



June 22, 2015

Pamela Creedon  
Executive Officer  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Dr #200,  
Rancho Cordova, CA 95670

**Re: Comments on East San Joaquin Draft Comprehensive Groundwater Quality Management Plan**

Dear Ms. Creedon,

Thank you for the opportunity to comment on the draft Comprehensive Groundwater Quality Management Plan (Plan) developed by the Water Quality Coalition for the East San Joaquin River region.

**General Comments**

While we agree with many of the components included in the Plan, we have several recommendations which we will cover in more detail below;

- More information needs to be included on the water quality basis for establishing the HVA boundaries;
- The Performance Measures and Milestones are inadequate to protect groundwater in a reasonable timeframe;
- Legacy contaminants are incorrectly assumed to be unaffected by groundwater management efforts;
- Communities whose water supply is contaminated continue to remain at risk, with no provision for ensuring their safety;
- The Plan avoids the obvious compliance mechanism of reporting recalcitrant growers to the Central Valley Water Board for enforcement action.

We recommend that the Plan develop specific actions in the following areas:

**More specific and aggressive actions are needed to reduce contaminated discharges.**

The plan identifies a good range of data sets used to determine the HVA boundaries, including California Notification levels, which for nitrate is set at 5 mg/liter. However it is unclear how this level, which we strongly commend the Coalition for including, was used to establish the HVAs. We recommend including a map showing the correlation of well data with the HVA boundaries.

While the Plan identifies the identification and proper destruction of abandoned well a short-term activity to address groundwater quality, the timeline identified for completing this task is 10 years – far from short-term. We recommend, for growers in HVAs, full reporting in the 2016 Farm Evaluation Reports and confirmed well destruction by 2018. These are priority areas, and we need to act expeditiously to eliminate vectors to contamination.

We also recommend an accelerated implementation of the Management Practices Effectiveness Program for crops that contribute the highest level of nitrate loading to groundwater in HVA areas. We suggest a 2-year deadline for affirming practice effectiveness for crops responsible for 80% of the fertilizer loading (by mass) in the HVA region.

We appreciate the commitment to ensure that growers in HVAs attend required educational events to become familiar with industry best practices. The board should be notified of growers in HVAs that fail to take advantage of these educational opportunities.

The plan must include specific, concrete, and quantifiable objectives with measurable and quantifiable metrics attached to determine the success of the Plan. While we appreciate the inclusion of Performance Measures and Milestones, these need greater specificity in order to be useful in evaluating the effectiveness of the plan. For example;

- The plan should identify practices that have been shown to limit nitrate leaching below the vadose zone – for instance, those compiled and published by the CDFA Fertilizer Research and Education Program (FREP) for the most common crops grown in California - within 2 years, with a reporting to the Water Board of growers who fail to implement identified best practices
- Milestone Four – requiring a reduction of the amount of nitrate being discharged into the groundwater by irrigated agriculture’s priority crops within 10 years – is wholly inadequate. It allows continued contamination of groundwater indefinitely, so there is no milestone for meeting water quality objectives. We recommend a milestone that nutrient reporting in



HVA areas show a trend of decreasing nutrient loss to the environment, with a goal of reducing nitrate discharges below the water quality objective within 5 years.

- The Plan should identify proactive and time certain steps for notifying growers who are out of compliance with nutrient reporting or implementation measures, and for turning those growers over to the Water Board for enforcement action. We think the Coalition could develop a list of growers in need of site visits within 3 months of the reporting of practices by growers, and prioritize growers in HVAs for visits and hands-on assistance within two years of first reporting.
- The Plan should identify a minimum and steadily increasing acreage to implement a “pump and fertilize” program to reduce nitrate concentrations in groundwater within HVAs and nitrate exceedance areas. Furthermore, the Coalition should develop a pilot groundwater recharge program within one or more HVAs and nitrate exceedance areas to determine the impact of targeted recharge on drinking water supply wells that currently exceed the MCL.

### **Include actions to assist disadvantaged communities in obtaining safe and affordable drinking water**

Communities impacted by continued anthropogenic contamination must rely on contaminated water, pay to treat the contamination, or replace their drinking water supply regardless of the source of the contamination. The Coalition should take collective action to direct assistance and resources to help disadvantaged communities develop alternative water supplies. A specific commitment in these plans would raise the level of trust between growers and impacted communities.

### **Legacy contaminants – specifically 1,2,3 TCP - should be added as constituents of concern in the Plan**

This plan makes the broad assumption that legacy contaminants are not relevant to the Plan. We disagree. Changes in agricultural practices can play an important role in managing groundwater contamination. For example, while the pesticides that caused 1,2,3 Trichloropropane (1,2,3 TCP) contamination of the aquifer are no longer applied, current irrigation pumping and application of 1,2,3 TCP contaminated water acts to maintain the location and concentration of 1,2,3 TCP within the aquifers. 1,2,3 TCP is a toxic chemical, is a potent carcinogen, and has a public health goal set by the state of California. It is expected that the State Water Board will propose an MCL for 1,2,3 TCP before the end of 2015, and that 1,2,3

TCP will be included in the list of Title 22 drinking water contaminants. Therefore, 1,2,3 TCP should be included as a constituent of concern and management practices should be developed to 1) identify where 1,2,3 TCP contaminated water is used by or influenced by current agricultural operations, and 2) develop management practices to reduce concentrations and limit the spread of existing plumes to new areas. The State has already identified exceedances within the Coalition's boundaries, including 25 in Merced, 7 in Stanislaus, and 1 in Madera, though there may be more.

[http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/123TCP.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/123TCP.shtml)

### **Information and data collection**

There is a need to determine the sources of nitrate contamination in the basin, particularly where that source can be linked directly to a community whose well has been contaminated. The Plan, however, states that "identifying the source of a constituent is impractical" (78). We think that this is not a universal constant, that there are cases where a causal link between discharge and shallow groundwater can be efficiently and effectively demonstrated. It is up to the Coalition to provide the data needed to make that linkage. For instance a sudden and dramatic increase in nitrate levels in a well should trigger an investigation of its source. On a larger scale, the use of tracers accompanied by isotope testing can provide better information on the sources of nitrate in specific hard-hit areas and ensure that farmers implementing good practices are not included in a broad enforcement action.

Implementation of the Plan continues to be limited by the lack of nitrate data in many agricultural areas. We recommend that this be addressed, and public health and safety protected, by collecting nitrate samples from the wells of all of its members. This will improve relevant data, help members better manage their operations, and ensure that Coalition members provide safe drinking water to their own families. The recent change in availability of well logs through the recent adoption of the 2015/2016 budget trailer bills should also provide the Coalition with better quality information.

Additionally, we urge the Board to order that the Coalition conduct nitrate testing for all domestic and state small system wells in these HVAs and nitrate exceedance areas. The Coalition should share results with owners and residents, with appropriate notice and information to ensure that mitigation steps are taken where nitrate is over the MCL, and provide the results to the State Board's Geotracker Gama database to build a better characterization of aquifer conditions. That state database system has the capability to protect individual information for privacy purposes, while still sharing data that helps to better characterize the basin.



## DACs within HVAs

We commend the Plan's use of Disadvantaged Communities (DACs) as a criteria for determining HVA priority. Now that well log information is publicly available, we recommend that the coalition use that information to identify and test wells belonging to residents not served by public water systems, who may be unwittingly ingesting contaminated water.

In addition to identifying residents with impacted water supplies, the Plan should take steps to improve access to safe drinking water in impacted communities as quickly as possible. This could include providing alternative supplies or treatment to ensure safe water, stepped up adoption of best practices or changes to less nitrogen-intensive crops in areas immediately adjacent to shallow wells which exceed the California Notification level, and implementation of strategies to speed up return of wells to compliance. This could include targeted recharge of high quality water in areas adjacent to impacted wells.

## Conclusion

The rampant contamination of groundwater will not "self-correct" in a foreseeable timeframe; addressing this issue will require new strategies and aggressive implementation. The proposals currently included in the Plan are insufficient to the task presented to the Board, namely, protecting California groundwater for now and future generations. We therefore ask that our recommendations be included in the final Plan.

Thank you for providing us the opportunity to comment on this document. We look forward to working with your staff and the Coalition on the implementation of this Groundwater Management Plan.

Sincerely,

Phoebe Seaton  
Leadership Counsel for Justice and Accountability

Laurel Firestone

Jennifer Clary

Co-Executive Director and Attorney at Law  
Community Water Center

Water Program Manager  
Clean Water Action