

CV-SALTS Executive Committee Meeting

July 15, 2015 – 1:00 PM to 4:00 PM

Sacramento Regional Sanitation District Offices – **Valley Oak Room**
10060 Goethe Rd, Sacramento 95827

Teleconference (712) 432-0360 Code: 927571#

Go-To-Meeting Link: <https://global.gotomeeting.com/join/631156157>

Posted 07-06-15 – Revised 07-13-15

AGENDA

1) Welcome and Introductions - Chair

- a) Committee Roll Call and [Membership Roster](#) -5 min.
- b) Review/Approve Executive Committee Meeting Notes for June 17 & 18, 2015 – 5 min.
 - [June 17th Meeting Notes](#)
 - [June 18th Meeting Notes](#)

2) Secondary MCLs – Tim Moore (3 hours)

Review revised rationale, proposed changes to the water quality objective for "Chemical Constituents," and recommended implementation policy related to the Secondary Maximum Contaminant Levels (SMCLs).

- [Revised Strawman Proposal: Revisions to Water Quality Objectives for Secondary MCLs](#)
- [Secondary MCLs: Summary of the WDR Permitting and Implementation Issues](#)

3) Set next meeting dates

- July 16th Policy Session
- August 7th Admin Meeting 1:00 PM-2:30 PM
- August 13th Policy Session

CV-SALTS meetings are held in compliance with the Bagley-Keene Open Meeting Act set forth in Government Code sections 11120-11132 (§ 11121(d)). The public is entitled to have access to the records of the body which are posted at <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 During 2014-2015													
Voters	Category/Stakeholder Group	Name	16-Oct	7-Nov	13-Nov	8-Jan	16-Jan	20-Feb	19-Mar	9-Apr	1-May	21-May	17-Jun	18-Jun	10-Jul	15-Jul
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	Michael Mosley				✓	✓	✓		✓	✓	✓		✓		
5	Environmental Justice	Jennifer Clary			✓							✓				
6	Environmental Water Quality	TBD														
CV Salinity Coalition																
1	So. San Joaquin WQC	Dave Orth														
Alt	So. San Joaquin WQC	Casey Creamer	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	City of Stockton	Robert Grandberg														
3	California Cotton Growers	Chris McGlothlin	✓		✓	✓			✓	✓				✓		
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	Erich Delmas				✓			✓	✓		✓				
Alt	City of Tracy	Dale Klever														
8	Sacramento Regional CSD	Lysa Voight	✓		✓	✓			✓	✓	✓		✓	✓	✓	
Alt	Sacramento Regional CSD	Carolyn Geisler-Balazs		✓			✓			✓		✓				
9	San Joaquin Tributaries Authority	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	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓
14	Western Plant Health Assoc.	Renee Pinel		✓						✓		✓				
15	City of Vacaville	Royce Cunningham		✓	✓	✓										
16	Dairy Cares	J.P. Cativiela	✓		✓	✓			✓	✓		✓	✓	✓	✓	✓
Alt	Dairy Cares	ALT														
17	Westlands Water District	Jose Guterrez		✓					✓							
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 During 2014-2015														
Last	First	Organization	18-Sep	16-Oct	7-Nov	13-Nov	8-Jan	16-Jan	20-Feb	19-Mar	9-Apr	1-May	21-May	17-Jun	18-Jun	10-Jul	15-Jul
Alexander	John	City of Davis															
Archibald	Elaine	CUWA			✓	✓	✓		✓	✓		✓	✓	✓	✓		
Ashby	Karen	LWA	✓				✓	✓	✓	✓	✓	✓		✓			
Barclay	Diane	SWRCB	✓	✓		✓	✓			✓	✓		✓		✓		
Bell	Nicole	KRWCA								✓	✓		✓	✓	✓		
Boyle	Dylan	LSCE													✓		
Buford	Pam	CVRWQCB	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		
Cady	Mark	CDFA											✓		✓		
Cehrs	David	KRCD													✓		
Clary	Jennifer	CWA															
D'Adamo	Dee Dee	SWRCB	✓			✓	✓										
Dickey	John	Plantierra				✓				✓			✓	✓	✓		
Doduc	Tam	SWRCB								✓	✓						
Dunham	Tess	Somach Simmons	✓	✓		✓	✓			✓	✓		✓	✓	✓		
Escobar	Juan	DWR												✓	✓		
Felton	Mark	Culligan Wtr/PWQA		✓		✓											
Firestone	Laurel	CWC									✓		✓	✓	✓		
Gallock	Charolotte	WWD					✓					✓		✓	✓	✓	
Gonzalez	Armando	Occidental Oil & Gas	✓		✓		✓			✓			✓		✓		
Gowdy	Mark	SWRCB,Water Rights															
Grovhoug	Tom	LWA	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓		
Herr	Joel	Systech															
Houdesheldt	Bruce	NCWA/Sac Valley WQC			✓	✓	✓	✓	✓	✓				✓	✓		
Johnson	Jeff	Chevron															
Johnson	Michael	LSJRC			✓	✓		✓	✓			✓					
Kihara	Annalisa	SWRCB					✓						✓				
Kretsinger Grabert	Vicki	LSCE	✓			✓	✓		✓	✓	✓			✓	✓		
Laputz	Adam	CVRWQCB								✓	✓						✓
LeClaire	Joe	CDM Smith		✓		✓							✓				✓
Lilien	Jonathan	Chevron					✓										
Longley	Karl	CVRWQCB		✓		✓		✓			✓		✓	✓	✓		
Meeks	Glenn	CVRWQCB	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		
Meyerhoff	Richard	CDM Smith	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓		
Moore	Tim	Risk-Sciences	✓	✓		✓	✓			✓	✓		✓	✓	✓		
Nasaei	Elnaz	SWRCB				✓											
Nordberg	Mark	DWR											✓				
O'Brien	Conor	CDFA	✓			✓	✓		✓	✓	✓						
Pirondini	Tony	City of Vacaville				✓			✓	✓	✓			✓	✓		
Pritchett	Gregory	Chevron					✓										
Pulupa	Patrick	CVRWQCB		✓		✓	✓			✓			✓	✓	✓		
Pitcher	Jennifer	West. States Petroleum	✓		✓	✓	✓	✓			✓		✓				
Quasebarth	Tom	CDM Smith															
Rodgers	Clay	CVRWQCB	✓	✓		✓	✓			✓	✓		✓	✓	✓		
Seaton	Phoebe	CRLA	✓				✓				✓		✓		✓		
Tapia	Joe	DWR															
Tellers	Josie	City of Davis	✓	✓		✓	✓			✓	✓		✓	✓	✓		
Thomas	Bill		✓				✓				✓		✓	✓	✓		✓
Tristao	Dennis	J.G. Boswell					✓										
Wackman	Mike		✓														
Wichert	Casey									✓							

ADDITIONAL PARTICIPANTS:

CV-SALTS Executive Committee Meeting - Summary Action Notes

For June 17, 2015 – 1:00 PM to 4:00 PM

Attendees are listed on the Membership Roster

AGENDA

1) Welcome and Introductions

- a) Committee Chair Parry Klassen brought the meeting to order, and roll call was completed.
- b) David Cory moved to approve, and Casey Creamer seconded, and the May 21st action notes, were approved with the following revision:
 - o Under Agenda Item #3, add to recommendations for Item 11) of the SNMP Strawman Proposal: Revisions to Water Quality Objectives for Secondary MCLs:
 - *Tim to include discussion from legal memo (8/14/80 K. Wasserman, State Board).*

2) Develop Specifications and Requirements Associated with Establishing Groundwater Management Zones

- The committee discussed the following sections of Establishing Groundwater “Management Zones”:
 - Background
 - Purpose of Management Zones
 - Antidegradation Analysis Within a Management Zone
 - Alternative Compliance Programs/Projects (ACPs)
 - Mandatory Elements of a Local Salt and Nitrate Management Plan
- Tim Moore asked the committee to consider what scale should be used for implementing the Management Zone concept. Should a different scale be used, other than the groundwater basins/sub-basins described in DWR Bulletin 118?
- Some of the recommendations, or concerns, from the committee members were:
 - **Purpose of Management Zones**
 - Item 4) Add the phrase “adversely impacted by the discharge.”
 - Item 5) and 6) Incorporate Casey Creamer’s proposal to create the option to calculate assimilative capacity at the basin/sub-basin level for use within a more defined management zone area.
 - Item 5) and 6) Specify the requirement for adequate representation and engagement of affected stakeholders in the “normal public notice and hearing process.”
 - **Antidegradation Analysis Within a Management Zone**
 - o Some definitions to be finalized: unreasonably affect, maximum benefit, pollution or nuisance, etc.
 - Item 1b) add “down gradient”
 - Item 2) Change “domestic supply wells” to “drinking water supply wells of any size...”
 - Insert “of the discharge” after “localized impacts.”
 - Add a separate item similar to this written for AGR and salt, and expand for other uses such as food processors, etc.
 - **Mandatory Elements of a Local Salt and Nitrate Management Plan**
 - Item 7) Rewrite to clarify cannot transfer problem down gradient.
 - Item 10) Insert “where required” after “CEQA documentation...”
 - Item 18) Rewrite this to address the issue of “adequate representation and engagement of affected stakeholders. (see items 5 & 6 above under Purpose of Management Zones).

3) Set next meeting date

- The next Policy Session is June 18th. The next Admin Meeting will be July 10th. July Policy Sessions are 7/15 Half Day, and 7/16.

CV-SALTS Executive Committee Meeting - Summary Action Notes

For June 18, 2015 - 9:00 AM to 3:00 PM

Attendees are listed on the Membership Roster

AGENDA

- 1) Welcome and Introductions
 - a) Committee Chair Parry Klassen brought the meeting to order, and roll call was completed.

- 2) Methodologies for Determining Ambient Groundwater Quality, Trends, Assimilative Capacity and Best Quality Attained Since 1968
 - Vicki Kretsinger and Dylan Boyle presented the Phase II Preliminary Draft SNMP – Methods for Determining Ambient Water Quality, Trends, and Assimilative Capacity during the morning session.
 - During the afternoon session the committee discussed the Summary of Draft Policy Considerations and Questions. Input was requested from the committee on the following questions:
 - Question #3: *What is recommended to define the “shallow” part of the aquifer system (i.e., the depth [across the MZ] of part of the aquifer system that provides actual or probable beneficial use)?*
 - The committee agreed with option C, but recommended the language include more specific definition for “local hydrogeologic conditions.”
 - Question #4: *What is recommended to define the depth of the “Production Zone”?*
 - Committee recommended perhaps combining 3 & 4, and incorporating the upper/lower/production zone concepts. The committee also requested that the calculations and figures from the Alta Irrigation District Archetype be included in the report.
 - Question #1: *How should the areas (basins and/or watersheds) outside the Central Valley Floor in Region 5 be handled for purposes of the SNMP?*
 - Richard Meyerhoff will look at the data again and draft a new approach specifically for the areas outside the Central Valley Floor.
 - Question #5: *Would it be beneficial for the Management Zone concept to use the aggregate scale for permit flexibility, while using the higher resolution analysis for informed management decisions?*
 - The committee requested that a budget be developed outlining the costs for the additional work.
 - The committee also requested that LSCE draft a written methodology for the calculation of assimilative capacity to provide members with the opportunity to review prior to the full discussion on assimilative capacity later in the year.

- 3) Integrating Management Zone Development and Water Quality Analysis Methodologies
 - This item was deferred until the July meeting.

- 4) Set next meeting objectives/date
 - The next Admin Meeting will be July 10th. The next Policy Sessions are July 15th (half day), and July 16th.



Revised Strawman Proposal: Revisions to Water Quality Objectives for Secondary MCLs

Background

In September of 2007, the Central Valley Regional Board issued Waste Discharge Requirements and a Master Reclamation Permit to the City of Lodi (Order No. R5-2007-0113; NPDES No. CA0079243). In October of 2007, the California Sportfishing Protection Alliance (CALSPA) filed a petition with the State Water Resources Control Board (SWRCB) seeking review of the aforementioned permit.

In June of 2009, the Regional Board submitted written comments to the SWRCB opposing CALSPA's claim that the Secondary Maximum Contaminant Levels (SMCLs) for drinking water must be applied as water quality objectives when developing Waste Discharge Requirements (WDRs) or effluent limits. The Regional Board noted that such an approach would be more stringent than and inconsistent with the manner in which the California Department of Health (CDPH) implements these same standards on drinking water systems. The Regional Board also stated that there should be some exception made when the natural background concentration of one or more constituents in the receiving water exceeds the SMCL.

In July of 2009, the State Water Resources Control Board (SWRCB) remanded the permit in part for failure to make findings necessary to demonstrate the permit complies with the Basin Plan objectives for certain chemical constituents including the SMCLs (WQO No. 2009-0005). The SWRCB noted that the Basin Plan incorporates only the numeric values specified in select tables from Title-22 but does not specifically reference the monitoring, reporting, waiver or other provisions that provide context for those tables. Consequently, the current Basin Plan allows little discretion when the Regional Board is developing waste discharge requirements to implement these particular objectives.

The proposed revisions to the Water Quality Objectives chapter of both Basin Plans will address the issues raised by the City of Lodi's permit and clarify the Regional Board's full range of authority to implement the SMCLs in a manner more consistent with the original purpose and intent of 22 CCR §64449.

Justification for the Proposed Revisions:

- 1) When the SMCLs were incorporated by reference as water quality objectives, only Table 64449-A and Table 64449-B were explicitly referenced in the Basin Plan. Other relevant text from 22 CCR §64449 was not specifically referenced in the Basin Plan amendment. This contextual information interferes with the Regional Board's ability to develop appropriate Waste Discharge Requirements (WDRs) based on the values enumerated in the two tables.

For example, the "Recommended" levels specified in Table 64449-B have been construed as "not-to-exceed" values in WDRs and NPDES permit limits. Such an approach is not consistent with the full text of §64449(d) which states:

"For the constituents shown on Table 64449-B, no fixed consumer acceptance contaminant level has been established. (1) Constituent concentrations lower than the Recommended contaminant level are desirable for a higher degree of consumer acceptance. (2) Constituent concentrations ranging to the Upper contaminant level are acceptable if it is neither reasonable nor feasible to provide more suitable water." (emphasis added)

The Regional Board should be authorized to consider the full range of "Consumer Acceptance Contaminant Levels" described in Table 64449-B when establishing reasonable and appropriate WDRs to protect water supplies that may be affected by the discharge.

- 2) Title 22 specifies that: "The secondary MCLs shown in Tables 64449-A and 64449-B shall not be exceeded in the water supplied to the public by community water systems."¹ Compliance is evaluated by requiring such systems to monitor their "groundwater sources or [for surface water] the distribution system entry points."² Revising the Basin Plan to incorporate a more complete reference to the full text of 22 CCR §64449 will allow the Regional Board to take into consideration any dilution or other attenuation that may occur between the point of discharge and any intake to a water supply system in order to develop appropriate WDRs for the SMCLs. However, the Regional Board is not necessarily obligated to authorize the full waste assimilation capacities of the receiving waters.³ The proposed revision to the Basin Plan will preserve the Regional Board's discretion to regulate SMCL constituents based on what is necessary, reasonable and feasible to protect public water supplies.
- 3) Federal and state regulations do not require adoption of the SMCLs as formal water quality objectives. Several other Regional Water Quality Control Boards (#3, #6, #7 and #9) have declined to do so. Instead, these Regions rely on narrative water quality objectives to regulate mineral concentrations where necessary to protect water supply systems that may be adversely affected by a given discharge. The values shown in Tables 64449-A and 64449-B, along with the surrounding text in §64449, are both used to inform the process of translating narrative objectives into appropriate WDRs.
- 4) The Maximum Contaminant Level Ranges for TDS and Specific Conductance in Table 64449-B are inconsistent with statewide Sources of Drinking Water Policy. SWRCB Res. No. 88-63 provides that all surface and ground waters should be considered suitable for municipal or domestic water supply until the TDS concentration exceeds 3,000 mg/L (5,000 uS/cm). Application of the SMCLs as formal water quality objectives creates considerable public confusion and regulatory uncertainty by declaring water quality to be both "suitable" and "impaired" at the same time.
- 5) The Secondary MCLs are primarily intended to address aesthetic qualities, such as taste and odor, not human health concerns. Consumer acceptance is highly subjective and complicated by factors such as the form and combination of specific constituents (e.g. sodium-sulfate vs. calcium-sulfate) and the presence or absence of other major anions and cations. The current numeric water quality objectives for SMCLs do not adequately account for the influence of these other variables. Revising the Basin Plan will afford the Regional Board more flexibility to consider all relevant factors that may affect consumer acceptance of these constituents.

¹ 22 CCR §64449(a)

² 22 CCR §64449(b)

³³ See §13263(b) of the California Water Code

- 6) The ~~California Department of Health~~ SWRCB's Division of Drinking Water (DDW) currently prohibits recycled water from being served directly through public water systems. And, ~~CDPH~~ DDW frequently disallows the use of surface or ground water sources that receive significant influence from treated wastewater for reasons related to the potential presence of human pathogens not the concentration of SMCL constituents. The current water quality objectives for SMCLs imposes an obligation to meet drinking water standards on effluent discharges receiving water that cannot currently be used as a legal drinking water supply. This, in turn, results in additional ~~and unnecessary wastewater costly~~ treatment requirements for point source and non-point source dischargers that provides no significant public benefit.
- 7) Water conservation and water recycling may increase the concentration of mineral salts. Using the lowest value from the range of consumer acceptance levels to establish numeric water quality objectives for TDS and Specific Conductance discourages dischargers (both point and non-point sources) from implementing more aggressive water conservation practices and increasing the use of recycled water. Moreover, such disincentives can occur even where the discharges may actually improve overall quality in the receiving water. The Regional Board should have the legal flexibility to develop waste discharge requirements that balance the public benefits of water conservation, water recycling and groundwater recharge against any potential impact on receiving water quality.
- 8) The Regional Board's on-going obligation to issue waste discharge requirements that are consistent with SWRCB Resolution No. 68-16 provides adequate protection against water quality degradation for the constituents identified in Table 64449-A and 64449-B. Lowering water quality is only permissible where the Regional Board has determined, through the proscribed public process, that beneficial uses will not be unreasonably affected and best practicable treatment or control (BPTC) consistent with Maximum Benefit to the people of the state has been implemented. Revising the Basin Plan does not create a license to discharge the SMCL constituents at will or authorize public nuisance. It does, however, clarify the Regional Board's full range of authority to regulate these constituents in a manner that is consistent with the original purpose and intent of 22 CCR §64449.
- 9) Where waste discharges have the potential to affect source water quality in water supply intakes/wells for community water systems located downstream/downgradient, the Regional Board may require a discharger to develop a more detailed fate and transport mass-balance analysis prior to authorizing a permit. The purpose of this mass-balance analysis will be to determine how the permitted discharge affects the concentration of constituents identified in Tables 64449-A & B at water supply intakes or water supply wells.
- 10) Historically, compliance with the SMCLs identified in Table 64449-A has been determined using the Total Recoverable metals fraction. This approach is no longer necessary because federal law requires community water systems to filter surface water prior to delivery.⁴ Continuing to rely on Total Recoverable metals to assess compliance with SMCLs in the receiving water overestimates the potential aesthetic impact on the actual quality of downstream drinking water. Mandatory Filtration through natural soils or man-made systems significantly reduces the concentration of total suspended solids (TSS), including aesthetically objectionable minerals such as iron, manganese, chloride, sulfate and aluminum, prior to reaching the tap. Therefore, it is appropriate to assess compliance with the metal constituents in Table 64449-A based on the dissolved concentrations.

⁴ U.S. EPA. National Primary Drinking Water Regulations: Long Term 2 Enhanced Surface Water Treatment Rule. 71 FR 3, 654 (January 5, 2006).

- 11) The Basin Plans should be revised to authorize the Regional Board to consider a number of site-specific factors when developing appropriate WDRs that are consistent with the intent of designed to ensure that public water supply systems maintain compliance with 22 CCR §64449. These factors should include, but are not limited to: (a) the availability of assimilative capacity in the receiving water, (b) naturally occurring background concentrations that already exceed the SMCLs, (c) background concentrations that already exceed the SMCLs due to prior anthropogenic activities where it is not feasible or practicable to remediate the effect of these past discharges, (d) the net effect of discharges that improve receiving water quality, (e) the feasibility of achieving compliance with the SMCLs at the point-of-discharge, (f) the chemical form/species of these constituents, (h) the presence or absence of other minerals (e.g. anion-cation balance) that may mitigate or aggravate aesthetic acceptability, ~~and~~ (i) the application of appropriate long-term averaging periods, (j) other water resource management goals and policies (e.g. water conservation, recycled water use, groundwater recharge, drought protection, stormwater harvesting, etc.), (k) economic factors including ability-to-pay, (l) and other environmental considerations.

12) Suggested Revisions to Current Basin Plan Text

- (A) Page III-3.00 of the Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin - Fourth Edition should be modified as follows:

Note: additions to the existing text are indicated by underline (underline) and deletion of existing text are indicated by strike-through (~~strikeout~~).

Chemical Constituents

At a minimum, surface water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444., ~~and Tables 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) and of Section 64449.~~ This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect...

In addition, for surface waters designated MUN, the annual average concentration of chemical constituents shall not exceed the "maximum level" specified in Table 64449-A or the "upper level" specified in Table 64449-B at any legally-authorized intake structure(s) used to divert water for domestic drinking water supply unless otherwise authorized by the Regional Board in accordance with the provisions of 22CCR§64449 or §13241 of the California Water Code. In cases where the natural background concentration of a particular chemical constituent exceeds the highest level specified in Table 64449-A or Table 64449-B, the surface water shall not exceed that natural background concentration due to controllable anthropogenic sources.

- (B) Page III-10.00 of the Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin - Fourth Edition should be modified as follows:

Note: additions to the existing text are indicated by underline (underline) and deletion of existing text are indicated by strike-through (~~strikeout~~).

Chemical Constituents

At a minimum, ground waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444., and ~~Tables 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449.~~ This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect...

In addition, for ground waters designated MUN, the annual average concentration of chemical constituents shall not exceed the "maximum level" specified in Table 64449-A or the "upper level" specified in Table 64449-B at any legally-authorized well used to supply community water systems unless otherwise authorized by the Regional Board in accordance with the provisions of 22CCR§64449 or §13241 of the California Water Code. In cases where the natural background concentration of a particular chemical constituent exceeds the highest level specified in Table 64449-A or Table 64449-B, the surface water shall not exceed that natural background concentration due to controllable anthropogenic sources.

- (C) Related text to be added to the Basin Plan's Implementation Chapter @ §IV-26.01:

6. Implementing Secondary MCLs

For the chemical constituents identified in 22 CCR §64449 (Table B) the water quality objectives shall be set as described in Chapter III-3.0 of this water quality control plan. However, because lower concentrations of these chemical constituents are desirable for promoting greater consumer confidence and acceptance of public water supplies, the Regional Board has established additional guidelines designed to achieve the "Recommended" values in 22 CCR §64449 (Table B) where it is reasonable and feasible to do so. These "Recommended" concentrations are not water quality objectives but should be considered water resource management goals similar to other public policy goals established by the Regional Board and State Board to encourage greater water conservation, increased use of recycled water, more stormwater harvesting, additional groundwater recharge and storage, and better drought protection.

- (D) Page III-3 of the Water Quality Control Plan (Basin Plan) for the Tulare Lake Basin - Second Edition should be modified as follows:

Note: additions to the existing text are indicated by underline (underline) and deletion of existing text are indicated by strike-through (~~strikeout~~).

Chemical Constituents

At a minimum, surface water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, ~~and Tables 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449.~~ This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect...

In addition, for ground waters designated MUN, the annual average concentration of chemical constituents shall not exceed the "maximum level" specified in Table 64449-A or the "upper level" specified in Table 64449-B at any legally-authorized well used to supply community water systems unless otherwise authorized by the Regional Board in accordance with the provisions of 22CCR§64449 or §13241 of the California Water Code. In cases where the natural background concentration of a particular chemical constituent exceeds the highest level specified in Table 64449-A or Table 64449-B, the surface water shall not exceed that natural background concentration due to controllable anthropogenic sources.

- (F) Page III-7 of the Water Quality Control Plan (Basin Plan) for the Tulare Lake Basin - Second Edition should be modified as follows:

Note: additions to the existing text are indicated by underline (underline) and deletion of existing text are indicated by strike-through (~~strikeout~~).

Chemical Constituents

At a minimum, ground waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, ~~and Tables 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449.~~ This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect...

(G) Related text to be added to the Basin Plan's Implementation Chapter (§IV-21) in the sub-section entitled "Application of Water Quality Objectives":

For the chemical constituents identified in 22 CCR §64449 (Table B) the water quality objectives shall be set as described in Chapter III-10.0 of this water quality control plan. However, because lower concentrations of these chemical constituents are desirable for promoting greater consumer confidence and acceptance of public water supplies, the Regional Board has established additional guidelines designed to achieve the "Recommended" values in 22 CCR §64449 (Table B) where it is reasonable and feasible to do so. These "Recommended" concentrations are not water quality objectives per se but, rather, should be considered water resource management "goals" similar to other public policy goals established by the Regional Board and State Board to encourage greater water conservation, increased use of recycled water, more stormwater harvesting, additional groundwater recharge and storage, and better drought protection, etc.

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Article 14. Treatment Techniques

§64448. Treatment Technique Requirements.

(a) A public water system which uses acrylamide and/or epichlorohydrin in drinking water treatment shall certify annually in writing to the Department that the combination of dose and monomer does not exceed the following levels:

(1) Acrylamide: 0.05% monomer in polyacrylamide dosed at 1 mg/L, or equivalent.

(2) Epichlorohydrin: 0.01% residual of epichlorohydrin dosed at 20 mg/L, or equivalent.

Article 16. Secondary Drinking Water Standards

§64449. Secondary Maximum Contaminant Levels and Compliance.

(a) The secondary MCLs shown in Tables 64449-A and 64449-B shall not be exceeded in the water supplied to the public by community water systems.

**Table 64449-A
Secondary Maximum Contaminant Levels
“Consumer Acceptance Contaminant Levels”**

<i>Constituents</i>	<i>Maximum Contaminant Levels/Units</i>
Aluminum	0.2 mg/L
Color	15 Units
Copper	1.0 mg/L
Foaming Agents (MBAS)	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Methyl- <i>tert</i> -butyl ether (MTBE)	0.005 mg/L
Odor—Threshold	3 Units
Silver	0.1 mg/L
Thiobencarb	0.001 mg/L
Turbidity	5 Units
Zinc	5.0 mg/L

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**Table 64449-B
Secondary Maximum Contaminant Levels
“Consumer Acceptance Contaminant Level Ranges”**

<i>Maximum Contaminant Level Ranges</i>			
<i>Constituent, Units</i>	<i>Recommended</i>	<i>Upper</i>	<i>Short Term</i>
Total Dissolved Solids, mg/L or	500	1,000	1,500
Specific Conductance, µS/cm	900	1,600	2,200
Chloride, mg/L	250	500	600
Sulfate, mg/L	250	500	600

(b) Each community water system shall monitor its groundwater sources or distribution system entry points representative of the effluent of source treatment every three years and its approved surface water sources or distribution system entry points representative of the effluent of source treatment annually for the following:

- (1) Secondary MCLs listed in Tables 64449-A and 64449-B; and
- (2) Bicarbonate, carbonate, and hydroxide alkalinity, calcium, magnesium, sodium, pH, and total hardness.

(c) If the level of any constituent in Table 64449-A exceeds an MCL, the community water system shall proceed as follows:

- (1) If monitoring quarterly, determine compliance by a running annual average of four quarterly samples;
- (2) If monitoring less than quarterly, initiate quarterly monitoring and determine compliance on the basis of an average of the initial sample and the next three consecutive quarterly samples collected;
- (3) If a violation has occurred (average of four consecutive quarterly samples exceeds an MCL), inform the Department when reporting pursuant to Section 64469;
- (4) After one year of quarterly monitoring during which all the results are below the MCL and the results do not indicate any trend toward exceeding the MCL, the system may request the Department to allow a reduced monitoring frequency.

(d) For the constituents shown on Table 64449-B, no fixed consumer acceptance contaminant level has been established.

- (1) Constituent concentrations lower than the Recommended contaminant level are desirable for a higher degree of consumer acceptance.
- (2) Constituent concentrations ranging to the Upper contaminant level are acceptable if it is neither reasonable nor feasible to provide more suitable waters.

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(3) Constituent concentrations ranging to the short term contaminant level are acceptable only for existing community water systems on a temporary basis pending construction of treatment facilities or development of acceptable new water sources.

(e) New services from community water systems serving water which carries constituent concentrations between the Upper and Short Term contaminant levels shall be approved only:

(1) If adequate progress is being demonstrated toward providing water of improved mineral quality.

(2) For other compelling reasons approved by the Department.

(f) A community water system may apply to the Department for a waiver from the monitoring frequencies specified in subsection (b), if the system has conducted at least three rounds of monitoring (three periods for groundwater sources or three years for approved surface water sources) and these analytical results are less than the MCLs. The water system shall specify the basis for its request. A system with a waiver shall collect a minimum of one sample per source while the waiver is in effect and the term of the waiver shall not exceed one compliance cycle (i.e., nine years).

(g) Nontransient-noncommunity and transient-noncommunity water systems shall monitor their sources or distribution system entry points representative of the effluent of source treatment for bicarbonate, carbonate, and hydroxide alkalinity, calcium, iron, magnesium, manganese, pH, specific conductance, sodium, and total hardness at least once. In addition, nontransient-noncommunity water systems shall monitor for the constituents in Tables 64449-A and B at least once.

§64449.2. Waivers for Secondary MCL Compliance.

(a) If the average of four consecutive quarters of sample results for a constituent that does not have a primary MCL is not greater than three times the secondary MCL or greater than the State Notification Level, an existing community water system is eligible to apply for a nine-year waiver of a secondary MCL in Table 64449-A, for the following:

(1) An existing source; or

(2) A new source that is being added to the existing water system, as long as:

(A) The source is not being added to expand system capacity for further development; and

(B) The concentration of the constituent of concern in the new source would not cause the average value of the constituent's concentration at any point in the water delivered by the system to increase by more than 20%.

(b) To apply for a waiver of a secondary MCL, the community water system shall conduct and submit a study to the Department within one year of violating the MCL that includes the following:

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(1) The water system complaint log, maintained pursuant to section 64470(a), along with any other evidence of customer dissatisfaction, such as a log of calls to the county health Department;

(2) An engineering report, prepared by an engineer registered in California with experience in drinking water treatment, that evaluates all reasonable alternatives and costs for bringing the water system into MCL compliance and includes a recommendation for the most cost-effective and feasible approach;

(3) The results of a customer survey distributed to all the water system's billed customers that has first been approved by the Department based on whether it includes:

(A) Estimated costs to individual customers of the most cost-effective alternatives presented in the engineering report that are acceptable to the Department based on its review of their effectiveness and feasibility;

(B) The query: "Are you willing to pay for (*identify constituent*) reduction treatment?";

(C) The query: "Do you prefer to avoid the cost of treatment and live with the current water quality situation?"

(D) The statement: "If you do not respond to this survey, (*insert system name*) will assume that you are in support of the reduction treatment recommended by the engineering report."

(4) A brief report (agenda, list of attendees, and transcript) of a public meeting held by the water system to which customers were invited, and at which both the tabulated results of the customer survey and the engineering report were presented with a request for input from the public.

(c) A community water system may apply for a waiver for iron and/or manganese if, in addition to meeting the requirements in Subsection (b), an average of four consecutive quarter results for the source has not exceeded a State Notification Level for iron and/or manganese. In addition, the system shall include sequestering, as follows:

(1) As one of the alternatives evaluated in the Engineering Report;

(2) In the customer survey as a query: "Are you willing to pay for iron and/or manganese sequestering treatment?"

(d) Unless 50% or more of the billed customers respond to the survey, the community water system shall conduct another survey pursuant to Subsections (b) or (c) within three months from the date of the survey by sending the survey out to either all the customers again, or only the customers that did not respond to the survey. The water system shall not be eligible for a waiver until it achieves at least a 50% response rate on the survey.

(e) If the customer survey indicates that the percentage of billed customers that voted for constituent reduction treatment and the number of billed customers that did not respond to the survey at all exceeds 50% of the total number of billed customers, the community water system shall install treatment, except as provided in Subsection (f), within three years from the date the system completed the customer survey, pursuant to a schedule established by the Department.

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(f) For iron and/or manganese MCL waiver applications, if the percentage of survey respondents that voted for constituent reduction treatment plus the percentage of survey respondents that voted for sequestering exceeds the percentage that voted to avoid the cost and maintain the current water quality situation, the community water system shall implement either constituent reduction treatment or sequestering, on the basis of which was associated with the higher percentage result. If the highest percentage result is for sequestering, the system shall submit a sequestering implementation and assessment plan to the Department that includes:

- (1) A description of the pilot testing or other type of evaluation performed to determine the most effective sequestering agent for use in the system's water;
- (2) The sequestering agent feed rate and the equipment to be used to insure that the rate is maintained for each source;
- (3) An operations plan; and
- (4) The projected cost of sequestering including capital, operations and maintenance costs.

(g) To apply for renewal of a waiver for a subsequent nine years, the system shall request approval from the Department at least six months prior to the end of the current waiver period. The renewal request shall include all monitoring and treatment operations data for the constituent for which the waiver had been granted and any related customer complaints submitted to the water system. Based on its review of the data and customer complaints, the Department may require the water system to conduct another customer survey pursuant to this section before making a determination on the waiver renewal.

§64449.4. Use of Sources that Exceed a Secondary MCL and Do Not Have a Waiver.

A source that exceeds one or more of the secondary MCLs in Table 64449-A and does not have a waiver may be used only if the source meets the requirements in Section 64414, and the community water system:

(a) Meters the source's monthly production and submits the results to the Department by the 10th day of the next month;

(b) Counts any part of a day as a full day for purposes of determining compliance with Section 64414(c);

(c) As a minimum, conducts public notification by including information on the source's use (dates, constituent levels, and reasons) in the Consumer Confidence Report (Sections 64480 through 64483);

(d) Provides public notice prior to use of the source by electronic media, publication in a local newspaper, and/or information in the customer billing, if the situation is such that the water system can anticipate the use of the source (e.g., to perform water system maintenance); and

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(e) Takes corrective measures such as flushing after the source is used to minimize any residual levels of the constituent in the water distribution system.

§64449.5. Distribution System Physical Water Quality.

(a) The water supplier shall determine the physical water quality in the distribution system. This determination shall be based on one or more of the following:

- (1) Main flushing operations and flushing records.
- (2) Consumer complaint records showing location, nature and duration of the physical water quality problem.
- (3) Other pertinent data relative to physical water quality in the distribution system.

(b) If the Department determines that a water system does not have sufficient data on physical water quality in the distribution system to make the determination required in paragraph (a), the water supplier shall collect samples for the following general physical analyses: color, odor, and turbidity. Samples shall be collected from representative points in the distribution system:

- (1) For community water systems with 200 to 1,000 service connections: one sample per month.
- (2) For community water systems with greater than 1,000 service connections: one sample for every four bacteriological samples required per month.
- (3) For community water systems with less than 200 service connections: as established by the local health officer or the Department.

(c) Odor samples required as a part of general physical analyses may be examined in the field as per Section 64415(b).

(d) The distribution system water of public water systems shall be free from significant amounts of particulate matter.

Article 18. Notification of Water Consumers and the Department

§64463. General Public Notification Requirements.

(a) Each public (community, nontransient-noncommunity and transient-noncommunity) water system shall give public notice to persons served by the water system pursuant to this article.

(b) Each water system required to give public notice shall submit the notice to the Department for approval prior to distribution or posting, unless otherwise directed by the Department.

(c) Each wholesaler shall give public notice to the owner or operator of each of its retailer systems. A retailer is responsible for providing public notice to the persons it serves. If the retailer arranges for the wholesaler to provide the notification, the retailer shall notify the Department prior to the notice being given.

Secondary MCLs:

Summary of the WDR Permitting and Implementation Issues

- 1) The State Water Resources Control Board has established a policy that all surface and ground waters of the state should be presumed to support a drinking water use (MUN) unless the water body meets one of the exception criteria established in the Sources of Drinking Water Policy (Res. No. 88-63).
- 2) In the mid-1990's, the Central Valley Regional Water Quality Control Board adopted water quality objectives for salinity (TDS) and conductivity (EC) to protect the MUN beneficial use. These new objectives were established by reference to state drinking water standards identified in Table B of 22 CCR §64449. Only the tables themselves were included by reference. None of the other surrounding text from §64449, explaining how the Secondary MCLs were supposed to be implemented, was adopted with the table values. The Regional Board's Executive Officer later testified that this omission was an unintentional oversight.
- 3) Table 64449-B suggests a range of acceptable TDS and EC values. For TDS, the recommended value is 500 mg/L but concentrations ranging up to 1,000 mg/L are also "acceptable" if it is neither reasonable or feasible to provide more suitable waters. Traditionally, water quality objectives are not expressed as single value thresholds and the system is not set up to implement standards as a range.¹ Consequently, in the recent Lodi permit appeal, the State Board determined that the "recommended" value of 500 mg/L should be considered water quality objective when developing appropriate waste discharge requirements. Although the Regional Board testified that the objective was intended to be implemented as a "range" (as described in Table B), the SWRCB determined that this intent was not clearly expressed in the Basin Plan.
- 4) In the Rancho Caballero case (WQO 73-4) the State Board declared that when receiving water quality already exceeds a particular water quality objective, discharge limits must be set to a concentration at or below this objective. Therefore, where TDS in the receiving water exceeds 500 mg/L, the Regional Board may not allow discharges to those receiving waters to exceed 500 mg/L even if the TDS concentration in the discharge is actually less than the TDS concentration in the receiving water and would improve receiving water quality.

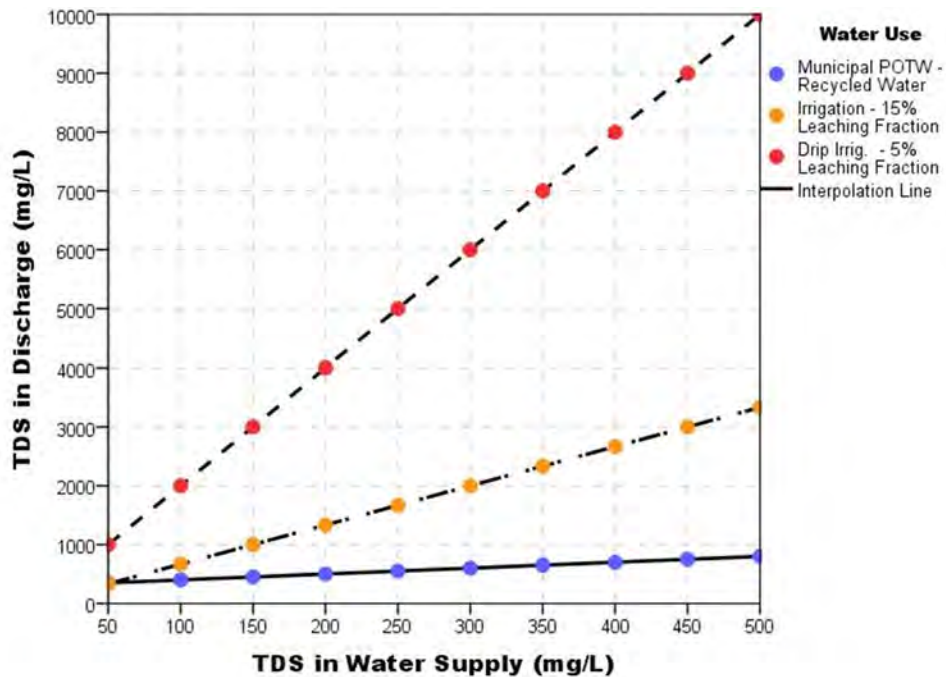
¹ An exception exists where water quality may be impaired by both excessively low or excessively high values; temperature and pH are among the few examples of water quality objectives expressed as a range

- 5) Table 7-7 (attached) from the CV-SALTS Initial Conceptual Model shows that the median TDS concentration in the upper (shallower) portion of 17 of the 22 Initial Analysis Zones (IAZ) already exceeds 500 mg/L. Therefore, only 5 of the IAZs may have assimilative capacity for TDS. Discharges to the other 17 IAZs will likely have to comply with Waste Discharge Requirements prohibiting TDS discharges in excess of 500 mg/L.

- 6) Since the Increment-of-Use adds approximately 300 mg/L of salinity to the initial TDS concentration, raw water supplies that meets the recommended TDS standard for drinking water (500 mg/L) will inevitably produce wastewater discharges near 800 mg/L. In order to ensure that their wastewater discharges do not exceed 500 mg/L municipalities will need a raw water supply with a TDS concentration less than 200 mg/L. Few cities start with such high quality supplies and most recycled water is discharged with a TDS concentration ranging between 600-900 mg/L.

- 7) The situation is even more difficult for agricultural discharges. Assuming a relatively standard 15% leaching fraction, agricultural operators must start with a TDS concentration no greater than 75 mg/L in the irrigation supply water in order to ensure percolation below the root zone does not exceed 500 mg/L. And, to avoid discharge TDS concentrations greater than 1000 mg/L, TDS in the irrigation supply water must be less than 150 mg/L. Drip irrigation systems, with much lower leaching fractions (<5%), concentrate TDS in the discharge to even higher levels (see Fig. 1 below)

Fig. 1: Increment-of-Use for TDS



- 8) The current regulatory approach makes it nearly impossible to recharge ground water basins with recycled water unless there is significant assimilative capacity (<500 mg/10 available in the aquifer. This is contrary to statewide efforts to promote the use of recycled water for landscape irrigation and to recharge groundwater storage.
- 9) Similarly, applying the recommended TDS value in Table 64449-B (500 mg/L) as a maximum not-to-exceed value immediately below the root zone discourages the use of high efficiency drip irrigation systems with very low leaching fractions. This is contrary to state wide efforts to promote greater water conservation.
- 10) Table 7-7 also shows how the estimate of available assimilative capacity would likely change depending on whether the water quality objective is set to 500 mg/L or 700 mg/L or 1,000 mg/L.
- 11) The text of Title-22 recognizes that TDS concentrations up to 1,000 mg/L are "acceptable" if it is not reasonable or feasible to provide more suitable waters. CV-SALTS is recommending that the range of TDS values suggested in Table 64449-B be implemented for dischargers in the same manner that it is implemented for water supply agencies by referencing the full text and tables of 22 CCR §64449.
- 12) All of the normal Antidegradation requirements (Res. No. 68-16) would continue to apply when developing WDRs and effluent limitations for TDS. If a discharge is likely to lower downstream water quality, it will still be necessary to demonstrate that the discharge will not: 1) violate the downstream standards, 2) unreasonably affect beneficial use, or 3) cause pollution or nuisance. Dischargers will still be required to implement Best Practicable Treatment or Control consistent with Maximum Benefit to the people of the state. And, finally, the Regional Board must consider the long-term cumulative impact of all discharges to the same receiving water before authorizing any discharge that may further lower water quality.
- 13) Since the TDS and EC values shown in Table 64449-B are drinking water standards, and the state has not yet authorized direct potable reuse, it is more appropriate to judge the net effect of permitted discharges at downgradient well locations where ground water is extracted for community water systems. At such locations, the recommended TDS value (500 mg/L) would continue to apply subject to the same consideration for reasonability and feasibility already encouraged by the existing language of Title 22.

**Table 7-7. Median TDS Concentrations Through Time and Assimilative Capacity
(Based on the 2003-2012 Time Period)**

Shallow TDS Median Concentration Through Time										
	IAZ	1910-1964	1965-1970	1971-1979	1980-1989	1990-2002	2003-2012	Assimilative capacity 500 mg/L TDS Threshold	Assimilative capacity 700 mg/L TDS Threshold	Assimilative capacity 1000 mg/L TDS Threshold
Northern Central Valley	1			158	150		370	130	330	630
	2	179	145	270	230	195	201	300	500	800
	3	1023	572	347	398	588	583	0	117	417
	4		853	487	806	625	761	0	0	240
	5	164	183	216	219	435	329	0	371	671
	6		381	408	423	528	1060	0	0	0
	7	168	177	186	221	506	398	103	303	603
Middle Central Valley	8	163	164	187	166	336	438	62	262	562
	9	954	995	736	703	714	961	0	0	40
	10	473	870	870	1960	838	842	0	0	159
	11	315	173	257	227	640	565	0	135	435
	12	80	895		83	201	825	0	0	175
	13	235	423	180	204	258	648	0	53	353
22	962	5630		2575	2410	1160	0	0	0	
Southern Central Valley	14	942	836		4310		3375	0	0	0
	15	336	475	315	6490	783	1000	0	0	0
	16	419	124	303	378	497	575	0	125	425
	17	383		352	413	394	520	0	180	480
	18	160		356	1555	648	598	0	102	402
	19	1270			3370		11300	0	0	0
	20	518			290		870	0	0	130
21	359		353	3420	420	335	165	365	665	

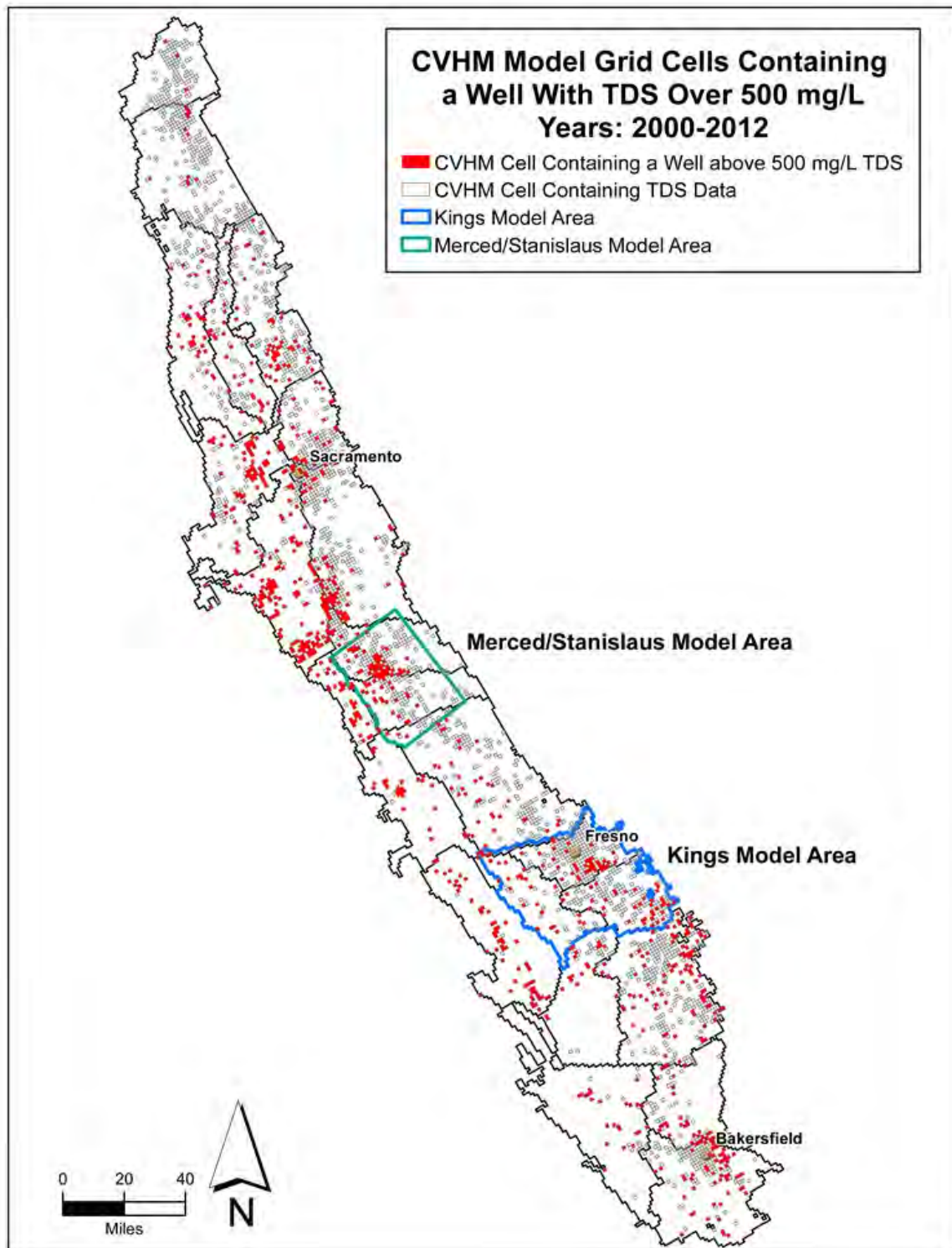


Figure 7-16. Identifying CVHM Model Grid Cells Containing a Well Test Over 500 mg/L TDS

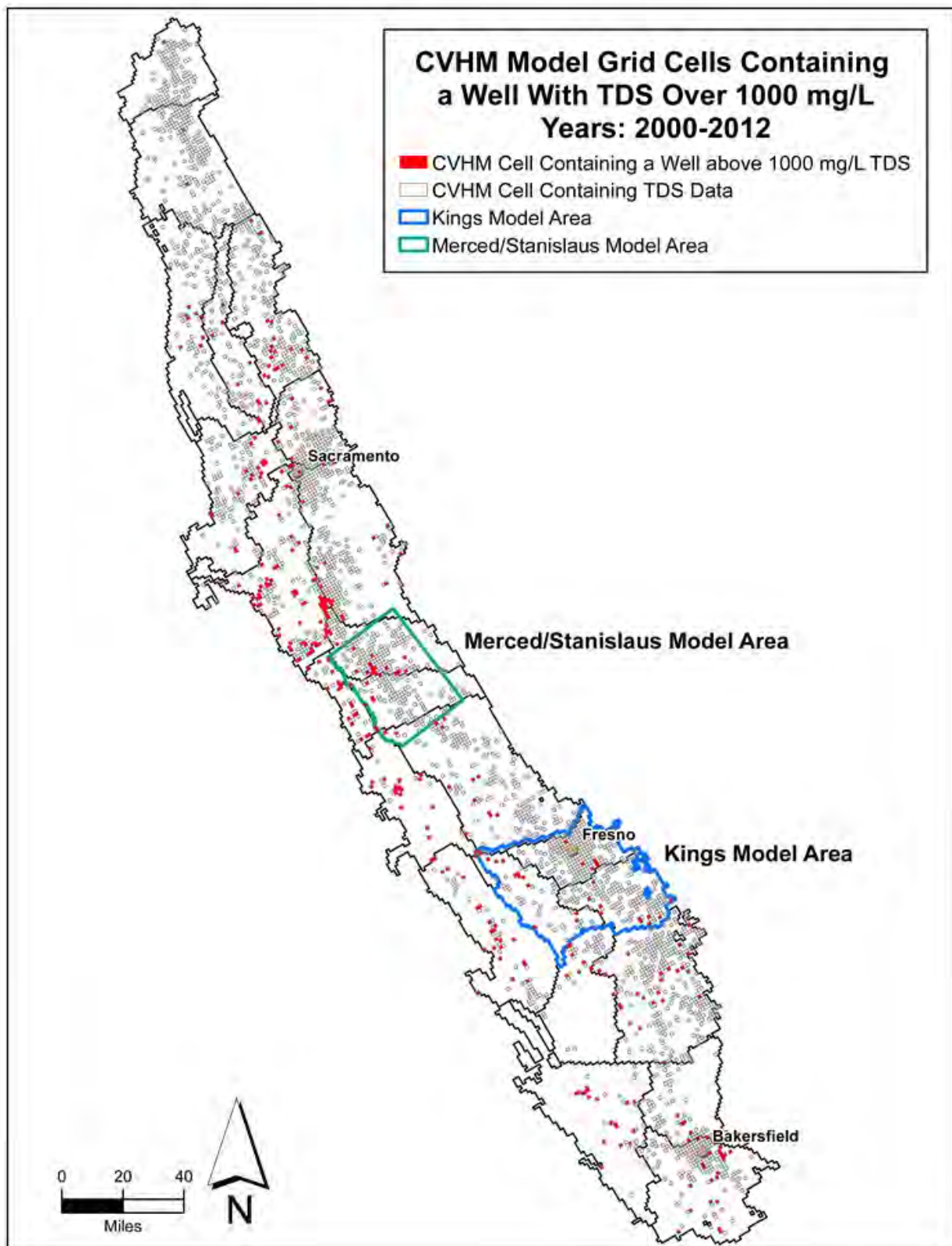


Figure 7-17. Identifying CVHM Model Grid Cells Containing a Well Test Over 1000 mg/L TDS

CV-SALTS Meeting Calendar

2015

1 January

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				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

2 February

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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

3 March

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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				

4 April

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			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		

5 May

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					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						

6 June

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	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				

7 July

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			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	

8 August

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						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					

9 September

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		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			

10 October

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				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

11 November

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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					

12 December

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		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		

Notes

Light Red conflicts

2nd or 3rd Thursdays

Dark Green Exec Comm Policy

Fridays at 1:00 pm

Lt. Green Hatch Exec Comm Admin

Yellow Salty 5

Lower SJ River Committee

TAC Meeting

1-May

Regional Board Presents 4-16/17

State Board Presentation 1/20/15

Wednesday Meetings are DRAFT

May be held by Webinar or

in person in Sacramento

June 17th Held at Farm Bureau