

# Report on Actions and Recommendations of the Central Valley Salinity Committee

Dr. Karl Longley, Member  
Central Valley Regional Water Quality Control Board



# Participants

## Salinity Committee

- Michael Boccadoro
- Celeste Cantu
- Steve Chedester
- Jerry Johns
- Karl Longley
- Steve Macaulay
- Jerry Meral
- Dan Odenweller

## Supporting Staff

- Pamela Creedon
- Les Grober
- Tom Howard
- Gordon Innes
- Beth Jines
- Ken Landau
- Barbara Leidigh
- William Rukeyser
- Rudy Schnagl
- Vicky Whitney

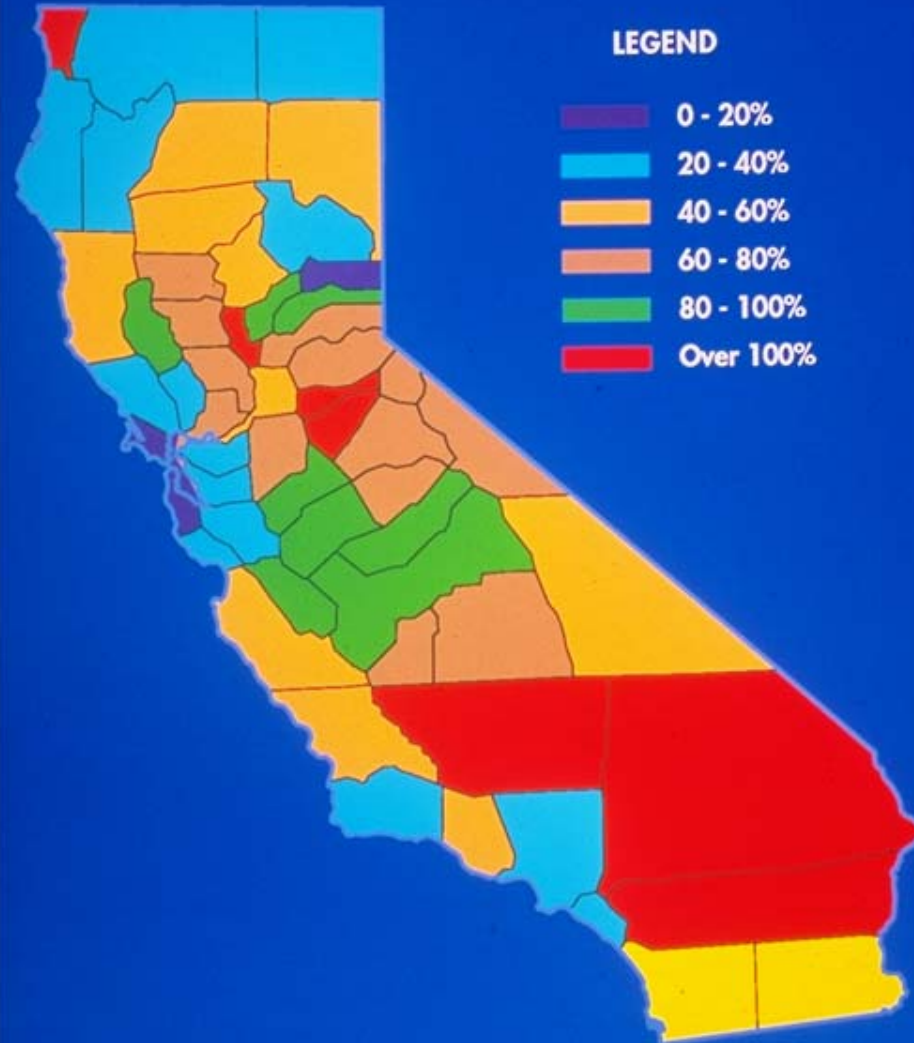
# Authors of Report

- Gail Cismowski
- Wayne Cooley
- Les Grober
- Jim Martin
- Matthew McCarthy
- Rudy Schnagl
- Anthony Toto

# Population

- Projected Increase
  - 2005-2020 = 39%
- Agriculture
  - Major Industry
  - Related Job Loss
- Income
- Poverty Levels
- Unemployment
- Loss of Farmland

## PROJECTED GROWTH RATES BY COUNTY, 1995 TO 2020



# Regional Water Quality Control Boards

- Region 5 – Central Valley
  - Sacramento River Basin
  - San Joaquin River Basin
  - Tulare Lake Basin

## State of California Water Quality Control Regions and Basins



# Government, Regulators, and Other Policy Makers

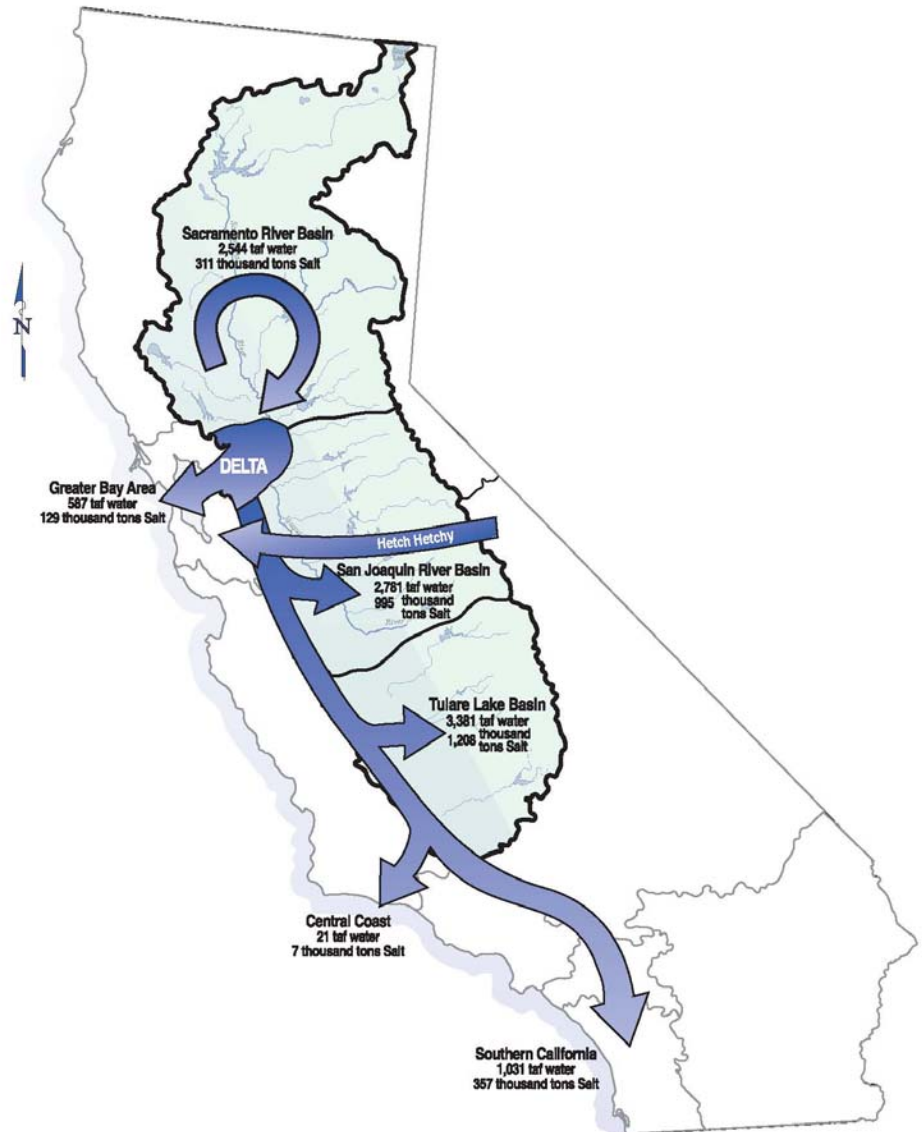
- Federal
  - Environmental Protection Agency
  - Bureau of Reclamation
  - Fish and Wildlife Service



- Local
  - Water Agencies
  - Sanitation Districts
  - County Planning and Building Departments
- State
  - State Water Boards
  - Dept of Water Resources
  - Dept of Fish and Game
  - Bay Delta Authority

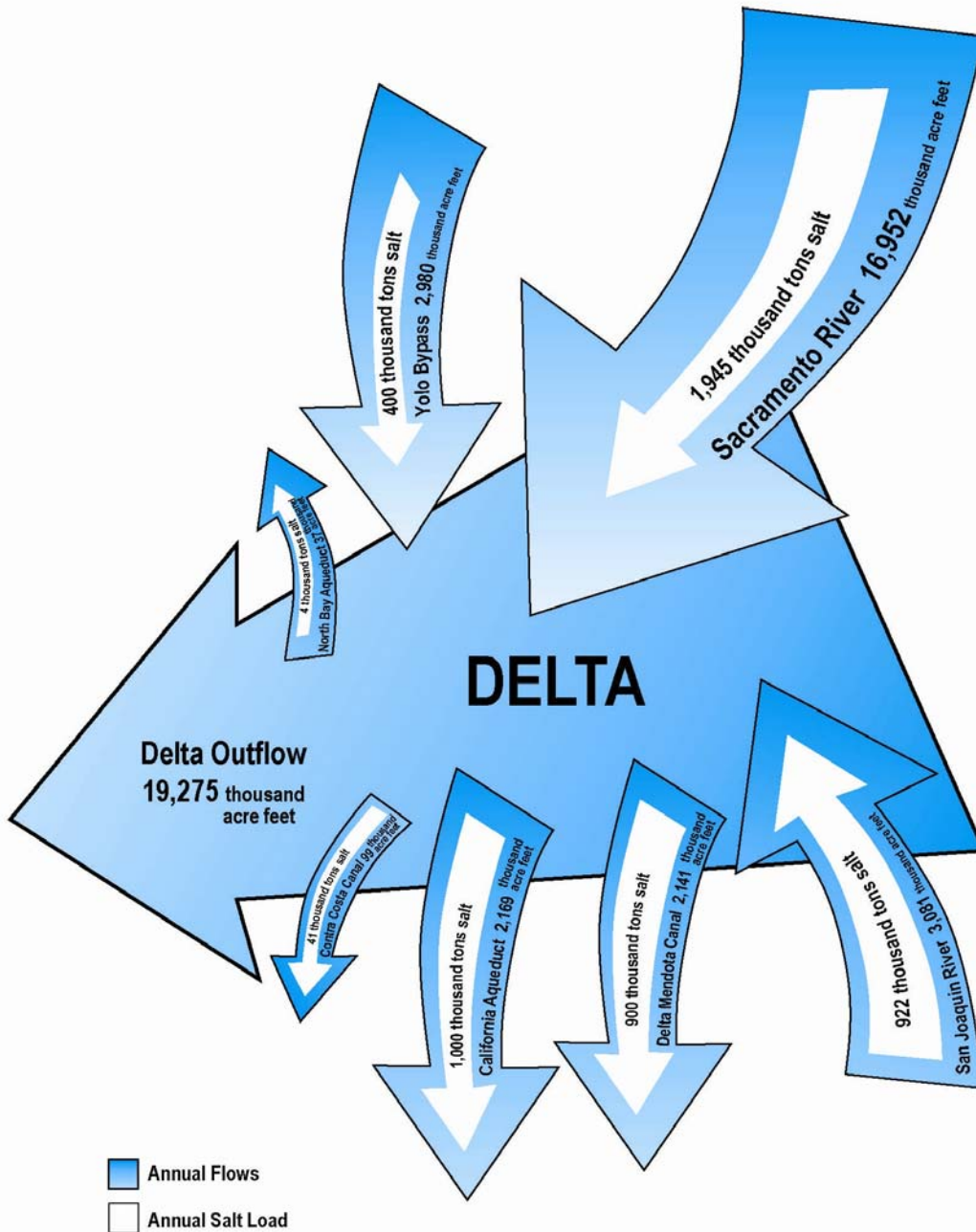
# Water Deliveries

- Projects
  - State Water Project
  - Central Valley Project
  - Hetch Hetchy
- In Valley
  - Sacramento River Basin
  - San Joaquin River Basin
  - Tulare Lake Basin
- Out of Valley
  - Greater Bay Area
  - Central Coast
  - Southern California



# The Delta

- Inflows
  - Sacramento River
  - San Joaquin River
  - Yolo Bypass
- Outflows
  - California Aqueduct
  - Delta Mendota Canal
  - Contra Costa Canal
  - North Bay Aqueduct
  - Outflow to Bay





# Consumptive Use of Water Increases Salinity

- Requires development of a multi-sector salt management policy
  - ✓ Allows continued enjoyment of the beneficial uses of water
  - ✓ Protects beneficial uses for future generations
  - ✓ Promotes economic growth and the development of jobs

# Activities Contributing to the Salinity Problem

- Agricultural Water Users
- Urban Water Users
- Rural Water Users
- Environmental Water Uses
- Industrial Users
- Water Providers



# Sources of Salt

- Salt Additions
  - Fertilizers and Soil Amendments
  - Food Processing
  - Municipal Wastewater
  - CAFO's including Dairies
- Groundwater Pumping
  - San Joaquin River Basin
  - Tulare Lake Basin
- Salt Dissolution

# Salinity Impairments in Surface and Groundwaters

Exacerbated locally from many sources including:

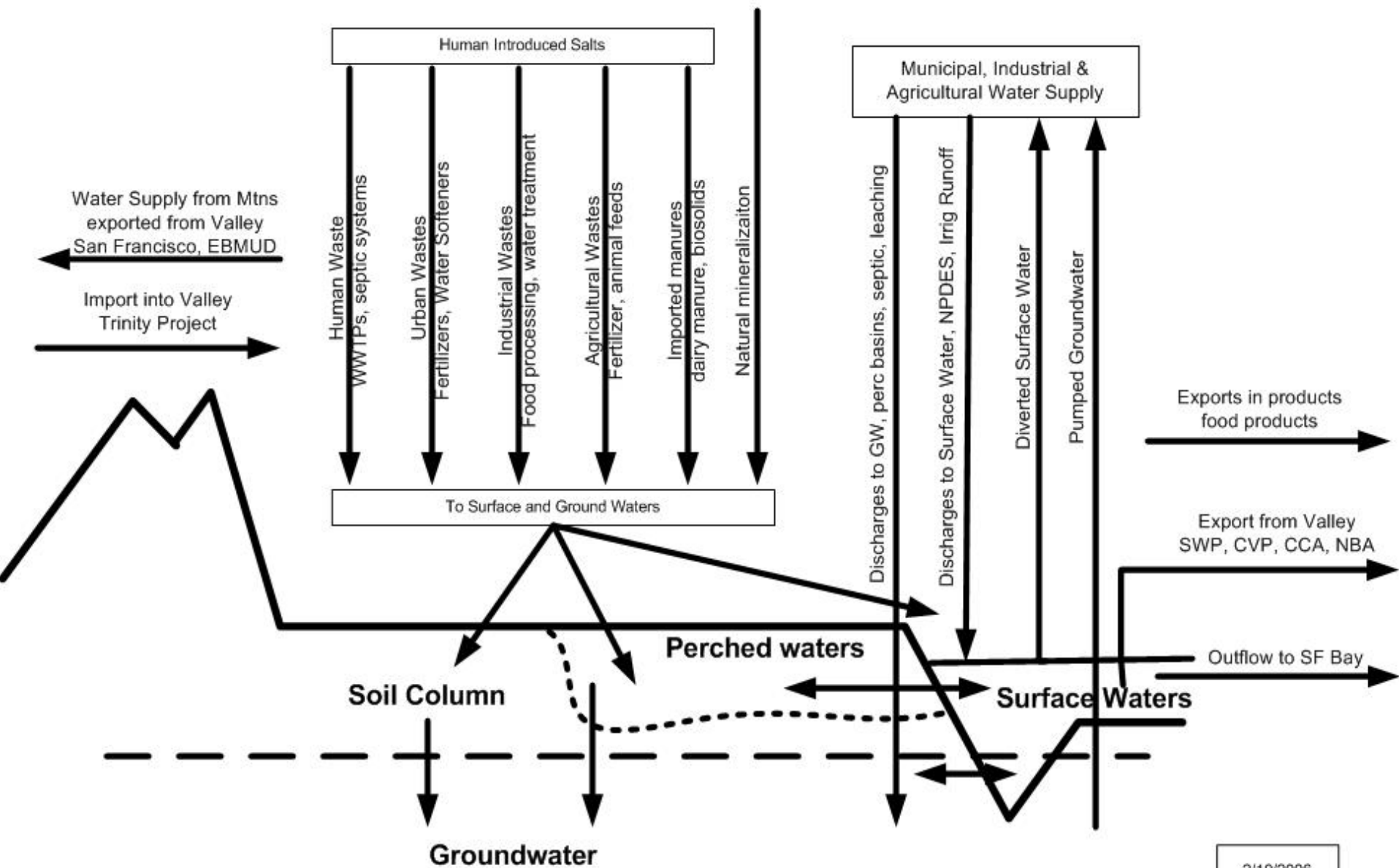
- Discharges to land associated with municipal wastewater disposal
- Septic tanks
- Oil field brines
- Confined animal facilities
- Food processors

# Salinity Impairments in Surface and Groundwaters

Locally and regionally complex interactions of surface and groundwater make assessment and mitigation of salinity problems difficult

- Many salinity effects are long-term and occur at exceedingly slow rates, over a number of decades
- Because these salinity concentrations typically occur very slowly, surface and groundwater impairments can be difficult to measure and quantify

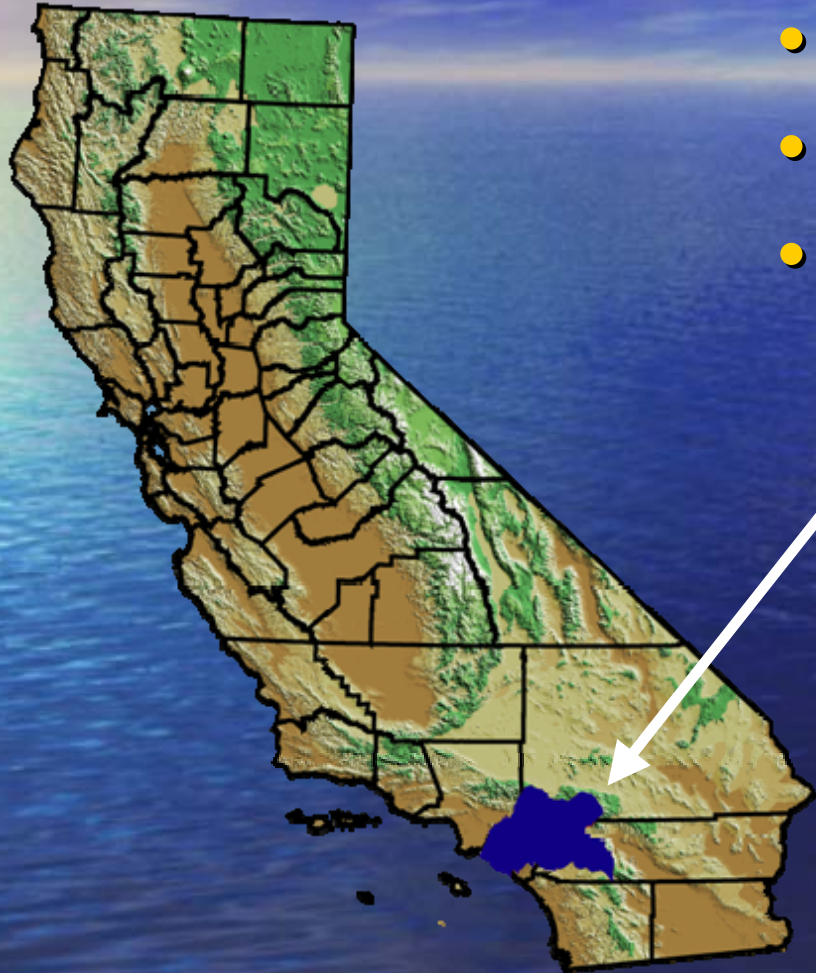
# Movement of Salt in the Central Valley



# Central Valley Salt Budget

- The Delta
- Water Deliveries
- Sources of Salt
- Movement of Salt
- Salinity Impairments

# The Santa Ana River Watershed



- Over 2,650 Square Miles
- Over 5 Million Residents
- Portions of 4 Counties
  - Orange County
  - Riverside County
  - San Bernardino County
  - Los Angeles County



# Recommendations

1. Establish during May 2006 a Salinity Study Task Force to obtain funding for and provide oversight, supervision, and approval of a study to evaluate the impact of salinity on water resources and to develop a viable Salinity Management Plan.

# Elements of the Salinity Management Plan will include:

- ✿ Potential measures that can be implemented to better manage salinity, and then
- ✿ Interim and long-range salinity management plans will be developed and fully evaluated

# Elements of the Salinity Management Plan will include:

- ✿ The development of a management organization (e.g., a Joint Powers Authority or a Special Commission),
- ✿ Physical infrastructure, and
- ✿ Changes to the current basin plan and other regulatory programs

# Recommendations

2. Sponsor in June 2006 a follow-up joint State Board/Regional Board Salinity Workshop
  - ✓ To receive comments on the report and potential information/data gaps,
  - ✓ To discuss recommendations, and
  - ✓ To receive input and directions for future steps

# **Recommendations**

- 3. Conduct facilitated meetings to gather more public input and information for the process beginning August 2006**

# Recommendations

4. Contract for the preparation of economic study of
  - ✓ The salinity impacts in the Central Valley, and
  - ✓ The social and economic consequence of not implementing a viable salinity management program
  - ✓ Contracting efforts are proposed to start during the period of October-December 2006

# **Recommendations**

- 5. Sponsor a full-day salinity conference that would highlight the major salinity-related issues in the Central Valley**