

# Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) Annual Report



# CV

Central Valley



# SALTS

Salinity Alternatives for Long-term Sustainability



- Collaborative Basin Planning Effort
- Utilizing Stakeholder Process to Develop Salinity and Nitrate Management Program

# Cleanup and Abatement (CAA) Funds Provided Seed Money

- \$1.2-million (Res. #2009-0023)
- \$3.8-million (Res. #2010-0042)
  - \$2.0-million initially
  - \$1.8-million after demonstration of progress to/approval by State Board

# Additional Res. #2010-0042 Requirements:

- Annual Report at Public Hearing
  - Expenditures to Date
  - Services Provided
  - Contribution from Stakeholders
  - Accomplishments
  - Timeline to Complete Work

# Expenditures for Services and Stakeholder Contributions

	Since July 2008
CAA Resolution #2009-0023	\$249,889
CAA Resolution #2010-0042	\$0
Central Valley Salinity Coalition (CVSC)	\$1,011,249
Additional Stakeholder Contributions	\$4,308,364
<b>Total:</b>	<b>\$5,559,502*</b>

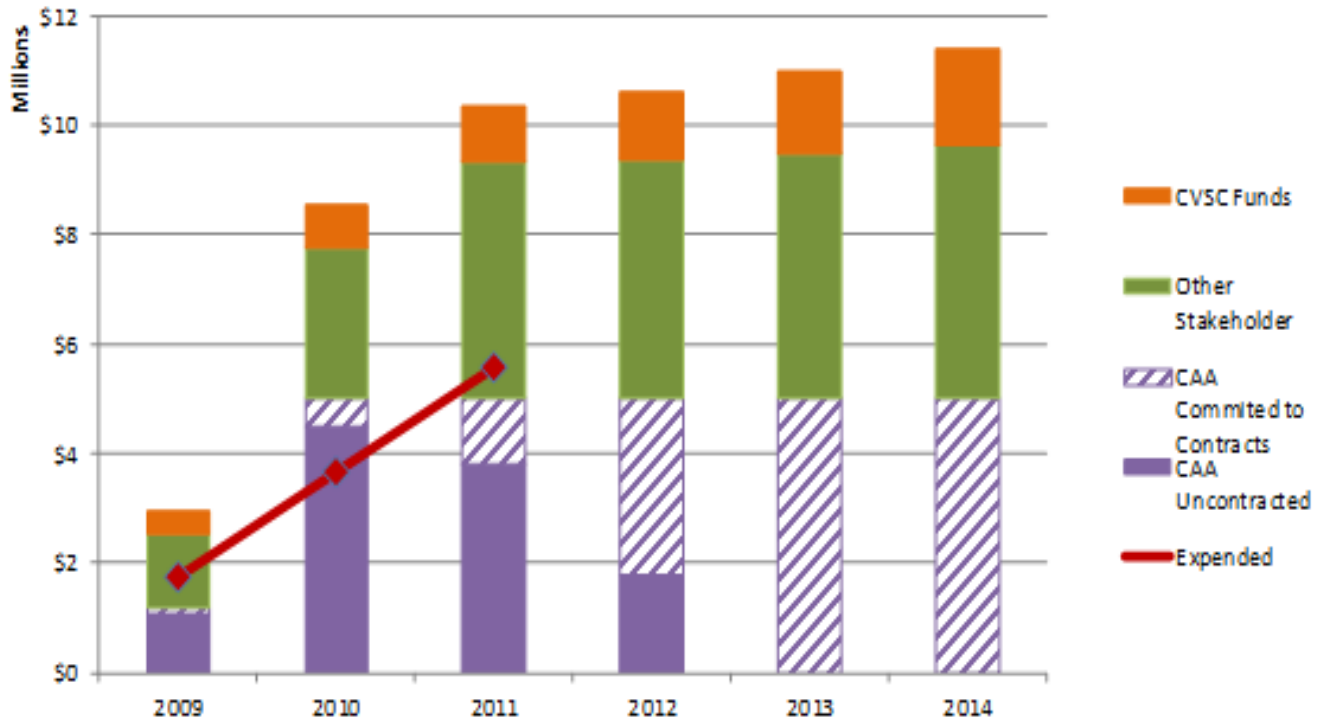
\*Does not include in-kind service participating on committee(s)

# Contract Services Provided

- Administrative, Technical & Facilitation Support
- Salt Source Identification Studies
- Animal Drinking Water Criteria Study
- Treatment/Containment Feasibility and Pilot Studies
- GIS Database for Central Valley Beneficial Uses and Objectives (Phase I)

## Figure 1 Cumulative Funding and Expenditures

Stakeholders have Provided 96% of Expended Funding To Date



# Stakeholder Driven

- **CVSC provides funding**
- **Organization of Stakeholders**
- **Supports direct and indirect salinity and nitrate efforts**
- **Examples**



# Pilot Salt Source ID Studies



# Guidance Documents

- Knowledge Gained Committee
  - Future Salinity/Nitrate Source Studies
- Management Practices Committee
  - Guidance to Develop Salt/Nitrate BMP Toolbox
- Technical Committee
  - Recommendations regarding use of modeling tools to develop site specific salinity objectives

# Feasibility and Pilot Studies for Desalinization and Containment Alternatives

(Sponsored by Tulare Lake Drainage  
District)



# Desalinization

- Ag Drainage RO
- Polymer Based Resin
- RO de-clogging



# Containment

- Biofuel/zero liquid discharge
- RO to useable by-products
- Enhanced evaporation



## Other

- Leadership Group Meeting held in February 2011
- Animal Drinking Water Criteria Evaluation
- Revision of Salt and Salinity Management Chapter--CA Water Plan
- Interim & Subsequent Funding Plan

# CAA Supported Accomplishments

- Water Quality Criteria Memo
- Improve functionality of CV-SALT website
  - <http://cvosalinity.org>
- Scoped Salinity/nitrate Aquatic Life Criteria Review
- **Beneficial Use/Object Study**

# Beneficial Use Objective Study

- GIS database with beneficial use maps for the Central Valley
  - Facilitate review of current uses and objectives and recommendations for refinements
  - Basis for future review and management areas, etc.





# BENEFICIAL USE & OBJECTIVE STUDY

Maps Rivers & Streams Documents



**DISCLAIMER**  
ABOUT  
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## MAP CONTENT

- BASE IMAGERY** Contrast: 100%
- Digital Elevation Map
- BASE MAP FEATURES**
- General Base Map
  - Boundaries
  - Hydrology
- BENEFICIAL USE STUDY FEATURES**
- Rivers & Streams
  - Lakes
  - Groundwater Features
  - Bay Area Basin Plan
  - Permit Locations
- QUERY RESULTS / SELECTION SETS**
- Activate Selection Set Display

## MAP NAVIGATION TOOLS

Select Cursor Mode:

Click Map Tool:

Zoom To Area of Interest:

Scale: 1" = 1000963 in

Coordinate System: California Teale Albers NAD1983, Units: Feet X,Y: -738037, 187311

## SELECTION SETS

- Rivers & Streams  
3156 features selected.

## LOCATION MAP



# Timeline for Completion of Work

Activity	FY 11/12												FY 12/13												FY 13/14																																			
	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J																										
Finalize Workplan for agreed tasks	■																																																											
Policy for BUs and WQOs	■																																																											
Salt/Nitrate Conceptual Model							■																																																					
Archetype Technical Studies							■																																																					
Upgrade BUOS							■																																																					
Identify/Evaluate Initial Mgt. Alt.							■																																																					
Refine Management Alternatives																															■																													
Economic Review																															■																													
CEQA Equivalent Documentaion																															■																													
Develop Central Valley SNMP																															■																													
Public Meetings																																					■												■											

# Work Items Linked to Statewide Issues

- Policy Discussions on Beneficial Uses and WQO's
  - MUN “incidental”; Site Specific Objs.
  - AGR “limited”; Site specific Objs
    - % crop yield protection
    - Most limiting/sensitive crop in basin

# Archetype Studies in Scoping

- Constructed Ag Drains
  - POTW receiving water
- Lower San Joaquin River
- Tulare Lake Groundwater Basins
- Disadvantaged Communities

## CV-SALTS Executive Committee Policy Discussions and Decisions

On October 20, 2011 the Executive Committee met to review and discuss the concepts and alternatives. Based on these discussions, several decisions were made and the consultants were given additional direction to guide future planning efforts. The purpose of this memorandum is to document these decisions in order to facilitate timely development of the CV-SALTS deliverables. There is broad agreement among members of the Executive Committee on the following:

- 1) There is a need and an obligation to develop a Salt and Nitrate Management Plan (SNMP) to protect the beneficial use of surface and ground waters throughout the Central Valley region.
- 2) The Central Valley SNMP (CV-SNMP) will integrate wherever possible similar plans developed by local or regional entities including IRWM groups.

# Funding

- CVSC Funding Subcommittee
  - Draft Outreach Document
    - Continued Member Support for 2012
    - Interim Funding Existing programs
    - Federal and State approach leads
    - Long Term Implementation Funding
    - Project Support and DAC efforts

# Outreach

- IRWMPs
  - Communication on process
  - Project Coordination and support
- DACs
  - Nitrate efforts technical support
  - Potential project funding

# ■ Questions?