



The Irrigated Lands Regulatory Program and the Recently Added Nutrient Management Plan Requirements

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Presentation Topics

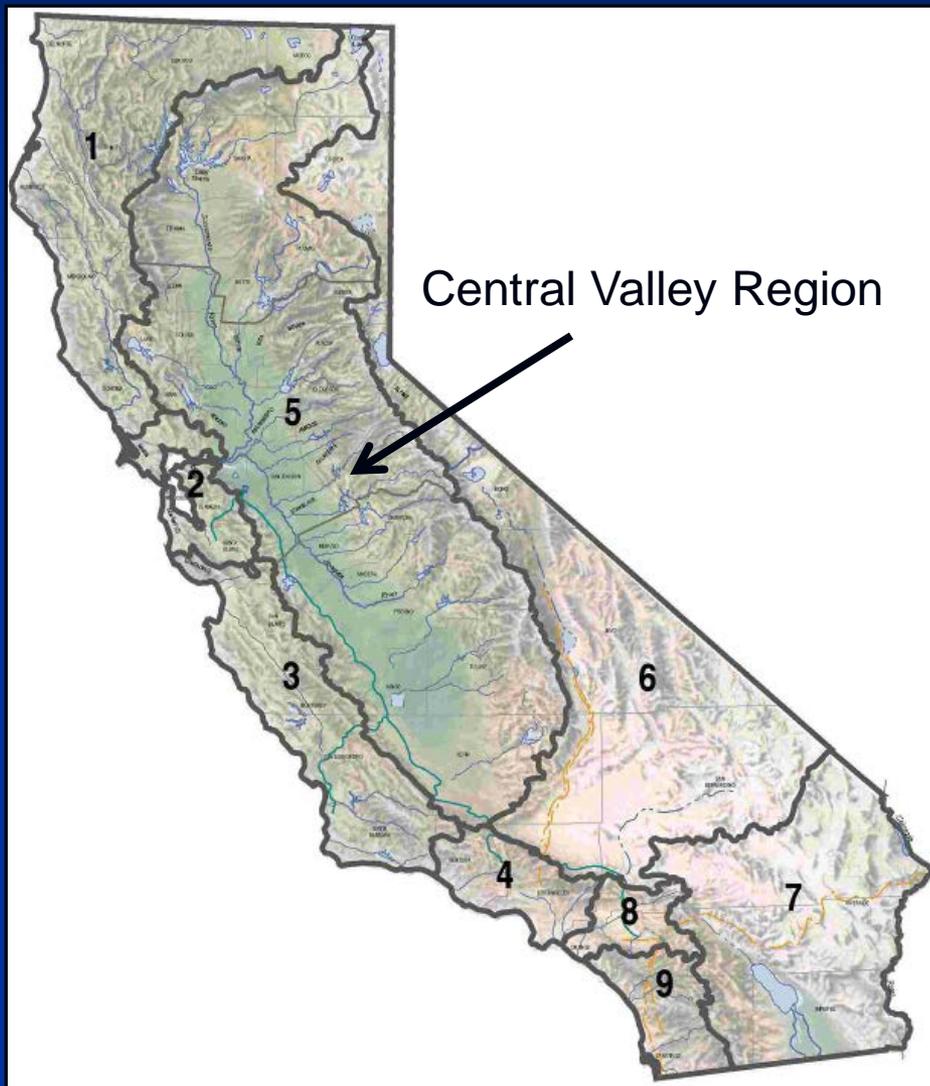
- Irrigated Lands Program background
- Why the new requirements?
- What are the new requirements?
- Nitrogen Management Plan Info
- Where to get more ILRP info
- Legacy Issues and CV-SALTS Salinity Program Overview

What Are WE Trying to Accomplish?

WE = Water Board, Agriculture, Stakeholders, CCAs

- Protect water quality for current and future generations
- Ensure any new requirements are consistent with sustaining agriculture in the Central Valley
- Learn and adapt as we move forward

Nine Regional Water Boards



- Implement State and federal water quality laws based on region specific conditions
- Regulate discharges of waste

Irrigated Lands Regulatory Program

Applies to:

- Commercial agricultural operations, managed wetlands, nurseries, and greenhouses
- Surface water discharges
 - Surface return flows, storm runoff, tile drainage, drift to surface waters
- Groundwater discharges
 - Fertilizer/pesticides moving down soil profile, well head, or backflow

Why Add Groundwater?

- Groundwater has been impacted by agricultural activities, particularly nitrates
- Beneficial uses of groundwater have been affected

Nitrates and Groundwater

- Pollution pathways for nitrates and pesticides are similar
- Nitrates/water soluble pesticides leach through soil to groundwater
- Pathway for nitrates/pesticides
 - Surface runoff
 - Unprotected / improperly sealed wells
 - Over application of nitrogen fertilizer
 - Other conduits to groundwater (e.g., backflow)

And So...A New Program



These new regulations will fundamentally change the way we get around them

Coalition/Third-Party Requirements

- Conduct representative surface water & groundwater monitoring and management practices evaluations
- Work with growers to implement management plans in areas with identified problems

Coalition/Third-Party Requirements (cont.)

- Compile reports from members and submit summaries to the Regional Board
- Provide members information on management practices to protect surface/groundwater

Member Requirements

Implement practices to protect water quality and:

- Report practices to coalitions through farm evaluations
- Prepare and Implement Sediment & Erosion Control Plans
- Prepare and Implement Nitrogen Management Plans and Submit Reports to Coalitions
(Reporting Requirement Applies to HVAs only)
Must be produced for Water Board inspections

Nitrogen Management Plans

Key mechanism to minimize nitrogen discharge to surface and groundwater

- High Vulnerability Areas
 - CCA certifies nitrogen plans for members
 - A CDFA certification program is currently in development
 - Member self-certification with training
 - Nitrogen Management Plan Summary Reports sent to Third-party
- Low Vulnerability Areas – General NMP, No NMP Summary Report required
- Third-party/Ag will develop templates

Nitrogen Management Plan Elements

- Nitrogen Management Plan
 - Projected nitrogen management to “efficiently” meet crop yield and quality for upcoming crop year and minimize nitrogen losses through surface runoff and leaching below the root zone
- Nitrogen Summary Report
 - Previous crop year actual applied vs needed
 - Gathered info for Coalition Summary Reports

Nitrogen Management Plans

Potential Components of Plan (from draft template prepared by Coalition)

- Crop Nitrogen Demand
 - Crop type; expected yield; crop nitrogen needs to meet yield
- Nitrogen Supply
 - Total N applied – spring, summer, fall, foliar, manure, compost, other
 - Soil N Credits – from previous legume crop; residual from manure; organic matter mineralization; soil test; amount in irrigation
- Ratio of Total N Available/Crop Uptake

What Does Everyone Want?

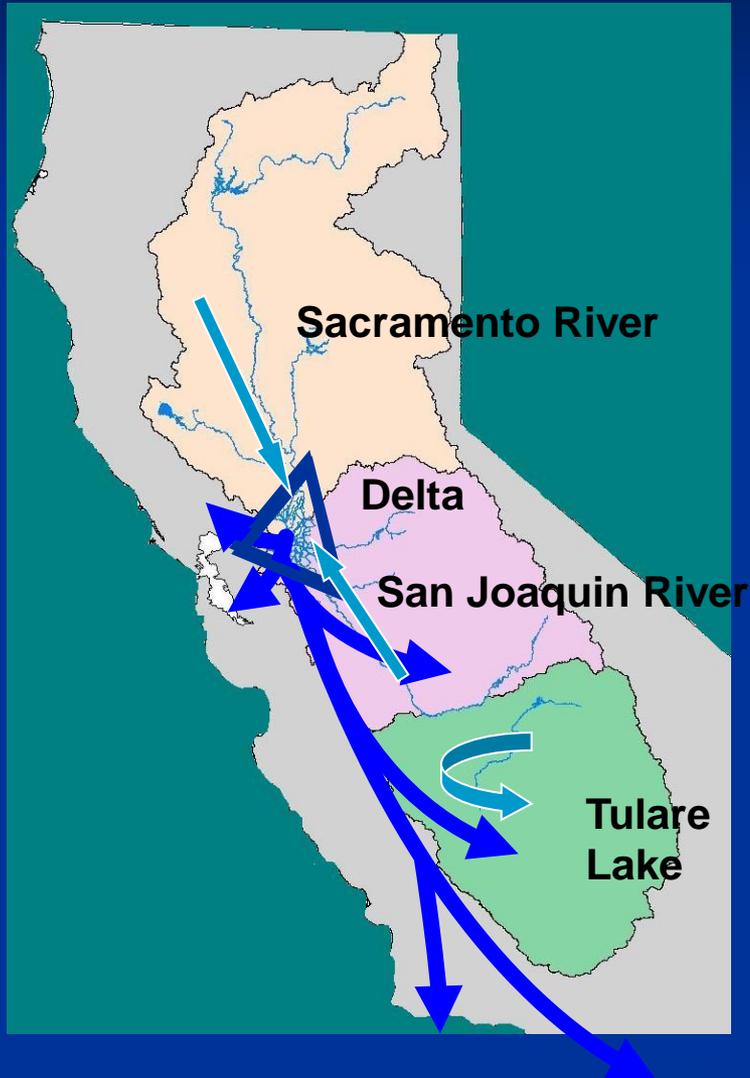
Clean Water!

Agricultural coalition approach can help meet that goal – Growers, Commodity Groups have been and **MUST** be actively engaged!

Water Board recognizes critical importance of agriculture in the Central Valley

Working together the progress made in surface water will occur in groundwater

Central Valley Salt Issues



More salt enters the Central Valley than leaves:

- ✓ Sacramento Basin has relatively few salt impaired areas but salt exported to the Delta can be picked up and redistributed by State Water Project and Central Valley Project
- ✓ San Joaquin River is that river basin's sole outlet; salt imports exceed export capacity
- ✓ Tulare Lake Basin has no reliable outlet for salt

Central Valley Salt and Nitrate Issues

Salt build-up threatens agricultural productivity



Increasing salt and nitrate concentrations in groundwater threaten drinking water



Water used for dilution is (usually) water lost to other uses



Economic Cost

If the Central Valley Region does not change its approach to salt management by 2030...

- ✓ Direct annual costs are anticipated to range from \$1 to \$1.5 BILLION
- ✓ Total annual income impacts statewide anticipated to be from \$1.7 to \$3 BILLION

There is presently no means of distributing these costs equitably or assigning costs to all responsible parties

CV

Central Valley



SALTS

Salinity Alternatives for Long-term Sustainability

Collaborative stakeholder process to develop a comprehensive Salt and Nitrate Management Plan (SNMP) for the Central Valley for incorporation into the Basin Plans.

- Components will satisfy requirements of the State Water Boards *Recycled Water Policy*, which requires management of salt in a *sustainable manner*



CV

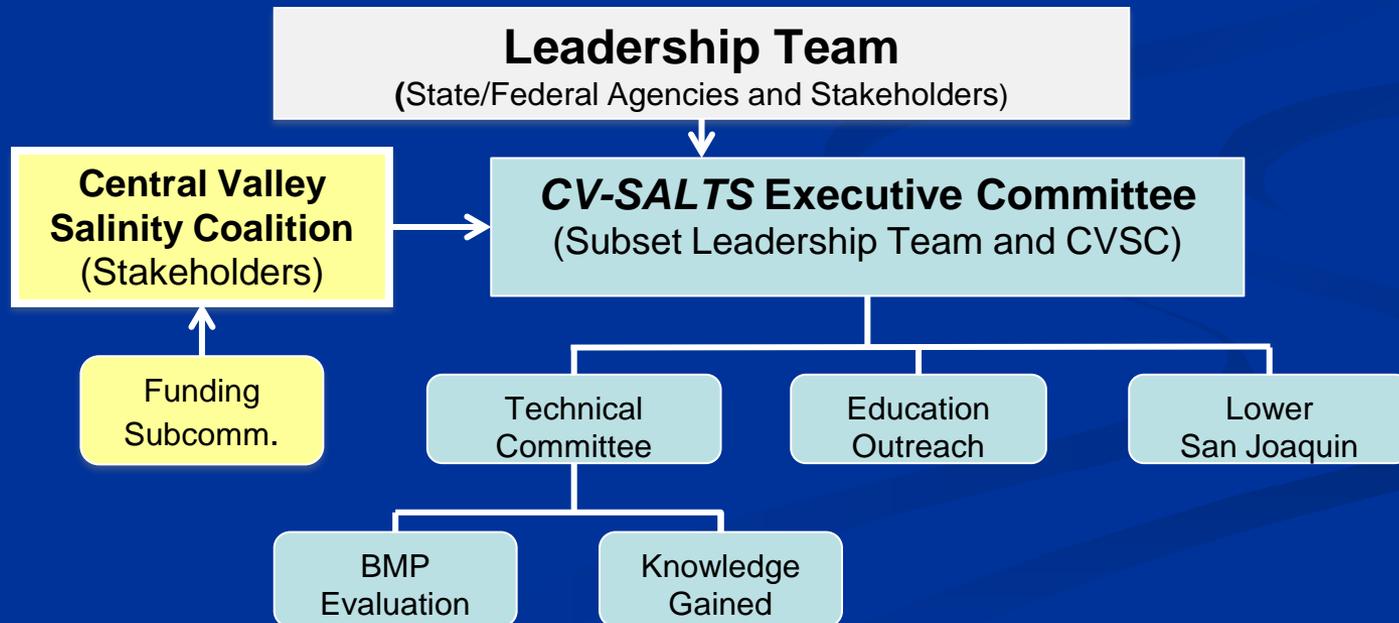
Central Valley



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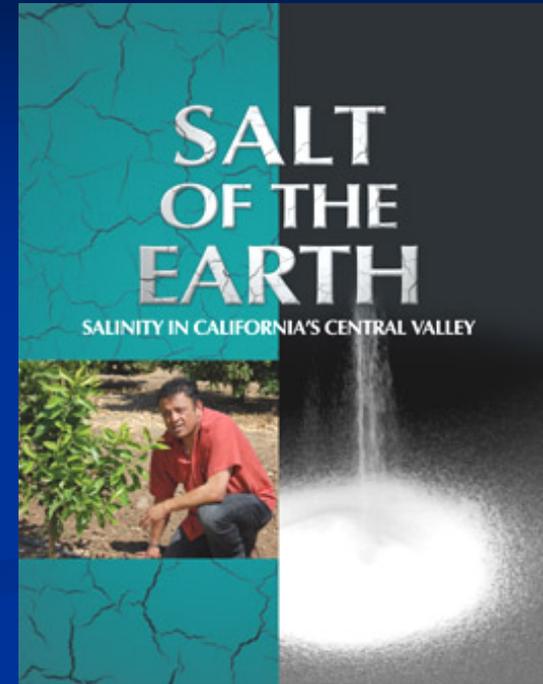
Salinity Alternatives for Long-term Sustainability

- Formed in 2006
- Adjusted in 2009 (*Recycled Water Policy*)



CV-SALTS Mission

- Develop an SNMP to address salinity and nitrate concerns in a comprehensive, consistent, and sustainable manner. Goals include:
 - ✓ Sustain the Valley's lifestyle
 - ✓ Support regional economic growth
 - ✓ Retain a world-class agricultural economy
 - ✓ Maintain a reliable, high-quality water supply
 - ✓ Protect and enhance the environment
- CV-SALTS is committed to evaluating, promoting, and initiating options to provide safe drinking water to communities already impacted by salt and nitrates



**CV-SALTS
Starting Point**

Identify Water Bodies

Surface Water
Ground Water



Designate Beneficial Uses

MUN
AGR



Establish Water Quality
Objectives

Salinity
Nitrate



Implementation Requirements

Point Sources
Non-Point Sources



Monitoring and Assessment

Discharges
Receiving Waters

Salt and Nitrate Management Plan Incorporated into Basin Plans

Potential Components

1. Changing Beneficial Use Classification System
2. Specifically delineate water bodies or classes of water bodies
3. Creating Management Zones
4. Changing Existing Salinity Water Quality Objectives (WQOs)
5. Adding or Changing Implementation Plans
6. Adopting New Policies

Alternatives being explored for each component

Implementation: Overview



Challenge: Long-term salt & nitrate management while encouraging use/reuse of water

Considering alternatives to:

- ✓ Increase flexibility in how salt and nitrates are managed through the SNMP at local, watershed, and regional scales
- ✓ Provide safe drinking water to communities already impacted by salt and nitrates

ILRP Information Sources

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ILRP Hotline (916) 464-4611

Water Board Website

http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/index.shtml

ILRP Email List Subscription

Questions?

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Water Board Website

<http://www.waterboards.ca.gov/centralvalley/>

CV-SALTS Website

www.cvsalinity.org