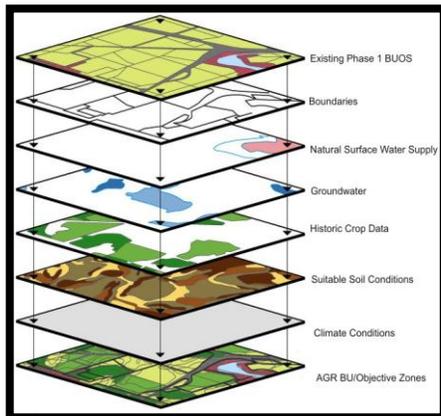
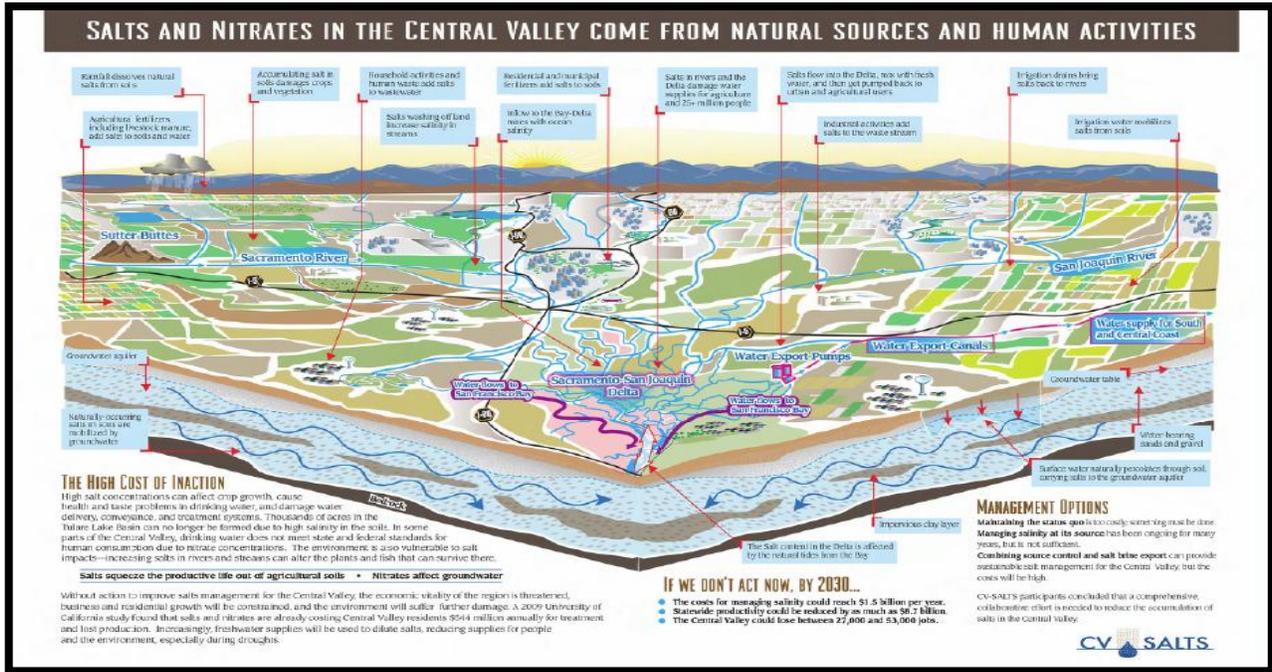


# CV-SALTS 2012 Accomplishments July - December



# Program Accomplishments July through December 2012

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All materials posted on [www.cvsalinity.org](http://www.cvsalinity.org) as of December 31, 2012.

## **Introduction**

One of the success criteria provided by the Central Valley Regional Water Quality Control Board (CVRWQCB) is the reporting of accomplishments for the program twice per year, in June and at the end of December. This report is prepared for the purposes of documenting some of the most important efforts and accomplishments of the CV-SALTS Initiative in the second half of 2012, and to provide information on future efforts. In 2012, following a stakeholder initiated progress review, the approach and overall management of CV-SALTS was refined to add focus and implement changes in the strategic goals adopted in 2011. The program work plan, budget, schedule and strategy Framework were updated and approved in March 2012. Please refer to the Table of Contents for links to supporting documents that demonstrate program accomplishments resulting from the implementation of these changes.

The program management and facilitation team has more effectively focused on the critical basin planning issues the stakeholder and regulatory interests needed to move forward. Assistance from Tim Moore has helped focus discussions and lead critical issues to be tackled in the basin plan and Salt and Nutrient Management Plan. A revised summary of policy discussion topics from 2012 is shown the table of contents.

The following Summary provides an overview of the work completed and accomplishments of the Central Valley Salinity Coalition and the CV-SALTS program, its members, partners, participants, and stakeholders. The sections that follow show example materials and documents produced.

## **Salinity and Nutrient Management in the Central Valley Highlights**

### **CVSC and CV-SALTS Progress and Funding**

1. CVSC Membership expanded from 26 to 27 net member and the Board Directors numbers to 19
2. Executive Committee filled all 30 positions
3. Funding
  - a. Contributed by CVSC Members \$1,509,000 since 2008
  - b. CVSC Members budgeted to contribute over \$260K in 2013
  - c. Expanded Stakeholder contribution directly supporting CV-SALTS as listed in State Board Report totaling \$6,826,096 with a sampling of other activities totaling more than \$49 million.

- d. In-kind labor contribution of \$958,000 based on \$100 per hour for meeting attendance since 2009.
4. Support Committees and monthly meetings
  - a. Executive Committee Policy and Admin meeting/call
  - b. Technical Committee
  - c. Lower San Joaquin River Committees
  - d. 3 Active Subcommittees
    - i. Management Practice Committee
    - ii. Technical Project Manager RFQ Committee
    - iii. Funding and Fundraising Subcommittee
5. Competitive Procurement and Project Management for projects
6. Policy Issues Development
7. Coordination with California Water Plan and Delta Plan

### By The Numbers

- Executive Committee Policy or Admin Meetings – **21** for details see the meeting log in the TOC
- Subcommittee or Other Meetings – **20** for details see the meeting log in the TOC
- Website/Email Users - **1206**
- Documents and Files Posted – **560**

### Financial Summary

- Ongoing member funding continued - **\$237,000**
- New Member funding - **\$90,000**
- CAA Grant funding Progress – **1** final allocation completed and contracted to SJVDA
- Program Funding Summary materials prepared for State Board Report and updated see table of contents for link

### Membership Update

#### Founding and Members Joining through 2010

- California League of Food Processors\*
- The Wine Institute\*
- City of Fresno\*
- San Joaquin Valley Drainage Authority\*
- California Assoc. of Sanitation Agencies\*
- Central Valley Clean Water Agencies\* E. San Joaquin Water Quality Coalition\*
- City of Manteca\*
- California Rice Commission\*
- Pacific Water Quality Association
- City of Modesto\*
- Sacramento Reg. Co. Sanitation District\*
- San Joaquin River Group Authority\*

- Discovery Bay CSD
- Iron House Sanitary District
- City of Tracy\*
- City of Stockton\*
- Mountain House CSD
- Agricultural Council of CA
- Western Plant Health Association\*
- Tulare Lake Drainage and Water Storage Districts\*
- Stockton East Water District\*

### **New Members in 2012**

- County of San Joaquin\*
- Dairy CARES\*
- Westland's Water District
- California Cotton Growers and Ginners

*\* Denotes a member of the Board of Directors*

### **CV-SALTS 2013 Plans**

1. Continued Policy Development
2. Technical Project Management efforts
3. Technical Projects
  - a. Ag Water Quality Zoning, GIS, Stock Watering and Aquatic Water quality studies
  - b. Initial Conceptual Model
  - c. SSALTS implementation
  - d. Water Quality Criteria - Aquatic Uses
4. Management Practice
5. Lower San Joaquin River Committee – Upstream Standards for Lower SJR above Vernalis
6. Cooperative Research and Data Grants
7. Fundraising and Lobbying Planning for funding sources and documentation

## **Technical Project Management**

### **Fall 2012 Status**

In summer of 2012 a significant amount of the technical work was initiated for the CV-SALTS Initiative. Several million dollars was obligated to the Initial Conceptual Model, Information gathering and Implementation planning. Additional information on these Technical Projects are shown under the Technical Advisory Committee link. Policy discussions on Surface and Groundwater continued with significant progress. Additionally, many business items and



Zones based on similar hydrologic and hydrogeologic conditions, cropping patterns, management practices, and other factors related to salinity tolerance levels. This effort will also provide information regarding where in the Central Valley agricultural activities are at risk because of salinity-related issues. CV-SALTS will use the map layers and findings from GIS analyses to support development of a Salt/Nutrient Management Plan for the Central Valley and ensure waters used for agricultural irrigation are appropriately protected.

*Project Status: Project planned for implementation in February 2013 with completion expected in July 2013.*

### **GIS Services – Phase 2**

Project Description: CV-SALTS continues to develop a Geographic Information System (GIS) to organize information pertaining to the beneficial uses, water quality objectives, water use infrastructure, and water quality of surface water and groundwater in the Central Valley. Development of this GIS supports ongoing efforts to develop a Salt/Nutrient Management Plan (SNMP) for the Central Valley by providing a centralized geodatabase for all matters pertaining to the development and implementation of the SNMP. This project builds off the CV-SALTS Phase 1 Beneficial Use Objectives Study (BUOS), which established baseline GIS-related data to support CV-SALTS. Phase 2 will update the existing geodatabase to incorporate the 2012 National Hydrography Dataset and incorporate new water infrastructure-related data, e.g., municipal surface water intakes, locations of wastewater facility discharges to surface water, agricultural water intakes, and groundwater wells.

*Project Status: Project initiated in September 2012; planned for completion in March 2013.*

## **Beneficial Use Designation Studies**

### **MUN Beneficial Use in Agriculturally Dominated Water Bodies Archetype**

Project Description: By way of the Sources of Drinking Water Policy (Resolution 88-63), the Central Valley Regional Water Quality Control Board Basin Plans (Basin Plans) designate MUN beneficial use to all water bodies unless they are specifically listed in a Basin Plan as water bodies that are not designated with MUN. During permit adoptions for the National Pollution Discharge Elimination System (NPDES) program, there have been challenges to protecting the MUN beneficial use designation in constructed agricultural drains due to the stated exception in Resolution 88-63. The CV-SALTS initiative has also identified the need to evaluate the level of

protection of MUN beneficial uses in constructed agricultural drains as well as other agriculturally dominated water bodies. The receiving waters of four POTWs in the cities of Willows, Colusa, Biggs and Live Oak will serve as archetypes or case studies for the development of a framework to evaluate the appropriate level of MUN beneficial use protection in agriculturally-dominated water bodies.

*Project Status: Project initiated in the latter part of 2011; completion expected in 2014.*

### **Tulare Lake Bed MUN Archetype**

Project Description: As part of its effort to develop a Salt/Nutrient Management Plan (SNMP) for the Central Valley, CV-SALTS is evaluating appropriate designations and level of protection for waterbodies currently designated with the MUN beneficial use, taking into account the requirements of the California Sources of Drinking Water Policy (SDWP) (Resolution 88-63). Through this activity, a portion of the Tulare Lake Bed has been identified as an area that clearly meets the exemption criteria set forth in the SDWP. Accordingly, CV-SALTS has initiated technical studies and basin planning activities to develop the required documentation to support de-designation of MUN from a portion of groundwater body underlying the Tulare Lake Bed. The expected final outcome is a Basin Plan Amendment. In addition, the project deliverables will support development of the Central Valley SNMP by providing an archetype or template for other studies designed to evaluate the applicability of an MUN use on a groundwater body.

Project Status: Project initiated in September 2012; completion expected in February 2014.

## **Water Quality Objective Reviews**

### **Salinity Effects on MUN-related Uses of Water**

Project Description: CV-SALTS completed research to define what constitutes reasonable protection of existing and probable future MUN (Municipal and Domestic Supply) uses. This research focused on the preparation of a summary of the current state of knowledge regarding the effects of elevated salinity concentrations on drinking water supply, including human health concerns, and other domestic uses of water, including impacts of salinity on residential, commercial and industrial water-using devices. In addition, the research effort reviewed water quality objectives established in other California regions, federal recommendations developed by the U.S. Environmental Protection Agency, MUN-related water quality standards adopted by

other states, and guidelines established by selected international entities. The resulting White Paper provides a summary of the key findings along with supporting data and references. CV-SALTS is using the findings of the White Paper to support development of a Salt/Nutrient Management Plan for the Central Valley and ensure that MUN-related uses of water are appropriately protected.

*Project Status: Project was initiated June 2012; draft White Paper was submitted in July 2012; final draft White Paper was submitted in August 2012; Document currently undergoing peer review; final White Paper expected in 2013.*

### **Salinity-related Effects on Agricultural Irrigation Uses**

Project Description: CV-SALTS completed research to define what constitutes reasonable protection of existing and probable future use of water for agricultural irrigation. This research focused on the preparation of a summary of the current state of knowledge regarding the effects of elevated salinity concentrations on crop yields, wetland plants and vegetation commonly used for landscaping. In addition, the research effort reviewed water quality objectives established in other California regions, federal recommendations developed by the U.S. Environmental Protection Agency, water quality standards adopted by other states to protect water used for irrigation, and guidelines established by selected international entities. The resulting White Paper provides a summary of the key findings along with supporting data and references to support development of a Salt/Nutrient Management Plan for the Central Valley and ensure that waters used for agricultural irrigation are appropriately protected.

*Project Status: Project was initiated in June 2012. A draft White Paper was submitted in July; a final draft White Paper was submitted in August 2012. A final document is in preparation with completion expected in early 2013.*

### **Stock Watering Study**

Project Description: CV-SALTS implemented this study to identify water quality criteria that may be used to establish salinity and nitrate-related water quality objectives to protect stock watering supplies in the Central Valley. This study was completed through the completion of research on the following information sources: (a) water quality objectives established in other regions of California or in other selected states; (b) review of U.S. Environmental Protection Agency recommendations; (c) university extension publications and specialists; (d) published

peer-reviewed literature; and (e) selected international agencies. The final report provides recommendations for protection of stock watering sources which will be used to support development of a Salt/Nutrient Management Plan for the Central Valley.

*Project Status: Project initiated in January 2012 and completed in January 2013.*

### **Aquatic Life Study**

Project Description: CV-SALTS is implementing a study to identify water quality criteria that may be used to establish salinity-related water quality objectives to protect aquatic life in Central Valley surface waters. This study is researching the following information sources to fulfill the project purpose: (a) recent literature reviews conducted by selected states to establish water quality criteria for salinity-related constituents; (b) peer-reviewed published literature; (c) data and methodologies developed by federal agencies, including U.S. Environmental Protection and Department of Interior; (d) recommendations developed by selected international agencies; and (e) any information developed by other California agencies. The final report will provide recommendations for protection of aquatic life in Central Valley surface waters that will be used to support development of a Salt/Nutrient Management Plan for the Central Valley.

*Project Status: Project expected to be initiated by December 2012 with completion expected in May 2013*

## **Conceptual Model Development**

### **Initial Conceptual Model (ICM)**

Project Description: Development of the ICM is the first phase of a three-phased effort to develop the technical and regulatory basis for adoption of a Salt/Nutrient Management Plan (SNMP) for the Central Valley. The purpose of this phase is to develop a conceptual level (or 30,000 foot level) analysis of water balance and associated salt and nutrient (nitrate) conditions in the Central Valley. This effort will rely on the establishment of Initial Analysis Zones (IAZs) to complete water quantity and quality analyses within smaller areas within the valley. IAZs provide the foundation for the eventual establishment of salt/nutrient management zones in the Basin Plan. The outcome of the ICM project will be an assessment of salt/nitrate conditions in the Central Valley, including identification of hotspots and long term trends for salt and nitrate concentrations. Subsequent phases will (a) refine the findings from the ICM and

delineate management zones (Phase 2); and (b) develop the SNMP which includes preparation of a salt/nitrate program of implementation and completion of regulatory analyses to support adoption of the SNMP in the Basin Plan.

*Project Status: Project was initiated in September 2012 with completion of all tasks expected in May 2013.*

### **Phase 2 Conceptual Model**

Project Description: Development of the Conceptual Model to support preparation of the Salt/Nitrate Management Plan (SNMP) was initiated under CV-SALTS' Initial Conceptual Model (ICM) Project (completed in April 2013). This project builds off the findings of the ICM. Under Phase 2 the project team will refine the findings from the ICM and delineate management zones. Establishment of these management zones provides the foundation for salt/nitrate management through implementation of the SNMP. Following completion of Phase 2, preparation of a salt/nitrate program of implementation and completion of regulatory analyses to support adoption of the SNMP in the Basin Plan will begin under Phase 3.

*Project Status: Project is planned for initiation in April/May 2013 with completion expected in spring 2014.*

### **Phase 3 Conceptual Model**

Project Description: Development of the Conceptual Model to support preparation of the Salt/Nitrate Management Plan (SNMP) was initiated under CV-SALTS' Initial Conceptual Model (ICM) Project (completed in April 2013) and refined under CV-SALTS' Phase 2 Conceptual Model project. This project builds off the work completed to date and focuses on development of the program of implementation for incorporation into the SNMP and completion of regulatory analyses and documentation to support adoption of the SNMP in the Basin Plan.

*Project Status: Project is planned for initiation by October 2013 with completion expected in May 2014.*

## **Implementation Planning**

### **Strategic Salt Accumulation Land and Transport Study (SSALTS)**

Project Description: CV-SALTS will implement a study to identify the range of viable Central Valley alternatives for salt disposal (taking into account regulatory, institutional, economic, and

technological issues) to provide input for consideration during development of the Salt/Nutrient Management Plan (SNMP) for the Central Valley. Potential alternatives for salt disposal range from expanded use of existing salt disposal areas, establishment of new salt disposal areas within the Central Valley, export or transport of salt out of the Central Valley, or some combination of the above. The findings from this study will provide input to policymakers regarding where opportunities exist to dispose of salt over the long term in a sustainable manner. In addition, the findings will provide important input to the development of the SNMP under Phases 2 and 3 of Conceptual Model, and provide information to support development of the Basin Plan Amendment to adopt a Central Valley SNMP.

*Project Status: Project is planned for initiation in December 2012 with completion expected by January 2014.*

## **Attachments**

**The following attachments contain a variety of materials on which the committees are working. Many documents are draft, or in progress.**