CV-SALTS Executive Committee Meeting

Monday, August 1, 2016 – 8:30 AM to 3:00 PM
Sacramento Regional Sanitation District Offices – Valley Oak Room
10060 Goethe Rd, Sacramento 95827

Teleconference (641) 715-3580 Code: 279295#

Go-To-Meeting Link: https://global.gotomeeting.com/join/932123941

Posted 07-23-16 – Revised 07-27-16

AGENDA

1) **Welcome and Introductions - Chair**
   - **a)** Committee Roll Call and Membership Roster
   - **b)** SNMP & Policy Schedule

2) **Salinity Management Strategy Discussion** – Tess Dunham and Others (3 hrs.)
   - PowerPoint Presentation
   - Draft Policy

11:30 am to 1:00 pm - Lunch on Your Own

3) **Salinity Management Strategy Discussion** – Tess Dunham and Others (2 hrs.)

4) **Review Meeting Schedule/Location**
   - Admin Meeting – August 5th – 1:00-2:30
   - August 11th Executive Committee Policy Session @ Sac Regional – 9:00-4:00
   - CV-SALTS Workshop – August 17th @ Central Valley Water Board Office – Rancho Cordova

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

One or more Central Valley Regional Water Quality Board members may attend.

CV-SALTS Committee Rosters

Executive Committee Membership			CV-SALTS Executive Committee Meetings - 2016														
Voters	Category/Stakeholder Group	Name	14-Jan	15-Jan	12-Feb	24-Feb	25-Feb	11-Mar	29-Mar	30-Mar	6-May	11-May	12-May	10-Jun	15-Jun	16-Jun	8-Jul	1-Aug
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																	
4	US Bureau of Reclamation	Michael Mosley				✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	
5	Environmental Justice	Laurel Firestone	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓		
6	Environmental Water Quality	TBD																
CV Salinity Coalition																		
1	So. San Joaquin WQC	Casey Creamer		✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	
2	City of Stockton	Robert Granberg																
3	California Cotton Growers	Chris McGlothlin		✓			✓						✓					
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	Erich Delmas			✓				✓						✓	✓		
Alt	City of Tracy	Dale Klever																
8	Sacramento Regional CSD	Lysa Voight	✓	✓		✓	✓			✓		✓	✓		✓	✓	✓	
Alt	Sacramento Regional CSD	Sam Safi																
9	San Joaquin Tributaries Authority	Dennis Westcot		✓								✓						
10	City of Modesto	Gary DeJesus																
11	California Rice Commission	Tim Johnson	✓	✓					✓				✓		✓	✓		
12	City of Manteca	Heather Grove																
13	Tulare Lake Drainage/Storage District	Mike Nordstrom	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓		
14	Western Plant Health Assoc.	Renee Pinel		✓						✓							✓	
15	City of Vacaville	Royce Cunningham																
16	Dairy Cares	J.P. Cativiela	✓	✓		✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	
Alt	Dairy Cares	Paul Sousa	✓	✓								✓	✓			✓		
17	Westlands Water District	Jose Guiterrez																
Alt	Westlands Water District	Charlotte Gallock		✓		✓			✓		✓	✓	✓		✓	✓		
Comm. Chairs/Co-chairs																		
1	Chair Executive Committee	Parry Klassen, ESJWQC	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
2	Vice Chair Executive Committee	Debbie Webster CVCWA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
3	Technical Advisory Committee	Roger Reynolds, S Engr.			✓	✓	✓	✓			✓			✓			✓	
	Technical Advisory Committee	Nigel Quinn, LBL			✓													
4	Public Education and Outreach	Joe DiGiorgio		✓												✓	✓	
5	Economic and Social Cost Committee	David Cory, SJVDA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6	Lower San Joaquin River Committee	Karna Harrigfeld, SEWD	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

CV-SALTS Committee Rosters

Participant Names			CV-SALTS Executive Committee Meetings -2016														
Last	First	Organization	14-Jan	15-Jan	12-Feb	24-Feb	25-Feb	11-Mar	29-Mar	30-Mar	6-May	11-May	12-May	10-Jun	15-Jun	16-Jun	8-Jul	1-Aug
Archibald	Elaine	CUWA	✓	✓		✓		✓		✓				✓	✓	✓	✓	
Ashby	Karen	LWA	✓	✓	✓	✓	✓	✓		✓	✓		✓		✓	✓	✓	
Barclay	Diane	SWRCB		✓		✓	✓		✓	✓		✓	✓		✓	✓		
Bell	Nicole	KRWCA	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓		
Brown	Michelle																✓	
Bryant	Mike																✓	
Buford	Pam	CVRWQCB			✓	✓		✓		✓	✓	✓	✓	✓			✓	
Cady	Mark	CDFA		✓		✓	✓		✓	✓			✓		✓	✓		
Cehrs	David	KRCD					✓											
Clary	Jennifer	CWA					✓		✓	✓					✓			
D'Adamo	Dee Dee	SWRCB					✓			✓			✓					
Deeringer	Andrew	SWRCB	✓			✓	✓								✓			
Delehant	Gail																	
Dickey	John	Plantierra	✓	✓			✓		✓	✓		✓	✓		✓	✓		
Doduc	Tam	SWRCB					✓		✓				✓			✓		
Dunham	Tess	Somach Simmons	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	✓	
Escobar	Juan	DWR	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓		
Shahla	Farahnah	SWRCB		✓									✓					
Fuentes	Robert	Leadership Counsel	✓	✓			✓		✓	✓		✓	✓					
Gallock	Charlotte	WWD		✓		✓			✓		✓	✓	✓		✓	✓		
Garcia	Rick	CRC	✓	✓		✓	✓											
Gonzalez	Armando	Occidental Oil & Gas																
Gosling	Doug									✓								
Grovhoug	Tom	LWA	✓	✓			✓			✓			✓		✓	✓		
Houdesheldt	Bruce	NCWA/Sac Valley WQC	✓	✓		✓	✓		✓				✓	✓	✓	✓		
Jensen	Ryan	CWC																
Johnson	Alex	Freshwater Trust																
Johnson	Michael	LSJRC			✓						✓			✓			✓	
Kihara	Annalisa	SWRCB																
Kimmelshue	Joel	LANDIQ	✓				✓											
Kretsinger Grabert	Vicki	LSCE	✓			✓	✓			✓	✓	✓	✓	✓			✓	
Kubiak	Rachel	Western Plant Health Assoc.				✓						✓	✓					
Kuzelka	Timothy	CWC	✓	✓			✓											

ADDITIONAL PARTICIPANTS:

Participant Names			CV-SALTS Executive Committee Meetings -2016														
Last	First	Organization	14-Jan	15-Jan	12-Feb	24-Feb	25-Feb	11-Mar	29-Mar	30-Mar	6-May	11-May	12-May	10-Jun	15-Jun	16-Jun	8-Jul	1-Aug
Laputz	Adam	CVRWQCB	✓	✓														
Larson	Bobbi	CASA	✓	✓											✓	✓		
LeClaire	Joe	CDM Smith	✓			✓	✓			✓	✓				✓		✓	
Lilien	Jonathan	Chevron																
Link	Adam	CASA	✓	✓													✓	
Longley	Karl	CVRWQCB	✓	✓		✓	✓	✓		✓		✓	✓		✓	✓		
McGahan	Joe	SJVDA															✓	
McLellan	Laura	SWRCB											✓					
Meeks	Glenn	CVRWQCB				✓	✓			✓		✓	✓	✓	✓	✓		
Meyerhoff	Richard	CDM Smith	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Moore	Tim	Risk-Sciences	✓	✓		✓	✓		✓	✓		✓	✓	✓	✓	✓		
Nasaei	Elnaz	SWRCB											✓					
Okita	David	CWC								✓		✓	✓					
Ores	Debi	CWC											✓		✓	✓		
Pirondini	Tony	City of Vacaville				✓	✓		✓			✓	✓	✓	✓			
Pritchett	Gregory	Chevron																
Pulupa	Patrick	CVRWQCB	✓	✓		✓	✓			✓		✓	✓		✓	✓		
Pitcher	Jennifer	West. States Petroleum	✓				✓											
Rempel	Jenny	CWC				✓	✓											
Rodgers	Clay	CVRWQCB	✓	✓			✓		✓			✓	✓		✓	✓		
Schmid	Andrea	Plantierra				✓												
Schultz	Paul	CDM Smith			✓	✓		✓	✓	✓	✓					✓	✓	
Seaton	Phoebe	CRLA													✓	✓		
Segal	Daniel	Chevron																
Stamps	Alicia	Kennedy/Jenks																
Tellers	Josie	City of Davis	✓	✓		✓	✓		✓	✓		✓	✓			✓		
Thomas	Bill	KRCD	✓	✓			✓		✓	✓				✓		✓		
Thorme	Melissa	Downey Brand	✓	✓		✓	✓			✓				✓	✓	✓		
Tillman	Stephanie	LANDIQ		✓		✓	✓		✓	✓		✓	✓		✓	✓		
Tristao	Dennis	J.G. Boswell																
Trouchon	Mike	LWA															✓	
Wackman	Mike		✓									✓						
Zimmerman	Christie	Valley Water Mgmt.	✓		✓				✓	✓		✓	✓	✓			✓	

ADDITIONAL PARTICIPANTS:

Proposed Schedule to Finalize CV-SALTS Policy Documents and Incorporate into SNMP[1]

Activity	Key Steps	Complete By:
Finalize the following policies: • **Exceptions** • **Offsets** • **Secondary Maximum Contaminant Levels** • **Drought and Water Conservation**	Request for final comments on Public Workshop version of each document	July 8
	Submit specific written comments with recommendations for alternative language	July 22
	Small Workgroup to make final revisions; identify any remaining significant issues (matrix with alternatives identified)	August 5
	Approval of final policies (including decisions on alternatives[2])	August 11 Executive Committee Policy meeting
Finalize the following policies: • **Nitrate Permitting Strategy (NPS)** • **Salinity Permitting Strategy (SPS)** • **AGR Policy (AGR)** • **Management Zone Policy (MZ)**	Request for comment on each document[3]	July 14
	Submit specific written comments with recommendations for alternative language	July 29
	Small Workgroup meeting focused only on draft Salinity Permitting Strategy	July 21
	Salinity Permitting Strategy discussion	August 1 Executive Committee Policy Meeting
	Small Workgroup meeting to collectively discuss NPS, SPS and MZ documents, in part to ensure consistency. Identify any remaining significant issues (matrix with alternatives identified)	August 3 (tentative)
	Approval of final policies (including decisions on alternatives[3])	August 11 Executive Committee Policy Meeting
Revised SNMP Implementation Section	Based on outcome of August 11 decisions, revise the implementation section of the SNMP for discussion	September 15 Executive Committee Policy meeting

[1] The tight timeline is necessary to meet the schedule for the preparation of the CEQA, Economics, and Antidegradation Analyses to support the SNMP.

[2] Where there are clear alternatives identified for a particular issue a decision will be made whether to retain the alternative (s) for consideration in the CEQA/Economics analyses.

[3] Comments will be requested on the Public Workshop version of the NPS, AGR and MZ documents. A document will be attached to the request that identifies any comments already received on the NPS and MZ documents during the June Policy meetings. Any such comments will be considered as part of the revision process. The SPS document is currently in preparation and is based on the salinity management overview presented during the Workshop.

DRAFT SALINITY MANAGEMENT STRATEGY

CV-SALTS EXECUTIVE POLICY MEETING

AUGUST 1, 2016

OUTLINE OF DISCUSSION

1. Proposed Salinity Management Strategy Phases
2. Interim Permitting Approach Options
3. Potential Basin Plan Amendments needed to implement Salinity Management Strategy

THREE PHASES

- Phase I – Priority and Optimization Study
- Phase II – Environmental Permitting & Obtaining Capital Project Funding
- Phase III – Build Capital Projects

PHASE I – 10 YEARS

- Priority and Optimization Study (Regionwide)
  - Identify actual projects
  - Evaluate impact of all policies and actions
  - Create governance
  - Conceptual Design
  - Identify estimated costs and potential funding
- Implement Interim Permitting Approach

PHASE II – 10 YEARS

- Conduct environmental permitting
- Engineering and design
- Obtain capital funding
- Continue interim permitting approach

PHASE III – 10 YEARS

- Construct capital projects (if funding is available)
- Re-evaluate interim permitting approach

INTERIM PERMITTING APPROACH

SUBJECT TO SUNSET PROVISION

Two options for discussion

- Option 1 – "In lieu of" approach
- Option 2 – alternative compliance approach
  - Production Zone assimilative capacity
  - Exceptions Policy

OPTION 1 – "IN LIEU" APPROACH

- Resolution(s) amends all salinity provisions in permits
  - In lieu of meeting receiving water limits and/or effluent limitations, must participate in efforts to conduct/fund Prioritization and Optimization Study
  - Must continue to implement reasonable/feasible salinity control measures
  - Must maintain current salinity levels to the extent feasible and practicable, with some allowed increase for conservation and incremental growth

PROCESS FOR IMPLEMENTING OPTION 1

- Resolution(s) developed by Central Valley Water Board, with stakeholders
  - One resolution – valleywide
  - Several resolutions – geographically-based (e.g., valley floor v. non-valley floor, via sub-basin, or management zone- based)
  - Discharge sector – POTWs, Agricultural, Industry
- Must be ready for consideration by Central Valley Water Board within 1 year of effective date of Basin Plan Amendment
- Must be reviewed after 10 years

OPTING OUT OF IN LIEU PROGRAM

- Dischargers would have discretion to opt out (i.e., not participate in Prioritization and Optimization Study efforts)
- Would be permitted under traditional permitting approach
  - Compliance determined at first encountered groundwater

OPTION 2 – ALTERNATIVE COMPLIANCE APPROACH

- Permit by permit
- Regulatory compliance via use of assimilative capacity (i.e., production zone) or granting of an exception
- To allow use of alternative compliance, must participate in efforts to fund Prioritization and Optimization Study
- Coordinated with AGR and Secondary MCL Policies

OPTING OUT OF ALTERNATIVE COMPLIANCE PROGRAM

- Traditional permitting approach
- Compliance determined at First Encountered Groundwater

OPTION 2.A

- Permit by permit
- Look at actual impact of discharge (e.g., impact to AGR classification)
- Require participation in Prioritization & Optimization Plan based on trigger criteria (e.g., will use x% of assimilative capacity)

PARTICIPATION IN PRIORITIZATION AND OPTIMIZATION STUDY EFFORTS

- Level of participation to vary based on impact of salinity discharges and local water quality conditions
- Collective efforts subject to meeting specified milestones
- Others besides dischargers need to be encouraged to participate

NEEDED BASIN PLAN AMENDMENTS

- Incorporate Salinity Management Strategy
  - Including interim permitting approach
- Tulare Lake Basin Plan
  - Remove managed degradation objectives
  - Remove salinity effluent limitations for POTWs and Industrial Dischargers
- Depending on interim permitting option, revise Exceptions Policy
- Include recommendations for actions by other agencies

OTHER CONSIDERATIONS

- Is it legal?
- Is it logical?
- Is it implementable?
- How does it impact other proposed policies?

Draft Policy No. X: Salinity Management Strategy

1.0 Problem Statement

The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (SRSJR Basin Plan) and the Water Quality Control Plan for the Tulare Lake Basin (TLB Basin Plan) ("Basin Plans") establish regulations for the management of salinity to protect beneficial uses in groundwater. In general, the Basin Plans have identified the following beneficial uses as being applicable to groundwater: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), and Industrial Process Supply (PRO). The TLB Basin Plan includes additional beneficial uses for Water Contact Recreation (REC-1), Recreation (REC-2) and Wildlife Habitat (WILD), and further varies from the SRSJR Basin Plan in that it specifies which beneficial uses are applicable to specified Basins. (See section 1.1 below for further discussion regarding beneficial uses.) Depending on the applicable beneficial use and specific waterbody, the Basin Plans also contain numeric and/or narrative water quality objectives for salinity that apply to groundwater. Although the Basin Plans establish water quality objectives related to salinity, and these water quality objectives are implemented in waste discharge requirements, the current regulatory approach with respect to salinity in discharges does not account for, or address, the long-term complexity associated with salinity.

In summary, the slow and steady accumulation of salts in Central Valley groundwater basins threatens not only the long-term viability of agriculture and industry, but also the water supplies of more than 25 million people. There are many examples of the challenges posed by salt accumulation; many city and regional wastewater facilities cannot meet current Basin Plan water quality objectives, industries struggle to comply with salinity limitations, which often places limitations on their growth, agricultural activities are limited and face increased costs due to the management of saline waters, and drinking water sources throughout the region are impacted by high levels of salts. These conditions have been evident and worsening since the 1970s. To date, 1.5 million acres of irrigated land has been identified as salinity impaired, and a quarter million acres have been taken out of production. Unless steps are taken to address these issues, salts will affect an even greater portion of California's communities, economy, and environment.

The Salt and Nitrate Management Plan (SNMP) and its associated technical documents propose long-term solutions for addressing salinity. For example, the Strategic Salt Accumulation Land and Transportation Study (SSALTS) identified and evaluated potential salt management strategies, including development of regional de-salters and a regulated brine line.[1] These types of management strategies are long-term solutions that will require significant state and federal funding to implement. In the meantime, the Central Valley Water Board must implement the Basin Plans through the adoption of waste discharge requirements that consider the beneficial uses to be protected and the water quality objectives associated with those beneficial uses.

Because the solutions for addressing salinity are long-term in nature, the Central Valley Water Board needs be able to consider innovative salt management strategies for both the short term and the long

[1] CV-SALTS, *Strategic Salinity Alternatives Land and Transportation Study, Final Phase 2 Report: Development of Potential Salt Management Strategies*, prepared by CDM Smith, October 1, 2014

term. This includes needing additional regulatory flexibility with respect to the issuance of waste discharge requirements and conditional waivers (WDRs/Conditional Waivers) and the inclusion of salinity related requirements. Other policies being proposed with the SNMP that provide this additional regulatory flexibility include the Salinity Management to Provide Reasonable Protection of AGR Beneficial Uses in Groundwater (AGR Policy), Secondary Maximum Contaminant Level Policy (Secondary MCL Policy), Revisions of the Exceptions Policy for Waste Discharges to Groundwater (Exceptions Policy), Offset Policy, Drought Conservation Policy and the Management Zone Policy. The Salinity Management Strategy provided here is intended to provide the Central Valley Water Board with a process for moving forward with long-term salinity management strategies while identifying an interim permitting approach for salinity discharges.

2.0 Existing Regulatory Requirements

2.1 Basin Plans

As indicated previously, the Basin Plans designate the beneficial uses for groundwaters in the Central Valley. A summary of these beneficial use designations is provided here for each Basin Plan.

The SRSJR Basin Plan states that "unless otherwise designated by the Regional Water Board, all ground waters in the Region are considered as suitable or potentially suitable, at a minimum, for municipal and domestic water supply (MUN), agricultural supply (AGR), industrial service supply (IND), and industrial process supply (PRO)."[2] With respect to MUN designations, the SRSJR states that in making exceptions to the designation of MUN, the Central Valley Water Board will apply the exception criteria from State Water Board Resolution No. 88-63.

The exception criteria for MUN relevant to salinity are as follows:

- The total dissolved solids (TDS) exceed 3,000 mg/L (5,000 µmhos/cm, electrical conductivity) and it is not reasonably expected by the Regional Water Board [for the ground water] to supply a public water system, or
- There is contamination, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot be reasonably treated for domestic use using either Best Management Practices or best economically achievable treatment practices, or

With respect to the AGR, IND and PRO beneficial uses, the SRSJR Basin Plan includes the following salinity relevant exception criterion:

- There is pollution, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot reasonably be treated for agricultural use [or industrial use] using either Best Management Practices or best economically achievable treatment practices.[3]

The TLB Basin Plan includes the same general beneficial uses, and exceptions criteria. However, the TLB Basin Plan also includes a table of the various hydrologic units that identifies the applicable designated beneficial uses. Generally, all hydrologic units are designated with MUN unless otherwise footnoted. Further, the TLB Basin Plan includes language that states, "Existing beneficial uses generally apply within

[2] SRSJR Basin Plan, Pg. II-3.00.
[3] SRSJR Basin Plan, Pg. II-3.00; TLB Basin Plan, Pg. II-3.

the listed Detailed Analysis Unit (DAU). Due to the size of the DAUs, however, the listed uses may not exist throughout the DAU."[4]

2.2 Water Quality Objectives

The SRSJR Basin Plan does not establish an explicit water quality objective for salinity in groundwater. However, the SRSJR Basin Plan relies on the following narrative water quality objective to protect water quality:[5] *"Ground waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses."* The SRSJR Basin Plan also incorporates by reference for application to groundwaters with the MUN designation the secondary maximum contaminant levels that are applicable to specific salinity ions.

The TLB Basin Plan includes the same narrative water quality objective and incorporation of the secondary maximum contaminant levels as the SRSJR Basin Plan, as described in the previous paragraph.[6] In addition, the TLB Basin Plan establishes a policy that allows for controlling the rate of increase of salinity ("managed degradation") by regulating both the maximum increase in salinity concentrations attributable to consumptive use ("*maximum EC shall not exceed the quality of the source water plus 500 µmhos/cm*")[7] and the maximum average annual increase in groundwater salinity on a basin-specific basis:[8]

> *"All ground waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use and management of water resources.*
>
> *No proven means exist at present that will allow ongoing human activity in the Basin and maintain ground water salinity at current levels throughout the Basin. Accordingly, the water quality objectives for ground water salinity control the rate of increase.*
>
> *The maximum average annual increase in salinity measured as electrical conductivity shall not exceed the values specified in Table III-4 for each hydrographic unit shown on Figure III-1.*
>
> *The average annual increase in electrical conductivity will be determined from monitoring data by calculation of a cumulative average annual increase over a 5-year period."*

The maximum average increase in electrical conductivity (EC) allowed varies by hydrographic unit, ranging from 1 µS/cm to 6 µS/cm in the Westside (North and South) and Tule River and Poso hydrographic units, respectively.[9]

As noted above, the TLB Basin Plan allowed for managed degradation by regulating the maximum average annual increase in groundwater salinity on a basin-specific basis. The Basin Plan assumed that average annual increase would be determined from monitoring data using the prescribed method.

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[4] TLB Basin Plan, Pg. II-2.
[5] SRSJR Basin Plan, Pg. III-10.00
[6] TLB Basin Plan, Pg. III-7.
[7] TLB Basin Plan, Pg. IV-11
[8] TLB Basin Plan, Pg. III-8 (see TLB Basin Plan for referenced table and figure)
[9] TLB Basin Plan, Pg. III-8, Table III-4

However, a data monitoring network was never developed as planned and the allowable rate of increase of salt incorporated into the regulation has not been implemented as intended.

Both Basin Plans indicate that the objectives (narrative and numeric) do not require improvement over naturally occurring background concentrations.

2.3 Other Basin Plan Provisions

Beyond the designation of beneficial uses and water quality objectives, the Basin Plans include other provisions in their respective implementation chapters relevant to salinity. For example, the TLB Basin Plan specifically calls out the long-term problem of increasing salinity in groundwater and recognizes that degradation of ground waters by salts is unavoidable without a plan for removing salts from the Basin.[10] With respect to the sources of salt, the TLB Basin Plan indicates that such sources "should be managed to the extent practicable to reduce the rate of ground water degradation."[11] For the SRSJR Basin Plan, there is recognition that salt management is becoming increasingly important, and that strategies for development of a valley wide drain for elevated salt discharges needed to be pursued.[12]

Although both Basin Plans recognize the difficulties associated with the management of salt, and the practical challenges associated with regulating discharges of salinity when there exists minimal pathways for removing salts from the Central Valley, the Central Valley Water Board must insure protection of beneficial uses as specified in the Basin Plans including salinity requirements in permits for municipal, agricultural and industrial dischargers. The process for imposing such requirements has varied, and is often dependent on the most sensitive beneficial use that may be impacted by the discharge.

For example, when the AGR beneficial use is considered to be the most sensitive, the Central Valley Water Board staffs typically follow the *Policy for Application of Water Quality Objectives* to evaluate compliance with narrative water quality objectives and to set permit limits. That means that the narrative chemical constituents objective is interpreted with relevant numerical criteria and guidelines. Interpretation of the narrative objective to protect the AGR beneficial use is discussed at length in Draft Policy No. X: Salinity Management to Provide Reasonable Protection of AGR Beneficial Uses in Groundwater (AGR Policy), and such discussion is not repeated here.

When MUN is the most sensitive beneficial use, Central Valley Water Board staffs have typically applied the secondary maximum contaminant level for TDS or EC, chloride and sulfate, which actually consists of three different values: recommended, upper and short-term.[13] Application of these secondary maximum contaminant level values is discussed at length in the Draft Policy No. X: Secondary Maximum Contaminant Levels (Secondary MCL Policy) and that discussion is not repeated here.

The TLB Basin Plan is further complicated because it includes specified effluent limits and/or provisions relevant to salinity discharges from municipal, industrial and oil field wastewater discharges to land.[14]

[10] TLB Basin Plan, Pg. IV-5.
[11] TLB Basin Plan, Pg. IV-6.
[12] SRSJR Basin Plan, Pg. IV-2.00.
[13] 22 CCR Table 64449-B
[14] TLB Basin Plan, Pgs. IV-11 - IV-15.

2.4 State Policies

Recycled Water Policy

State Water Board Resolution 2009-0011 (as amended by Resolution 2013-0003) established a Recycled Water Policy for the State of California. The purpose of the Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources in a manner that implements state and federal water quality laws. Policy implementation is intended to encourage the use of recycled water, stormwater, water conservation, conjunctive use of surface and groundwater, and improve the use of local water supplies. Within the Recycled Water Policy is a requirement for the development of salt and nutrient management plans for each groundwater basin in California. The requirements for the development of these plans is found in the State Water Board Resolution.

Sources of Drinking Water Policy

The Sources of Drinking Water Policy establishes a policy that all waters are considered suitable or potentially suitable to support the MUN beneficial use, with certain exceptions. The Basin Plans implement this policy by generally assigning the MUN beneficial use to all surface waters and groundwaters in the Central Valley unless those waters have already been identified as not supporting the MUN use in the Basin Plans. Under existing regulations, exemptions to the MUN beneficial use can only be made in the Basin Plans themselves.

3.0 Salinity Management Strategy

CV-SALTS recommends a long-term Salinity Management Strategy through the SNMP that:

- Controls the rate of degradation (“managed degradation”)
- Achieves long-term sustainability (salt balance)
- Restores groundwater basins where feasible, practicable and reasonable.

Because of the long-term nature of salinity management, this Salinity Management Strategy is phased over time. The first phase consists of developing a Prioritization and Optimization Study for salinity management. In general, the Prioritization and Optimization Study will consist of the following:

- Evaluating the impact of all state policies that impact management of salinity in the Central Valley (e.g., Bay Delta Plan);
- Identifying physical projects, and proposed locations for long-term management of salinity (e.g., regulated brine line, salt-sinks, regional de-salters);
- Identifying non-physical projects that help with managing salinity;
- Developing governance structures for implementation of the physical projects;
- Identifying funding sources that will be necessary for implementation of large-scale capital physical projects (state and federal capital expenditures);
- Identifying the various environmental permits (and time-line for obtaining the permits) that will be needed to implement the preferred physical projects;

- Conducting conceptual design for applicable projects; and,
- Other related activities.

It is anticipated that development of the Prioritization and Optimization Study will take approximately 10-years. Once the Prioritization and Optimization Study is completed, which will include identification of a proposed project, funding plan, and timeline for implementation (i.e., plan for environmental permitting), Phase II of the Salinity Management Plan will be implemented.

Phase II will generally consist of environmental permitting, obtaining funding, and engineering and design. It is anticipated that Phase II will take approximately another 10 years. Actual construction of the physical projects, and in particular a regulated brine line, identified in the Prioritization and Optimization Study would then follow after completion of Phase II (i.e., Phase III), which is highly dependent on obtaining the necessary public funding to build a regulated brine line.

3.1 Funding and Overseeing the Prioritization and Optimization Study

Conducting the Prioritization and Optimization Study is anticipated to cost $X million, and as indicated, 10 years to complete. In light of the cost and time associated with this comprehensive, valley-wide effort, CV-SALTS recommends that all (or almost all) dischargers of salinity help fund its implementation. Further, others that benefit from the Central Valley's control of salinity should also be part of this effort and assist in funding this Study. For dischargers, their contribution should be proportional to the dischargers actual impact on salinity build-up in the Central Valley.

The likely entity(ies) that would take the lead in moving forward with the Prioritization and Optimization Study is the Central Valley Salinity Coalition, along with the CV-SALTS executive policy committee. However, it is anticipated that both of these entities may need to adjust their membership and policy structures slightly with respect to conducting the Prioritization and Optimization Study.

3.2 Interim Salinity Permitting Approach

While the Prioritization and Optimization Study is being implemented, CV-SALTS recommends that the Basin Plans be amended to identify an interim salinity permitting approach for discharges of salinity. This approach allows the Central Valley Water Board to manage degradation while the long-term salinity efforts are being implemented. Because this approach is intended to be interim in nature, this approach would likely include a sunset provision in the Basin Plan, which could be renewed depending on the efforts associated with implementing the various applicable stages of the Salinity Management Strategy. At the outset, CV-SALTS recommends that the interim permitting approach be set in place for 20 years, to allow for implementation of Phases I and II of the Salinity Management Strategy. At the end of Phase II, it may be necessary to extend the Interim Salinity Permitting approach to allow for implementation of Phase III. The Interim Salinity Permitting approach is discussed in more detail in Section 3.0 below.

3.3 Recommendations to Other Agencies

The program of implementation in the Basin Plans include Central Valley Water Board recommendations to other agencies that are deemed necessary to implement water quality objectives and to obtain and/or maintain beneficial uses. To implement long-term salinity management and to achieve salt sustainability in the Central Valley, CV-SALTS sees this as a statewide issue. Accordingly, efforts to achieve salt sustainability in the Central Valley will take extraordinary effort on the part of the Central

Valley Water Board, dischargers and many others. For example, many actions taken by the State Water Resources Control Board, Department of Water Resources and the U.S. Bureau of Reclamation impact salinity build up in the Central Valley. Further, efforts being taken to comply with the Sustainability Groundwater Management Act will likely impact groundwater salinity issues in the Central Valley. In light of these many related actions and efforts, it is appropriate that the Basin Plan be amended to recognize the impact of other agency actions, and make recommendations for how these agencies should interact and be part of implementing the Central Valley's Salinity Management Strategy.

4.0 Proposed Interim Permitting Approach for Discharges of Salinity

CV-SALTS recommends implementation of an Interim Salinity Permitting approach that is consistent with the Salinity Management Strategy described above and addresses the existing regulatory challenges, also described above. The approach, which is described in Section 2.2, is based on the findings and governing principles described below.

4.1 Findings and Governing Principles

The proposed interim permitting approach for salinity is based on the following findings and governing principles:

- This approach applies exclusively to permitting salinity discharges to groundwater in the defined interim period. In this regard, the policy determinations permitting salinity discharges to groundwater may influence similar decisions related to permitting salinity discharges to surface water quality that will occur during this defined interim period. Notably, the interim salinity permitting approach provided here does not override numeric water quality objectives or other plans or policies intended to address salt and water supply, such as the Bay-Delta Plan.[15]

- The proposed approach for permitting salinity discharges to groundwater must be implemented in a manner consistent with the State Antidegradation Policy (i.e., Resolution No. 68-16), as applicable.[16]

- No proven means exist at present that will allow ongoing human activity in the Central Valley Region and maintain salinity levels throughout every groundwater basin.[17] Therefore, the interim salinity permitting approach focuses on managing degradation while the long-term components of the Salinity Management Strategy are being implementation.

- It is reasonable to employ long-term averaging periods, e.g., use of annual averages rather than monthly or quarterly averages, when developing limitations and/or provisions related to salinity in groundwater. For example, the salt load currently existing in the vadose zone is typically unknown, but this load can impact the quality of the underlying groundwater over many years. In addition, the time required for recharge water to transit the vadose zone and return to use as groundwater at a nearby agriculture water supply well can be significant. Therefore, the need for shorter averaging periods is considered generally unnecessary for managing salinity in groundwater.

[15] Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, State Water Board, December 13, 2006.
[16] State Water Board Resolution 68-16. *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (Antidegradation Policy)
[17] TLB Basin Plan, Pg. III-8.

- Because of the long-term nature for implementation of the Salinity Management Strategy, it is reasonable to expect that dischargers will not be able to implement such strategies individually, but will need to participate in a larger collective effort. The larger collective effort would begin with implementation of the Prioritization and Optimization Study (Phase I), followed by Phases II and III. Due to the anticipated costs of these efforts, it is appropriate that discharges not be subject to extensive and/or expensive salinity permit requirements during this interim period. In particular, individual discharge efforts would have little impact on Central Valley salinity management as a whole, and as such they are not reasonable, feasible or practicable.
- It is reasonable to expect that WDR/Conditional Waiver requirements with respect to implementing the Salinity Management Strategy will be phased in appropriately to allow for the need to address drinking water issues for nitrates first. The SNMP identifies nitrate drinking water issues as its first near-term priority. Salinity is also a priority, but due to the complexities associated with salinity, will need to be addressed over the long-term.

4.2 Proposed Framework for Interim Salinity Permitting Approach – OPTIONS FOR DISCUSSION AT AUGUST 1 POLICY MEETING

Two options are currently being considered as an interim salinity permitting approach. These are described in Sections 4.2.1 and 4.2.2 (section to be revised based on outcome of option discussion).

4.2.1 OPTION ONE

Given the findings and governing principles described above, CV-SALTS recommends an interim permitting approach for salinity-related discharges to groundwater. To implement this approach in WDRs/Conditional Waivers, it will be necessary for the Central Valley Water Board to renew/revise existing WDRs/Conditional Waivers. Further, during this interim period, there will be new dischargers, or existing dischargers seeking facility modifications, that will have salinity discharges. The SNMP recommends a prioritization approach for addressing nitrate drinking water issues based on the severity of water quality contamination and immediate impact to users. It is not the intent of the Salinity Management Strategy to use limited available resources to revise WDRs/Conditional Waivers for salinity, especially where there are significant nitrate water quality issues. However, there is a need to ensure that efforts are moving forward with respect to the Prioritization and Optimization Study.

To balance these two needs, CV-SALTS recommends that the Central Valley Water Board, in cooperation with stakeholders, develop a single (or series of selected) resolution(s) that amends all applicable WDRs/Conditional Waivers. In general, the resolution(s) would require dischargers to continue current reasonable, feasible and practicable efforts to implement salinity management practices and/or source control efforts, and to monitor for salinity in surface and groundwater as part of their applicable monitoring programs. Discharge levels of salinity would need to remain fairly consistent with current levels, accounting for conservation and some appropriate increment of growth. Most importantly, discharges being permitted under this interim approach would be required to participate in efforts related to the Prioritization and Optimization Study, and subsequent Phases II and III as applicable. The level of participation would vary based on salinity in the discharge as well as local conditions, and the needed level of participation would be established by the collective entity that is overseeing the Prioritization and Optimization Study. The resolution(s) would establish the time-frame for application

of the interim permitting approach, which could not exceed 20 years in length. However, it is expected that the resolution(s) would be subject to review and potential revision after completion of Phase I.

The resolution(s) should include provisions that allow dischargers the discretion to opt out of participation in efforts to prepare the Prioritization and Optimization Study. However, CV-SALTS recommends that dischargers wishing to opt out be permitted under current traditional permitting approaches, and be required to show that they do not cause or contribute to exceedances of groundwater limitations for salinity constituents in first encountered groundwater. Any proposed use of assimilative capacity would be subject to Resolution No. 68-16, and in making the necessary findings for allocating use of assimilative capacity, the Central Valley Water Board will need to find that issuing the individual allocation of assimilative capacity is to the maximum benefit to the people of the region, which includes a finding that such discharges are consistent with the Salinity Management Strategy.

To prepare the appropriate resolution(s) that amend the salinity provisions in existing permits, and that establish such provisions for future permits, CV-SALTS recommends that the Central Valley Water Board and relevant stakeholders begin the process for developing such resolution(s) as soon as possible. Such resolutions should be prepared and ready for Central Valley Water Board consideration within 1 year of the Basin Plan amendments being effective. In the meantime, while such resolutions are being developed, CV-SALTS recommends that the Central Valley Water Board permit salinity discharges in a reasonable manner that looks to implementing the Salinity Management Strategy as set forth in the SNMP.

4.2.2 OPTION TWO

WDRs/Conditional Waivers would be revised overtime, as WDRs/Conditional Waivers are being reviewed based on nitrate priorities. In other words, WDRs in high priority nitrate areas may need to consider salinity impacts sooner than others, and be subject to the Salinity Permitting Strategy as outlined here. Likewise, dischargers that need to obtain a new WDR, or renewal of an existing WDR due to a significant modification to a facility or for other reasons, will be subject to the Salinity Permitting Strategy at the time of issuance/renewal. The Central Valley Water Board retains the discretion to review and revise WDRs/Conditional Waivers as it deems necessary. Thus, the Central Valley Water Board maintains the discretion to identify high priority dischargers, or salinity impaired areas for WDR/Conditional Waiver renewal even though the area is not prioritized for review because nitrates are not a priority in that Basin/Subbasin. However, with this alternative, there is less certainty with respect to when resources will be available to fund the Prioritization and Optimization Study.

4.2.2.1 Preliminary Assessment to Determine Most Sensitive Beneficial Use, Applicable Water Quality Objective, & Proposed Approach for Permit Compliance (e.g., use assimilative capacity)

The proposed framework includes identification of the applicable beneficial uses, determination of which beneficial use is most sensitive (i.e., AGR or MUN), and determination of the appropriate path for permit compliance. These framework elements are discussed below.

Identify Most Sensitive Beneficial Use and Applicable Water Quality Objective

To actually determine which beneficial use is the most sensitive, and where the groundwater in question has both the MUN and AGR designated beneficial use, it may be necessary to first determine the applicable water quality objectives. For example, to determine how to interpret the narrative water

quality objective to protect the AGR beneficial use, the discharger will need to rely on the AGR policy to identify an applicable numeric value associated with protecting the local AGR beneficial use.[18] Similarly, where the MUN beneficial use also exists, the discharger will need to determine what value from the secondary maximum contaminant level table (22 CCR Table 64449-B) appropriately applies. Once these numeric values are identified, the value that is more stringent and its associated beneficial use, will dictate what is the most sensitive beneficial use. Also for consideration here will be natural background concentrations. To the extent that natural background is higher than any other applicable water quality objective, natural background will be considered the objective.

To identify the applicable beneficial use and associated water quality objectives for AGR, dischargers (individually or collectively) may rely on the default production zone values included in the SNMP for each basin/sub-basin. Or, in the alternative, dischargers may propose alternative methods for identifying applicable water quality objectives for groundwaters within the area of the discharge. For example, for determining the appropriate applicable AGR objective, dischargers may propose to create Crop Sensitivity Zones, or conduct a site-specific analysis to determine appropriate thresholds and points of compliance for interpreting the AGR beneficial use. Such an approach may, for defined areas, identify protective irrigation water salinity concentrations based on crop cover, management, climatic, and hydrographic data (which would relate the groundwater aquifer to the lands that rely on that aquifer for irrigation water, and lands that recharge to the aquifer).

For determining the appropriate applicable secondary MCL, dischargers may also conduct site-specific analyses to determine the appropriate threshold, averaging period and point of compliance for the MUN beneficial use. Such an approach may look to factors such as determining if one of the criteria for exceptions to the Sources of Drinking Water Policy applies (e.g., TDS exceeds 3,000 mg/L and it is not reasonably expected that the groundwater in question would supply a public water system). In cases where the groundwater in question fits within one of the exception criteria, the discharger should work with the Central Valley Water Board to determine if it is appropriate to de-designate the groundwater as having MUN. If de-designation is considered inappropriate, the discharger should seek to have the Central Valley Water Board apply alternative compliance (discussed further below).

Evaluate Availability of Assimilative Capacity

Once the applicable water quality objective (or numeric value interpreting the narrative water quality objective) is identified, the discharger (or collective group of dischargers) should determine if assimilative capacity is available. This determination may be made by using the default information in the SNMP for the basins/sub-basins, or through a site-specific analysis as described immediately above. Assimilative capacity can also be determined on a management zone basis if a management zone has been developed and approved for the area in question, and the management zone proposal includes addressing salinity as well as nitrate related issues.

The availability of assimilative capacity provides no guarantee that the Central Valley Water Board will allow the use of such assimilative capacity. Rather, it establishes the basis for a discharger (or group of dischargers) to further evaluate the viability of using available assimilative capacity to the extent that use of assimilative capacity is necessary for the Central Valley Water Board to permit the discharge.

[18] see Draft Policy No. X: Salinity Management to Provide Reasonable Protection of AGR Beneficial Uses in Groundwater (AGR Policy)

Actual WDR requirements related to use of assimilative capacity are discussed further in section 2.2.2 below. If assimilative capacity is available for the discharge (or collective discharges) in question, and the discharger (or group of dischargers) intends to seek use of available assimilative capacity, additional analysis may be necessary.

Specifically, as part of its preliminary assessment, the discharger(s) will need to evaluate how much assimilative capacity in the default basin/sub-basin would be used over a 20-year period, and further evaluate the impact of their use of assimilative capacity on other dischargers within the same basin/sub-basin. Consideration of the impact on the basin/sub-basin would need to occur even if the discharger(s) use an alternative means (i.e., site specific analysis) for evaluating available assimilative capacity.

If assimilative capacity for salinity constituents is not available, discharger(s) would need to evaluate other alternative means for compliance as allowed by the Basin Plans (e.g., seek an exception). This evaluation would need to be included in the preliminary assessment.

It is anticipated that the preliminary assessment described here would be prepared by the discharger(s), and submitted to the Central Valley Water Board for consideration. The SNMP recommends that existing dischargers submit the preliminary assessment within six (6) months after the Central Valley Water Board has provided notice to the discharger(s) that it intends to re-evaluate salinity requirements within their WDR/Conditional Waiver. In the event that an existing discharger seeks a permit modification, or a new discharger seeks adoption of a WDR/Conditional Waiver, the preliminary assessment shall be part of their Report of Waste Discharge, and the timing for submittal shall be consistent with Water Code section 13264, or other applicable statutes. In situations where permit renewal has been triggered due to prioritization related to nitrates, timing for submittal of this preliminary assessment information shall parallel and be coordinated with timing requirements associated with compliance with the nitrate components of the SNMP, which will depend on a discharger's election to participate in a management zone or as an individual.

4.2.2.2 Salinity Permit Provisions

In consideration of the information contained in the preliminary assessment, the Central Valley Water Board will include salinity related permit requirements in WDRs/Conditional Waivers that are intended to implement the SNMP and the Salinity Management Strategy. There may be some exceptions with respect to WDRs/Conditional Waivers needing salinity related permit requirements. These exceptions would be in situations where salinity levels in the discharge are clearly de minimus in nature, or where the discharge does not exceed the applicable salinity-based objective at the confluence with the receiving water and is lower than the level of salinity in the receiving water (i.e., not causing degradation to a high quality water). Actual permit requirements may vary depending on the level of impact to groundwater quality, and impacts to actual users of the groundwater.

When certain trigger criteria are exceeded (development of such criteria has not yet occurred), salinity related permit requirements may include provisions that require the discharger to participate in efforts to implement the Salinity Management Strategy. Such requirements may include the following:

- Commitments to direct participation in efforts to fund the Prioritization and Optimization Study
- Source control efforts

- Implementation of management practices
- Salinity reduction goals

If the discharge does not exceed the trigger criteria, or cause the receiving water to exceed trigger criteria, salinity implementation measures shall be incorporated into the WDR/Waiver to the extent deemed necessary by the Central Valley Water Board to comply with the State Antidegradation Policy and limit further degradation consistent with the Central Valley SNMP.

Other salinity permit provisions may include receiving water limits rather than water quality-based salinity effluent limitations. In other words, in developing actual permit limits, Central Valley Water Board staff should look to see how the discharge actually impacts the receiving water, compliance with objectives at the confluence with the receiving water, and those actually using the water for the intended beneficial use. This may include consideration with respect to appropriate averaging periods, points of compliance and economic impact on actual users of the groundwater in question.

If use of assimilative capacity is necessary, then the Central Valley Water Board shall only grant assimilative capacity if it establishes WDR provisions that ensure compliance with Resolution 68-16. When permitting the discharge, and authorizing use of assimilative capacity, the Central Valley Water Board is encouraged to include a performance based permit limitation. Establishment of the performance based permit limit should include consideration of water conservation efforts that may cause salinity concentrations in the discharge to increase overtime, even though the salinity load will remain the same, or decrease.

Further, before authorizing use of assimilative capacity for salinity constituents, the Central Valley Water Board should consider the following factors:

- Would the discharge(s) consume more than 10% of available assimilative capacity within the basin/sub-basin (or management zone area if one is established) in areas where the “trigger” has not been exceeded?
- Would the discharge cause the groundwater to exceed a specified trigger criterion within a 20-year horizon?
- Is there a reasonably feasible and practicable means for achieving compliance with receiving water limitations without granting assimilative capacity, or without granting the full amount of assimilative capacity otherwise needed?
- Does granting assimilative capacity further the goals of the SNMP?

In situations where there is no assimilative capacity, or the Central Valley Water Board decides that there is insufficient assimilative capacity available, the discharger(s) may seek an exception or offset in accordance with the provisions of those specific policies. Salinity permit limits must be consistent with the requirements set forth in those policies.

5.0 Proposed Modifications to the Basin Plans to Support Policy Implementation

The following subsections summarize the key changes anticipated for each Basin Plan to support adoption of this policy.

Existing and Potential Beneficial Uses

For discussion purposes: (1) should the tables in the TLB Basin Plan be revised to match the DWR Basins/Subbasins? (2) should tables be added to the SRSJR to match the DWR Basins/Subbasins?

Water Quality Objectives

See Secondary Maximum Contaminant Policy and AGR Policy.

For discussion purposes: (1) should the managed degradation objectives be deleted from the TLB Basin Plan?

Implementation

For discussion purposes: (1) should the salinity related limitations in the TLB Basin Plan, Implementation Chapter be eliminated for municipal, industrial and oil field wastewater? (2) should the interim salinity permitting approach be adopted into the implementation chapter of the Basin Plans?

CV-SALTS Meeting Calendar

2016

1 January

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

2 February

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

3 March

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

4 April

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

5 May

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

6 June

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

7 July

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

8 August

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
32		1	2	3	**4**	5	6
33	7	8	9	10	11	12	13
34	14	15	16	**17**	18	19	20
35	21	22	23	24	25	26	27
36	28	29	30	31			

9 September

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

10 October

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
40							1
41	2	3	4	5	**6**	7	8
42	9	10	11	12	13	14	15
43	16	17	18	19	20	21	22
44	23	24	25	26	27	28	29
45	30	31					

11 November

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
45			1	2	**3**	4	5
46	6	7	8	9	10	11	12
47	13	14	15	16	17	18	19
48	20	21	22	23	24	25	26
49	27	28	29	30			

12 December

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

Notes/Key

Light Red conflicts

January is a Thursday/Friday

Wed/Thurs 4th or 3rd

Dark Green Exec Comm Policy

Fridays at 1:00 pm

Lt. Green Hatch Exec Comm Admin

or **State Board Presentation**

Yellow Salty 5

Lower SJ River Committee

Regional Board Breifing 8/17

TAC Meeting

Regional Board Presentation 6/22

Wednesday Meetings are DRAFT

May be held by Webinar or

in person in Sacramento half day