# CV-SALTS Executive Committee Meeting

**April 19, 2012 9:00 PM to 2:30 PM**

**Sacramento Regional Sanitation District Offices – Sunset Maple Room**
**10060 Goethe Rd, Sacramento 95827**

Teleconference (218) 339-4600 Code: 927571#

**Posted 04.10.12 – Revised 04.12.12**

**Meeting Objectives:**

- Define Appropriate Management Zones and Averaging Periods
- Confirm Selected Archetypes and Prototypes
- Develop Direction to Technical Subcommittee and Contractors
- Continue Planning for CV-Salts Presentation at Regional Board Workshop in June, 2012

## AGENDA

1) **Welcome and Introductions** - Chair
   a) Committee Roll call and Membership Roster -5 min.
   b) Review/Approve Executive Committee Meeting Notes for April 5, 2012 – 5 min.

2) **Identify Expected Outcomes & Priorities for April 19, 2012 Session** – Tim Moore – 30 min.

3) **Accounting for Spatial and Temporal Variability when Characterizing Groundwater Quality** – Tim Moore - 90 min.

**11:30 am to 12:30 pm - Lunch on your own**

4) **Review Selected Archetypes and Prototypes in Master Flowchart**
   - Richard Meyerhoff & Tim Moore - 30 min.

5) **Direction to Technical Subcommittees and Contractors**
   - Daniel Cozad & Richard Meyerhoff - 30 min

6) **Planning for Presentations to Regional Board at Fresno Workshop in June, 2012**
   - Daniel Cozad - 30 min

7) **Future Items**
   a) Review May meeting date & (May 24th) and objectives
   b) Review next Administrative Conference Call date and time (May 11th)

*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 http://www.cvsalinity.org*

## CV-SALTS Committee Rosters

| Executive Committee Membership | | | CV-SALTS Executive Committee Meetings During 2012 | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Voters | Category/Stakeholder Group | Name | 17-Jan | 19-Jan | 10-Feb | 16-Feb | 9-Mar | 5-Apr | 6-Apr | 19-Apr | 11-May | 24-May | 8-Jun | 14-Jun | 10-Aug | 23-Aug | 14-Sep | 20-Sep | 12-Oct | 18-Oct | 2-Nov | 8-Nov | 7-Dec |
| **Leadership Partners** | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | |
| **CV Salinity Coalition** | | | | | | | | | | | | | | | | | | | | | | | |
| 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 Leaque of Food Processors | Trudi Hughes | ✔ | | | | | ✔ | | | | | | | | | | | | | | | |
| Alt | CA Leaque 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 | | ✔ | | ✔ | | ✔ | | | | | | | | | | | | | | | |
| **Comm. Chairs/Co-chairs** | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Chair Executive Committee | Parry Klassen | ✔ | ✔ | ✔ | ✔ | ✔ | | | | | | | | | | | | | | | | |
| 2 | Vice Chair Executive Committee | Jeff Willett | ✔ | ✔ | ✔ | | | ✔ | ✔ | | | | | | | | | | | | | | |
| * | Technical Advisory Committee | Roberta 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 04/06:***

***Pam Buford, CVRWQCB***
***Jean-Pierre, J.P., Cativiela, Dairy***
***Tom Grovhoug, LWA***
***Fern Wilson, City of Vacaville***

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 |
| Rik Rasmussen, SWRCB | Jamil Ibrahim, MWH Global | Emily Robidart Rooney, Ag Council |
| Michael Steiger, EKI | Jay Simi, CVRWQCB | Gail Cismowski, CVRWQCB |
| Mark Felton, Culligan Water and PWQA | Jodi Ponturer, SWRCB | Jenny Skrel, Ironhouse Sanitary District |
| Adam Maskal, Provost & Pritchard | Mark Larsen, Kaweah Delta WCD | Erick Althorp SSJWQC |
| Jim Strandberg, EKI | Lou Dambrosio, TWG | Mark Dorman, Rainsoft Water PWQA |
| Karen Ashby, LWA | Stan Dean, SRCSD | Rick Staggs, City of Fresno |
| Jim Martin, CVRWQCB | Melanie Thomson, CUWA | Robert Chrobak and Stuart Childs Kennedy/Jenks |
| John Dickey, Plantierra for CRL | Gene Lee, Reclamation | Ron Crites, Brown and Caldwell |
| Paula Hansen, Antea Group | Andy Safford, EKI | Lou Regenmorter, CDM |
| Karl Longley, CVRWQCB | Ken Landau | |
| Bruce Houdesheldt, NCWA/Sac Valley WQC | Richard Meyerhoff, CDM Smith | |
| Jennifer Clary, CWA | Clay Rogers, CVRWQCB | |
| Claus Suverkropp, LWA | Tess Dunham, Somach | |

# CV-Salts Discussion Outline for April 19, 2012

**Objective:** To clarify how EC and nitrate data will be summarized when characterizing existing or projected water quality in any given groundwater basin or sub-basin.

**Background:**

The SWRCB's Recycled Water Policy (RWP) requires that the mandatory Salt and Nutrient Management Plans must:

1) Include implementation plans for those groundwater basins or sub-basins where water quality objectives for salts or nutrients are being or are threatening to be exceeded. *[RWP 6(b)(2)]*

2) Include a monitoring plan designed to determine water quality in each groundwater basin or sub-basin *[RWP 6(b)(3)(a)(i)]* and especially in "the most critical areas" of each basin *[RWP 6(b)(3)(a)(ii)].*

3) Include an estimate of assimilative capacity for each groundwater basin or sub-basin. *[RWP 6(b)(3)(d)]*

4) Include implementation measures to manage salt and nutrient loading on a sustainable basis *[RWP 6(b)(3)(e)]* and an antidegradation analysis to demonstrate that projects within the plan will satisfy the requirements of Resolution 68-16 *[RWP 6(b)(3)(f)]*. Specifically, "activities involving the disposal of waste that could impact high quality waters are required to implement best practicable treatment or control of the discharge necessary to ensure that pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of California will be maintained" *[RWP 9(b)].*

**Therefore, it is necessary to:**

* Define what constitutes a groundwater basin and a groundwater sub-basin.
* Define the metric(s) used to determine/describe existing water quality.
* Define criteria to identify the most critical areas of a basin or sub-basin.
* Define how to calculate assimilative capacity (AC) and utilization rates for AC.
* Define what constitutes a "high quality" groundwater basin or sub-basin.

## Strawman Definitions

**1) Proposed definition for groundwater basin** *(largely based on DWR's glossary):*

A groundwater basin is an alluvial aquifer comprised of soils and sediments that are sufficiently porous and permeable to store, transmit and yield significant or economic quantifies of water to wells or springs. Groundwater basins have a definable bottom and well-defined lateral boundaries that are usually characterized by impermeable formations of rock or clay or by subsurface gradients that physically constrain subsurface flows to a limited direction.

**2) Proposed definition for groundwater sub-basin:**

A sub-basin is a smaller, but contiguous, area of the aquifer within a larger groundwater basin. The sub-basin boundaries can be defined both vertically and horizontally by a number of factors including, but not limited to: mineral or chemical concentrations, pumping practices, porosity, ownership, overlying land uses, jurisdictional oversight, flow gradients, tributary relationships, or other variables that merit the sub-basin be managed differently from adjacent areas in the same larger groundwater basin.

**3) Proposed definition for "existing water quality:"**

Existing water quality is the average concentration of a mineral or chemical from representative data collected over the most recent five year period [RWP 9(c)(1)]. The average concentration shall be computed on a volume-weighted basis taking into account the spatial variability (vertically and horizontally) between sampling wells. The computations should minimize the introduction of unintended bias by equalizing the relative influence of individual wells on the overall metric. Where sampling data indicates that the concentration of a specific mineral or chemical is not normally-distributed, appropriate transformations should be applied when computing the average level.

**4) Proposed definition for "projected water quality:"**

Projected water quality is the average concentration of a mineral or chemical that is expected to occur in a given well or spring over at least the next 10 years [RWP 9(c)(1)] taking into account the loading from all past, present and expected sources including, but not limited to: surface water, groundwater, recycled water, stormwater, and other sources of recharge.

**5) Proposed definition for "most critical area:"**

The most critical area of the a groundwater basin or sub-basin is that most proximate to water supply wells. When no such wells are present, the most critical area is that most likely to be affected by a recharge project using recycled water. When no such projects are present, the most critical area is that most directly influenced by the waste discharge/disposal activities at the surface.

**6) Proposed definition for "assimilative capacity:"**

Assimilative capacity is computed by subtracting the average concentration of any given mineral or chemical from the relevant water quality objective established in state or federal water quality standards [RWP 9(c)(1)]. Assimilative capacity may and should be computed separately for each discretely defined groundwater basin or sub-basin.

**7) Proposed definition for "assimilative capacity utilization rate:"**

The Assimilative capacity utilization rate is the difference between the existing water quality and the projected water quality for any given groundwater basin or sub-basin divided by the number of years used to compute the projected water quality (usually 10).

**8) Proposed definition for "high quality" groundwater:**

Where existing mineral or chemical concentrations any given basin or sub-basin are lower than the relevant water quality objective established in state or federal water quality standards, then that basin or sub-basin is deemed to have "high quality" with respect to that specific mineral or chemical. By definition, basins or sub-basins with "high quality" also have some assimilative capacity for the same mineral or chemical.

# CV-SALTS Meeting Calendar

## 2012

### 1 January

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 4 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 5 | 29 | 30 | 31 | | | | |

### 2 February

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 5 | | | | 1 | 2 | 3 | 4 |
| 6 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 7 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 8 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 9 | 26 | 27 | 28 | 29 | | | |

### 3 March

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 9 | | | | | 1 | 2 | 3 |
| 10 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 12 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 13 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |

### 4 April

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 16 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 17 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 18 | 29 | 30 | | | | | |

### 5 May

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 18 | | | 1 | 2 | 3 | 4 | 5 |
| 19 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 20 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 21 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 22 | 27 | 28 | 29 | 30 | 31 | | |

### 6 June

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 22 | | | | | | 1 | 2 |
| 23 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 24 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 25 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 26 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |

### 7 July

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 27 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 28 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 29 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 30 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 31 | 29 | 30 | 31 | | | | |

### 8 August

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 31 | | | | 1 | 2 | 3 | 4 |
| 32 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 33 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 34 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 35 | 26 | 27 | 28 | 29 | 30 | 31 | |

### 9 September

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 35 | | | | | | | 1 |
| 36 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 37 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 38 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 39 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 40 | 30 | | | | | | |

### 10 October

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 40 | | 1 | 2 | 3 | 4 | 5 | 6 |
| 41 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 42 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 43 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 44 | 28 | 29 | 30 | 31 | | | |

### 11 November

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 44 | | | | | 1 | 2 | 3 |
| 45 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 46 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 47 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 48 | 25 | 26 | 27 | 28 | 29 | 30 | |

### 12 December

| | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|---|
| 48 | | | | | | | 1 |
| 49 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 50 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 51 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 52 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 53 | 30 | 31 | | | | | |

### Notes

2nd or 3rd Thursdays

Dark Green Exec Comm Policy

2nd or 3rd Tuesdays

Lt. Green Hatch Exec Comm Admin

First Monday except conflicts

Yellow Salty 5

Light Red conflicts

Dates Recommended Dark