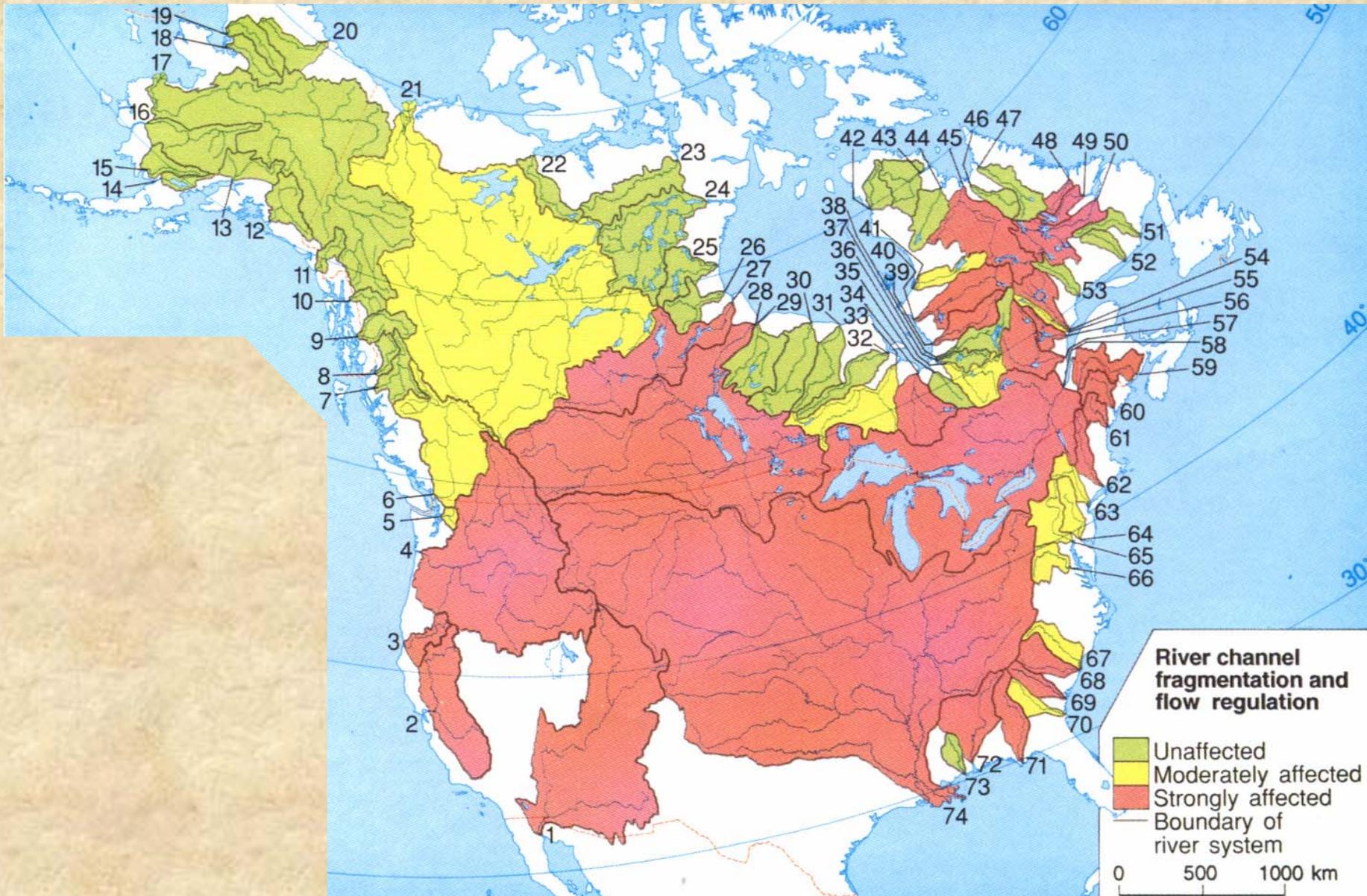


California Population



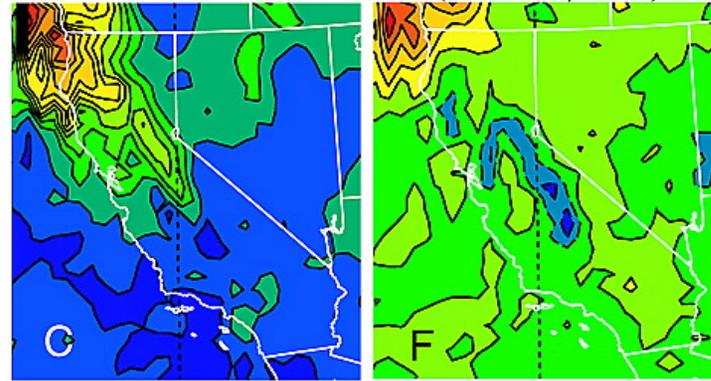
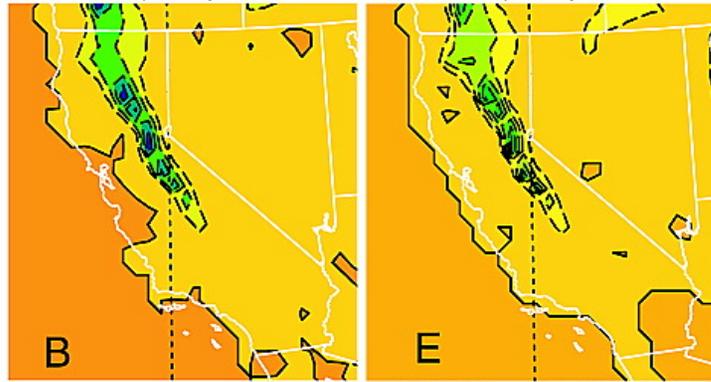
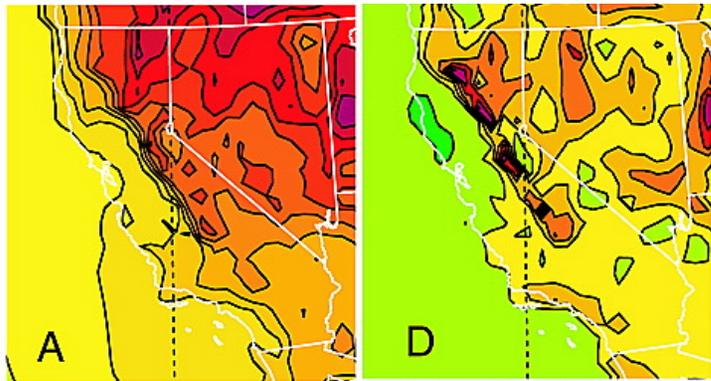
River Channel Fragmentation

Dynesius & Nilsson, 1994, *Science*, Vol. 266, No. 5186



Annual

April



Average temperatures increase substantially

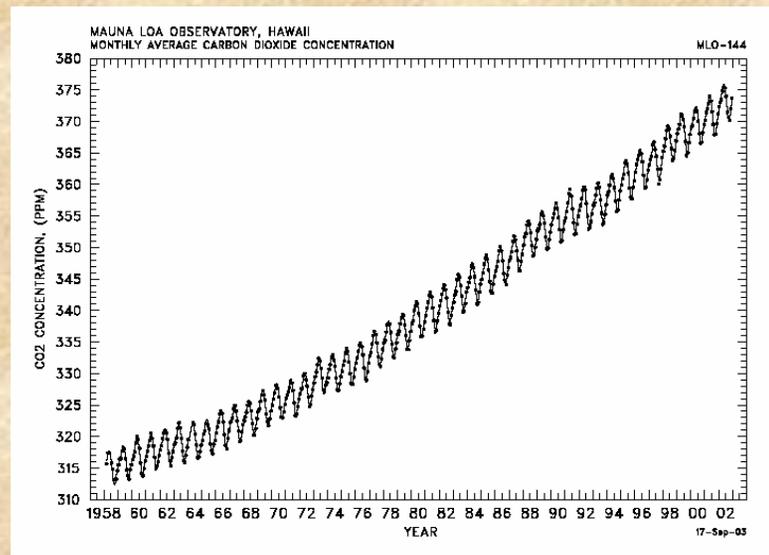
Average snow-water equivalent decreases substantially

Average precipitation increases annually, decreases in April

Change with a Doubling of Carbon Dioxide Concentration

From Snyder, et al., 2002, Geophysical Research Letters, vol. 29.

Carbon Dioxide Trend 1950-2002



From Keeling and Whorf, February 2004.

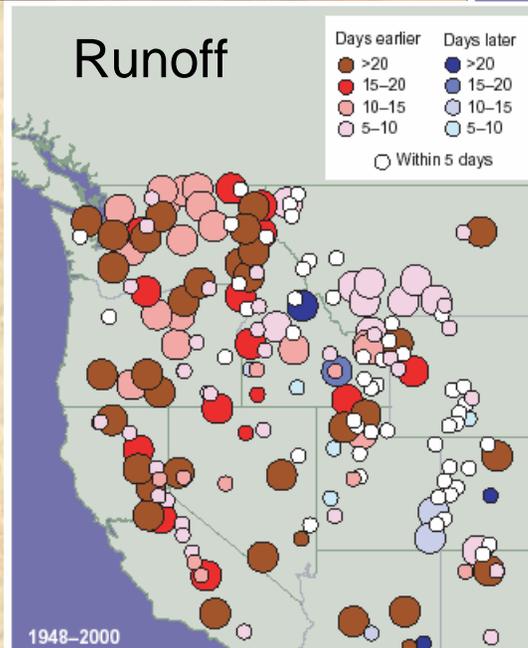
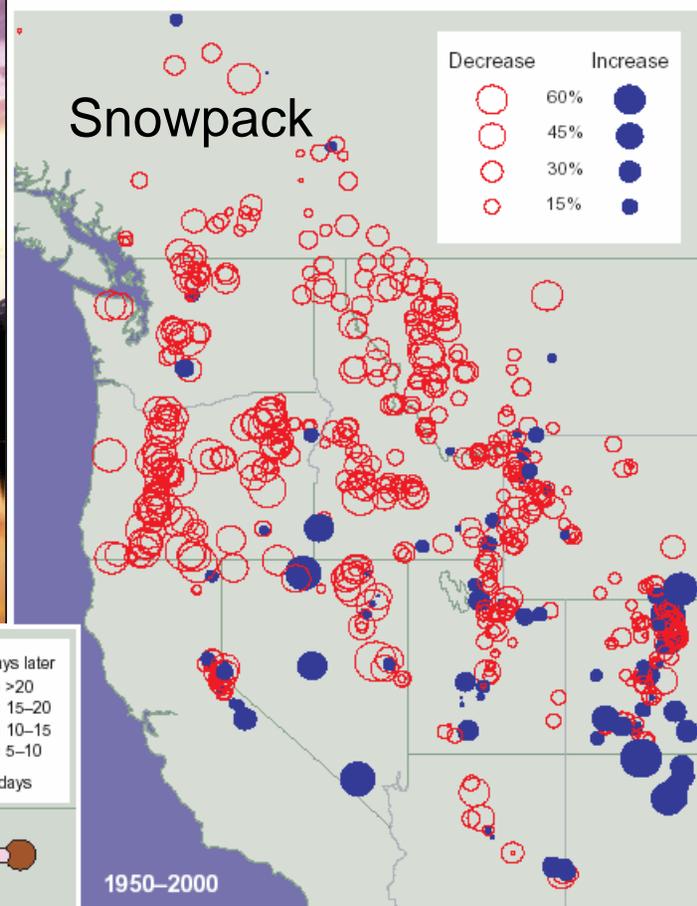
<http://cdiac.esd.ornl.gov/trends/co2/sio-mlo.htm>

News Focus

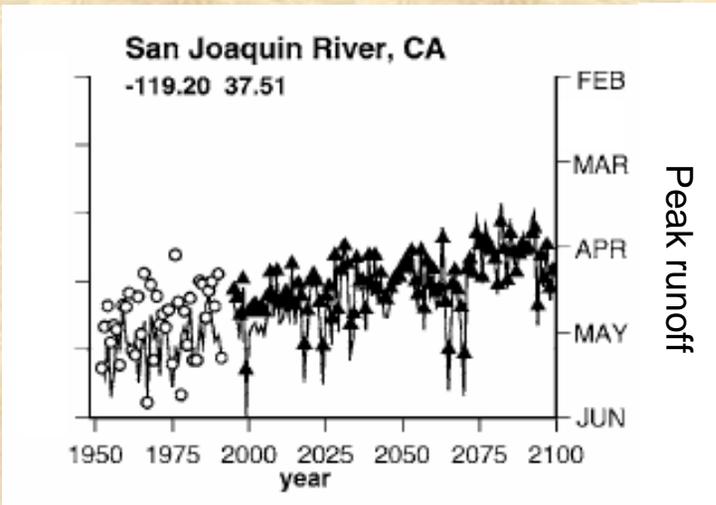
SCIENCE, 20 February 2004, Vol. 303.

In a region already prone to water shortages, researchers now forecast that rising temperatures threaten the American West's hidden reservoir: mountain snow

As the West Goes Dry



Data and plots from Stewart, et al., 2004, *Climatic Change*, Vol. 62.



Situation: We have to actively manage our environment to assure viable water resources and ecosystems at present and in the future.

Critical Need: Integrate the best available knowledge across programs to make sure that management works.

Role of Workshops:

- Major tool to address important issues.
- Present the state of knowledge by experts and practitioners in an open venue.
- Allow input and discussion of a wide array of interests and expertise.

EWA Workshop Purpose

1. To examine the first four years of the EWA and assess its operations and benefits to fish populations and the water community.
2. To attempt to place the relative contribution of the EWA in the broader scheme of fish protection and restoration (including CVPIA, ERP, regulatory standards, etc.)
3. To identify scientific questions and information needs that must be considered when designing the structure and function of a long-term EWA.

' I HAVE SEEN THE FUTURE AND IT WORKS '

LINCOLN STEFFENS



--**Lincoln Steffens**, 1866–1936,
American “muckraker” editor and author.
Born in San Francisco, raised in Sacramento.