

# CV-SALTS Executive Committee Meeting

November 15, 2011 10:00 AM to 12:00 PM

Teleconference Only

(218) 339-4600 Code: 927571#

Posted 11-5-11

## Meeting Objectives:

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

## AGENDA

### 1) Welcome and Introductions Chair

- a) Review/Approve [October 19, 2011 notes](#) – 2 min
- b) Committee Roll Call and [Membership Roster](#)

### 2) 2011 CV-SALTS Progress Milestones Status Updated – Daniel Cozad - 5 min

Action: Review and discuss

### 3) CV-SALTS Executive Committee Policy Discussions and Decisions – Daniel Cozad - 5 min

Action: Review and discuss

### 4) Mgt. Practice Subcomm - Effective Management Practice Evaluation - Parry Klassen – 20 min

Action: Consider and approve document

### 5) Technical Project Management: Task Approval Prioritization – Michael Steiger - 20 min

Action: Discuss and Consider Approval of Prioritization Developed by “Small Group”

### 6) CV-SALTS Implementation Planning Outline for Discussion - Daniel Cozad- 20 min

Action: Discuss and identify long term implementation needs, funding & monitoring

### 7) State Board Hearing on CV-SALTS Progress-Winter 2011 –Jeanne Chilcott– 20 min

Action: Review CV-SALTS Annual Report to State Board & identify representatives to attend December hearing

### 8) IRWM Draft Letter and Call for Projects – Daniel Cozad – 10 min

Action: Discuss and Approve letter

### 9) Set next meeting objectives/date (November 17, 2011) and December conference call date

Review Schedule of Policy Discussions and other meetings - 10 min

*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](http://www.cvsalinity.org)*

# CV-SALTS Executive Committee Meeting

October 19, 2011 10:00 AM to 12:00 PM

Teleconference Only

(218) 339-4600 Code: 927571#

**Attendees are listed on the Membership Roster**

## AGENDA

### 1) Welcome and Introductions Chair

- The meeting was brought to order by Chair, Parry Klassen.
- a. Jeff Willett moved to approve, and Nigel Quinn seconded, and by general acclamation the September 13, 2011 meeting action notes were approved
- b. Roll call was completed.

### 2) City of Davis Salinity Study Workplan – Recommendation Letter

- The committee reviewed the Technical Advisory Committee letter dated October 4, 2011. The letter specified three policy issues that needed to be considered and indicated the Executive Committee would “provide recommendations in a future letter.” After some discussion on Debbie Webster’s concern regarding when the policy discussions and decisions pertaining to these recommendations would actually take place, the committee addressed this item in two parts.
  - Jeff Willett moved, and Nigel Quinn seconded, and by general acclamation the letter was approved as written.
  - For further policy discussion purposes a copy of the letter was added as an addendum to the agenda for the October 20<sup>th</sup> Executive Committee Policy Session.

### 3) 2011 CV-SALTS Progress Milestones Status – Updated Status and Program Funding

- Daniel Cozad reviewed current status of individual milestones and program funding.
  - The target for completion of the 5-Year Work Plan is still projected for Nov-Dec.
  - Daniel and David Cory have been working on an Implementation Planning draft that will be incorporated as an agenda item in the November Executive Committee Administrative Call.
  - Daniel indicated it was the ideal time to reach out again to the IRWM groups and will be preparing a letter, also to be incorporated into the November Administrative agenda. This communication is planned to go out to the IRWM groups right after the November Administrative Call.
  - Prior to the end of the year the original selection committee will be reconvened to review the scope and progress for the renewal of the projects for program administration and policy discussions.
  - Daniel reminded the committee that he needs the completed contribution forms back as soon as possible. He has received the cost information from Vacaville and Tulare Lake.

### 4) Technical Project Management: Budget Status and Task Prioritization

- Michael Steiger reviewed the monthly budget update. Currently out of \$205,000 authorized to be spent, \$43,198 (21%) has been expended as of 10/13/11 in the following 4 areas: Assist with 5-Yr Work Plan, Manage Central Valley Conceptual Model, Assist with Management Strategies, Assist with Basin Plan Amendments, Meetings, General Management.
- To facilitate task prioritization it was decided that a small group would be formed to preview and refine the working schedule prior to presentation to the full Executive Committee. Proposed group members are: Daniel Cozad, David Cory, Jeanne Chilcott,

Parry Klassen, Nigel Quinn, Linda Dorn and/or Debbie Webster, and Dennis Westcot or Karna Harrigfeld.

5) State Board Hearing on CV-SALTS Progress-Winter 2011

- Jeanne Chilcott reviewed the draft presentation to be presented to the State Board. The presentation has been rescheduled from November 15<sup>th</sup> to December 6<sup>th</sup>. The committee was able to review and provided edits.
- Jeanne pointed out that the funding data showed that stakeholders have funded 86% of the effort to date. However she expressed a concern that future projections show stakeholder funding remaining static, and cautioned that primary reliance on Cleanup and Abatement funds would be of concern to the State Board. Parry Klassen indicated that the coalition would discuss reinstating the fundraising subcommittee.
- The presentation draft concludes with a September 2011 – May 2014 projected timeline. Per David Cory the draft will be reviewed at the coalition meeting and input forwarded to Jeanne.
- Jeanne requested that a discussion be held during the November Administrative Call to determine who will attend the December 6<sup>th</sup> State Board meeting.

6) Cleanup & Abatement Fund Status Update

- Per Jeanne Chilcott the 3.8 million dollar contract has gone through all in-house approvals, and is with the SJVDA for signature and they should have the contract in 10-14 days. Pam Buford has been instrumental in getting it through the system.

7) Set next meeting objectives and date (October 20, 2011) and conference call date

- The next Administrative Conference Call date was set for November 15<sup>th</sup> at 10:00 AM.

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**CV-SALTS Committee Rosters**

| Executive Committee Membership |                                       |                  | CV-SALTS Executive Committee Meetings During 2011 |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
|--------------------------------|---------------------------------------|------------------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--|
| Voters                         | Category/Stakeholder Group            | Name             | 20-Jan  | 10-Feb | 17-Mar | 12-Apr | 22-Apr | 12-May | 24-May | 16-Jun | 23-Jun | 21-Jul | 9-Aug | 13-Sep | 15-Sep | 19-Oct | 20-Oct | 17-Nov | 15-Dec |  |
| <b>Leadership Partners</b>     |                                       |                  |   |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
| 1                              | Central Valley Water Board            | Pamela Creedon   |   | ✓      | ✓      |        | ✓      | ✓      |        | ✓      |        | ✓      |       | ✓      | ✓      | ✓      | ✓      |        |        |  |
| Alt                            | Central Valley Water Board            | Jeanne Chilcott  |   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      |        |        | ✓      | ✓     | ✓      | ✓      | ✓      | ✓      |        |        |  |
| 2                              | State Water Resources Control Bd.     | Darrin Polhemus  | ✓   | ✓      | ✓      | ✓      |        | ✓      |        | ✓      |        | ✓      |       |        |        |        |        |        |        |  |
| 3                              | Department of Water Resources         | Jose Faria       | ✓   |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
| Alt                            | Department of Water Resources         | Ernie Taylor     | ✓   |        | ✓      | ✓      |        | ✓      |        |        | ✓      | ✓      | ✓     | ✓      | ✓      |        |        |        |        |  |
| 4                              | US Bureau of Reclamation              | Jobaid Kabir     | ✓   | ✓      | ✓      | ✓      | ✓      | ✓      |        | ✓      |        | ✓      | ✓     | ✓      | ✓      |        |        |        |        |  |
| 5                              | Environmental Justice                 | TBD              |   |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
| 6                              | Environmental Water Quality           | TBD              |   |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
| <b>CV Salinity Coalition</b>   |                                       |                  |   |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
| 1                              | CASA                                  | Bobbi Larson     |   |        | ✓      | ✓      | ✓      |        |        | ✓      |        |        |       |        |        |        | ✓      |        |        |  |
| 2                              | County of San Joaquin                 | Mel Lytle        |   |        |        |        |        |        |        |        |        | ✓      |       |        |        |        |        |        |        |  |
| Alt                            | County of San Joaquin                 | Brandon Nakagawa |   |        |        |        |        |        |        |        | ✓      |        |       |        |        |        |        |        |        |  |
| 3                              | CVCWA                                 | Debbie Webster   | ✓   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      |        | ✓     | ✓      | ✓      |        |        |        |        |  |
| 4                              | City of Fresno                        | Steve Hogg       | ✓   |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
| 5                              | CA League of Food Processors          | Trudi Hughes     |   | ✓      | ✓      | ✓      | ✓      | ✓      |        |        |        |        | ✓     | ✓      |        | ✓      |        |        |        |  |
| Alt                            | CA League of Food Processors          | Rob Neenan       |   |        |        | ✓      | ✓      | ✓      |        |        | ✓      | ✓      |       |        | ✓      |        |        |        |        |  |
| 6                              | Wine Institute                        | Tim Schmelzer    | ✓   | ✓      |        |        |        | ✓      | ✓      | ✓      |        |        |       |        |        | ✓      | ✓      |        |        |  |
| Alt                            | Wine Institute                        | Chris Savage     |   |        |        |        |        |        |        |        |        | ✓      |       |        |        |        | ✓      |        |        |  |
| 7                              | City of Tracy                         | Steve Bailey     | ✓   |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
| 8                              | Sacramento Regional CSD               | Linda Dorn       | ✓   | ✓      | ✓      |        |        |        |        |        |        |        | ✓     | ✓      |        | ✓      | ✓      |        |        |  |
| 9                              | San Joaquin River Group               | Dennis Westcot   | ✓   | ✓      |        | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      |       | ✓      |        |        |        |        |        |  |
| 10                             | City of Modesto                       | Gary DeJesus     | ✓   |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
| 11                             | California Rice Commission            | Tim Johnson      |   |        |        | ✓      | ✓      | ✓      |        | ✓      |        | ✓      |       |        | ✓      |        | ✓      |        |        |  |
| 12                             | City of Manteca                       | Phil Govea       |   |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
| 13                             | Tulare Lake Drainage/Storage District | Mike Nordstrom   | ✓   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓     | ✓      | ✓      |        |        |        |        |  |
| Alt                            | Tulare Lake Drainage/Storage District | Doug Davis       |   |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
| 14                             | Stockton East Water District          | Karna Harrigfeld | ✓   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓     | ✓      | ✓      | ✓      | ✓      |        |        |  |
| 15                             | Western Plant Health Association      | Renee Pinel      | ✓   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓     | ✓      | ✓      | ✓      | ✓      |        |        |  |
| 16                             | City of Vacaville                     | Royce Cunningham | ✓   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓     | ✓      | ✓      | ✓      | ✓      |        |        |  |
| <b>Comm. Chairs/Co-chairs</b>  |                                       |                  |   |        |        |        |        |        |        |        |        |        |       |        |        |        |        |        |        |  |
| 1                              | Chair Executive Committee             | Parry Klassen    |   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓     | ✓      | ✓      | ✓      | ✓      | ✓      |        |  |
| 2                              | Vice Chair Executive Committee        | Jeff Willett     | ✓   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓     | ✓      | ✓      | ✓      | ✓      | ✓      |        |  |
| *                              | Technical Advisory Committee          | Robert Tassey    |   |        |        |        |        |        |        | ✓      |        | ✓      |       |        | ✓      | ✓      | ✓      |        |        |  |
| 3                              | Technical Advisory Committee          | Nigel Quinn, LBL | ✓   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓     | ✓      | ✓      | ✓      | ✓      | ✓      |        |  |
| 4                              | Public Education and Outreach         | Joe DiGiorgio    | ✓   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓     | ✓      | ✓      | ✓      | ✓      | ✓      |        |  |
| 5                              | Economic and Social Cost Committee    | David Cory       |   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓     | ✓      | ✓      | ✓      | ✓      | ✓      |        |  |

\* = Already votes as Leadership or Coalition member

**Participants also identified for 10/20:**

- \_\_\_\_\_ Pam Buford, CVRWQCB
- \_\_\_\_\_ Karl Longley, CSU Fresno
- \_\_\_\_\_ Michael Steiger, EKI
- \_\_\_\_\_ Andy Safford, EKI
- \_\_\_\_\_ Jean-Pierre, J.P., Cativiela, Dairy
- \_\_\_\_\_ Tom Grovhoug, LWA
- \_\_\_\_\_ Paul Martin, W.U.D.
- \_\_\_\_\_ Rik Rasmussen, SWRCB
- \_\_\_\_\_ Jennifer Clary, CWA
- \_\_\_\_\_ Tess Dunham, Somach
- \_\_\_\_\_
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**Past Participants:**

- |                                 |  |  |
|---------------------------------|--|--|
| Tom Griffith, Envirotech        | Stephen McCord, LWA                    | Cindy Paulson, CUWA                            |
| John Herrick                    | Erica DeHollan, LA C                   | Geoff Anderson, DWR                            |
| Katy Walsh                      | Andy Malone, Wildermuth Env.           | Dan Odenweller, RWQCB                          |
| Mark Gowdy, SWRCB, Water Rights | Chad Dibble, CDFG                      | Danny Merkely, California Farm Bureau          |
| Betty Yee, RWQCB                | David Miller, GEI Consultants          | Emily Alejandrino/Jim Martin, CVRWQCB          |
| Claus Suverkrupp, LWA           | Gary Carlton, Kennedy Jenks            | Emily Robidart Rooney, Ag Council              |
|                                 | Jamil Ibrahim, MWH Global              | Gail Cismowski, CVRWQCB                        |
|                                 | Jay Simi, CVRWQCB                      | Jenny Skrel, Ironhouse Sanitary District       |
|                                 | Jodi Pontureri, SWRCB                  | Erick Althorp SSJWQC                           |
|                                 | Mark Larsen, Kaweah Delta WCD          | Mark Dorman, Rainsoft Water PWQA               |
|                                 | Lou Dambrosio, TWG                     | Mark Felton, Culligan Water and PWQA           |
|                                 | Bruce Houdesheldt, NCWA/Sac Valley WQC | Fern Wilson, City of Vacaville                 |
|                                 | Stan Dean, SRCS D                      | Rick Staggs, City of Fresno                    |
|                                 | Melanie Thomson, CUWA                  | Robert Chrobak and Stuart Childs Kennedy/Jenks |
|                                 | Gene Lee, Reclamation                  | Ron Crites, Brown and Caldwell                 |
|                                 |  | Lou Regenmorter, CDM                           |

**2011 CV-SALTS MILESTONES –Version 3 Approved 2/10/11**  
 (Technical Progress will be Measured Against Updated Workplan) Status as of 11/1/11

| <b>Month</b>      | <b>Activity</b>  | <b>Status/Target</b>  |
|-------------------|--|---|
| February          | Program Manager in place to conduct overall management, facilitation and administrative activities for the effort  | Completed   |
| February          | Leadership meeting to obtain feedback on overall direction and goals of CV-SALTS   | Completed   |
| April             | Framework developed for salt/nitrate identification studies (Assess the validity of the salt source survey pilot studies. If the approaches need modification, identify the adjustments that will be made to make the approach useful in the rest of the region.) [from Knowledge Gained Subcommittee]   | Completed   |
| May               | Technical Project Manager Team in place to insure technical tasks needed to complete effort accomplished on time and on budget – scope in March, Procurement April, Award in May   | Completed   |
| June              | Develop interim recommended review process for identifying Best Practical Treatment or Control for salinity and nitrate (screening tool) [from the Management Practice Subcommittee]   | Document submit to Exec in Nov.   |
| July              | FINAL updated strategy including policy and framework  | Policy work Underway<br>Framework to follow policy  |
| August            | FINAL updated workplan containing the following elements <ul style="list-style-type: none"> <li>✓ Five Year Critical Path:               <ul style="list-style-type: none"> <li>○ Work to be performed, timelines, deliverables and budget by task number based on confirmed project funding leading to Salinity-Nitrate Management Plan and Basin Plan Amendment language</li> <li>○ Unfunded work (with estimated cost) that would improve the final product</li> <li>○ Milestones to insure timely progress</li> <li>○ Five-year funding plan</li> </ul> </li> <li>✓ Identify needs for long term implementation               <ul style="list-style-type: none"> <li>○ Activities</li> <li>○ Continuous funding mechanism</li> <li>○ Integrated monitoring system</li> </ul> </li> </ul> | Revise Based on Decisions in Policy discussions with the Scope from TPM in December<br><br>Preliminary Scope for Implementation study to address options December |
| September         | Develop a process for coordinating with RWMG planning and implementation projects with a nexus with salt or nutrient management, and other ongoing efforts on salinity management  | Outreach Letter and Project Call November   |
| September         | Identify administrative and technical program needs that could be met through in-kind services rather than financial contributions   | Solicit contribution to identified project in December  |
| June and December | Prepare semiannual (June and December) status reports on funding and progress toward completing work plan tasks  | June Completed<br>December  |
| December          | Contracts for completing tasks included in the 5-year workplan have been awarded or are developed and pending approval.  | Projected based on scope in January based on SOQ review   |

# CV-SALTS Executive Committee

## Policy Discussions and Decisions

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

- 1) There is a need and an obligation to develop a Salt and Nitrate Management Plan (SNMP) to protect the beneficial use of surface and ground waters throughout the Central Valley region.
- 2) Development of an effective SNMP presumes that appropriate beneficial uses have been assigned to each waterbody.
- 3) In some cases, the MUN use that is presumed to apply to all surface and ground waters in the region may not be appropriate and more fitting uses should be designated.
- 4) Rather than attempt to identify and remedy each instance where the presumptive MUN use may not apply, it is more cost-effective to develop a semi-standardized procedure based on a few select cases to serve as "proof-of-concept" archetypes for the CV region.
- 5) The archetypical examples should be selected based on the following criteria: (a) regulatory urgency - pending NPDES permit actions depend on accurate use designation; (b) regulatory simplicity - the example meets one or more of the state's exemption criteria; (c) regulatory utility - the facts in each case are widely applicable to similar situations elsewhere in the region; (d) regulatory cost - existing data and documentation minimizes the expected cost to make the necessary demonstrations.
- 6) Based on the aforementioned criteria, the Executive Committee suggests that the following cases (and related receiving waters) should be considered for use as "proof-of-concept" archetypes in order of priority: (a) Live Oak, (b) Willows, (c) Colusa, and (d) Biggs.
- 7) The Regional Board is already preparing a proposed work plan for one or more of the waterbodies identified above. The Executive Committee appointed a subcommittee to help develop appropriate technical elements for these work plans. The subcommittee was asked to streamline the process by applying the previous lessons learned from recent experiences in Old Alamo Creek and in Sulfur Creek. Members of the

subcommittee include: Debbie Webster, David Cory, Tess Dunham, Tom Grovhoug, Tim Johnson and others who may wish to serve.

- 8) The findings and results of these technical studies will be used to support appropriate basin plan amendments and will be incorporated into the SNMP. In addition, the process and procedures described in the work plans will serve as a template to guide similar studies in the future.
- 9) The Executive Committee also recommends that the aquifer underlying the historic Tulare Lake bed serve as the archetypical example for evaluating the appropriateness of a MUN designation based solely on naturally-elevated TDS concentrations in a ground water basin. The Tulare Lake Drainage District (TLDD) has completed extensive prior studies of the area. CV-SALTS will work closely with TLDD and the Regional Board staff to determine what additional information may be required to qualify this aquifer for an exception to the state Sources of Drinking Water Policy (88-63).
- 10) Just as there are waterbodies previously presumed to be MUN that may be incapable of serving that beneficial use, there are also waterbodies where the MUN use is already occurring but where existing water quality is not protecting that use. This is particularly true in small rural communities where nitrate concentrations exceed safe drinking water standards. Therefore, an effective SNMP must provide both near-term and long-term strategies to address this problem.
- 11) To demonstrate the credibility and effectiveness of the collaborative process, CV-SALTS is committed to early implementation efforts for the SNMP. CV-SALTS will work with the Regional Board and various NGOs to identify economically-disadvantaged communities where excess nitrate levels severely impair the local drinking water supply. CV-SALTS will provide technical/engineering expertise and grant-writing assistance to accelerate project design and construction. In addition, CV-SALTS will review the current system of regulatory incentives and impediments to recommend critical changes as part of the SNMP.
- 12) The Executive Committee has tasked EKI, with assistance from CDM, to develop more detailed Scopes-of-Work (including schedule and budget estimates) to execute the tasks described above. Some of these efforts, such as those related to developing surface water archetypes for evaluating the MUN designation, will be funded jointly through state grant funds and matching contributions from the Salinity Coalition. Other tasks, principally those focused on providing technical assistance to economically-disadvantaged communities will be funded solely by members of the Salinity Coalition.
- 13) Once accepted, the Executive Committee will work with Regional Board staff to solicit qualified contractors to provide the services defined in the detailed Scopes-of-Work. The goal is to begin these efforts in early 2012 and complete them by the end of that same year.

- 14) In a parallel effort, timed to coincide with the tasks described above, the Technical Committee and the Knowledge-Gained Subcommittee are developing a Conceptual Model and Approach for the CV-SNMP. A contract Scope-of-Work is expected shortly.

# CV-SALTS Management Practice Subcommittee

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## *Effective Management Practices Evaluation for Salt and Nitrate* **Version-10**

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(Recommended for Approval by Technical and Executive Committees)

The Management Practice Subcommittee's (Subcommittee) charter is to assist CV-SALTS to improve salt and nitrate management through industry and community management practices, identifying and screening the management practices to improve implementation and monitoring of results. This document is part of the Management Practice Document Review developed in 2010 and 2011. This approach and process draw from others used to review stormwater<sup>1</sup> and water conservation practice and criteria.<sup>2</sup>

### **1 Management Practice Review Approach**

At the recommendation of the CV-SALTS Committees or in accordance with the sector schedule below the Subcommittee will evaluate a management practices in accordance with the following process and standards. These standards will be used to screen management practices for inclusion in a "toolbox" of Effective or Beneficial Management Practices, generally referred to as Management Practices (MPs) in this document. These MPs have been vetted in the CV-SALTS process to assist others in reducing salinity and nitrate. This "toolbox" of MPs provides a range of new and existing MP options, their documented effectiveness, expected reductions, current status of implementation and cost when available. The listed practices provide early implementation opportunities and the basis to recommend reasonable implementation requirements for the Basin Plan Amendment. In addition, the "toolbox" identifies new technology and innovative practices that may provide further improvement and flexibility.

#### **1.1 Products**

A brief description of the products of the Subcommittee's efforts are described in the following sections.

##### **1.1.1 Screening Tool**

The Subcommittee uses the enclosed procedure and standards along with a related Nomination Form to evaluate the presence of adequate evidence and information to characterize the utility and efficacy of MP's to reduce or manage salt components and nitrates. The purpose of the screening tool and standards is to assist in the review of the scientific and monitoring documentation, not to perform that assessment or certify a practice for purposes other than those evaluated. The use of the screening tool requires that the Subcommittee (or help available to it) be able to understand the information provided

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<sup>1</sup> International Stormwater BMP Database Performance evaluation  
<http://www.bmpdatabase.org/MonitoringEval.htm#PerformanceEval>

<sup>2</sup> California Urban Water Conservation Example BMP Development <http://cuwcc.org/resource-center/technical-resources/bmp3-resources.aspx> EPA WaterSense Program Criteria  
[http://www.epa.gov/watersense/about\\_us/watersense\\_label.html](http://www.epa.gov/watersense/about_us/watersense_label.html)

not necessarily be experts in the scientific area or the region it is being applied. The screening tool Nomination Form will result in practices added to the “toolbox”. The screening process will rely on groups, industries, and practice proponents to nominate and complete the nomination form and supporting information for evaluation. This process will be described in the sections below.

### 1.1.2 Toolbox of Practices

The Management Practice Subcommittee will utilize volunteers and technical support available to it to review and evaluate MPs that reduce salt constituents and nitrates of relevance to the Central Valley. Initially the “toolbox” may be a reviewed set of electronic documents for each practice with supporting materials. Later, as the number and diversity of practices increase, the “toolbox” format will likely need to become more sophisticated to facilitate its use. The “toolbox” and the practices were extensively discussed among the Subcommittee members.

The Subcommittee identified the best use of the “toolbox” as a source of documented and validated practices that regulated entities could use to develop their management plans for salinity and nitrate for both voluntary action and Regional Board consideration as part of the permittees plan or other regulatory programs.

A factsheet or summary technical document should be prepared for practices accepted into the “toolbox” so that potential users can easily evaluate the practices for their own use. Other examples of “toolbox” development include the Stormwater BMP Manual<sup>3</sup> and the Salinity Guideline<sup>4</sup>. The Subcommittee however wants to ensure that users of the “toolbox” understand the need to evaluate any practice for their own application. Additionally, regulatory programs and permits should not inappropriately default to the “toolbox” as a requirement for any specific facility or location. Dischargers will be able to take advantage of the information developed on the treatment and control options provided in the “toolbox”, but the “toolbox” will not limit their options. Any discharger that wants to use an alternative approach to manage salt or nitrate will be able to submit information that will be evaluated by the same process the committee followed when creating the “toolbox”. This consistency will provide the discharger and Regional Board a clear understanding of how nominated practices perform relative to practices documented in the “toolbox”.

## 2 Process

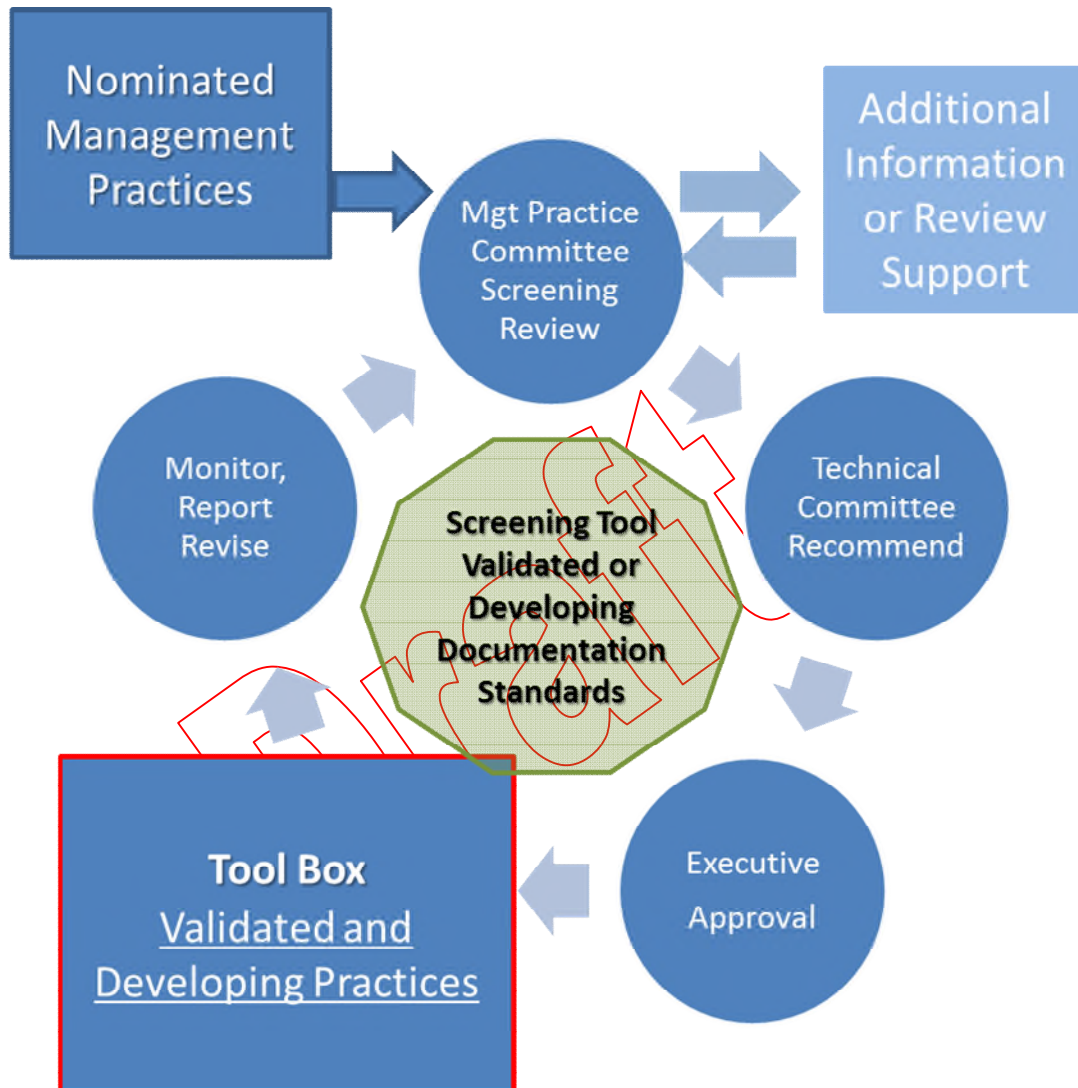
The process for documenting new or developing practices and validated practices differ. The new and developing and validated practices are described in section 3 of this document. The process for each is summarized below (additional details or modifications may be made by the Subcommittee). After a call for and nomination of practices by an industry, the practices will be evaluated for acceptance in the “toolbox” with the screening tool, or further information and study may be requested and developed, as needed. . The Subcommittee may then recommend to the Executive Committee that the practice be included (or not) in the toolbox.

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<sup>3</sup> Stormwater Best Management Practice Handbooks, California Stormwater Quality Association, 2003, on the web at <http://www.cabmphandbooks.com/>

<sup>4</sup> Salinity Management Guide, National Water Resources Institute, 2008 on the web at <http://www.salinitymanagement.org/>

Figure 1 Process Diagram



The Subcommittee will likely request support from the Technical Project Manager or contract for support or consulting entities where their support is needed to develop documentation. The Subcommittee will also propose projects for grant support or coordination with other efforts where this is consistent with MP development goals.

## 2.1 Sector Review Schedule

The Pilot Salt and Nitrate Source Implementation Study<sup>5</sup> identified sources of salt. Each significant source of salt shown in the report will be scheduled for review. Review priority will be based on salt and nitrate loading that was reported in the pilot implementation study. This initial list and prioritization is intended as a guideline, and should not result in exclusion of unlisted sources. The list will be reviewed and revised as needed by the Subcommittee. Industries or communities which have prepared MP

<sup>5</sup> Salt and Nitrate Source Identification Pilot Implementation Study, 2010 Central Valley Salinity Coalition and Larry Walker Associates on the web at <http://cvsalinity.org/index.php/component/content/article/18-events/60-admin>

documents may request to be reviewed ahead of schedule, subject to Subcommittee approval. The Subcommittee will establish the final schedule for review of practices and technologies in each sector, at a pace that is manageable but that reviews BMPs from all significant source before implementation plan development. The Call Dates shown below are set to allow 2-3 months for preparation and review of the MPs before the next is called. As processes are reviewed, the common BMPs will be reviewed for consistent assumptions and completeness. When a practice's effectiveness is obvious based on readily-available information, it may be recommended for approval by the Executive Committee with less rigorous review or scientific study. The Waterboards will assist with the calls for practices via their Lyris List for CV-SALTS and other related groups.

| <b>Source</b>  | <b>Call Date</b> |
|--|------------------|
| 1. Pilot Implementation candidates-Significant sources | November 2011    |
| 2. Surface Drinking and Irrigation Water               | January 2012     |
| 3. Groundwater Drinking and Irrigation Water           | January 2012     |
| 4. Irrigated agriculture/Fertilizer                    | January 2012     |
| 5. Non-point source/stormwater                         | May 2012         |
| 6. Wetlands  | May 2012         |
| 7. Wastewater/Industrial dischargers                   | May 2012         |
| 8. Food processing industries                          | October 2012     |
| 9. Wastewater/Residential dischargers                  | October 2012     |
| 10. Dairy and CAFO                                     | October 2012     |
| 11. Water treatment and softening                      | January 2013     |
| 12. Septic tank discharges                             | January 2013     |
| 13. Other point sources and discharges to land         | January 2013     |
| 14. Atmospheric deposition and other sources           | May 2013         |

Nominations provided will undergo a preliminary review to be sure the documentation is adequately complete for review. This initial review will include data on use of the practice in field implementation, or recommendation by an industry association, farm advisor, public agency, a disinterested user of the practice in the Central Valley or recommendation from a Subcommittee member. Review of practices is limited to the capacity of the Subcommittee and its resources.

## 2.2 Conflicts

Because the Subcommittee has an active role in the review and recommendation for approval of MPs, the credibility of the process relies on member's objectivity. Members will disclose any potential conflicts of interest to the Co-Chairs of the Subcommittee who may ask them to recuse themselves from practices where the member has a direct or indirect personal financial interest.

## 2.3 Committee Test Run

Subcommittee members performed a "test run" of the screening tool and Nomination Form to identify gaps in the tool and to better understand the level of effort that will be required to complete the review. This review took place in summer 2011. Parry Klassen, Linda Dorn and Debbie Webster provided practices to screen from Ag and wastewater treatment industries.

## 2.4 Committee Pilot Testing

As the Subcommittee continues developing the screening tool and toolbox the Subcommittee may prepare a technical scope of work for pilot implementation of the screening tool on several practices.

This testing will expand on the reviews completed by the committee in the “test run” and help improve the screening tool and “toolbox” as well as help to determine the cost of the review process. The Pilot Test was encouraged to include a broader variety of practices, including physical change projects and outreach or management projects, in order to better explore diverse practices.

## 2.5 Consultant Scope of Work

After pilot testing, the committee may recommend broader application through a scope of work for larger scale review of practices for the “toolbox”.

## 3 Practice Types

To simplify review and inclusion in the “toolbox” the MPs have been separated into three types: validated practices, new or developing practices, and indirect or policy practices. All three types of practices may be included in the “toolbox” if they meet the standards provided in section 4.0 as screened in the tool. Each type of practice represents a different stage or expectation for the documentation and analysis. Additionally, practice types may characterize single practices or sets of practices that address salt, nitrate, or both. Additional types of practices, or practice variants, may be developed in the future. Validated practices are intended to be a “high bar” for completely validated practices. Most other practices will fall into the developing category. Developing practices require additional evaluation and monitoring before they can be validated.

### 3.1 Validated Practices

MPs for which information shown in Attachment 1 (to be developed by the Subcommittee) is available should be submitted under the validated practices category. The standards (described in Section 4) for effectiveness and field implementation should be met by documentation including scientific studies (university research, trade research publications, other technical literature), by monitoring results, or by some other verifiable evidence. These practices will allow the greatest implementation flexibility and lowest monitoring requirements. Attachment 1 will provide the information and evaluation framework and formats for information to be submitted. The result will be a compendium of information concerning the practice or action that makes it amenable to implementation (inclusion in the “toolbox”).

MPs that have been evaluated by other Best Management Practice programs acceptable to the Subcommittee may be submitted in their existing formats provided they contain equivalent information.

### 3.2 New or Developing Practices

Many MPs to address salt and nitrate are new or documentation is still being developed, demonstrated or validated. The identification of a practice as new or developing should not detract from its perceived effectiveness or value, but only indicates its status of implementation and review. New or developing practices will not have all documentation under the standards section and will not generally have monitoring necessary for full validation. When practices characterized as new or developing it may be anticipated that additional monitoring or information may need to be provided by implementing industries or communities for it to be considered a fully validated practice.

### 3.3 Indirect or Policy Practices

Another grouping of practices includes practices that are deemed appropriate or necessary, that may not directly impact salt or nitrates in the environment, and for which the only possible quantification of

impact may be a general estimate. For these practices, inclusion in the “toolbox” will be based on industry recommendations or regulatory requirements or where they are a clear adjunct to other practices. Examples of such practices may include public outreach to improve awareness of urban and rural water users, or economic incentives (e.g., rate structures and fees) to reduce salt and nitrate releases. When salt and nitrate load reductions cannot be reliably estimated, cost effectiveness of the practice may be impossible to determine.

## **4 Standards**

Screening of practices requires review of their effectiveness in reducing salt and nitrate in the system. If a practice is demonstrated as superior to general current practices for salt and nitrate management, and meets other (e.g., cost, feasibility) criteria, then it warrants consideration for the “toolbox”. General practice is defined as the unregulated or unimproved baseline. Industries that previously or voluntarily reduced salt or nitrate discharges will not be penalized for such leadership. MPs in this document are defined as beneficial or effective at management of salt and nutrients. The demonstration of Best Practices may be highly situational or impossible to determine before practices are implemented and monitored in several locations. The Subcommittee will further develop screening standards to provide additional detail on standards, as needed. The Screening of nominations uses the following standards. The nominator of the practice shall provide readily available documentation of the practice relative to each are of the Nomination Form (Attachment 3). The standards discussion in this section includes the directions to reviewers in reviewing the evaluating a nomination. The Nomination Form has corresponding instructions for those completing the form.

### **4.1 Technical Effectiveness – does it work?**

Demonstrating technical effectiveness is critical for a MP to be implemented and accepted by industry or communities. Reviewers will look for evidence of technical effectiveness as demonstrated by lab, pilot and evaluated demonstration studies. The documentation should indicate the practice removes, destroys, manages or otherwise reduces negative impacts to beneficial uses from salt and nutrient constituents or otherwise assists with compliance or improvement of the waters of the valley for these constituents.

### **4.2 Implementability – can it be used broadly?**

Implementability includes both feasibility as well as well as broad applicability. In most cases, satisfactory implementability is demonstrated by documentation of the use of the MP by a significant portion of the sector and considers other issues related to cost and efficiency covered in other sections.

### **4.3 Benefits and Impacts**

In evaluating the implementability of MPs the Subcommittee should consider the benefits and impacts of the MP. Have the benefits and impacts been acceptably quantified? Do the benefits appear to outweigh identified negative impacts of its implementation?

Additionally, the Subcommittee should consider cross-media impacts, such as impacts to air quality, water supply, energy consumption and other water quality constituents. The ideal practices are effective on salt and nutrient constituents and have few or minimal impacts to other areas.

Reviewers should look for MPs that reduce any detrimental effect to other media while achieving the goals of the MP. These should be identified and any impact quantified if possible.

#### **4.4 Cost effectiveness – is it economic to implement today?**

Cost effectiveness is critical to being an effective best practice. Low efficiency costly practices are not likely to be broadly implemented. High value practices will likely be implemented with minimal regulatory encouragement. Reviewers assessment of effectiveness related to cost is not always a simple as dollars per ton of salt or pound of nitrate, often costs include a technically trained workforce to implement, operate and maintain the practices. Additionally, this may vary across industry and across regions. The cost effectiveness should strive to take into account all benefits to the entity implementing the practice as well as direct and indirect cost of implementation. In other words not just the technology but the impacts on quality of the product or preparation or disposal of wastes and other potential cross media impacts. These costs should evaluate life cycle benefits and costs of implementations and societal and environmental benefits and costs, when possible.

The ideal practice nomination will provide information on the practices costs on an industry appropriate unit basis such as, per acre, per acre foot, per million gallons, per ton or etc. so it may be compared.

#### **4.5 Monitoring – proving it works?**

Reviewers should evaluate both the ability to monitor as well as the length and breadth of the monitoring history as a part of screening. Monitoring during the implementation stage may be greater in developing practices than fully validated practices that have already identified critical monitoring parameters for implementation and operations.

#### **4.6 Other Regulatory or Non-Regulatory Approvals**

CV-SALTS, as an option, may be able to utilize prior validation work performed by Regional Water Quality Control Boards (Regional Water Board) and State Water Resources Control Board (State Water Board) collectively Waterboards, Department of Public Health, building codes or other accreditation groups for validation. Where appropriate this should be done to reduce the cost and delays associated with duplication of validation. Cost effectiveness of the MP should still be evaluated.

Additionally, in cases where a practice is obvious, broadly implemented and effective it may be recommended with less rigorous review or scientific study for approval by the Executive Committee.

## **5 Management Practice Toolbox**

The Subcommittee will establish and update a list of MPs for each sector in the form of a “toolbox”. The “toolbox” will change as more information is reviewed and may also be used to track MPs, alternatives and technologies. The list will be maintained by the Subcommittee and Central Valley Salinity Coalition (CVSC). The “toolbox” will be available on the [cvsalinity.org](http://cvsalinity.org) website and facilitate tracking the status of evaluation, verification, and monitoring. The Preliminary list of practices is shown as Attachment 2; this list will be updated or replaced as the “toolbox” is developed by the Subcommittee.

## 6 CV-SALTS Management Practice or Technology Presentations

MPs and Technologies that warrant recommendation for approval by the CV-SALTS Technical Committee and Executive Committee will have been reviewed according to the processes described previously. Recommended items will have been found to merit wider application to CV-SALTS stakeholders. Technologies warranting recommendation should have been monitored during several pilot deployments to demonstrate effectiveness. Exceptions may be granted by the Subcommittee for practices that show special promise or at the request of the Executive Committee. Executive or Technical Committee members may recommend practices for Subcommittee consideration at the next regularly scheduled meeting.

Vendors or technology proponents who wish to have specific practices evaluated for inclusion in the “toolbox” should contact the Central Valley Salinity Coalition or the Subcommittee Chair. Nominations provided will undergo a preliminary review to be sure the documentation is adequately complete for review. This initial review will include data on use of the practice in field implementation, or recommendation by an industry association, farm advisor, public agency, a disinterested user of the practice in the Central Valley or recommendation from a Subcommittee member. Review of practices is limited to the capacity of the Subcommittee and its resources.

DRAFT

# Attachment 1

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**This attachment provides information on the review of MPs for inclusion in the CV-SALTS “toolbox” for reductions in salt and nitrate that are significant to the Central Valley.**

## **Screening Process**

The Subcommittee will use the evaluation framework process in Section 2 and standards in Section 4 to review MP documentation submitted on the Nomination Form in Attachment 3 or alternatively provided as industry collections of MPs.

1. Industry nomination or source or sector call for nominations request
2. Formatting for screening by nominator or tech support using the Nomination Form or alternate format acceptable to the Subcommittee.
3. Initial review for completeness and appropriateness for review
4. Assessment of submitted data by Subcommittee and additional info/expert review, if needed
5. MP Subcommittee and Technical Committee recommend practices
6. Executive Committee Approves and Toolbox is updated
7. Practice Implementation, Operations and Maintenance, Monitoring, Reporting
8. Revision, if needed and review

This is also shown in Figure 1 in Section 2.

The Subcommittee developed the Nomination Form with brief instructions for users shown in Attachment 3 to ensure nominated practices meet the standards presented in section 4.0.

# Attachment 2

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A preliminary list of potential MPs to manage salt and nitrate as suggested by the subcommittee is listed below for development of the scope of the Pilot Testing of the screening process: **THIS LIST IS TO BE REVISED BY THE SUBCOMMITTEE IN THE 11/21/11 MEETING WITH THE TECHNICAL PROJECT MANAGER.**

1. Nitrogen/Nutrient Management by well testing for leaching of nutrients to groundwater
2. Soil testing for accurate nutrient fertilization (Ag)
3. Selected Sustainable Growing Practices, (Almond Board) – Parry or others
4. Selected Dairy Practices - Dairy CARES/ JP or Paul
5. Nitrate removal from drinking water by fluidized bed reactor technology (TBD)
6. Selective pumping of well water without TDS via insitu membrane filtration/RO (TBD)
7. KOCl substitution for NaOCl use in cleaning and processes (Tom - Enviro Tech)
- 8.
- 9.
- 10.

Potential Practices (listed to promote discussion only, not as nominations to prioritize)

1. Irrigation efficiency/reduce irrigation – Reduce salts imported with water or from groundwater
2. Tailwater reuse/drainage recirculation – reduced discharged of salt
3. Growing salt tolerant crops – reduced imported water while maintaining production
4. Evaporation ponds, solar evaporators – isolates the salt to allow management
5. Salt separation and utilization – fractionate and create products for reuse or sale
6. Drain water and brackish water desalination- Isolates salt for management
7. Detergent reformulation - source control
8. Industrial biomass and brine management – isolates salts and potentially reuses salts
9. Reduce imported feed for CAFO's – reduces salt import from feed sources
10. Reduce seepage from brine conveyance - reduces dissolution of salt from soils
11. Industrial salt source reduction/reuse – reduces salts for production
12. Increase export of salt containing products - exports salt unless salt is imported for products
13. Increase salt export in surface waters leaving the region
14. Increase outdoor landscape irrigation efficiency – reduces imported water/groundwater use
15. Increase indoor water use efficiency – reduces imported water and groundwater use
16. Reduce water softening need or shift to ocean disposal of brine – reduces residential salt source
17. Local salt collection and disposal – Disposal and removal from basins
18. Increase salt discharge at EBMUD – ocean discharge and removal from basins
19. Salt collection and treatment (ocean qualified brine) for ocean discharge and removal
20. Deep well injection for storage and recovery of salts – Removal of salt from basins, with recovery when economic

# Attachment 3

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MP Screening Nomination Form is located at:

[http://cvsalinity.org/index.php/procurement/doc\\_download/728-bmp-screening-nomination-form-v3](http://cvsalinity.org/index.php/procurement/doc_download/728-bmp-screening-nomination-form-v3)

and appears on the following pages in PDF format.

Draft

## CV-SALTS Management Practice Nomination Form

*This Nomination Form includes limited instructions for the completion of the form. Initial reviewer instructions are included the Subcommittee Screening Document and will be further developed in future work. The nominator of the practice will provide all available information for the practice and may include estimated information to be verified if noted in the text. Should additional information be required to complete the review it will be requested.*

*In the pilot phase additional standardization of requested information on the management practices will likely be developed. Additionally review of the practice implementation and effect on overall salinity and nitrate management in the Central Valley may be further assessed at a future date. Submittal of management practices for inclusion into the toolbox should answer the following questions with the best information available to the submitter. **Please annotate responses with references and source documents, list these under Question 7.***

**A. Is this nomination for a plan or programmatic activity as opposed to a field implementation practice or technology?  YES  NO**

**if yes, complete the following sections as appropriate, if no proceed to question 1.**

- 1. Title – Please provide a short descriptive tile for the practice**
  
- 2. Description – Please provide a short (1-2 paragraphs) description of the practice/technologies to summarize the practice, industries and important information**
  
- 3. Constituent Salts or Nutrients Managed – Identify the primary and secondary constituents (EC TDS, Nitrates other nutrients etc) that are treated, reduced or managed by this practice and how they are reduced or managed.**
  
- 4. Applicability – Describe the documented application of this practice, where how and how extensively the practice has been implemented what conditions or circumstances limit the application of this practice. Industry specific application and limitations may be developed and show as Attachment A. Such limitations may include industry, region, soil type, media or other limits.**

5. **Practice Benefits and Impacts** – Describe the documented benefits of implementing the practice (what does it do) including any negative impacts of implementation (including cross media/air/energy/supply etc)
  
6. **Effectiveness Documentation** – 6 a. Describe the documented effectiveness of implementing the practice on the target constituents. Whenever possible quantify the effectiveness of the practice as completely as possible. 6 b. Summarize and critical factors or limitations to effectiveness. If documentation of a cost benefit study please reference it below in 7.
  
7. **Supporting studies, Research and Source Documents** – List all documents referenced in responses above or other documents that provide information evidence or background on the technology or practice and electronic availability.
  
8. **Implementation**
  - 8.1 **Costs** - Summarize and document costs for implementation of this practice both Capital and Annual operations and maintenance costs. If possible, express in industry relevant units of \$/acre foot or \$/million gallons, \$/ton or etc. to allow comparison with other practices.
  
  - 8.2 **Status and Potential** – Describe the Historic and current level of implementation, at the level know. List any information known on the potential full implementation of this practice
  
  - 8.3 **Monitoring Documentation** – Describe the level of monitoring and documentation available to support the practice. If known, what additional monitoring is needed? If known what level of monitoring will be needed at implementation.
  
9. **Other Regulatory Approvals or Requirements** – Has this practice been approved or required by any other government agency or independent standard setting body, if so summarize this and any information you may have on the process and status of approvals. Indicate what level of review if required for that regulatory requirement or guidance?

Standards and information repeated for the Nominator from the Subcommittee screening document.

## **4 Standards**

Screening of practices to include in the toolbox requires the review of practices for effectiveness in reducing salt and nitrate in the system. The Screening tool uses the following standards as documented by the proposer of the practice for screening.

### **4.1 Technical Effectiveness – does it work?**

Demonstrating technical effectiveness is critical for a management practice to be implemented and accepted by industry or communities. Evidence of technical effectiveness is demonstrated by lab, pilot and demonstration studies and evaluation of the studies. Does the documentation indicate strongly that the practice removes, destroys, manages or otherwise reduce any negative impacts to beneficial uses associated with its presence and assist with compliance or improvement of the waters of the valley.

### **4.2 Implementability – can it be used broadly?**

Implementability includes both feasibility as well as well as broad applicability. In most cases, satisfactory implmentability is demonstrated by documentation of the use of the management practice by a significant portion of the sector and considers other issues related to cost and efficiency covered in other sections. Implmentability of management practices may consider cross-media impacts, and look for management practices that reduce any detrimental effect to other media while achieving the goals of the management practice. These should be identified and any impact quantified if possible.

### **4.3 Cost effectiveness – is it economic to implement today?**

Cost effectiveness is critical to being an effective best practice. Low efficiency costly practices are not likely to be broadly implemented. High value practices will likely be implemented with minimal regulatory requirements. The assessment of effectiveness related to cost is not always a simple as dollars per ton of salt or pound of nitrate, often costs include a technically trained workforce to implement, operate and maintain the practices. Additionally, this may vary across industry and across regions. The cost effectiveness should strive to take into account all benefits to the entity implementing the practice as well as direct and indirect cost of implementation. In other words not just the technology but the impacts on quality of the product or preparation or disposal of wastes and other potential cross media impacts. These costs should evaluate life cycle benefits and costs of implementations and societal and environmental benefits and costs, when possible.

### **4.4 Monitoring – proving it works?**

Both the ability to monitor as well as the length and breadth of the monitoring history will be reviewed as a part of screening. Monitoring during the implementation stage may be greater in developing practices than fully validated practices that have already completed it.

# Nomination Form Attachment 1

## Applicability checklist by Industry, Processes or Region

*The following industries, processes and regions may have specific screening requirements that the Subcommittee will develop in the future.*

| <b>Industry or Process</b>        | <b>8. San Joaquin</b> | <b>9. East Valley</b> | <b>10. West Valley</b> | <b>11. Tulare Lake</b> | <b>12. Sacramento</b> | <b>13. Lake/Foothills</b> |
|-----------------------------------|-----------------------|-----------------------|------------------------|------------------------|-----------------------|---------------------------|
| <b>1.</b> Agriculture             |                       |                       |                        |                        |                       |                           |
| <b>2.</b> Food Processing         |                       |                       |                        |                        |                       |                           |
| <b>3.</b> Manufacturing           |                       |                       |                        |                        |                       |                           |
| <b>4.</b> Wine Industry           |                       |                       |                        |                        |                       |                           |
| <b>5.</b> WWTP                    |                       |                       |                        |                        |                       |                           |
| <b>6.</b> Water Supply Management |                       |                       |                        |                        |                       |                           |
| <b>7.</b> Water Treatment         |                       |                       |                        |                        |                       |                           |
| <b>14.</b> OTHERS                 |                       |                       |                        |                        |                       |                           |

## Strategic Salt Accumulation Land and Transportation Study (SSALTS)

Within the Central Valley there are currently areas where salts are intentionally accumulated for storage and disposal or later recovery. Evaporation basins, deep well injection and landfill locations are the most obvious of these, however there are other areas that are accumulating salts in the soil or vadose zone, more or less intentionally. Without outlets salts will accumulate in intentional or unintentional locations. In preparation for Implementation Plan formulation several early phases of work could be accomplished in advance. Without alternatives to current systems no workable implementation plan can be developed. These initial efforts can provide a basis for the implementation plan.

**Phase One** of the SSALTS study is to identify the current locations where salt is accumulating intentionally; by policy, by industrial or community process, or by natural process. For each location, identify the capacity, cost, area served etc. and determine if these can be increased to provide long term storage options to reach manageable salt levels in critical and important areas.

**Phase Two** will determine if there are sinks, drains, processes or areas where salt can safely be accumulated for long term storage to fit the same uses. Such storage locations or areas would have characteristics that would be determined for screening based on the first task. From the second phase the relative cost and benefit of the existing/expanded or new storage areas would be compared as well as regulatory or institutional barriers to their implementation.

**Phase Three** would focus on the existing and potential near term export or transport mechanisms, facilities or other methods to remove salts from storage or from the basins on a permanent basis. The costs and benefits of such methods would be compared as well as regulatory or institutional barriers to their implementation. Added work could look at technology which may make Phase 2 or 3 more effective.

Each phase would be done in cooperation with the CV-SALTS committees and would be in cooperation with the Conceptual Plan for CV-SALTS. The output product would be technical memoranda and GIS layers consistent with the conceptual plan and BUOS Phase 1 and Phase 2. This will allow the effort to be developed and usable for implementation planning.

### Cost

Phase 1 - \$50,000

Phase 2 - \$75,000

Phase 3 - \$125,000

### Schedule

Phase 1 – 6-9 months

Phase 2 – 9-12 months

Phase 3 – 12-14 months

## **Additional Implementation Program Efforts**

### **Program Funding for SSALTS Efforts**

Funding for implementation is significant and will initially build on existing programs and efforts. Ultimately the funding for implementation will likely be major projects that will require significant and long term funding approaches. Funding approaches will be based on nature of the implementation projects and the benefits of the projects.

### **Program Monitoring needs**

Like programing funding monitoring needs are partly depending on the implementation projects and programs. These will not be able to be determined until the projects and programs are completed. However, some monitoring will be needed independent of the actual implementation plan. This monitoring will likely be best defined as the Conceptual Model is determined and the CV-SALTS planning regions are defined in the Salt and Nutrient Management Plan. Based on the information developed in this process a baseline can be

**DRAFT**

November 20, 2011 DRAFT

«IRWM\_Region» IRWM  
«First» «Last\_», «Title»  
«Agency»  
«Address»  
«City\_State\_Zip»

Re: Salt and Nutrient Projects Funding and Coordination for Recycled Water Policy

Dear «Salutation» «Last\_»,

Last year we provided information to all Regional Water Management Group Member for each IRWM Planning Region's Region within the Central Valley Regional Board Area. Because many of the IRWM Groups are currently receiving planning awards from DWR we wanted to contact you again to ensure you were aware the CV-SALTS Initiative was here to assist your efforts. It is critical that there is coordination between IRWM regions and CV-SALTS.

Many IRWM regions are currently or will soon be identifying water related project for your IRWM plans. Please identify project that you may be aware of which address salinity or nutrient issues in surface or groundwater. CV-SALTS is opening the call for projects beginning in December 2011. A project information sheet is attached to this letter, but you may submit similar information in any format you use for your IRWM project. Projects in these areas will be incorporated into those CV-SALTS works to identify for funding. We hope to identify projects in many IRWM regions. As we will be soliciting projects from other groups and interests, if we become aware of projects in your IRWM region we will forward these projects and contacts to you.

As you likely remember the 2009 California Water Plan included chapter on Salt and Salinity Management. This Strategy chapter is being updated and if you have information or comments for the update please contact Jeanne Chilcott at the Central Valley Regional Water Quality Control Board ([jchilcott@waterboards.ca.gov](mailto:jchilcott@waterboards.ca.gov)).

Under the State Water Quality Control Board Recycled Water Policy all regions are required to complete a Salt and Nutrient Management Plan. Within the Central Valley, CV-SALTS is the coordinated planning effort being utilized to provide consistency when updating Water Quality Control Plan (Basin Plan) requirements for salt and nutrients. Draft guidelines for prioritizing areas and data needs for regional salt and nitrate evaluations are anticipated early in 2012. We encourage you to participate in the development of these guidelines and use them during your planning.

The Central Valley Regional Water Quality Control Board will be expecting Your IRWM plans to incorporate efforts related to salt and nutrient management. The Department of Water Resources Final Plan Guidelines require all Resource Management Strategies, including salinity management, to be considered in IRWM planning. If you need help developing a scope for your workplan as part of the planning grant or wish to participate more closely with CV-SALTS do not hesitate to contact Daniel Cozad (888) 826-3635.

Thank you for your efforts to integrate your region's water related needs and we look forward to working with you in the future.

Parry Klassen  
Chair  
CV-SALTS Executive Committee

Pamela C. Creedon  
Executive Officer  
Central Valley Regional Water Quality Control Board

Cc:

Daniel Cozad  
Executive Director, Central Valley Salinity Coalition

# CV-SALTS Salinity and Nutrient Project Information Form

Project Name: \_\_\_\_\_

Project Lead or Applicant: \_\_\_\_\_

Address of Applicant: \_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Describe Salinity or Nutrient Issues or Problem

Brief scope or purpose of the Project

Project start date and Duration: \_\_\_\_\_

What if anything is preventing the project from starting?

Project Budget: \_\_\_\_\_

Funding Currently Available: \_\_\_\_\_

Funding Needed: \_\_\_\_\_

Date CEQA or Environmental Work completed: \_\_\_\_\_

Which IRWM Region is the Project located in: \_\_\_\_\_

Has this project been prioritized in that region? \_\_\_\_\_

Has funding been allocated to this Project? \_\_\_\_\_

# CV-SALTS Annual Meeting Calendar

# 2011

| JANUARY |     |     |     |     |     |     |
|---------|-----|-----|-----|-----|-----|-----|
| MON     | TUE | WED | THU | FRI | SAT | SUN |
|         |     |     |     |     | 1   | 2   |
| 3       | 4   | 5   | 6   | 7   | 8   | 9   |
| 10      | 11  | 12  | 13  | 14  | 15  | 16  |
| 17      | 18  | 19  | 20  | 21  | 22  | 23  |
| 24      | 25  | 26  | 27  | 28  | 29  | 30  |
| 31      |     |     |     |     |     |     |

Sac Regional

| FEBRUARY |     |     |     |     |     |     |
|----------|-----|-----|-----|-----|-----|-----|
| MON      | TUE | WED | THU | FRI | SAT | SUN |
|          | 1   | 2   | 3   | 4   | 5   | 6   |
| 7        | 8   | 9   | 10  | 11  | 12  | 13  |
| 14       | 15  | 16  | 17  | 18  | 19  | 20  |
| 21       | 22  | 23  | 24  | 25  | 26  | 27  |
| 28       |     |     |     |     |     |     |

Sac Regional

| MARCH |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|
| MON   | TUE | WED | THU | FRI | SAT | SUN |
|       | 1   | 2   | 3   | 4   | 5   | 6   |
| 7     | 8   | 9   | 10  | 11  | 12  | 13  |
| 14    | 15  | 16  | 17  | 18  | 19  | 20  |
| 21    | 22  | 23  | 24  | 25  | 26  | 27  |
| 28    | 29  | 30  | 31  |     |     |     |

Sac Regional

| APRIL |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|
| MON   | TUE | WED | THU | FRI | SAT | SUN |
|       |     |     |     | 1   | 2   | 3   |
| 4     | 5   | 6   | 7   | 8   | 9   | 10  |
| 11    | 12  | 13  | 14  | 15  | 16  | 17  |
| 18    | 19  | 20  | 21  | 22  | 23  | 24  |
| 25    | 26  | 27  | 28  | 29  | 30  |     |

Sac Regional

| MAY |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|
| MON | TUE | WED | THU | FRI | SAT | SUN |
|     |     |     |     |     |     | 1   |
| 2   | 3   | 4   | 5   | 6   | 7   | 8   |
| 9   | 10  | 11  | 12  | 13  | 14  | 15  |
| 16  | 17  | 18  | 19  | 20  | 21  | 22  |
| 23  | 24  | 25  | 26  | 27  | 28  | 29  |
| 30  | 31  |     |     |     |     |     |

Sac Regional

| JUNE |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|
| MON  | TUE | WED | THU | FRI | SAT | SUN |
|      |     | 1   | 2   | 3   | 4   | 5   |
| 6    | 7   | 8   | 9   | 10  | 11  | 12  |
| 13   | 14  | 15  | 16  | 17  | 18  | 19  |
| 20   | 21  | 22  | 23  | 24  | 25  | 26  |
| 27   | 28  | 29  | 30  |     |     |     |

Sac Regional

| JULY |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|
| MON  | TUE | WED | THU | FRI | SAT | SUN |
|      |     |     |     | 1   | 2   | 3   |
| 4    | 5   | 6   | 7   | 8   | 9   | 10  |
| 11   | 12  | 13  | 14  | 15  | 16  | 17  |
| 18   | 19  | 20  | 21  | 22  | 23  | 24  |
| 25   | 26  | 27  | 28  | 29  | 30  | 31  |

Sac Regional

| AUGUST |     |     |     |     |     |     |
|--------|-----|-----|-----|-----|-----|-----|
| MON    | TUE | WED | THU | FRI | SAT | SUN |
| 1      | 2   | 3   | 4   | 5   | 6   | 7   |
| 8      | 9   | 10  | 11  | 12  | 13  | 14  |
| 15     | 16  | 17  | 18  | 19  | 20  | 21  |
| 22     | 23  | 24  | 25  | 26  | 27  | 28  |
| 29     | 30  | 31  |     |     |     |     |

Sac Regional

| SEPTEMBER |     |     |     |     |     |     |
|-----------|-----|-----|-----|-----|-----|-----|
| MON       | TUE | WED | THU | FRI | SAT | SUN |
|           |     |     | 1   | 2   | 3   | 4   |
| 5         | 6   | 7   | 8   | 9   | 10  | 11  |
| 12        | 13  | 14  | 15  | 16  | 17  | 18  |
| 19        | 20  | 21  | 22  | 23  | 24  | 25  |
| 26        | 27  | 28  | 29  | 30  |     |     |

ACWA Downtown

| OCTOBER |     |     |     |     |     |     |
|---------|-----|-----|-----|-----|-----|-----|
| MON     | TUE | WED | THU | FRI | SAT | SUN |
|         |     |     |     |     | 1   | 2   |
| 3       | 4   | 5   | 6   | 7   | 8   | 9   |
| 10      | 11  | 12  | 13  | 14  | 15  | 16  |
| 17      | 18  | 19  | 20  | 21  | 22  | 23  |
| 24      | 25  | 26  | 27  | 28  | 29  | 30  |
| 31      |     |     |     |     |     |     |

Sac Regional

| NOVEMBER |     |     |     |     |     |     |
|----------|-----|-----|-----|-----|-----|-----|
| MON      | TUE | WED | THU | FRI | SAT | SUN |
|          | 1   | 2   | 3   | 4   | 5   | 6   |
| 7        | 8   | 9   | 10  | 11  | 12  | 13  |
| 14       | 15  | 16  | 17  | 18  | 19  | 20  |
| 21       | 22  | 23  | 24  | 25  | 26  | 27  |
| 28       | 29  | 30  |     |     |     |     |

Sac Regional

| DECEMBER |     |     |     |     |     |     |
|----------|-----|-----|-----|-----|-----|-----|
| MON      | TUE | WED | THU | FRI | SAT | SUN |
|          |     |     | 1   | 2   | 3   | 4   |
| 5        | 6   | 7   | 8   | 9   | 10  | 11  |
| 12       | 13  | 14  | 15  | 16  | 17  | 18  |
| 19       | 20  | 21  | 22  | 23  | 24  | 25  |
| 26       | 27  | 28  | 29  | 30  | 31  |     |

Cal EPA?

**SALTY 5 Coordination Meetings**

|                          |
|--------------------------|
| 1/3/11: Salty 5 January  |
| 2/7/11: Salty 5 February |
| 3/7/11: Salty 5          |
| 4/4/11: Salty 5          |
| 5/2/11: Salty 5          |
| 6/6/11: Salty 5          |
| 7/11/11: Salty 5         |
| 8/1/11: Salty 5          |
| 9/12/11: Salty 5         |
| 10/3/11: Salty 5         |
| 11/7/11: Salty 5         |
| 12/5/11: Salty 5         |

**CV-SALTS Committee Meetings**

|                                   |
|-----------------------------------|
| 2/24/11 Salinity Leadership Group |
| 1/20/11 Committees Meetings       |
| 2/10/11 Committees Meetings       |
| 3/17/11 Committees Meetings       |
| 4/12/11 Committees Meetings       |
| 4/22/11 Committees Meetings       |
| 5/12/11 Committees Meetings       |
| 5/24/11 Committees Meetings       |
| 6/16/11 Committees Meetings       |
| 6/23/11 Committees Meetings       |
| 7/21/11 Committees Meetings       |
| 8/9/11 Committees Meetings        |
| 8/18/11 Committees Meetings       |
| 9/13/11 Committees Meetings       |
| 9/15/11 Committees Meetings       |
| 10/19/11 Committees Meetings      |
| 10/20/11 Committees Meetings      |
| 11/15/11 Committees Meetings      |
| 11/17/11 Committees Meetings      |
| 12/15/11 Committees Meetings      |
| 1/11/11 LSJR Committee            |
| 2/17/11 LSJR Committee            |

**Potential Conflicting Meetings**

|                                |
|--------------------------------|
| 6/7/11 State Board Meeting     |
| 6/8/11 Regional Board Meeting  |
| 6/8/11 State Board Meeting     |
| 6/9/11 Regional Board Meeting  |
| 6/10/11 Regional Board Meeting |
| 6/21/11 State Board Meeting    |
| 6/22/11 State Board Meeting    |
| 7/5/11 State Board Meeting     |
| 7/6/11 State Board Meeting     |
| 7/19/11 State Board Meeting    |
| 7/20/11 State Board Meeting    |
| 8/2/11 State Board Meeting     |
| 8/3/11 Regional Board Meeting  |
| 8/3/11 State Board Meeting     |
| 8/4/11 Regional Board Meeting  |
| 8/5/11 Regional Board Meeting  |
| 8/16/11 State Board Meeting    |
| 8/17/11 State Board Meeting    |
| 9/6/11 State Board Meeting     |
| 9/7/11 State Board Meeting     |
| 9/20/11 State Board Meeting    |
| 9/21/11 State Board Meeting    |