

Central Valley Salinity Program

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Central Valley Regional Water Quality Control Board





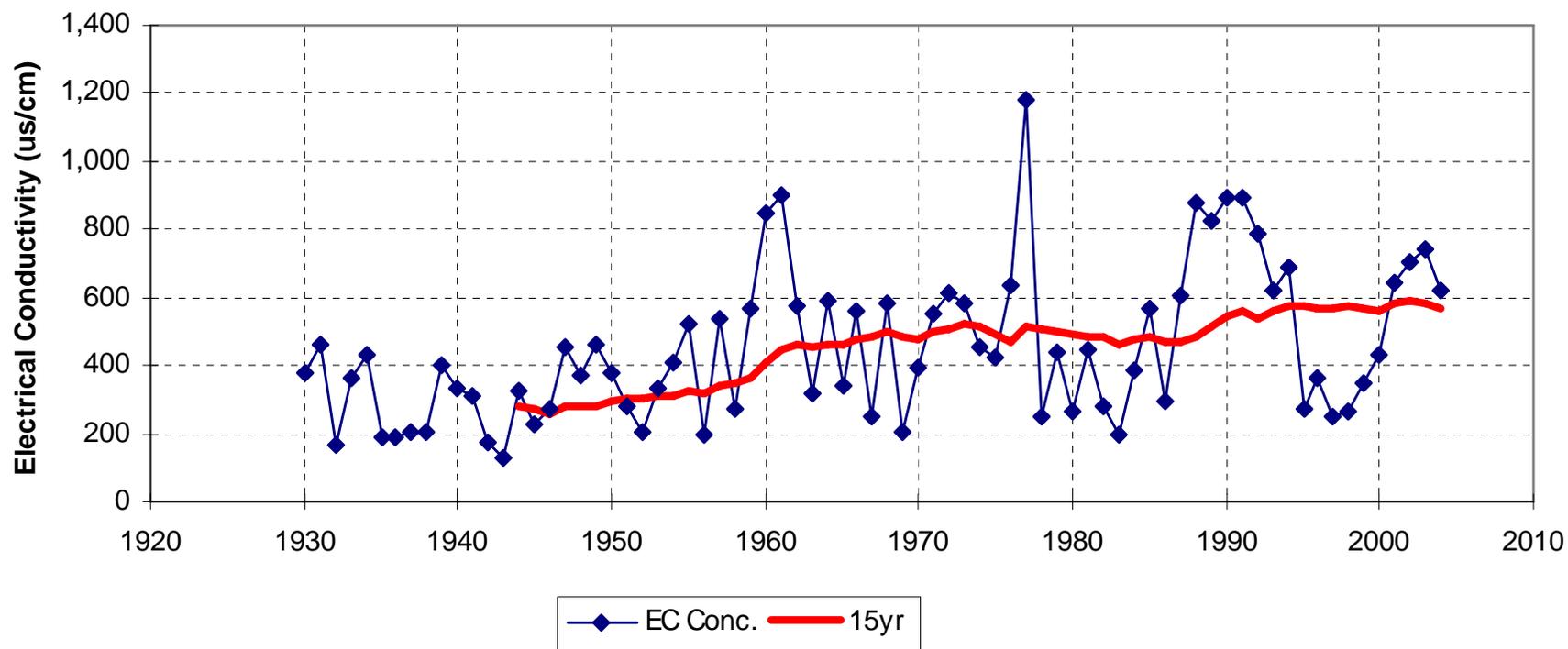
The ancient Hanging Gardens of Babylon in the palace of Nebuchadnezzar II (604-562 BC) is one of the Seven Wonders of the World



Central Valley Drainage Issues

- Central Valley Salinity Issues Not New
- Need for Agricultural Drainage Recognized Since Late 1800's
- CVP's San Luis Unit Authorized in 1960 to Provide Ag Drainage

SJR at Vernalis Mean Annual EC



Salinity trends in the San Joaquin River near Vernalis

USGS Studies – Eastern San Joaquin Valley and Sacramento Valley

- Nitrate concentrations in ground water in the eastern San Joaquin Valley exceeded the USEPA drinking-water standard in about one fourth of the domestic water-supply wells sampled.
- Nitrate concentrations in ground water have increased since the 1950s

USGS Studies – Eastern San Joaquin Valley and Sacramento Valley

- Groundwater TDS concentrations increased significantly since the 1950's throughout most of the Sacramento Valley
- Considerable increase in groundwater TDS & nitrate occurs in San Joaquin Valley as result of surface disposal of municipal and agricultural wastewaters

Activities Contributing to the Salinity Problem

- Agricultural Water Users
- CAFOs
- Urban Water Users
- Rural Water Users
- Environmental Water Uses
- Industrial Users
- Water Providers
- Petroleum Production



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

Salinity Impairments in Surface and Groundwaters

- We are all part of the problem
- It is essential we also are part of the solution
- Development and implementation of salinity management plan
 - Santa Ana Watershed provides good example of successful salinity management plan

Central Valley Salinity Issues

- Preceding discussion certainly is not a comprehensive discussion of salinity and nitrate issues
- Discussion does point out that:
 - ✓ Salinity and nitrate problems can be found throughout the Central Valley
 - ✓ General trend in the concentrations of nitrate and salinity is increasing with time

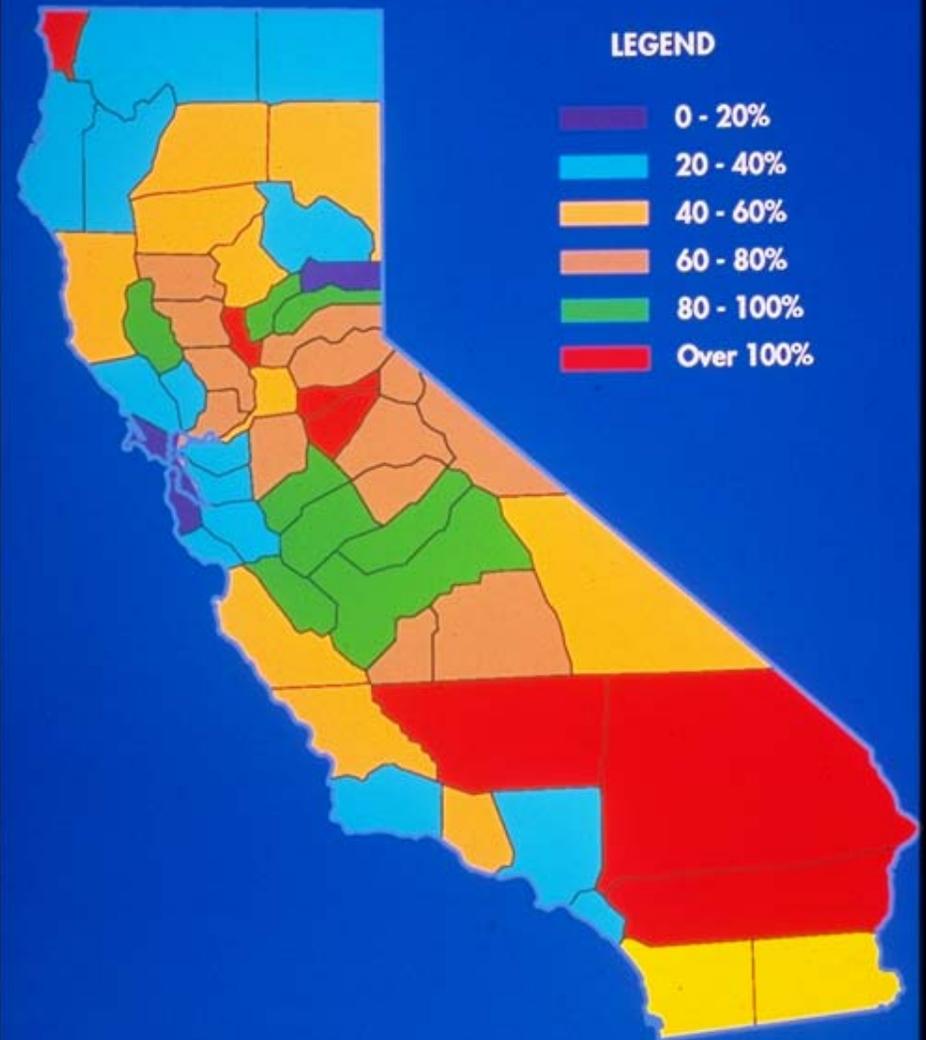
Salinity Impairments in Surface and Groundwaters

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

- Projected Pop. Increase
 - 2005-2020 = 39%
- Agriculture
 - Major Industry
 - 20% of Jobs
- Income Less than CA Average
- Poverty Levels Higher than CA Average
- Unemployment – Some Chronic Double Digit
- Loss of Farmland Unregulated
- Strong Economy Essential for Future

PROJECTED GROWTH RATES BY COUNTY, 1995 TO 2020



Recommendations – 2 May 2006

1. Establish a Salinity Study Task Force – now Central Valley Salinity Policy Group
2. Sponsor follow-up joint State Board/Regional Board Salinity Workshops
3. Conduct facilitated stakeholder meetings
4. Contract for the preparation of an economic study of salinity impacts and the social and economic consequence of not implementing a viable salinity management program
5. Sponsor focused, scientific conferences

CENTRAL VALLEY SALINITY POLICY GROUP

Vision: To successfully develop and implement a viable salinity management plan for California's Central Valley to –

- sustain the Valley's lifestyle,
- support regional economic growth,
- retain a world-class agricultural economy,
- maintain a reliable, high-quality urban water supply; and
- protect and enhance our local environment.

CENTRAL VALLEY SALINITY POLICY GROUP (CVSPG)

Mission: The CVSPG will work in a collaborative manner to provide leadership, direction and insight during the development of a comprehensive Central Valley Salinity Management Plan.

Central Valley Regional Salinity Management Plan Development

- Requires a detailed, long-term strategic planning process
- Includes a comprehensive evaluation of water quality data, water and wastewater management options and policies

Central Valley Regional Salinity Management Plan Development

Primary outcome of the planning phase is an update of the Basin Plans

- Tulare Lake Basin
- Sacramento and San Joaquin River Basins

And, the Bay Delta Plan

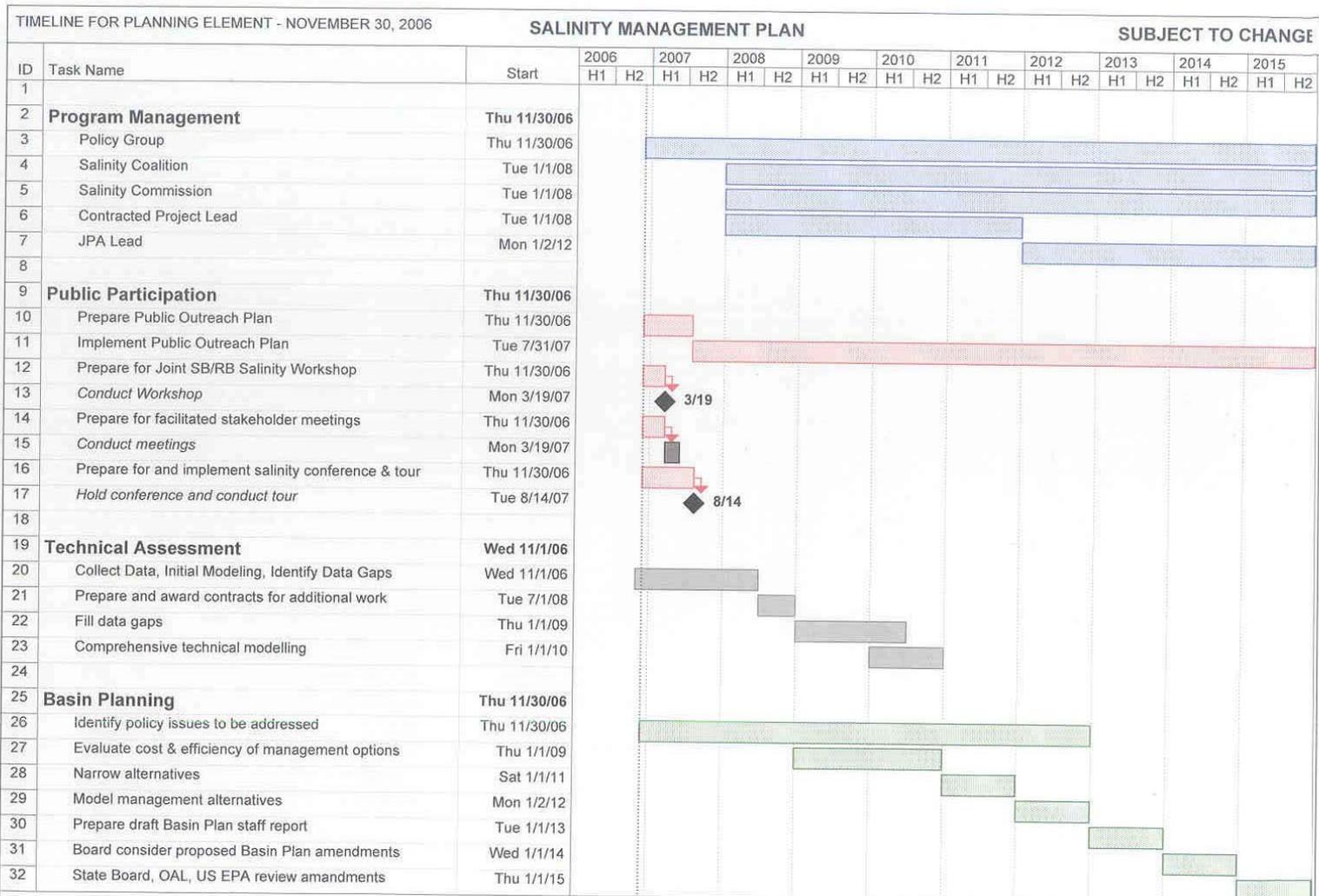
Elements of the Salinity Management Plan will include:

- ✿ 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 (continued):

- ✿ 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

Central Valley Regional Salinity Management Plan Development



Central Valley Regional Salinity Management Plan Development

Work that must be accomplished includes:

1. Review of existing conditions through data collection & analysis
2. Identification of data gaps
3. Development of new information required to conduct assessment of alternatives
4. Review of salinity treatment, management and disposal options
5. Review of existing policies and programs

Central Valley Regional Salinity Management Plan Development (Cont'd)

Work that must be accomplished includes:

6. Review of alternative local and regional management options, including economic and environmental assessments
7. Development of revisions for the basin plans
8. Adherence to the many requirements of the CEQA and Water Code process, including public outreach and stakeholder involvement

Central Valley Regional Salinity Management Plan Development (Cont'd)

Work that must be accomplished includes:

9. Consideration for approval of the eventual proposed Basin Plan revisions by the CVRWQCB & the SWRCB
10. Processing of the proposed Basin Plan revisions approved by the CVRWQCB and the SWRCB through the Office of Administrative Law

Role of the Central Valley Salinity Policy Group

- Members represent cross-section of stakeholders having interest in mitigating salinity impacts to Central Valley waters
- Critical role in providing advice & direction on –
 - the development and conduct of studies,
 - the development of revisions to the basin plans, and
 - the CEQA process

Central Valley Salinity Policy Group Committees

- Committees Now Required
 - Technical Advisory Committee
 - Social & Economic Impact Study Committee
 - Public Education & Outreach Committee

Central Valley Salinity Policy Group Management

- Additional committees may be formed as work progresses to address other focused issues
- Extensive use will be made of conference calls and e-mail

Role of the Central Valley Regional Water Quality Control Board

Actively enforce policy-based criteria directed towards protection of beneficial uses of receiving waters from further degradation due to increasing salinity concentrations

Expectation of Dischargers

- Take the necessary interim measures required for the significant reduction of salinity discharges from their facilities into the ground and surface waters of the Central Valley
- Support the development of long-term solutions