

CV-SALTS Executive Committee Meeting

September 26, 2013 - 9:00 AM to 3:00 PM

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

NOTE NEW NUMBER: Teleconference (712) 432-0360 Code: 927571#

Go-To-Meeting Link: <https://global.gotomeeting.com/meeting/join/295737669>

Meeting ID: 295-737-669

Posted 09.16.13 – Revised 09.23.13

AGENDA

- 1) **Welcome and Introductions** - Chair
 - a) Committee Roll Call and Membership [Roster](#) -5 min.
 - b) Review/Approve Executive Committee [Meeting Notes for August 15, 2013](#) – 5 min.

- 2) **Summarize Task Schedule for Fall of 2013** - 25 minutes
 - a) Executive Committee Meetings - [Schedule of Policy Discussions](#) (Tim Moore)
 - b) [CEQA Scoping Meetings](#) (Jeanne Chilcott)
 - c) Progress Reports to Regional and State Boards (Jeanne Chilcott)
 - d) Technical Deliverables (Richard Meyerhoff)

- 3) **Finalize Proposed Recommendation to Revise Water Quality Objective for Secondary Maximum Contaminants** – Tim Moore (2 hours)
 - [Title-22 Secondary MCLs](#)

11:30 am to 1:00 pm - Lunch on your own

- 4) **Finalize Policy Directions to Technical Consultants for Calculating Current Average Nitrate or TDS Concentration and Available Assimilative Capacity in a Groundwater Management Zone**
– Tim Moore (2 hours)

- 5) **Set next meeting objectives/date**
 - a) October 11th Administrative Call
 - b) October 17th & November 14th Policy Sessions

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 2013															
Voters	Category/Stakeholder Group	Name	11-Jan	24-Jan	8-Feb	21-Feb	8-Mar	28-Mar	5-Apr	18-Apr	10-May	16-May	14-Jun	20-Jun	12-Jul	9-Aug	15-Aug	13-Sep
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	TBD																
6	Environmental Water Quality	TBD																
CV Salinity Coalition																		
1	CASA	Bobbi Larson																
2	County of San Joaquin	Mel Lytle																
Alt	County of San Joaquin	Brandon Nakagawa																
3	CVCWA	Debbie Webster	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓
4	City of Fresno	Steve Hogg																
5	CA League of Food Processors	Trudi Hughes										✓						
Alt	CA League of Food Processors	Rob Neenan		✓		✓		✓		✓		✓		✓				
6	Wine Institute	Tim Schmelzer		✓								✓		✓			✓	
Alt	Wine Institute	Chris Savage																
7	City of Tracy	Steve Bailey																
8	Sacramento Regional CSD	Linda Dorn		✓	✓					✓				✓			✓	
9	San Joaquin River Group	Dennis Westcot		✓		✓												
10	City of Modesto	Gary DeJesus																
11	California Rice Commission	Tim Johnson		✓						✓		✓		✓			✓	
12	City of Manteca	Phil Govea																
13	Tulare Lake Drainage/Storage District	Mike Nordstrom	✓	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
14	Stockton East Water District	Karna Harrigfeld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15	Western Plant Health Association	Renee Pinel		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
16	City of Vacaville	Royce Cunningham		✓	✓	✓	✓	✓	✓	✓								
17	Dairy Cares	Paul Sousa																
Alt	Dairy Cares	J.P. Cativiela	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Comm. Chairs/Co-chairs																		
1	Chair Executive Committee	Parry Klassen	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	Vice Chair Executive Committee			✓		✓	✓	✓	✓			✓						
*	Technical Advisory Committee	Roger Reynolds	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
3	Technical Advisory Committee	Nigel Quinn, LBL	✓	✓		✓	✓	✓		✓		✓	✓		✓			✓
4	Public Education and Outreach	Joe DiGiorgio	✓	✓	✓	✓		✓		✓		✓		✓	✓			✓
5	Economic and Social Cost Committee	David Cory	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	Lower San Joaquin River Committee	Karna Harrigfeld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

* = Already votes as Leadership or Coalition member

Participants also identified for 09/13:

Karl Longley, CVRWQCB

Tom Grovhoug, LWA

Richard Meyerhoff, CDM

Karen Ashby, LWA

Casey Creamer, CCGGA

Michael Johnson, LSJR Committee

Fern Wilson, Vacaville

David Orth, SSWVWQC

Dennis Treasta, J.G. Boswell

Robert Granberg, City of Stockton

Past Participants:

Betty Yee, RWQCB

Dylan Boyle, LSCE

Barb Dalgish, LSCE

John Dickey, Plantierra

Tom Reyes, City of Vacaville

Vicki Kretsinger Grabert, LSCE

Debbie Liebersbach, Turlock Irrigation District

Stan Gryczko, City of Davis

Pam Buford, CVRWQCB

Diane Barclay, SWRCB

Clay Rogers, CVRWQCB

Tess Dunham, Somach

Tim Moore, Risk-Sciences

Bruce Houdesheldt, NCWA/Sac Valley WQC

Laurel Firestone, CWC

Josie Tellers, City of Davis

Bill Lewis, City of Live Oak

Jamil Ibrahim, MWH Global

Rik Rasmussen, SWRCB

Jodi Pontureri, SWRCB

Mark Felton, Culligan Water and PWQA

Adam Maskal, Provost & Pritchard

Stan Dean, SRCS

Melanie Thomson, CUWA

Gene Lee, Reclamation

Paul Martin, WUD

Gary Carlton, Kennedy/Jenks

Tom Griffith, Envirotech

John Herrick

Mark Gowdy, SWRCB, Water Rights

Jamil Ibrahim, MWH Global

Rik Rasmussen, SWRCB

Jodi Pontureri, SWRCB

Mark Felton, Culligan Water and PWQA

Claus Suverkropp, LWA

Penny Carlo, Carollo Engineers

Tony Pironcini, City of Vacaville

Polly Jorgensen

Joel Herr, Systech

Bill Lewis, City of Live Oak

CV-SALTS Executive Committee Meeting - Summary Action Notes

For August 15, 2013 - 9:00 AM to 12:30 PM

Attendees are listed on the Membership Roster

AGENDA

1) Welcome and Introductions

- a) Chair Parry Klassen brought the meeting to order, and roll call was completed.
- b) Tim Johnson moved to approve, and David Cory seconded, and by general acclamation the June 20th action notes were approved.

2) Variance Proposed Basin Plan Amendment

- Betty Yee provided the committee with a Summary of the Variance Staff Report. Betty covered the four main elements of the amendments:
 1. *Authority for the Central Valley Water board to grant variances to individual NPDES dischargers from meeting water quality based effluent limitations.*
 2. *A salinity variance program in which the Central Valley Water Board will grant a variance to municipal and domestic NPDES dischargers from meeting water quality based effluent limitations for salinity constituents.*
 3. *A salinity exception program for non-NPDES dischargers subject to waste discharge requirements and conditional waivers.*
 4. *Exemptions from meeting specific EC and chloride effluent limits in the Tulare Lake Basin Plan.*
- Committee members recommended using 2019 as the end date for both the variance and exception program.
 - Betty advised the committee this had not been released to the public yet. Members should forward additional comments and information.
- Per Betty the timeline for the amendment is, it is currently undergoing peer review, and may be released for public review in September, with potential for adoption in December-February time frame.

3) Other CV-SALTS Project Updates

- City of Live Oak Site-Specific Salinity Study Work Plan
 - After discussion it was agreed the letter would be referred back to the Technical Advisory Committee for clarification on the selection of an appropriate averaging period.

4) Describing the Current Regulatory Approach (e.g. "No Project Condition") for Controlling Salt and Nitrate Discharges to Groundwater in the Central Valley

- The committee discussed the Beneficial Uses, Water Quality Objectives, and Waste Discharge Requirements of the discussion outline. Enforcement Options were not discussed.
- Some suggested revisions/additions to the document:
 - Beneficial Uses
 - AGR – include Regional Board exception criteria.
 - Most Sensitive Use – clarify protection of ‘most salt sensitive crop’
 - Existing v. Potential – change ‘not previously drawn any distinction’ wording
 - Also recommended – include Industrial use, named/unnamed water bodies, and balancing of uses.
 - Water Quality Objectives
 - Nitrate-Nitrogen – specific objectives for groundwater in Tulare
 - Also recommended – include an Anti-Deg section (BPTC, Maximum Benefit), and the policy for interpreting narratives.

- Waste Discharge Requirements
 - Assimilative Capacity – develop formal definition
 - Effluent Limitations – revise “Regional board usually sets the effluent limitation” and “average TDS concentration can exceed 500 mg/L”
 - Time-to-Comply – revise “rarely ever exceed 10 years” to reflect may be longer, or shorter.
 - Parry Klassen requested that Tim expand the Discussion Matrix document to include 2 additional columns; one column to indicate consensus reached yes/no, and another to indicate what percent of the written document has been completed.
- 5) Set next meeting objectives/date
- Parry Klassen passed around a sign-up sheet for stakeholder attendance to ensure good CV-SALTS representation at the upcoming CEQA Scoping meetings.
 - The next Admin meetings are September 13th and October 11th. The next Policy Session will be September 26th.

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September 9, 2013

TO: Daniel Cozad
FROM: Tim Moore
RE: Schedule to Finalize CV-SALTS Policy Recommendations

Daniel:

Below is the proposed schedule to finalize various policy recommendations for inclusion in the forthcoming Salt and Nitrate Management Plan (SNMP).

CV-SALTS Meeting Date	SNMP Policy Issue
Sept. 26, 2013	1) Revise use of Secondary MCLs as numeric water quality objectives in the Basin Plan. 2) Develop method to characterize existing water quality in a groundwater basin (management zone) and to estimate the level of assimilative capacity that is available in that basin.
Oct. 17, 2013	3) Establish decision criteria used to demonstrate that existing and potential AGR uses are reasonably protected from the adverse effects of excess salinity when implementing the narrative objectives of the Basin Plan.
Nov. 14, 2013	4) Identify prerequisite conditions and implementation requirements for making Alternate Compliance Demonstrations by direct protection of drinking water (MUN) uses.

All of these issues have been discussed extensively at previous meetings of the CV-SALTS Executive Committee. Risk Sciences will prepare and distribute a strawman document summarizing these prior discussion one week prior to each meeting. Our focus in the fall of 2013 will be to finalize our recommendations and provide a written summary to those who will be preparing the draft SNMP.

There are a number of other policy issues that must be finalized in the early part of 2014. These include, but are not limited to: 1) establishing definitions for Limited MUN and/or a Limited AGR beneficial use designations; 2) developing a water conservation and/or drought policy; 3) selecting an archetype for the Comprehensive Groundwater Management Zone Implementation Strategy. Dates for these follow-on discussions have not yet been set.

Central Valley Regional Water Quality Control Board

**Development of Central Valley Wide Salt and Nitrate Management Plan
for Incorporation into the
Sacramento-San Joaquin and Tulare Lake Basin Plans**

**Notice of Public Workshops and
California Environmental Quality Act Public Scoping Meetings
October 2013**

NOTICE IS HEREBY GIVEN that staff of the Central Valley Regional Water Quality Control Board (Central Valley Water Board or Board) have scheduled public meetings to discuss and solicit comments and suggestions from the public regarding the development of a Central Valley Salt and Nitrate Management Plan (SNMP) and the incorporation of components of the SNMP into Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and the Tulare Lake Basin (collectively, Basin Plans).

Background: A wide variety of human activities are resulting in salt and nitrate impacts to water and soil in the Central Valley Region. The slow and steady accumulation of salts including nitrates, threatens not only the long-term viability of agriculture and industry in the Central Valley, but also the water supplies for more than 25 million people. To address this issue, a broad group of agriculture, cities, industry, regulatory agencies (including the Central Valley Water Board) and public representatives formed the Central Valley Salinity Alternatives for Long-Term Sustainability initiative (CV-SALTS) and have been developing a comprehensive SNMP. The Central Valley Water Board is proposing to incorporate components of the CV-SALTS SNMP through amendments to the Basin Plans to address salinity and nitrate concerns in a comprehensive, consistent and sustainable manner..

The current planning efforts are also intended to satisfy State Water Board Resolution 2009-0011 (*Recycled Water Policy*). The *Recycled Water Policy* requires the development of salt and nutrient management plans for all groundwater basins of the state, including those in the Central Valley. The Central Valley SNMP, when incorporated into the Basin Plans, is expected to be an iterative and adaptive process that will involve periodic review and reassessment.

Components of the SNMP that may be developed and considered for incorporation into the Basin Plans include:

- **Changing the Basin Plan's Beneficial Use Classification System:** The Board may define new beneficial uses or new beneficial use subcategories that could be applied to specified waterbodies or categories of water bodies. This includes defining subcategories of the municipal and domestic supply (MUN) beneficial use and/or the agricultural irrigation and stock watering supply (AGR) beneficial use. Such subcategories may include "limited" MUN or AGR beneficial uses. The Board may also consider de-designating existing beneficial uses in specific waterbodies or categories of waterbodies.

- Specifically Delineating Waterbodies: The Board may specifically delineate waterbodies or classes of waterbodies that are currently only generally mentioned in the Basin Plans.
- Incorporating Management Zone Concept: The Board could delineate “management zones” which would be portions of existing waterbodies where alternate regulatory measures would apply. The Board may develop specific implementation plans to address salt and nitrate concerns within these zones
- Changing Existing Salinity Water Quality Objectives (WQOs): The Board may establish new numeric and/or narrative WQOs, and may adopt guidance for interpreting and implementing new or existing narrative WQOs.
- Adding Implementation Plans and/or Changing Existing Implementation Plans: The Basin Plans currently contain implementation plans that do not adequately address current and historic salt and nitrate impacts. The Board may adopt new implementation plans and/or change existing implementation plans, and this could include:
 - Altering existing compliance evaluation methodologies, which could include redefining the point of compliance (POC) where water quality objectives must be achieved, allowing for averaging periods to determine compliance with WQOs, and adding provisions related to data analysis procedures;
 - Incorporating new implementation provisions related to variances, compliance schedules, and alternative compliance strategies;
 - Adding new provisions to ensure adequate drinking water supplies in areas that rely on groundwater that has already been impacted by salt and/or nitrates; and
 - Addressing in-basin and out-of-basin salt containment and disposal options.
- Adopting New Policies: The Board may adopt new policies to address concerns such as water recycling, climate change, extreme weather conditions (including drought), and the recharge of stormwater runoff.

The purpose of this early consultation is to provide participants with background on salinity and nitrate issues within the Central Valley, an overview of the *Recycled Water Policy*, an overview of the potential structure of a Central Valley SNMP. The meetings will also provide the public with an opportunity to provide input regarding the range of project actions, alternatives, reasonably foreseeable methods of compliance, significant and cumulative impacts, and potential mitigation measures that the Board will need to analyze in the course of developing the SNMP and associated Basin Plan amendments.

The public meetings will be held at the following dates and locations:

MODESTO

Thursday October 10, 2013, 9:00 a.m.
 Stanislaus County Ag Center (Rooms D/E)
 3800 Cornucopia Way
 Modesto, CA 95358-9492

RANCHO CORDOVA

Wednesday October 16, 2013, 1:00 p.m.
 Central Valley Regional Water Board
 11020 Sun Center Drive, St. 200, Board Room
 Rancho Cordova, CA 95670

COLUSA

Monday October 21, 2013, 9:00 a.m.
 Colusa County Fair Ground (Atwood Hall)
 1303 – 10th Street (HWY 20)
 Colusa, CA 95932

FRESNO

Monday October 28, 2013, 1:00 p.m.
 Central Valley Regional Water Board
 1685 E Street
 Fresno CA 93706

Although a quorum of Central Valley Water Board members may be present, the Board will not take any action at these meetings.

Written comments should be submitted to Jeanne Chilcott no later than 31 December 2013 (contact information provided below). All comments will be included in the final administrative record.

AVAILABLE SUPPORTING DOCUMENTS

Supporting documents, including a staff report describing the project, will be available on the Central Valley Water Board website at:

www.waterboards.ca.gov/centralvalley/water_issues/salinity/index.shtml

by 4 September 2013. Copies of these documents can also be obtained by contacting or visiting the Central Valley Water Board's office at: 11020 Sun Center Drive, #200, Rancho Cordova, California 95670-6114 weekdays between 8:00 a.m. and 5:00 p.m.

Additional information regarding the proposed amendment is available at the CV-SALTS website: www.cvsalinity.org

CALIFORNIA ENVIRONMENTAL QUALITY ACT AND SUBMISSION OF COMMENTS

The Board's water quality planning program is a certified regulatory program under the California Environmental Quality Act (CEQA), which means that the Board prepares and circulates a substitute environmental document or SED, rather than an environmental impact report, before adopting amendments to the Basin Plan. In the SED, the Board must analyze any potential adverse environmental effects associated with the proposed amendment. These public meetings will help guide the Board's environmental analysis. Oral comments received at the public meetings will be considered when the Board prepares the SED.

ACCESSIBILITY

The facilities will be accessible to persons with disabilities. Individuals requiring special accommodations are requested to contact Jeanne Chilcott at (916) 464-4788 at least 5 working days prior to the meeting. TTY users may contact the California Relay Service at 1-800-735-2929 or voice line at 1-800-735-2922.

CONTACT INFORMATION

Questions and comments should be directed to Jeanne Chilcott at (916) 464-4788 or jchilcott@waterboards.ca.gov. To continue receiving notifications regarding this basin plan amendment, you must subscribe to the "Salinity (CV-SALTS)" mailing list through our webpage at: http://www.waterboards.ca.gov/resources/email_subscriptions/reg5_subscribe.shtml or complete the attached form and return it to:

Jeanne Chilcott
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670

Please bring the above information to the attention of anyone you know who would be interested in the matter.

Original Signed by

Kenneth Landau, Assistant Executive Officer
28 August 2013

CONTINUED NOTIFICATIONS

To continue receiving notifications regarding the issues in the attached notices, you **must** sign up for the electronic mailing list or complete the form below and return it to:

Jeanne Chilcott
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670

Persons wishing to subscribe to the electronic mailing list can do so through our website by clicking on the "Subscribe" button on the right side of our webpage at:
http://www.waterboards.ca.gov/resources/email_subscriptions/reg5_subscribe.shtml.

This Continued Notifications only applies to the issues described in the enclosed notice. If you are not interested in these issues, do nothing and you will remain on the basin plan mailing list for future amendments.

Name _____
Affiliation _____
Address _____

Phone Numbers _____
E-mail _____

Salinity (CV-SALTS)

- _____ Please send notifications items checked above to my postal address.
_____ Please send notifications items checked above to my e-mail address.
_____ I have received multiple paper notifications; please remove duplicates from your database.
_____ No, I am not interested in these issues but would like to remain on the mailing list.
 _____ You can send notifications to my e-mail address.
 _____ Continue sending notifications to my postal address.
_____ No, I am not interested in Basin Plan Amendments; please remove me from this mailing list.

Jeanne Chilcott
Regional Water Quality Control Board
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670



Proposed Revisions to Water Quality Objectives for Secondary MCLs

- 1) 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:

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...

- 2) 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:

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...

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

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...

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

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...

- 5) In addition, all four sections of both Basin Plans should be revised to authorize the Regional Board to waive or modify compliance with the Secondary Maximum Contaminant Levels (SMCLs) where warranted by site-specific considerations including, but 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 and it is not feasible or practicable to remediate the effect of these past discharges, (d) the net effect of the discharge on chemical concentration(s) in the receiving water improves existing water quality, (e) it is infeasible or impracticable to achieve compliance with the SMCLs at the point-of-discharge, (f) the availability of suitable alternative water supplies, (g) 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, (i) application of more appropriate long-term averaging periods, or (j) the exception criteria identified in §64449.2 of Title 22.

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 objecting to the applicability of SMCLs as water quality objectives without regard for such MCLs are applied and enforced by the Department of Public Health and without consideration for the natural background concentration of the chemical constituents throughout the region.

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 secondary MCLs (Order WQ 2009-0005). The SWRCB noted that the Basin Plan incorporates only the numeric values specified in select tables from Title-22 and does not incorporate the monitoring, reporting or waiver provisions that are specified in Section 64449 of Title-22. The SWRCB also determined that the Basin Plan does not require the Regional Board to establish a fixed consumer acceptance contaminant level prior to implementing the EC objective.

The proposed revisions to the Water Quality Objectives chapter of both Basin Plans is intended to address the issues raised by the City of Lodi's permit and to provide the Regional Board with the legal authority necessary to consider relevant site-specific factors when developing appropriate waste discharge requirements related to certain chemical constituents.

Justification for the Proposed Revisions:

- 1) The SMCLs identified in Table 64449-A and Table 64449-B of Title-22 were established by the Department of Public Health (DPH) to discourage elevated concentrations of chemical constituents that may adversely affect the taste and odor of municipal drinking water. Title-22 requires only that community water systems monitor and report the concentration of these chemical constituents to DPH and the public. DPH does not require any corrective action should the concentration of any chemical constituent identified in Table 64449-B exceed the SMCL. And, pursuant to §64449.2 of Title-22, community water systems may apply for a waiver from any or all of the SMCLs identified in Table 64449-A. However, this waiver clause was accidentally omitted when Table 64449-A was added (by reference) to the Central Valley Basin Plans. Consequently, the making the SMCLs enforceable water quality objectives imposes restrictions on wastewater discharges that are far more restrictive than the underlying Title-22 requirements from which these objectives were derived. This was neither intended or desired by the Regional Board.

- 2) When the SMCLs were adopted as water quality objectives only the Tables in §64449 were added to the Basin Plan. Other contextual language from §64449 was accidentally omitted from the related Basin Plan amendment. Consequently, the "Consumer Acceptance Contaminant Level Ranges" specified in Table 64449-B were subsequently misapplied as "not-to-exceed" effluent limitations in NPDES permits and WDRs. Such an approach is not consistent with the full text of §64449(d) which states that "no fixed consumer acceptance level has been established" for the chemical constituents identified in Table 64449-B (including Total Dissolved Solids and Specific Conductance). Title-22 also provides that "constituent concentrations ranging to the Upper contaminant level are acceptable if it is neither reasonable nor feasible to provide more suitable water."¹
- 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. And, Region #1 is in the process of amending its Basin Plan to delete some SMCLs. All of these Regions rely instead on narrative receiving water limitations to regulate mineral concentrations where necessary to prevent objectionable tastes and odors in downstream drinking waters.
- 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 intended to address aesthetics, 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 do not provide adequate consideration for the influence of other factors that may aggravate or mitigate objectionable tastes and odors. Therefore, it is reasonable to rely on narrative receiving water limitations, as other Regional Boards have done, to develop appropriate waste discharge requirements on a case-by-case basis as needed to protect downstream water supplies.
- 6) Establishing numeric water quality objectives to prevent objectionable tastes and odors had the unintended effect of requiring the Regional Board to impose numeric effluent limits on municipal wastewater discharges despite the fact that DPH strictly prohibits recycled water from being served through community water systems. The result was wasteful and unnecessary treatment requirements that provided no meaningful benefit to the public.

¹ 22 CCR 64449(d)(2) [*emphasis added*]

- 7) Establishing numeric water quality objectives for TDS and Specific Conductance discourages dischargers (both point and non-point sources) from implementing more aggressive water conservation practices. Water conservation frequently increases the concentration of mineral salts by reducing the volume of water used to transport wastes or irrigate crops. Moreover, such disincentives can occur even where the discharges may actually improve water quality in the receiving water. The Regional Board should have the legal flexibility to develop waste discharge requirements that best balance the relative advantages of water conservation, including significant environmental benefits, 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 from chemical constituents identified in Tables 64449A & B of Title-22. Lowering water quality is generally disallowed unless the Regional Board determines that (a) beneficial uses will not be unreasonably affected, (b) best practicable treatment or control has been applied, and (c) that doing so is consistent with "maximum benefit" to the people of the State. Deleting some of the SMCLs from the Basin Plan does not create a license to discharge these chemical constituents at will or without limit. It does, however, provide the Regional Board with the additional legal authority to regulate these chemical constituents based on a wide range of relevant factors as was always intended by the narrative provisions of §64449 in Title 22.
- 9) Where waste discharges have the potential to affect source water quality in water supply intakes for community water systems located downstream/downgradient, the Regional Board may require a discharger to develop a more detailed mass balance analysis prior to authorizing a permit. The purpose of this mass-balance analysis will be to determine how the proposed discharge will affect the concentration of certain chemical constituents, identified in Tables 64449-A and B of Title 22, at the downstream water supply intakes. Where downstream/downgradient water quality continues to meet the SMCLs, the effect of the upstream discharge will be deemed "de minimus" and will likely be permitted in accordance with state antidegradation policy (Res. No. 68-16).
- 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.² 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 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. It is appropriate to assess compliance with chemical constituents in Table 64449-A based on the dissolved metal concentrations.

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

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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.



Principles to Govern Calculation of Average Groundwater Quality

For any given groundwater basin, sub-basin, or management zone ("waterbody") the following principles shall apply when estimating the average pollutant concentration for that waterbody.

- 1) The average concentration will be calculated by dividing the total estimated chemical mass in the saturated zone by the total estimated volume of water stored in the saturated zone.
- 2) The total estimated mass will be calculated using all readily available and reliable well data collected for not less than the most recent 5-year period and not more than the most recent 20-year period.
- 3) The total estimated volume of water in storage will be calculated using current water table depth. Only data collected in the most recent 5-year period may be used to represent "current" water table depth.
- 4) Where multiple data points exist for a single well, such data will be combined and averaged such that only a single data point is used to represent each well when developing water quality contour maps. This limitation does not apply to wells screened at different depths where the data can be discretely distinguished by depth.
- 5) Water quality data from wells outside the target waterbody may be used to develop more accurate contour maps for both water level and chemical concentrations inside the target waterbody.
- 6) Pollutant mass presently located in the vadoze zone will not be used to estimate the existing average water quality in the waterbody. However, pollutant loads presently in the vadoze zone that are expected to enter the saturated zone in the next 10 years may be used to estimate "projected ground water quality."
- 7) When allocating assimilative capacity to a discharger or dischargers, said dischargers must provide an engineering analysis documenting the total amount of assimilative capacity that will be consumed and the rate at which it will be consumed during term for which the discharge is authorized.
- 8) Waterbodies may be subdivided to smaller units (e.g. sub-basins or management zones), and more refined estimates of existing water quality developed, where necessary to facilitate site-specific regulatory strategies.



Principles to Govern Estimation and Allocation of Assimilative Capacity in Groundwater

For any given groundwater basin, sub-basin, or management zone the following principles shall apply when estimating the availability of or allocating assimilative capacity for individual pollutants in that waterbody.

- 1) Assimilative capacity is evaluated and allocated on a pollutant-by-pollutant, waterbody-by-waterbody basis.
- 2) Assimilative capacity exists where the average concentration of a specific pollutant is less than the applicable water quality objective for that same pollutant such that additional mass of the pollutant may be added to the waterbody without exceeding that objective. Where there is insufficient data to develop a reliable estimate of average water quality, the Regional Board will presume that assimilative capacity does not exist.
- 3) Except for some physical water quality parameters (e.g. temperature, pH, radioactivity, etc.) assimilative capacity should be expressed in units of concentration and/or mass.
- 4) The Regional Board has the discretion, but not the obligation, to allocate any assimilative capacity that is available.
- 5) When allocating assimilative capacity, the Regional Board must do so in a manner consistent with the state antidegradation policy (Res. No. 68-16) and related SWRCB guidance. And, more specifically, regulated discharges cannot cause an exceedance of water quality objectives in any individual well even where assimilative capacity is shown to exist in the greater waterbody in which the well and the discharge are both located.
- 6) Where the Regional Board elects to allocate assimilative capacity to permit a discharge of a pollutant at a concentration higher than the applicable water quality objective in the receiving water, the amount of available assimilative capacity must be reassessed and updated every 5 years.
- 7) When reassessing the amount of assimilative capacity available, all prior allocations must be deducted from current water quality estimates to account for the inherent time lag associated with transport thru the vadoze zone.

