



Orange County Experience with Salt Management

Salinity Management Plan Implementation Workshop

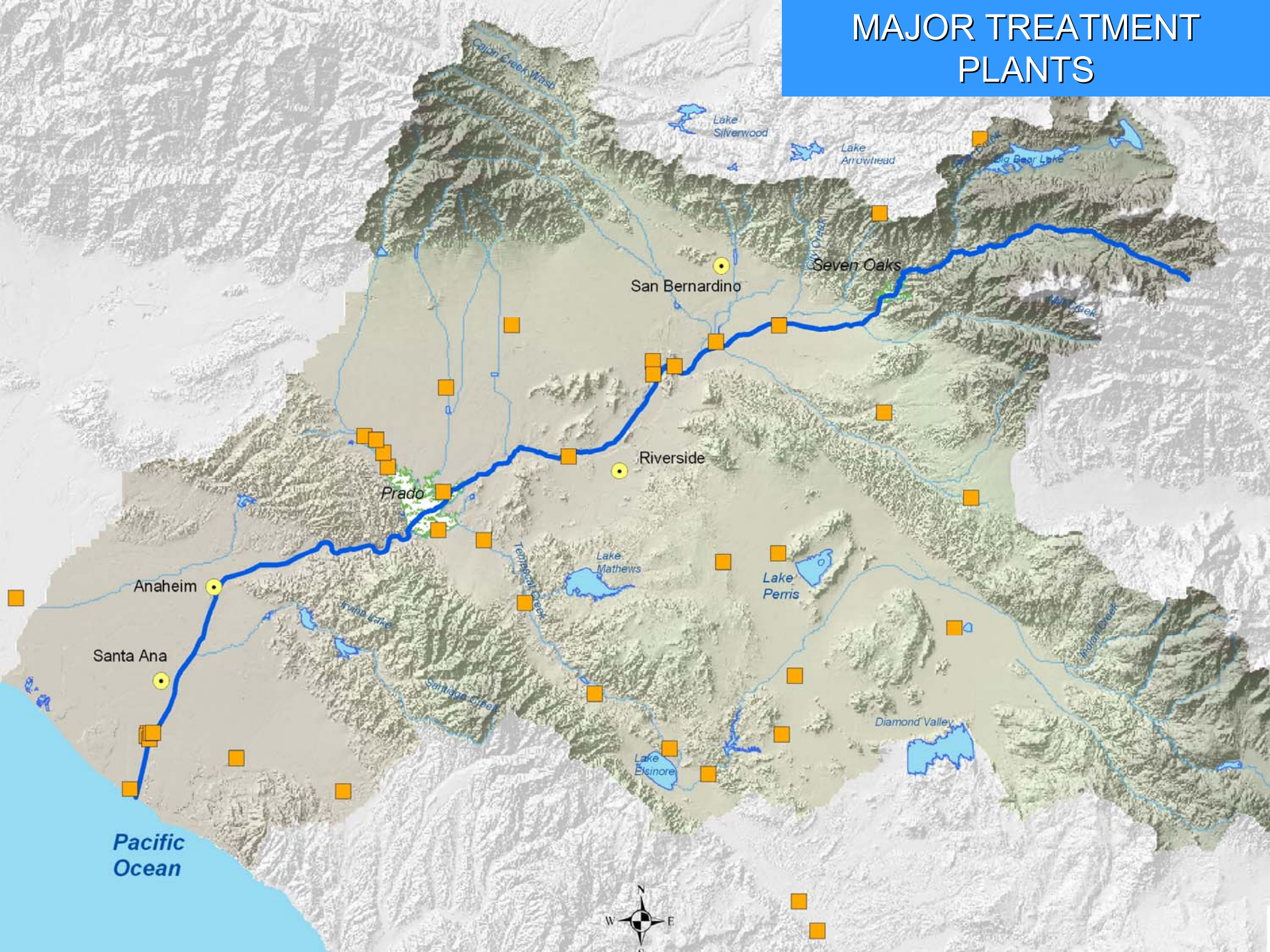
San Diego, CA

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MAJOR TREATMENT PLANTS





Regional Board's Basin Plan

- ▶ Regional Board's charge is to protect water quality & beneficial uses
- ▶ Basin Plan is tool Regional Board uses to specify water quality objectives for groundwater basins and Santa Ana River
- ▶ Critical to protecting quality of SAR flows that recharge groundwater basins, such as in Orange County



Salt Management Issue Is Very Important

- ▶ **High salt levels impact consumers with decreased appliance life, taste issues, and increased water recycling costs**
- ▶ **Water agencies have worked with the Regional Board for over 35 years to manage salt in the watershed**
 - **Control of salts in treatment plants that discharge to the river**
 - **Santa Ana Regional Interceptor (SARI)**
 - **Desalters (for example, Arlington Desalter)**



SWRCB's Rancho Caballero Decision (1973)

- ▶ Small mobile home park near Riverside
- ▶ Issue regarded water discharge requirements for the mobile home park (discharge of approx. 51 acre-feet per year)
- ▶ OCWD contested the initial WDR adopted by the Regional Board due to its lack of a TDS limit that was consistent with the Basin Plan
- ▶ SWRCB concurred with OCWD and Regional Board adopted WDR that included TDS limit consistent with Basin Plan



Range of Agencies Involved

**Groundwater
Management
Agencies**

**Member
Agencies
of Met**

Metropolitan

**SWP
Contractors**

**Retail Water
Agencies**

**Publicly-owned
Treatment
Works**

**Watermasters
Under
Purview
of Courts**

**Private
Water
Companies**



How it Started

- ▶ **Review of Basin Plan requested by stakeholders in mid-1990s**
 - no funding available
- ▶ **Led to formation of Nitrogen/TDS Task Force**
 - **10-year process**
 - Scoping in 1994-95
 - Basin Plan amendment in 2004
 - **Funded by Task Force members**



Nitrogen/TDS Task Force

- ▶ All key stakeholders within the basin represented
 - Upper Basin v. Lower Basin
 - Water Supply Agencies v. dischargers
- ▶ Consensus-building process
- ▶ Establish ground rules
- ▶ Strict conformance with existing laws and federal and state policies



Why Successful?

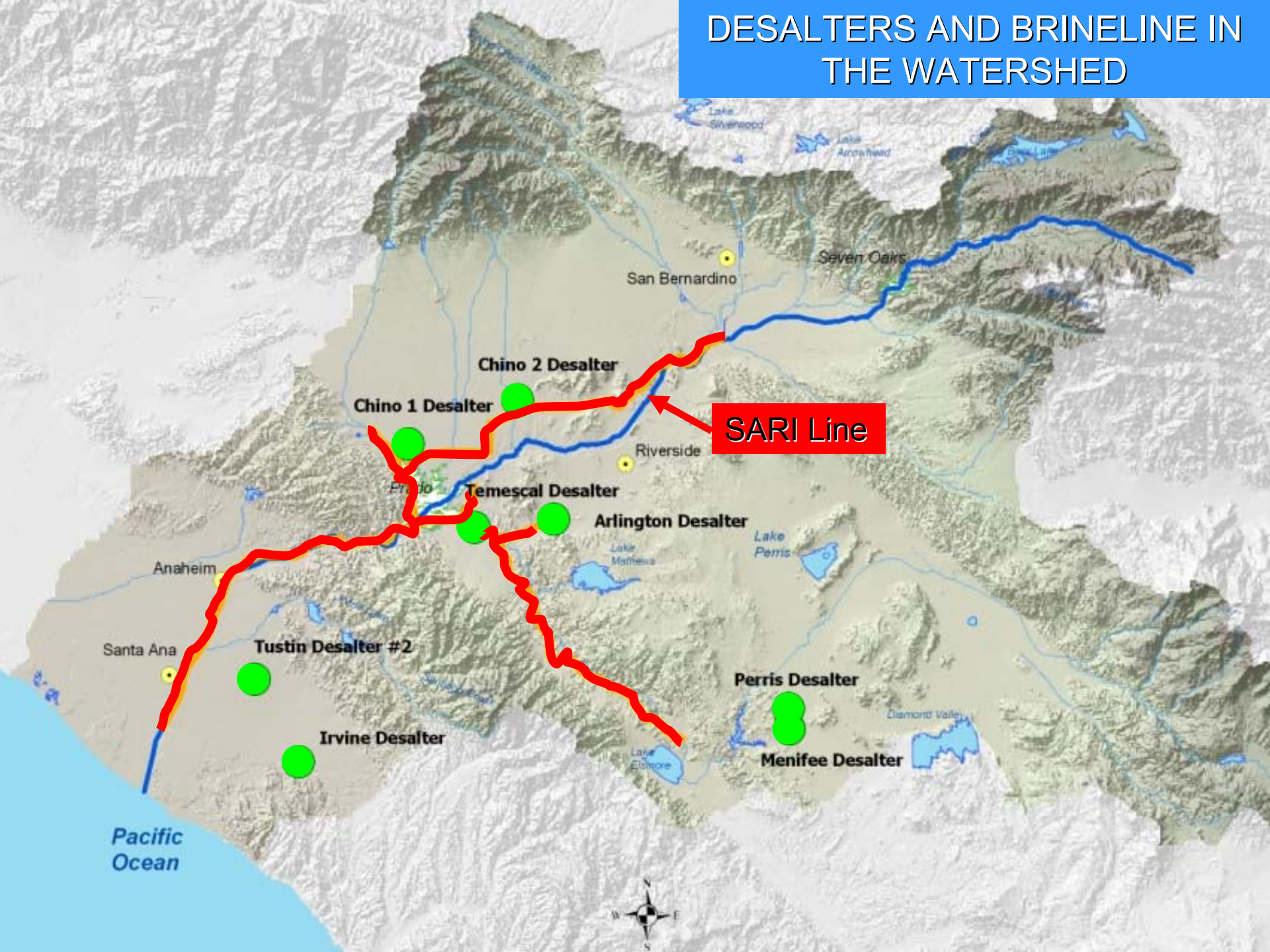
- ▶ Importance of regional agency (SAWPA)
- ▶ Commitment of key staff at Regional Board
- ▶ Facilitator
- ▶ Better to work out solution among stakeholders than have judge or another party impose solution
- ▶ State funding to assist with projects
 - Facilitated grant funding



Why Successful (cont) ?

- ▶ Stakeholders are engaged
- ▶ Develop and agree on scientific process in advance of data analysis
- ▶ Agree to live with results – either way

DESALTERS AND BRINELINE IN THE WATERSHED



SARI Line

Chino 1 Desalter

Chino 2 Desalter

Temescal Desalter

Arlington Desalter

Tustin Desalter #2

Irvine Desalter

Perris Desalter

Menifee Desalter

Pacific Ocean





Basin Monitoring Program Task Force

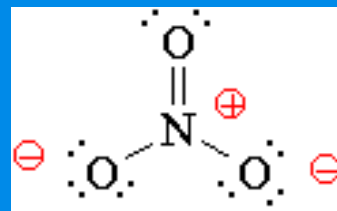
- ▶ Successor to Nitrogen/TDS Task Force
- ▶ Participation from dischargers and water agencies
- ▶ Includes on-going surface water and groundwater quality monitoring
- ▶ Provides format to review potential changes to salt management program
- ▶ Includes pro-active water quality monitoring program



Water Quality Monitoring Program

- ▶ Cooperative effort facilitated by SAWPA
- ▶ Provides important water quality data for District's principal source of recharge water
- ▶ Provides data to verify Basin Plan has appropriate salt and nitrogen management strategies

Nitrate



Sodium chloride

