CV-SALTS Executive Committee Meeting
Friday, November 8, 2013 – 10:00 AM to 11:15 AM

TELECONFERENCE ONLY
Teleconference (712) 432-0360 Code: 927571#

Posted 10.30.13 – Revised 11.06.13

Meeting Objectives:
1. Program Development to mirror the policy development meetings
2. Execute business actions for CV-SALTS

AGENDA

1) Welcome/Introductions - Consent Calendar – Chair – 5 min
   a) Committee Roll Call/Roster
   b) Review/Approve October 11th Notes
   c) Discussion of SMNP/management plans

2) Proposed Executive Committee Meeting Calendar for 2014 – Daniel Cozad – 10 min
   - Review and Identify any significant conflicts

3) CEQA Scoping Meeting Wrap-up – Jeanne Chilcott - 10 min
   - Summary of CV-SALTS CEQA Scoping Session Comments

4) Central Valley Board Workshop & State Board Annual Report – Jeanne Chilcott – 10 min
   a) CV-SALTS Summary Accomplishments and Next Steps
   b) Resolution CVSalts Time Extension Dec2013

5) Agricultural Zone Mapping – Richard Meyerhoff - 5 min
   a) Development of Ag Community Meeting/Workshop

6) Royal Mountain King Mine Basin Plan Amendment – Jeanne Chilcott -15 min
   - Potential dedesignation of MUN and AGR in a portion of a groundwater basin.

7) Other CV-SALTS Project/Contract Updates - 20 min
   a) ICM – Richard Meyerhoff
   b) Phase II Conceptual Model – Richard Meyerhoff
   c) Aquatic Life Study – Richard Meyerhoff
   d) Tulare Lake Bed Archetype – Richard Meyerhoff
   e) SSALTS – Roger Reynolds
   f) MUN POTW – Jeanne Chilcott
   g) LSJR Committee – Mike Johnson

8) Set next meeting objectives/date – November 14th Policy Session

CV-SALTS meetings are held in compliance with the Bagley-Keene Open Meeting Act set forth in Government Code sections 11120-11132 (§ 11121(d). The public is entitled to have access to the records of the body which are posted at www.cvsalinity.org

One or more Central Valley Regional Water Quality Control Board members may attend.
### CV-SALTS Committee Rosters

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* = Already votes as Leadership or Coalition member

### Participants also identified for 10/17:

- Pam Buford, CVRWQCB
- Clay Rodgers, CVRWQCB
- Richard Meyerhoff, CDM
- Bruce Houdesheldt, NCWA/Sac Valley WQC
- Karen Ashby, LWA
- Tom Grohhaug, LWA
- Casey Creamer, CCGA
- John Dickey, Plantierra
- Michael Johnson, LSR Committee
- David Orth, SSVWQCB
- Erich Delmas, City of Tracy
- Robert Granberg, City of Stockton
- Diane Barclay, SWRCB
- Tim Moore, Risk-Sciences
- Tess Dunham, Samach
- Karl Langley, CVRWQCB
- Stan Gryzels, City of Davis
- Jennifer Clay, CWA

### CV-SALTS Executive Committee Meetings During 2013

- Executive Committee Membership
- Package Page 2
CV-SALT Executive Committee Meeting Notes  
Friday, October 11, 2013 – 10:00 to 11:00 AM  
TELECONFERENCE ONLY

Attendees are listed on the Membership Roster

AGENDA

1) Welcome/Introductions – Consent Calendar  
   ➢ The meeting was brought to order by David Cory.  
     a) Roll call was completed.  
     b) Karna Harrigfeld moved to approve, and Jeanne Chilcott seconded, and by general acclamation the September 13th meeting action notes were approved.

2) Open Nominations for Vice Chair for CV-SALTS Executive Committee  
   ➢ David Orth nominated Debbie Webster for Vice Chair. After discussion, David Orth moved and Karna Harrigfeld seconded, and by general acclamation Debbie Webster was elected as new Vice Chair for the Executive Committee.

3) 2013 GRA Conference Presentation  
   ➢ Daniel Cozad updated the committee on the CV-SALTS presentation during the conference. Daniel will forward a link to the presentations to Jeanne Chilcott.

4) CEQA Scoping Meeting Update  
   ➢ Jeanne Chilcott provide the committee with an overview of the first CEQA meeting held in Modesto on October 10th.  
     o The presentation will be posted on the CV-SALTS website.  
     o The next CEQA meetings are: 10/16 (Rancho Cordova), 10/21 (Colusa) and 10/28 (Fresno).

5) Central Valley Board Workshop & State Board Annual Report  
   ➢ Jeanne Chilcott updated the committee:  
     • The Central Valley Board Workshop is scheduled for December (12/5-12/6).  
       ▪ Jeanne recommended meeting after the 10/17 Policy Session to work on the presentation for the Board.  
       ▪ Dave Orth indicated 12/5 presents a conflict with ACWA meeting in Los Angeles. Jeanne will check with Pamela about scheduling the presentation for Friday, 12/6.  
       ▪ The State Board Annual Report is still scheduled for Tuesday, December 17th. There is no word yet on whether it will be rescheduled to January. Jeanne requested that Daniel Cozad get her a first draft of a staff report by the end of October.

6) Phase II Conceptual Model/Selection Committee Recommendation  
   ➢ After discussion, Debbie Webster moved, and Roger Reynolds seconded, and by general acclamation the committee accepted the recommendation of the Selection Committee to direct the San Joaquin Valley Drainage Authority to enter into a contract with Larry Walker Associates for the Phase II Conceptual Model project; with initial authorization for only the Task 1 Workplan Development, for a not to exceed amount of $25,000. Remaining Phase II Conceptual Model work to be authorized only upon Technical Advisory and Executive Committee approval of the Workplan and notice to proceed.
7) **Agricultural Zone Mapping/Ag Community Workshop**
   - Richard Meyerhoff announced the development of a workshop to be held on November 13th in Sacramento to review the Ag Zone Mapping Draft Report, and discuss alternatives moving forward with representatives from the Ag community. Anyone interested in a more detailed discussion of the Ag Zone Mapping project should attend.

8) **Other CV-SALTS Project/Contract Updates**
   - Richard Meyerhoff provided the following written Technical Project Status updates for items a) through d):
     a) **ICM Project**
        - Final Report submitted to Project Committee on September 13
        - Have received confirmation from most of the Project Committee that comments on Draft Report were adequately addressed and there will be no additional comments
        - Once similar confirmation received from last reviewers - the Final Report will be posted to the CV-SALTS website.
     b) **GIS Services**
        - Final Report complete – it has been posted to the CV-SALTS website
     c) **Agricultural Zone Mapping**
        - Status discussed under Agenda Item No. 7
     d) **Aquatic Life Study**
        - Final Report (along with responses to comments on draft) is on the TAC agenda for presentation by Dr. David Buchwalter on October 15.
        - After any final comments are addressed, it will be posted to website as final.
     e) **Tulare Lake Bed Archetype**
        - Revised technical report draft received; being reviewed to determine responsiveness to comments on draft report and whether additional information needs to be gathered.
        - Next step will be a meeting with Water Board staff to discuss how their comments were addressed.
     f) **SSALTS – Roger Reynolds**
        - Per Roger Reynolds Phase 1 technical draft report is out and included in the current TAC agenda.
     g) **MUN POTW – Jeanne Chilcott**
        - Monitoring work is complete and being compiled into report + appendices. Alternatives are also being compiled into the write up.
        - Held initial meeting with consultant for CEQA work, in the process of doing scope of work.
     h) **LSJR Committee – Mike Johnson**
        - LWA technical team on task for the first deliverables.
        - A letter has been drafted and being reviewed by committee members outlining specific policy issues LSJR has and would like to discuss with larger group at Nov 13th Ag Workshop. Once approved by committee members the letter will be forwarded to Richard Meyerhoff, Daniel Cozad and Tim Moore.

9) **Set next meeting objectives and date – October 17th Policy Session, November 8th Admin Call.**
CV-SALTS Policy for Recycled Water Policy Planning or Study Areas

Background

CV-SALTS policy issues discussion and determination process in late 2009 and 2010 developed and approved the policy and process to work with SNMP planning areas indicated below. This process with modification is recommended to be used for studies, work plans, and other regulatory requests for review by CV-SALTS or its committees. This is needed as an effective SNMP needs to be aware of any planning being done in the basin and the costs of review and preparation of comments are not insignificant and would otherwise reduce effectiveness of CV-SALTS. Changes to the existing determination are shown below in redline strikeout.

Policy

The CV-SALTS process is the program process the Regional Board has approved for the development of recycled water policy Salt and Nutrient Management Plans (SNMP). Project proponents of any recycled water project for which a SNMP or related study or assessment is beneficial shall work through CV-SALTS (Resolution R5-2010-24). For proponents or stakeholder groups working on projects these programs will be integrated and supported in the following process:

1. Regional Board will refer the proponents to the CV-SALTS Process (Resolution R5-2010-24)\(^1\)
2. SNMP or related study or assessment groups will be coordinated active participants in CV-SALTS and financially participate in the Central Valley Salinity Coalition to support costs for the overall program, for inclusion of the project and to gain the benefits afforded in the eventual basin plan amendments.
3. SNMP groups will propose the area of benefit or impact, where they will be responsible. They will provide a work plan and timetable for the data and planning they are preparing to undertake and will incorporate issues and requirements provided by CV-SALTS in order to integrate their plan into the Basin plan amendment for the region. The workplan will be approved by CV-SALTS with participation from the Regional Board.
4. SNMP or related study or assessment groups who have their SNMP or other plan included in the Regional SNMP will be responsible for all items that are not included in the CV-SALTS Work Plan.
5. SNMP groups will provide regular updates of data and progress the appropriate CV-SALTS committee.
6. A preliminary or draft report will be presented to the appropriate CV-SALTS Committee and include the required information to be integrated into the regional basin plan amendment.
7. SNMP groups will be responsible to implement such projects as required by the timeline in the implementation plan of the basin plan amendment.
8. CV-SALTS commits to integrate the SNMP group projects and plans, where they comply with this policy, into the final Salt and Nitrate Management Plan and incorporate it into the resulting Basin Plan Amendment if all requirements and deadlines are met.

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\(^1\) [http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2010-0024.pdf](http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2010-0024.pdf)
Policy Consensus Determinations

Policy Discussion 1
Spatial Issues – Regional and Subregional Organization - Developed approved 10-29-09

CV-SALTS should seek regional solutions where appropriate and utilize sub-regional programs where needed. Examples of regional and subregional programs are shown below:

Regional programs include Salinity Management Toolbox, Water Quality Criteria, Credit or Trading programs and organization. Examples of sub-regional level programs would be objectives and beneficial uses, data collection and preliminary aggregation. However some regions are more mature in data and salinity orientation than others.

1. Data Collection and Management
What level should CV-SALTS target to collect data and integrate or implement programs? CV-SALTS will seek to collect and aggregate data based on the manner it is managed by sub-regional groups but assign it to a DWR Bulletin 118 basins and sub-basins. The Phase 1 Beneficial Use and Objective Study (BUOS) will identify these basins.

2. Salinity Management Alternative Implementation
Identified salinity control or management alternatives will be implemented where possible in the Integrated Regional Water Management Planning regions, in regions capable of addressing and implementing priority salinity and nutrient management projects. Phase 1 BUOS will show these IRWM boundaries. Where other existing regions are appropriate and the region is willing, coordination to ensure these groups are integrated with IRWM plans will occur. In areas that have no IRWM region or group capable or willing to implement the priority management alternatives, CV-SALTS may work directly with the local agencies or with other partners to fund and implement the projects.

3. Existing Basin Plan Boundaries
The existing basin plans that cover the Central Valley are the Sacramento/San Joaquin and the Tulare Lake. No reason to change these boundaries has been identified at this time. The existing boundaries will be used unless there becomes a reason to change them. The BUOS will identify these basin boundaries. The Committee will review and evaluate gaps in data collection or management alternative implementation areas or areas of overlap to avoid double counting sources and improve implementation.
4. Recycled Water Policy planning areas

The CV-SALTS process is the program process the Regional Board has approved for the development of recycled water policy Salt and Nutrient Management Plans (SNMP). Project proponents of any recycled water project for which a SNMP is beneficial shall work through CV-SALTS (Resolution R5-2010-24). For proponents or stakeholder groups working on projects these programs will be integrated and supported in the following process:

1. Regional Board will refer the proponents to the CV-SALTS Process (Resolution R5-2010-24)
2. SNMP groups will be coordinated active participants in CV-SALTS and financially participate in the Central Valley Salinity Coalition to support costs for the overall program, for inclusion of the project and to gain the benefits afforded in the eventual basin plan amendments.
3. SNMP groups will propose the area of benefit or impact, where they will be responsible. They will provide a work plan and timetable for the data and planning they are preparing to undertake and will incorporate issues and requirements provided by CV-SALTS in order to integrate their plan into the Basin plan amendment for the region. The workplan will be approved by CV-SALTS with participation from the Regional Board.
4. SNMP groups will be responsible for all items that are not included in the CV-SALTS Work Plan.
5. SNMP groups will provide regular updates of data and progress the appropriate CV-SALTS committee.
6. A preliminary or draft report will be presented to the appropriate CV-SALTS Committee and include the required information to be integrated into the regional basin plan amendment.
7. SNMP groups will be responsible to implement such projects as required by the timeline in the implementation plan of the basin plan amendment
8. CV-SALTS commits to integrate the SNMP group projects and plans into the final Salt and Nitrate Management Plan and incorporate it into the resulting Basin Plan Amendment if all requirements and deadlines are met.
Policy Issues for Committee Discussion and Development prior to initiating solutions, alternatives and options studies. Some of the issues are specific to salt or nitrates and are listed in that manner; others address both salt and nitrates. The Executive Committee developed these questions and issues over several months. They are ordered in their perceived priority for discussion, understanding and decisions.

1. **Spatial Salinity Issues** – Should the Committee seek regionally based programs? Existing basin plans combine two of the three basins in one plan. Should planning and implementation be based on basins or sub-basins or smaller areas? If planning is on watersheds/waterbodies/aquifer basis, a large number of component sub-pans might be needed. (Consensus responses are shown on Page 3)

   1. A) What strategy and approach is appropriate for areas with limited salt and nitrate issues, who could be part of the solutions, how do they participate. Are IRWM regions appropriate and do they have institutional capacity to take on this effort? What methods can be used to ensure that upstream users do not impact downstream users either outside or inside of their region? How do we engage upstream regions outside of the CVSalts designated regions?

2. **Antidegradation/Complete Protection vs. Controlled Management** – Where no beneficial uses are directly impaired, must all areas be protected for any reasonable future water use? Or should regulatory flexibility (maximum benefit) provide for the current use of assimilative capacity. What determines the “maximum benefit” for the people of California that would allow for changing water uses? What level of risk to new future uses should the users/beneficiaries accept? Should current users offset or prepay such costs of future treatment? How does anti-backsliding prohibition apply, for surface waters and for groundwater basins?

3. **Point of Compliance** – if it were determined salinity is best managed on a regional basis, where would the point of compliance be? If regulation and compliance is local will it discourage water conservation and regional solutions? How do regional and state benefits work with local limits?

4. **Aggregation and Management** – Should the Committee seek to find locations within and outside the valley, systems, and enterprises suitable for the short or long term aggregation, storage and management of salts?

5. **Transport Corridors** – Should the Committee seek programs and systems throughout the valley where salt can be accumulated, managed and transported for reuse or final disposal (ocean) while not impairing beneficial uses? If found and developed how should they be encouraged, incentivized, regulated and monitored? Should the Committee encourage or promote industry efforts to find alternatives for reuse of salt?

6. **Credits, Offsets or Strict Compliance** – Should the Committee seek to develop systems where regulatory flexibility can be used to allow systems for economic or other incentives or disincentives, to encourage voluntary reductions and market base compliance if it protects beneficial uses at a lower cost than permit by permit compliance? (Committee recommended development of a white paper better explaining the opportunities and needs.)

7. **Interim Targets with Ultimate Goals** – Can a regulatory or non-regulatory program be developed to set interim targets for salinity management levels (preliminary or proforma objectives) and long term “ultimate goals” for management to test what management options are possible? If a non-regulatory program could the region develop management programs that commit to physical solutions for salinity and long term protection of beneficial use where current objectives may not be met?
8. **Salinity, Nitrate and Water Use Areas** – Should it be found that encouraging sustainable water use can lead to significant salinity management improvements should the Committee advocate for policy, grants and infrastructure to support such improvements? Should the committee seek solutions in any or all of these water use areas:
   a. Agricultural
   b. Urban/community
   c. Wetlands/habitat
   d. Others

Which “salt” ions or compounds should be the focus of these programs? Should land based discharge disposal programs be treated differently and have different limits based on site conditions? What about those areas that are natural saline conditions or impacted by previous users?

9. **Temporal Salt Issues** – Who has responsibility for salt and nitrate which entered the environment due to human activities before regulation of salt? Are legacy salts a public (government) responsibility or are others responsible? If government, what level of government, local, regional, state, federal? If others who, on what basis and how will that be established. Who is responsible for salts and nitrate which accumulate in soil and groundwater between the beginning of salt regulation and now? What legal framework is appropriate for this assessment/analysis?

10. **Salinity and Water Supply** – Salinity compliance is frequently concentration based, inherently both volume of water and quantity of salt are critical. Should the committee consider solutions that change source water supply? Should solutions consider quantity of water and expected changes with water conservation? Should the consideration given take into account traditional headwaters to ocean uses and how these have changed over time?

11. **Economics and affordability** – some solutions to salinity will be costly, who pays and how will they pay. What mechanisms can be use to ensure benefits and costs are reasonable and aligned, that parties paying benefit and beneficiaries pay. What level of public funding is appropriate for salinity management? Nitrate Management? Are they different?

12. **Cross Media Issues** – Should the Committee be concerned with cross media, air, toxics, traffic, development impact, climate change, energy conservation, issues? If so do these issues help factor into the maximum benefit demonstration for regional solutions. Are these items only a CEQA issue?

13. **Assets at Risk** – What assets are at risk if salinity and nitrate are not managed? What are the consequences? Who experiences the risk consequences how are they distributed? What is the magnitude of the consequences?

14. **Economic and Public Health Benefits** – Should the Committee consider the short term economic and public health benefits will the public receive from salinity management? How do they compare to the costs of management.

15. **Public Trust** – Should the Committee consider the Public Trust Benefits of salinity management? How would these benefits be quantified and what cost is associated with the benefit. Should this cost be paid differently than other management costs?

16. **Land Use and Salinity** – Should it be found that land use decisions are a significant component of salinity and nitrate management should solutions consider future land use changes, restrictions or incentives for such changes? On what basis should these be assessed? In what manner could this be implemented?
Basin Planning Selected Questions

Beneficial Use

1. Where and how should water quality be assessed to determine whether the water body has attained its designated use? Surface waters, Groundwater
2. Given that upstream discharges must protect downstream beneficial uses, where should water quality be assessed to determine whether it fully protects downstream uses?
3. What evidence is required to demonstrate that a use is not impaired?
4. What evidence is required to demonstrate that a use is impaired?
5. What evidence is required to demonstrate that a discharge will not impair the use?

Assimilative Capacity

6. How should the historical ambient concentrations of TIN & TDS be calculated and validated?
7. How should groundwater basins be defined: hydrologically, geologically, water quality gradients, surface geography, politically, or a combo?
8. Should assimilative capacity be determined on a basin wide, regional, or by sub-basin?
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

RESOLUTION NO. R5-2010-0024

PREPARATION OF SALINITY AND NUTRIENT MANAGEMENT PLANS
PURSUANT TO THE RECYCLED WATER POLICY

WHEREAS, the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board), finds that:

1. On 31 January 2006 the State Water Resources Control Board (State Water Board) and the Central Valley Water Board held a joint workshop to receive information on salinity in the Central Valley.

2. In response to the information received at the workshop, the State Water Board and the Central Valley Water Board have initiated the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative. The goal of this project is to develop a salinity and nitrate management plan for the Central Valley that will be implemented through amendments to the Water Quality Control Plans (Basin Plans).

3. The State Water Board and Central Valley Water Board established a CV-SALTS Leadership Group to take to lead in raising funds and preparing the salinity and nitrate management plan. In October 2006, the Leadership Group held its first meeting and established four committees to conduct work between the annual meetings.

4. The four committees meet regularly and are compromised of the Executive Committee, Technical Advisory Committee, Economic and Social Impact Committee, and the Public Education and Outreach Committee. These committees have been meeting on a regular basis since early 2007.

5. Committee members represent government agencies, non-government agencies, industry, consultants, and other interested parties working together to develop a salinity and nitrate management plan for the Central Valley. Committee meetings are open to all who wish to attend.

6. In 2008 the Central Valley Salinity Coalition (CVSC) was formed as a non-profit member organization that works to organize, facilitate, and collect funding for efforts needed to complete the Basin Plan amendment work and efficiently manage salinity and nitrates in the Central Valley.

7. The State Water Board, the Central Valley Water Board and the CVSC have signed a Memorandum of Agreement to memorialize understandings regarding the representation and governance of CV-SALTS; coordination of salinity management, regulatory and planning efforts in and affecting the Central Valley Region; and funding for CV-SALTS projects.

9. The Policy calls for local water and wastewater entities, together with local salt and nutrient contributing stakeholders, to fund and control a collaborative process open to all stakeholders to prepare salt and nutrient management plans protective of groundwater within their basins within 5 years. These plans will be submitted to the Regional Water Boards and elements of the plans will be incorporated into the Basin Plans, as appropriate.

10. The approach selected by the CV-SALTS initiative is consistent with the Policy to ensure coordination and consistency in the development of management plans within the Central Valley. To ensure coordination and consistency of planning and in order to avoid duplication of efforts and conserve resources, parties interested in developing plans pursuant to the Policy should work through the CV-SALTS initiative process.

THEREFORE, BE IT RESOLVED that:

1. The Central Valley Water Board expects parties developing salinity and nutrient management plans pursuant to the Policy to conduct the work in conjunction with the CV-SALTS Initiative. The Central Valley Water Board additionally expects that any salinity and nutrient management plan considered for approval by the Board will have been reviewed by the CV-SALTS Executive Committee. The Central Valley Water Board will consider any comments or recommendations from the CV-SALTS Executive Committee prior to making a decision regarding any salinity and nutrient management plan submitted for Board approval.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Valley Region on 18 March 2010.

original signed by

PAMELA C. CREEDON, Executive Officer
Summary of CV-SALTS CEQA Scoping Session Comments/Questions
During October 2013 Public Workshops in
Modesto (10/10); Rancho Cordova (10/16); Colusa (10/21); Fresno (10/28)

Anti-Degradation
- Does Anti-degradation apply to groundwater as well as surface water? (Modesto)
- Are there clear guidelines on how to do an anti-deg analysis? (Modesto)
- Has the board has provided guidance to staff on anti-degradation analysis and maximum benefit
determination? (Fresno)
- Is there potential that anti-degradation may not be attainable in some areas? (Colusa)
- Is there a standardized method of determining “maximum benefit”? (Colusa)
- Can you consider “economic vitality” as part of “maximum benefit”? (Colusa)

Categorizing Water Bodies
- Does the Board know how many natural tributaries, streams, etc. are out there and currently
un-designated? Knowing that there are thousands it would make sense to break it down into
some type of management zones. (Rancho Cordova)
- Would it make more sense to classify groundwater basins on a smaller scale than traditional
hydrologic basins? (Colusa)

Beneficial Uses
- MUN: What are examples of a limited use (Rancho Cordova)
- AGR: Are there any cases where there has been impairment due to salt? (Colusa)
- AGR: Imperial Valley is evaluating impacts on their basin from Colorado River imports. (Colusa)
- AGR: Flushing salts is a reasonable beneficial use of water. (Colusa)

Water Quality Objectives
- MUN: If Secondary MCLs apply to raw water, do all supplies need to be treated for salt? (Rancho Cordova)
- MUN: Is there any other criteria that could be used as water quality objectives for other
categories of MUN (Modesto)
- AGR: Aren’t there currently areas where background salinity exceeds 700 umhos/cm? (Modesto)
- AGR: During a recent study evaluating water quality in 70-irrigation wells, found that more than
EC needed to be addressed to protect ag (e.g. pH, carbonate and interactions between
chemicals). Current approach appears limited if only looking at EC/TDS. (Modesto)
- AGR: Natural groundwater background ranges from 300-1600 EC and higher. Permitted waste
water currently being used on crops can contain 2800-3000 EC. How is this apparent regulatory
discrepancy resolved? (Modesto)
- AGR: What is the current AGR narrative objective and how might it change? (Colusa)
- AGR: Reuse has been occurring for decades in the Colusa Basin Drainage area. Coordination
occurs between districts and anything under 1000-EC appears OK. Re-use is beneficial. Worried
that farming will end or will eliminate discharges to lower farms (or from lower farms) if the
current water quality objective enforced. (Colusa)
- AGR: A single number doesn’t represent reality. Need some flexibility, especially during
drought conditions or when trying to maximize water conservation. (Colusa)
• AGR: Like a two sided coin, need good supply but still need to drain. Need to find a manageable balance that allows water reuse and conservation without impacting neighbors. (Colusa)
• What is driving the discussion about stock watering? Does the Board have to set level of protection for stock watering no matter what the percentage of use? (Fresno)

Alternative Compliance Utilizing Groundwater Assimilative Capacity
• Question zeroed in on issue of impacted zone. Questioner said that antideg cannot be done because the zone is already impacted. Had a very hard time understanding the concept of moving the point of compliance. (Rancho Cordova)
• Commenter “doesn’t see how changing the point of compliance is consistent with antideg and porter cologne” (Rancho Cordova)
• Is “this” (use of assimilative capacity to measure compliance) even legal? Did not think that dilution was an allowable Beneficial Use. (Fresno)
• “This” is a potential way to incentivize ways to provide clean water to impacted wells. (Fresno)
• Would the proposal to use assimilative capacity come from a Management Zone to Board? (Fresno)
• Sustainability of salt is important, especially in the San Joaquin River Basin, where current numbers can’t be met at the end of a drain/field. Ag is evaluating assimilative capacity of the river through Real-Time Management activities. (Colusa)
• How did the concept of assimilative capacity work in the Santa Ana Basin? (Colusa)

Alternative Compliance Strategies
• Commenter who has worked on SNMPs in RB1 and RB2 said they had found recycled water was a very small contributor of salt. Recommended that we don’t limit the idea or approach of sources of salt. (Imported water and private sources such as septic systems, landscaping) (Rancho Cordova)
• What’s the incentive to utilize alternatives? Where’s the monetary benefit? (Colusa)

Regulatory Process
• What are the constituents covered by “salt”—e.g. is perchlorate covered? (Rancho Cordova)
• Concern that by setting up alternative compliance strategies for “only salt” that other dischargers of other types of constituents would be regulated to a different level. Would like to see the alternative compliance strategies apply for other constituents. (Rancho Cordova)
• Endorse this “holistic” approach and caution that regulatory “tools” are not the best approach. (Colusa)
• How do we deal with past liabilities (in the groundwater)? Current activities and potential improvements may not be observed for decades. Who is liable for past practices? (Colusa)

General Comments
• Each question and issue could encompass a full day or more of discussion. How can we even respond and comment right now? (Modesto)
  • Response at meeting was to note that detailed discussions on these topics are occurring at the CV-SALTS Executive Committee meetings which are open to the public. The comment period on the potential project components is also open until December 31, 2013.
• Where does the current Irrigated Lands Regulatory Program fit in? That program appears to be utilizing flexibility/alternatives that don’t seem to fit the command and control model described. The monitoring and research studies already appear to serve as a variance. (Modesto)

• How can you protect groundwater and still have agriculture? Is there a priority rating that indicates which is more important? (Modesto)

• The project appears to focus on how do we add more salt or provide regulatory relief (Rancho Cordova)

• The communities that are facing degraded drinking water today are not going to be receptive to a project that appears focused on regulatory relief. (Rancho Cordova)

• CV-SALTS goals (maintain Ag, etc.) appear to get lost in the details of the proposed project. (Rancho Cordova)

• Intent of the project should be to allow regulated community to have the flexibility to come up with their own decisions on how to sustainably manage salt/nitrate in their area. (Colusa)

• Don’t lose sight of unintended consequences. Hanford had arsenic for years with no apparent impact to population (concentrations below criteria at the time). When Department of Public Health lowered arsenic MCL, Hanford had to drill deeper wells. Now arsenic meets drinking water criteria but trees and landscaping in the city are dying due to higher salt and boron levels from deeper wells. (Fresno)

• Have there been any studies on how many cows an area can support to prevent nitrate contamination? Referenced Belgium or Netherlands studies. (Fresno)

• Are other regions handling assimilative capacity the same way? (Fresno)

• If assimilative capacity concept in groundwater is found to be inappropriate how will “it” (contamination, discharge, recycling, etc.) be handled? (Fresno)

• How is this CEQA process going to be handled will there be an EIR developed or will it be an FED (Functional Equivalent Document—now known as a Substitute Environmental Document)? (Fresno)

• When will the SED (substitute environmental document) be completed? (Modesto)

• Throughout the presentation there is mention of “Long Term Sustainability” what is the time frame being considered for “long term”? (Fresno)

• If guidance developed is not included in an actual basin plan amendment that guidance should go through an approval process to avoid the perception of underground regulations. (Fresno)

• Don’t forget to evaluate the benefits of salt accumulating plants as a means to remove salt from the basins (e.g. as feed for stock outside of the Central Valley). (Modesto)

• Have there been any studies on removing salt through harvestable crops? (Colusa)

• Will the developed SNMP be absorbed into the Basin Plan or be a stand-alone “plan”? (Colusa)

• What considerations are being given to future issues and changes? How do we know that what is considered OK today won’t change in 20-yrs? What if something better is developed? (Colusa)

• Would flexibility be removed if a plan is put into a Basin Plan (e.g. Santa Ana example)? (Colusa)

Cost

• How much is this project costing and where is the money coming from? (Colusa)
• Seems like an expensive project. The effort should be funded through a general fund (State funded). Dischargers need to know how much the plan will cost in the future (e.g. to implement). (Colusa)
• Need to balance the costs of overly conservative regulation with the cost of efforts to try to bring more sense to the process. There is a laundry list of issues that this project is trying to address. (Colusa)
• Existing rules are worse than the proposed alternatives. (Colusa)
• Costs should be determined by who is causing issues—apportioned. What kind of allotment of costs has been considered? (Colusa)
• What are the boundaries of the economic analysis going to be? (Colusa)
CV-SALTS Summary Accomplishments and Next Steps

In February 2012, the stakeholder lead Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative updated its strategy and workplan for developing a Central Valley-wide Salt and Nitrate Management Plan (SNMP). The workplan identified several needed policy decisions as well as the technical work necessary to inform both the policies and potential implementation alternatives. CV-SALTS has completed several of the workplan items, is in-progress on many more and has identified a timeline to insure thorough economic and environmental review of proposed alternatives. Four California Environmental Quality Act (CEQA) Scoping meetings were held during October 2013, to solicit comments on potential components of a Central Valley SNMP. Additional outreach includes annual updates to the State Water Board and annual workshops for the Central Valley Water Board.

The following section identifies completed, ongoing and upcoming activities. Figure 1, Figure 2 and Table 1, provide the overall project timeline, the activities and timeline of key technical components, and the budget for the effort, respectively. Attachment A summarizes the major technical projects.

Policy Discussions

Completed

✓ Application of Secondary MCLs to protect MUN
✓ Conceptual regulatory framework for protection of AGR
✓ Principles for calculating background water quality and assimilative capacity
✓ Management Zone Concept
✓ Potential alternative compliance strategies
✓ Description of existing regulations and policies that determine salt and nitrate management—benefits and limitations

Ongoing

o Further delineation of surface water bodies and/or groundwater basins to increase regulatory flexibility and facilitate management zone implementation
 o Decision tree for interpreting narrative AGR water quality objective
 o Surface water and groundwater distinctions related to protection of AGR
 o Appropriate application of Sources of Drinking Water Policy (88-63)
 o Water recycling and stormwater recharge/use goals and objectives
 o Maximum benefit guidance
 o Drought considerations

Technical Efforts

Completed

✓ Pilot salt source identification/interaction studies covering 14% of the Central Valley;
  o Evaluation of completeness of the three studies conducted in the Sacramento, San Joaquin, and Tulare Basins;
✓ Preliminary framework for standardizing future salt source studies;
✓ Pilot studies for desalinization and containment alternatives
✓ Screening mechanism for management practices in order to develop a validated “toolbox” to support industry in reducing salt and nitrate impacts;
✓ Technical recommendations regarding use of modeling tools to develop site specific salinity objectives to protect irrigated agriculture;
✓ Technical review of salinity and nitrate water quality criteria and recommendations to protect stock watering;
✓ Salinity water quality criteria review for aquatic life;
✓ White paper on salinity and nitrate impacts on municipal and domestic supply;
✓ White paper on salinity impacts on irrigated agriculture;
✓ GIS database and beneficial use maps for the Central Valley and Delta (coordinated with State Water Board effort);
✓ Initial salinity/nitrate conceptual model (ICM) compiled data; source/fate; initial background and trend analysis for 23 analyses zones; and
✓ Phase 1 Strategic Salt Accumulation and land Transport Study (SSALTS) characterization of existing salt management strategies.

Ongoing
- Management zone based evaluation of appropriate salinity water quality objectives to protect irrigated agriculture;
- Phase II Conceptual Model: refine calculations for background, assimilative capacity and trend; focused management zone study
- SSALTS Phase 2: In-valley, out-of-valley, and combination salt management strategies;
- Case studies to ground-truth policy and implementation recommendations (in progress):
  - Appropriate application and protection of municipal and domestic supply in agriculturally dominated surface water bodies (Publicly Owned Treatment Works receiving waters in the Sacramento River Basin);
  - Appropriate application and protection of municipal and domestic supply in a portion of the unconfined aquifer within the Tulare Lake Bed;
  - Lower San Joaquin River salinity and boron water quality objectives and implementation program; and
  - Early implementation project to provide safe drinking water for disadvantaged community

✓ Upcoming
- Phase III Conceptual Model: monitoring plan, preliminary draft technical SNMP; environmental and economic analysis of alternatives
- Draft SNMP

Summerized CV-SALTS Worplan Schedule

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## Budget Table 1.

### CV-SALTS Programmatic Budget, Fund Source and Contract Status

**Amended Approved 7/9/13**

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### Notes/Legend

* Scope/Cost Not Included in February 2012 workplan for this task
** TPM paid by CVSC in 2014-15
*** Stakeholder funding from MUN POTW participants $60K and up to $55K from CVSC member direct contributions plus up to $75K CVSC contribution

Gray text indicated completed task or project

Area subject to future outside CV-SALTS approvals
Technical Projects Supporting Central Valley-wide Salt and Nitrate Management Plan

Conceptual Model Development

Salt and Nitrate Sources Pilot Implementation Study - The Salt and Nitrate Sources Pilot Implementation Study ("Pilot Study") was the precursor to what is now described as the development of a Conceptual Model for the Central Valley. The primary objective of the Pilot Study was to develop a methodology and provide guidance for development of the Salt/Nutrient Management Plan for the Central Valley. Specifically, the project developed and documented methods to fairly and equitably quantify salt and nitrate sources. These methods were then pilot tested in selected Central Valley areas to evaluate their appropriateness for region-wide application. Following completion of the Pilot Study, CV-SALTS developed A Framework for Salt/Nitrate Source Identification Studies based on the findings from the Pilot Study. Status: Project was completed in February 2010.

Initial Conceptual Model (ICM) - Development of the ICM is the first phase of a planned 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 and detailed analyses in two selected subareas of the Central Valley. The 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 refine the findings from the ICM and develop the SNMP which includes preparation of a salt/nitrate program of implementation and completion of regulatory analyses to support adoption of the SNMP into the Basin Plan. Status: Project was initiated in September 2012 with completion of all tasks expected in October 2013.

Phase 2 Conceptual Model - 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 (to be completed in October 2013). This project will build off the findings of the ICM to begin development of a draft SNMP for the Central Valley. Work on this phase is expected to be initiated in October 2013. Scope of work elements are expected to include refinements to the analyses completed under the ICM Project, development of salt and nitrate data analysis methods to support regulatory decisions, implementation of an archetype or pilot analysis to evaluate salt and/or nitrate management options at a management zone scale, and preparation of the first drafts of the technical elements of the SNMP. Status: Project is planned for initiation October 2013 with completion expected in June 2014.

Phase 3 Conceptual Model - 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 (to be completed in October 2013) and refined under the CV-SALTS' Phase 2 Conceptual Model project. This project will build off the work completed under Phase 2 and focus on completion of regulatory-related analyses and preparation of documentation to support adoption of the SNMP into the Basin Plan. Status: Project is planned for initiation after June 2014.

Data Development Projects

GIS Services - Phase 1 Beneficial Use & Objectives Study (BUOS) - CV-SALTS began data gathering and Geographic Information System (GIS) development efforts through the implementation of the Phase 1 BUOS. This project included three tasks: (a) identification of existing and potential beneficial uses in the Central Valley which included development of GIS mapping layers showing beneficial use categories assigned to surface water and groundwaters; (b) compilation of data for use in the development of the beneficial use map layers; and (c) completion of a literature
review of criteria related to salt and nutrients and protection of various beneficial uses. Status: Project was completed in September 2010

**GIS Services – Phase 2** - 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. Status: Project initiated in September 2012; planned for completion in October 2013.

**GIS Services – Agricultural Zone Mapping** - CV-SALTS has initiated a GIS project to develop map layers of agricultural-related data to support development and implementation of water quality objectives to protect waters used for agricultural irrigation. Data layers to be incorporated into the CV-SALTS geodatabase include agricultural-related jurisdictional boundaries, soil characteristics, irrigation supply sources, water quality, historic and current cropping patterns, and other data as appropriate. These data layers will be used to identify potential Crop Sensitivity Zones (CSZs) based on similar hydrologic and hydrogeologic conditions, cropping patterns, management practices, and other factors related to crop sensitivity to salinity. This project is currently planned to occur in two phases. Phase 1 deliverables include (a) data development and preparation of GIS map layers; (b) identification of up to 25 CSZs for the Central Valley; and (c) test of the proposed methodology to determine the applied water sensitivity threshold (AWST) in one of the CSZs. Phase 2 will be the continuation of the effort to determine AWSTs for the remaining delineated CSZs. Prior to initiation of Phase 2, the findings from Phase 1, including the proposed methodology to determine AWSTs, will be evaluated with stakeholders to ensure the procedures for defining CSZs and AWSTs are aligned with CV-SALTS policy development. Status: Project implemented February 2013; Phase 1 completion is expected in Fall 2013; Phase 2 schedule is to be determined.

**Beneficial Use Designation Studies**

**Tulare Lake Bed MUN Archetype** - 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) and other environmental characteristics. Through this activity, a portion of the Tulare Lake Bed groundwater basin has been identified as an area that appears to meet the exemption criteria set forth in the SDWP. Accordingly, CV-SALTS initiated technical studies and basin planning activities in collaboration with the Tulare Lake Drainage District 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 a MUN use on a groundwater body. Status: Project initiated in September 2012; completion expected in Fall 2014.

**MUN Beneficial Use in Agriculturally Dominated Water Bodies Archetype** - 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 surface and groundwater bodies unless they are specifically listed in a Basin Plan as water bodies that are not designated with MUN. Recent court findings have confirmed that to utilize exceptions identified in Resolution 88-63, for constructed and modified natural channels used to transport agricultural drainage, a basin plan amendment is required. The CV-SALTS initiative has identified the need to evaluate the appropriate designation and 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 are serving 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 throughout the Central Valley. Status: Project initiated in the latter part of 2011; completion expected in 2015.

**Water Quality Objectives Review**

**Aquatic Life Study** - CV-SALTS is implementing a study to identify potential water quality criteria that could 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 technical recommendations for adoption of salinity-related water quality objectives to protect aquatic life. Status: Project initiated in December 2012; completion expected in Fall 2013

**Stock Watering Study** - 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. Status: Project was initiated in January 2012; completed May 2013.

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

**Salinity Effects on MUN-related Uses of Water** - 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. 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 technical review; final White Paper will be prepared following completion of technical reviews.
Water Quality Objectives Review and Implementation Planning

**Lower San Joaquin River Committee** – The LSJR Committee was established in 2010 as a subcommittee of the CV-SALTS Initiative. Operating as a subcommittee of the CV-SALTS Executive Committee, the LSJR Committee is developing recommendations for updated salt and boron objectives, and an implementation plan to support those objectives. Members of the committee are stakeholders in the LSJR Watershed with an interest in the management of salt. Committee members represent municipalities, irrigated agriculture, food processors, irrigation districts, and state and federal agencies. The committee has completed a review of beneficial uses for the portion of the LSJR between the Merced River and Vernalis and is currently evaluating alternative water quality objectives that would be protective of municipal and domestic supply, irrigated agriculture, stock watering and aquatic life. The current workplan anticipates a proposed Basin Plan Amendment during 2015.

Implementation Planning

**The Economic Impacts of Central Valley Salinity** - The purpose of this study was to measure the economic impacts of increasing salinity in the Central Valley out to the year 2030. To conduct the analysis, the project team assumed that there would be no change in current salt management policies; as such, the findings from the analysis represented the economic impacts associated with taking no action. The study was conducted on an aggregate valley-wide basis that averaged salinity effects and costs. Based on estimates of increasing levels of salinity under existing conditions, the study estimated the direct economic effects on industry, residential, food processing, confined animal operations, and irrigated agricultural production in the Central Valley using different physical and economic models. Status: Project was completed in 2009.

**Strategic Salt Accumulation Land and Transport Study (SSALTS)** - CV-SALTS is implementing 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. Status: Project was initiated in December 2012. Phases 1, 2 and 3 of the SSALTS Project are expected to be complete in October 2013, January 2013, and May 2014, respectively.

More Information on Projects and Current Activities at:
www.cvsalinity.org
WHEREAS, the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board), finds that:

1. On 31 January 2006, the State Water Resources Control Board (State Water Board) and the Central Valley Water Board held a joint workshop to receive information on salinity in the Central Valley.

2. In response to the information received at the workshop, the State Water Board and the Central Valley Water Board have initiated the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative. The goal of this project is to develop a salinity and nitrate management plan for the Central Valley that will be implemented through amendments to the Water Quality Control Plans (Basin Plans).

3. The State Water Board and Central Valley Water Board established a CV-SALTS Leadership Group to take the lead in raising funds and preparing the salinity and nitrate management plan. In October 2006, the Leadership Group held its first meeting and established four committees to conduct work between Leadership Group meetings.

4. The four committees are comprised of the Executive Committee, Technical Advisory Committee, Economic and Social Impact Committee, and Public Education and Outreach Committee. The Executive Committee is the decision making body for the initiative and has met regularly since 2007.

5. Committee members represent government agencies, non-government agencies, industry, consultants, and other interested parties working together to develop a salinity and nitrate management plan for the Central Valley. Committee meetings are open to all who wish to attend.

6. In 2008, the Central Valley Salinity Coalition (CVSC) was formed as a non-profit member organization that works to organize, facilitate, and collect funding for efforts needed to complete the Basin Plan amendment work and efficiently manage salinity and nitrates in the Central Valley.

7. The State Water Board, the Central Valley Water Board, and the CVSC have signed a Memorandum of Agreement to memorialize understandings regarding the representation and governance of CV-SALTS; coordination of salinity management, regulatory and planning efforts in and affecting the Central Valley Region; and funding for CV-SALTS projects.

8. On 3 February 2009, the State Water Board adopted the Recycled Water Policy, Resolution No. 2009-0011 (Policy). The Policy became effective on 14 May 2009 after the regulatory provisions were approved by the California Office of Administrative Law.
9. The Policy calls for the preparation of salt and nutrient management plans for each basin/sub-basin in California by 14 May 2014. The Policy states that these plans shall be developed by locally driven and controlled collaborative processes that will be open to all stakeholders and that will be funded by local water and wastewater entities and local salt and nutrient contributing stakeholders. These plans will be submitted to the Regional Water Boards, and elements of the plans will be incorporated into the Basin Plans as appropriate.

10. The Policy states that, “[s]alt and nutrient plans shall be completed and proposed to the Regional Water Board within five years from the date of this Policy unless a Regional Water Board finds that the stakeholders are making substantial progress towards completion of a plan. In no case shall the period for the completion of a plan exceed seven years.”

11. The approach selected by the CV-SALTS initiative is consistent with the Policy to ensure coordination and consistency in the development of management plans within the Central Valley.

12. On 17 March 2009, the State Water Board adopted Resolution No. 2009-0023, which allocated $1.2-million from the State Water Pollution Cleanup and Abatement Account (CAA) to the Central Valley Water Board in support of the first of three phases identified for the development of a salinity and nutrient management plan for the Central Valley. Release of additional funding for the second and third phases of the project would be contingent upon the Central Valley Water Board annually demonstrating sufficient progress in implementing the project and developing outside stakeholder support and funding.

13. On 18 March 2010, the Central Valley Water Board adopted Resolution No. R5-2010-0024. Resolution No. R5-2010-0024 clarifies that, in order to ensure coordination and consistency of planning, and in order to avoid duplication of efforts and conserve resources, parties developing salinity and nutrient management plans pursuant to the Policy shall conduct the work in conjunction with the CV-SALTS initiative and have the resulting plans reviewed by the CV-SALTS Executive Committee prior to consideration by the Central Valley Water Board.

14. On 7 September 2010, the State Water Board adopted Resolution No. 2010-0042, which allocated $3.8 million from the CAA to fund the second and third phases of a Central Valley salinity and nutrient management plan. Phase 2 funding was allocated at $2.0 million, and Phase 3 funding was allocated at $1.8 million. The continued availability of the funds requires the Central Valley Water Board to provide an annual progress report at a publicly noticed State Water Board hearing and requires that the State Water Board find that the Central Valley Water Board has demonstrated sufficient progress toward implementation of the project.

15. On 12 June 2012, the first of the annual Central Valley Water Board workshops was conducted to highlight the updated project strategy and workplan, to provide information on ongoing policy discussions and technical projects, and to discuss the anticipated timeline and budget for completion of the effort.
16. On 4 December 2012, the State Water Board adopted Resolution No. 2012-0066, allocating the final $1.8 million for the project based on a finding of sufficient progress in implementing the development of a Central Valley salt and nutrient management plan.

17. The available CAA funding is being utilized as seed money for the overall CV-SALTS initiative and is being matched by stakeholder monetary and in-kind contributions.

18. On 6 December 2013, a Central Valley Water Board workshop was conducted to provide updates on the technical activities, anticipated timeline and budget of the CV-SALTS effort.

19. At the 6 December 2013 workshop, the Central Valley Water Board found that CV-SALTS has made substantial progress toward the completion of a Central Valley salt and nitrate management plan.

THEREFORE, BE IT RESOLVED that:

1. The Central Valley Water Board finds that the stakeholders are making substantial progress towards completion of a salt and nitrate management plan for the Central Valley Region.

2. The Central Valley Water Board finds that a two year extension, until 14 May 2016, is warranted for the CV-SALTS initiative to finalize and propose a Central Valley Salt and Nitrate Management Plan (SNMP) pursuant to section 6(b)1(d) of the Recycled Water Policy. The SNMP submitted shall include the following components:
   - A basin/sub-basin wide monitoring plan,
   - Water recycling and stormwater recharge/use goals and objectives,
   - Salt and nitrate source/fate/transport identification,
   - Basin/sub-basin assimilative capacity and loading estimates,
   - Implementation measures to manage salt and nitrate loading on a sustainable basis, and
   - An anti-degradation analysis demonstrating that the projects included within the plan will, collectively, satisfy the requirements of State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California.

I, PAMELA C. CREEDON, Executive Officer do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Valley Region on 6 December 2013.

PAMELA C. CREEDON, Executive Officer
Agenda Item #6: CV-SALTS Executive Committee Meeting 8 November 2013

Item : Royal Mountain King Mine Basin Plan Amendment

Central Valley Water Board staff has prepared a draft Basin Plan Amendment (Draft BPA) to address regulatory issues associated with the closure of the Royal Mountain King Mine gold mine (RMKM Site), which is located in western Calaveras County. Land uses in the area surrounding the 2,100-acre RMKM Site include ranching, agriculture, rural residential development, and recreation.

Three large pits were excavated at the RMKM Site between 1989 and 1994, and two of these pits filled with water after mining operations ceased. The third pit was backfilled and became one of three overburden disposal sites (ODS) where mining waste rock and overburden are emplaced. In total, the three ODSs contain around 50 million tons of material.

Prior to 2001, the Central Valley Water Board did not require the ODSs to have containment features such as impermeable covers or liners. However, in March 2001, the Central Valley Water Board required that a cover be installed as part of the closure of the ODSs because groundwater data indicated that the ODSs were contributing TDS, sulfate, and other inorganic salts to groundwater. The Central Valley Water Board’s action was then petitioned to the State Water Board. The State Water Board found that a cover should not be required for the ODSs, because “[a]lthough discharges from RMKM facilities have negatively affected groundwater at some locations, groundwater quality was highly variable and often poor under natural conditions.” The State Water Board then directed the Central Valley Water Board to find “alternate means of complying with applicable legal requirements for mine closure and cleanup.” Among the alternatives suggested by the State Water Board was the de-designation of certain beneficial uses of groundwater.

With financial support from the discharger (Meridian Beartrack Company), Central Valley Water Board staff developed the Draft BPA. The Draft BPA proposes to remove the MUN beneficial use designation in areas of the RMKM Site where groundwater quality does not support, or is not likely to support, this use, primarily due to naturally high concentrations of TDS and other constituents found in groundwater. This area is where levels of total dissolved solids exceed 3,000 mg/L, underneath the waste management units that have not already been closed, and immediately down-gradient of those units. After considering the adoption of a site-specific objective for the AGR use, the Draft BPA instead proposes to de-designate the AGR use in an area that is co-extensive with the area where MUN will be de-designated, as these areas are not likely to support AGR uses as well. The Draft BPA also proposes to establish a variance for the industrial service supply (IND) and industrial process supply (PRO) beneficial uses for certain constituents, which reflects high concentrations of these constituents that are found in groundwater. Since the MUN de-designation goes beyond the Sources of Drinking Water Policy Exception Criteria, the State Water Board proposes a site-specific amendment to the Sources of Drinking Water Policy.

The Central Valley Water Board will also require Meridian to continue to implement its current groundwater management strategy in order to ensure that any existing water quality impacts do not spread. The groundwater management strategy consists of:

- Pumping surfacing groundwater from seepage collection sumps at the toes of the waste management units to the downgradient pit lake.
- Maintaining the lowest practicable water surface elevation in the most downgradient pit lake, with the only surface discharge point being governed by NPDES permit (which requires Meridian to essentially operate this lake as a groundwater sink).
- Monitoring water quality in the groundwater immediately surrounding the area where beneficial uses will be de-designated in order to ensure that statistically significant degradation will not occur outside of these areas.
Technical Project Status Updates – as of November 5, 2013

• **ICM Study**
  o Final Report submitted to Project Committee on September 13; no additional comments received
  o Final Report will be posted to the CV-SALTS website

• **Phase II Conceptual Model**
  o LWA under contract to prepare the project workplan
  o Draft workplan will be submitted November 11 for review
  o Draft workplan will be discussed at November 15 TAC meeting
  o Written comments will be due by COB November 22

• **Agricultural Zone Mapping**
  o Draft 5.1/5.2 Report reviewed and commented on by PC
  o Workshop on November 13 with Ag Community regarding report findings and discuss alternatives for moving forward in context of ongoing AGR policy discussions

• **Aquatic Life Study**
  o Received a few comments on the Final Report
  o Comments provided to David Buchwalter and being addressed

• **Tulare Lake Bed Archetype**
  o Revised draft technical report reviewed; prepared summary for Tulare Lake Drainage District regarding where additional information was needed to be fully responsive to comments on the draft report
  o Next step will be a meeting with Water Board staff to discuss revised draft report and review how their comments were addressed

• **SSALTS**
  o Comment/response to Draft Phase 1 Report included teleconferences with stakeholders where requested
  o Comments received on Phase 1 Draft Report have been incorporated into the Final Report
  o Have request out to verify no other comments expected; posting of the Final Report dependent on outcome of this request
  o Next Steps
    ▪ Phase 2 – Develop and characterize potential salt disposal alternatives (in-valley, out-of-valley, hybrid)
    ▪ Phase 3 – Evaluate and prioritize salt disposal alternatives to identify acceptable alternatives for implementation (based on agree upon feasibility screening criteria and feasibility analysis)
  o Intended project outcome – Acceptable Central Valley salt disposal alternatives for inclusion as implementation measures in the SNMP