

Central Valley Regional Water Quality Control Board

08 January 2019

David Gisler, Chairman
Tule Basin Water Quality Coalition
2904 W. Main Street
Visalia, CA 93291

DISCUSSION REGARDING RECENT AMENDMENTS TO THE TULARE LAKE BASIN PLAN AND THE SALT AND NITRATE CONTROL PROGRAM PERMITTING PROCESS

The Central Valley Water Board received your 6 December 2018 correspondence to the Southern San Joaquin Water Quality Coalition. The letter expressed the Tule Basin Water Quality Coalition's (Coalition) intent to withdraw from activities related to the Central Valley Water Board's CV-SALTS Basin Plan Amendments, which include contributing to the Prioritization and Optimization Study (P&O Study). Even though the CV-SALTS amendments are not yet in effect, the Board nonetheless believes that it is critical to outline the consequences of the Coalition's decision to withdraw from the CV-SALTS Program.

Salts

The Central Valley Water Board, in adopting the CV-SALTS amendments, recognized that salinity accumulation is a basin-wide issue, and that even when a grower irrigates with high-quality water, salts from that water will remain behind in the soil and in the groundwater after the harvest, growing season after growing season, decade after decade. These salts will continue to accumulate over the years until even the most fertile lands in the valley are poisoned by salt.

The CV-SALTS amendments give growers (and every other discharger in the valley) a choice – eliminate the salt accumulation problem on your own, or work collaboratively towards a basin-wide salinity solution. The Board set the bar high for first pathway; proving that you have solved the salt accumulation problem on your own means demonstrating to the Board that the salt that is in the irrigation water that leaches below the root zone will consistently meet a threshold of 700 $\mu\text{mhos/cm}$. That's the point at which salinity will not impact even the most salt-sensitive of crops, and the point at which the Board believes that a grower does not pose a serious threat of increasing salt loads in the aquifer over the long-term.

The Tule Basin, even though it is blessed with high-quality surface water, cannot meet this threshold. Groundwater salinity concentrations are creeping up throughout the Tule Basin, despite growing practices that make this area a world-class agricultural region. Based on your Comprehensive Groundwater Quality Management Plan, over a sixth of the Coalition's total acreage is indicated to exceed 1000 $\mu\text{mhos/cm}$ based on domestic, irrigation and monitoring well data. Therefore, in the Board's opinion, the Coalition needs to either continue to work collaboratively with other growers and dischargers to resolve these issues on a basin-wide scale through the P&O Study, or the Board will be required to issue you a permit that enforces compliance with a threshold of 700 $\mu\text{mhos/cm}$ that we know that you cannot meet.

CV-SALTS, from its initiation, was always meant to provide a rational way for the Board to tackle a salinity problem that threatens the valley's agricultural productivity. The P&O Study, which will be the roadmap towards salt sustainability, is something that the Board wants you and your Coalition to be a part of, especially because the alternative is simply not a viable option.

Nitrates

CV-SALTS also provides the regulatory architecture for resolving critical nitrate concerns throughout the valley. Like the Salinity Control Program, the Nitrate Control Program presents dischargers with two tracks to achieve compliance. However, unlike the Salinity Control Program, the alternate compliance track under the Nitrate Control Program allows dischargers a great deal of flexibility in achieving water quality objectives, but that flexibility is only granted if discharger groups are both making meaningful progress in reducing nitrate loading and are meeting the drinking water needs of those impacted by nitrate discharges.

The Board acknowledges that the Tule Coalition is one of the entities that has stepped forward and has made good-faith efforts to settle the nitrate issues, and we hope that these efforts can continue.

Surveillance and Monitoring Program

When the Board adopts any Basin Plan Amendment, it is legally required to establish a surveillance program to determine whether the program of implementation is resulting in compliance with water quality objectives. (Wat. Code, § 13242, subd. (c).) Regardless of which compliance option the Coalition chooses (the "withdraw" option or the "participate" option for salts), it will *still* need to contribute to the surveillance program, since that will become a universal regulatory requirement when the CV-SALTS amendments go into effect.

While the Board could potentially entertain a proposal from you for starting your own surveillance and monitoring program, doing so would require you to essentially duplicate monumental efforts that are already well underway. I can almost guarantee you that initiating your own surveillance and monitoring program would be an incredibly costly venture with little added benefit, and so I suggest that you reconsider partnering with other growers throughout the valley to work towards the Basin-wide solution that the Board has mandated.

Prior Commitments by the Coalition

Lastly, I want to call your attention to the fact that the Board already approved a management plan based on the Coalition's continuing commitment to participating in CV-SALTS. On 5 December 2017, I conditionally approved a revised Comprehensive Groundwater Quality Management Plan (GQMP) developed by the Coalition to address areas in which the concentration of various constituents in groundwater currently exceed water quality objectives identified in the Water Quality Control Plan for the Tulare Lake Basin (Basin Plan). Salinity was listed amongst these constituents of concern, and the plan identified multiple areas of the Coalition where electrical conductivity of groundwater has been measured in excess of 1,000 µmhos/cm. The GQMP proposed the following approach to address the identified salinity issue:

"The Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) is an initiative to identify salinity management strategies that will achieve a salt balance and keep agriculture economically viable. The TBWQC has contributed to the Central Valley

Salinity Coalition and the CV-SALTS process since 2013 and will remain actively involved in this important stakeholder process.”

I conditionally approved the GQMP based on your commitment to the CV-SALTS process and an understanding that without a comprehensive long-term strategy to address salt loading in the Tulare Lake Basin, farming is unlikely to remain economically sustainable in the future. It is my expectation that the Coalition will continue to meet its obligation to participate in CV-SALTS. Should this not occur, the Board would not consider the existing salinity impacts in the Coalition area adequately addressed by your GQMP. The requirements in the General Order (Order R5-2013-0120) for a GQMP include, but are not limited to:

- Actions to achieve compliance with the General Order’s receiving water limitations.
- The identification, implementation, and validation of management practices to reduce loading.
- The design of a monitoring system to measure effectiveness at achieving the goals and objectives of the GQMP. The monitoring system must be able to determine whether management practice changes are effective and will result in compliance with the General Order.

If the Tule Basin Coalition discontinues support of CV-SALTS, the Central Valley Water Board will require a new or revised GQMP within 60 days of withdrawal. The revised GQMP would not be able to rely on CV-SALTS to help describe the practices your coalition members will implement to achieve compliance with the Order’s receiving water objectives for salinity and the time schedule to achieve compliance, as it currently does. Without the benefit of the work that is proposed to be done under the P&O Study, the Coalition would need to ensure that the monitoring component of the revised plan includes the development and installation of a well network of sufficient spatial density to fully assess salinity impacts within shallow groundwater, evaluate the effectiveness of implemented management practices, and evaluate whether discharges of salinity from irrigated lands are meeting the receiving water objectives of the Order. If the new plan cannot demonstrate a path to compliance, discharge of salinity from irrigated lands within your Coalition area may not be permitted.

In addition to the above requirements for GQMPs, the General Order requires Coalition members to implement Best Practicable Treatment or Control (BPTC) of wastes in its discharges consistent with the State Water Board’s Antidegradation Policy (Resolution 68-16). Section IV.B.20 of the General Order requires implementation of farm management performance standards. The performance standards include, but are not limited to: “*minimize percolation of waste to groundwater.*” On page 38 of the General Order’s Attachment A, grower implementation of the performance standards is considered BPTC in complying with the Antidegradation Policy.

The Central Valley Water Board considers participation in a basin-wide salt management solution, such as CV-SALTS, to represent BPTC, because the studies that CV-SALTS is taking on will help ensure compliance with the General Order’s performance standards for minimizing percolation of salts to groundwater. If the Tule Coalition withdraws from CV-SALTS, its members may be found to be out of compliance with the requirement to implement BPTC for salinity. Should this occur, the Board will require the Tule Coalition to independently develop a study that describes how its members will support basin-wide management of salinity to balance salt accumulation (i.e., salt imported = salt exported). This study must point to a solution that manages salinity exports out of the Central Valley or to a salt management zone where the salts

would be found not to be impacting beneficial uses; the study could not simply rely on moving salts to a nearby basin or on any solution where salts would simply continue to accumulate as they do now. From the Board's perspective, it is difficult to imagine how taking on this challenge alone would be anything but extraordinarily more expensive than simply participating in the basin-wide study that the CV-SALTS group is coordinating.

Ultimately, the Coalition will only need to make a final decision *after* the CV-SALTS amendments are approved by the State Water Board, the Office of Administrative Law, and, for those portions addressing surface waters, by the United States Environmental Protection Agency, which means that the Coalition still has ample opportunity to reconsider its decision. We hope that you choose to continue to support the CV-SALTS amendments, since as I mention above, those amendments were crafted in collaboration with the grower community to present a workable way of addressing salt and nitrate issues in the valley.

Enclosed with this letter are a table and figure from the Central Valley Salt Control Program with milestones for the Prioritization and Optimization Study, and we hope that this helps clarify how CV-SALTS envisions moving forward. The table and figure address questions raised by your staff. If you would like to have further discussions regarding this topic, please contact Sue McConnell at (916) 464-4798 or by email at sue.mcconnell@waterboards.ca.gov.

Original signed by

Patrick Pulupa
Executive Officer

Enclosures: CV-SALTS Prioritization and Optimization Study Milestones

cc (by email only): Karl E. Longley, Central Valley Water Board Chair
Richard Schafer, R L Schafer & Associates
David De Groot, 4Creeks Inc.
Daniel Cozad, Central Valley Salinity Coalition

Central Valley Salt Control Program

TABLE S-2: KEY PHASE I PRIORITIZATION AND OPTIMIZATION STUDY MILESTONES

Implementation Schedule	Milestone/Deliverable	Minimum Requirements
6 months from Notice to Comply	Phase I Workplan	<p><i>Workplan to include:</i></p> <ul style="list-style-type: none"> • Detailed P&O Study task descriptions • Cost estimate for each task • Task completion schedule • Stakeholder participation elements
Within 12 months from Notice to Comply	Phase I Funding & Governance Plan	<p><i>Complete Phase I implementation planning:</i></p> <ul style="list-style-type: none"> • Establish the entity and procedures for governance of the P&O Study • Develop funding plan to complete the P&O Study
Per Workplan	Special Studies	<p><i>Special Studies to include:</i></p> <ul style="list-style-type: none"> • Groundwater Quality Trace Constituent Study • Recycled Water Imports Study • Stormwater Recharge Master Plan Study • Emerging Technical Updates (every 5 years)
12 months from Workplan approval and annually thereafter	Annual Progress Report	<p><i>Annual Report to summarize:</i></p> <ul style="list-style-type: none"> • Progress on Workplan execution • Status of Phase I funding and expenditures • Stakeholder participation
5 years from Notice to Comply	Interim Project Report	<p><i>By Central Valley Hydrologic Region, identify:</i></p> <ul style="list-style-type: none"> • Recommended preferred physical projects with recommended next steps for development • Recommended non-physical projects and a schedule for implementation
9 years from Notice to Comply	Long-term Governance Plan for Phases II and III	<p><i>Governance Plan that establishes:</i></p> <ul style="list-style-type: none"> • Describes planned implementation approach for Phases II & III • Governance structure including: <ul style="list-style-type: none"> – Stakeholder roles and responsibilities – Committees responsible for development of policies, technical documents, BMPs and funding
	Long-term Funding Plan for Phases II and III	<p><i>Funding Plan that establishes:</i></p> <ul style="list-style-type: none"> • Financial approach for long-term funding including sources and funding types (grants, bonds, loans, etc.) • Approach for the equitable management and funding of long-term, large-scale salinity management projects
	Basin Plan Amendment Recommendations	<p><i>As needed, recommended amendments to Basin Plans to:</i></p> <ul style="list-style-type: none"> • Facilitate implementation of Phase II of the Salt Control Program • Consider extension of salinity variance and revision of salinity exception policies • As appropriate, modify the Salinity Permitting Approaches;
10 years from Notice to Comply	Final Phase I Project Report	<ul style="list-style-type: none"> • <i>For preferred physical projects:</i> <ul style="list-style-type: none"> – Conceptual designs – Assessment of environmental permitting requirements • Status of implementation of non-physical projects per Interim Project Report with recommendations for modifications, as needed

Central Valley Salt Control Program

Figure S-2: General Schedule of Key Phase I Prioritization and Optimization Study Activities and Milestones

Category	Year of Implementation (From Notice to Comply)									
	1	2	3	4	5	6	7	8	9	10
Stakeholder Coordination	Stakeholder Coordination Meetings (as needed frequency)									
	SGMA GSA Coordination Meetings (as needed frequency)									
Phase I Workplan	Phase I Work-plan									
Governance	Phase I Governance Plan	Long-term Governance Plan for Phases II & III								
Funding	Phase I Funding Plan	Long-term Funding Plan for Phases II & III								
Preferred Physical/Non-Physical Salt Management Projects	Development of Recommended Preferred Physical and Non-Physical Projects			Interim Project Report						
					Conceptual Design and Assessment of Environmental Permitting Requirements for Preferred Physical Projects				Final Project Report	
Special Studies				Groundwater Quality Trace Constituent Study						
						Recycled Water Imports Study				
								Stormwater Recharge Master Plan Study		
					Emerging Tech Update No. 1				Emerging Tech Update No. 2	
Basin Planning								Phase II Recommendations		
Reports	Progress Reports at Key Milestones (Years 1; 5; and 10 with documentation (electronic or otherwise) of participation)									