



# CVCWA

## Central Valley Clean Water Association

Representing Over Fifty Wastewater Agencies



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December 15, 2014

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24th Floor  
Sacramento, CA 95814  
Submitted to: [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

**SUBJECT: Central Valley Clean Water Association Comments on the Draft Safe Drinking Water Plan**

Dear Ms. Townsend:

The Central Valley Clean Water Association (CVCWA) appreciates this opportunity to provide comments on the November 19, 2014 Draft Safe Drinking Water Plan for California (Draft Plan). The document prepared by the State Water Resources Control Board (State Water Board) addresses surface and ground water quality concerns to protect the state's drinking water supply. CVCWA consists of public agencies located within the Central Valley region and under the jurisdiction of the Central Valley Regional Water Quality Control Board. Our members are public and private organizations that provide wastewater collection, treatment and water recycling services to millions of Central Valley residents and businesses. Currently, CVCWA is comprised of over 50 public wastewater collection and treatment member agencies and has over 20 associate members.

Our comments on the Draft Plan are primarily associated with the impact on small communities and the need to develop technical and management tools for small communities to better evaluate the costs and benefits of management actions that best protect water supplies. Some of the agencies that we represent operate water supply systems as well as publically owned treatment works (POTW). While CVCWA represents POTWs, integration and efficiency of permitting and regulation of all these systems to benefit water quality and water supply.

**Comment 1 – Insufficient distinction between the uncontrollable and less regulated potential contaminant sources and those controlled through National Pollutant Discharge Elimination System Programs**

The draft Safe Drinking Water Plan does not adequately characterize the range of potential contaminant sources that are already significantly controlled through National Pollutant Discharge Elimination System (NPDES) programs nor those that are less regulated or uncontrollable. For example, Section 3.2.2.1. Microbial Contaminants, page 40, states:

*Inadequately treated wastewater from treatment plants that discharge into rivers and streams may result in elevated levels of pathogens (e.g., viruses, bacteria, Giardia, Cryptosporidium) and pose unacceptable health risks to those who use the surface water for supply of drinking water; the Water Boards issue permits to require treatment preventing such discharges.*

This section emphasizes wastewater treatment plants as the predominant source of pathogens in rivers and streams and fails to recognize the pathogen treatment and compliance history at wastewater treatment plants. Additionally, there are other equally relevant potential sources of pathogens, including recreation, urban and agricultural runoff, and non-anthropogenic sources that are not mentioned.

CVCWA participated in the development of the Central Valley Drinking Water Policy that examined impacts to drinking water. The Central Valley Drinking Water Policy Workgroup developed a Conceptual Model for Pathogens and Pathogen Indicators in the Central Valley and Sacramento-San Joaquin Delta study (Tetra Tech, 2007) that assessed sources and spatial trends of pathogen and pathogen indicators in the Central Valley and Delta. The study area covered 43,300 square miles encompassing the Sacramento and San Joaquin watersheds and the Delta. The conceptual model provided a compilation and evaluation of available data and qualitatively described the key processes of constituent fate and transport. The Workgroup concluded that although limited available data prevented a full watershed-scale quantitative analysis of sources and transport, qualitative analysis indicated that wastewater effluent, and urban, agricultural and wetlands runoff are potential sources of pathogens and fecal indicator loads (Central Valley Drinking Water Policy Workgroup Synthesis Report, February 21, 2012). *CVCWA requests that a more detailed summary of significant efforts such as the Central Valley Drinking Water Policy development be considered in the Draft Plan to better characterize surface water issues.* While the work done by the Central Valley Drinking Water Policy workgroup was not a statewide characterization, much of the work and conclusions are relevant to a large fraction of surface water drinking water supply in California.

**Comment 2 - Insufficient identification of the need for watershed management modeling to better understand the cost and benefit of management actions within a source watershed**

The report does not specifically identify the need for watershed management modeling to better understand the costs and benefits of management actions within a source watershed protection program. Such tools are necessary to provide essential information, improve coordination, identify effective management actions, and ensure source water protection. For small communities with more limited resources these sophisticated computational models are not always feasible.

*CVCWA requests that the following recommendation be added to Chapter 3:*

3.4 The State Water Board will explore possible funding sources to develop surface and ground water management and modeling tools to assist source water protection programs and watershed protection programs in identifying effective and feasible control strategies. These management tools should be linked to downstream water quality modeling and key municipal drinking water intake and well locations.

**Comment 3 - Overly generalized use of the broad classification of “contaminants of emerging concern”**

The use of the broad classification of contaminants of emerging concern (CEC) is not helpful in the stated context. For example pyrethroids, pharmaceuticals, and NDMA have different sources and pathways to surface and groundwater, but are discussed collectively as CECs. The language should precisely state the contaminants that are of concern and their known sources. The report accurately states that there is a need to research and establish whether there is a level of human health concern for these constituents at the low concentrations that they occur.

- The report includes an emphasis on wastewater and recycled water as a source of CECs. However, NDMA and other CECs may originate in groundwater from other sources such as industrial discharges and fuel contamination in soils. While recycled water is an important component of the State’s water plan, wastewater and recycled water should not be emphasized as the only or as the primary source for CECs.
- Highly treated wastewater effluent is discharged into groundwater from some recycled water projects. Membranes do not remove all CECs and should not be identified as the preferred treatment technology for CECs or for NDMA without a technical evaluation and professional consensus on the efficacy of this treatment technology for “CECs” and without benefit of knowing how efficient this technology is on other constituents that may be better removed through a different process.
- CECs are not unique to the discharge of treated wastewater but are also present in runoff from stormwater, agriculture, and industrial discharges. All feasible efforts should be made to control sources of CECs if it can be determined that that control efforts would be effective.

This assessment should be evaluated along with a cost/benefit analysis of removal of trace CECs at drinking water treatment facilities.

*CVCWA requests that the following changes be made to the Section 3.5 Conclusions and Recommendations (page 56):*

In the past two decades, many new contaminants have been identified and the majority of which have been effectively regulated or are in the process of being regulated. In addition, MCLs for some regulated contaminants and disinfection byproducts have been made more stringent. CECs are the next group of contaminants that may require consideration for regulatory action although, because of their low concentrations in drinking water sources, it is unclear whether or not they pose a health risk. Water quality monitoring for the myriad of regulated contaminants has become costly, which has resulted in an economic burden on many small water systems, POTWs, and other regulated municipal agencies. Better tools are necessary to evaluate beneficial use protection and cost-effective management solutions that include all watershed stakeholders.

#### **Comment 4 – Unsupported conclusion that urbanization causes drinking water degradation**

The Draft Report states that urbanization will cause drinking water degradation. This statement is not valid for most parameters of concern in the Central Valley, and likely elsewhere.

To support the development of the Central Valley Drinking Water Policy, various technical studies were conducted by the Central Valley Drinking Water Policy Workgroup. During the analysis, approximately 450,000 acres of new urbanization was projected in the modeled tributary area to the Delta by 2030. It was hypothesized that urban loads would increase with the projected 50% increase in urbanized area between 2011 and 2030. However, this hypothesis was shown to be invalid for many parameters of concern, for several reasons. First, the area of projected urban growth was offset by decreases in natural land cover and agricultural areas that can have higher per acre loadings of several parameters of concern (organic carbon, nutrients and total dissolved solids) than urban areas. Second, increasing wastewater treatment was shown to result in net decreases in loadings of organic carbon and nutrients, despite population increases.

*CVCWA requests the following revisions on page 47:*

~~Even though the~~ The Water Boards have addressed CECs for groundwater recharge. ~~CECs from~~ can enter surface waters from both urban and non-urban sources wastewater are also present in surface water sources into which wastewater is discharged. Regulation of wastewater discharge through the NPDES program includes consideration of the Antidegradation Policy and TMDL compliance to protect impairment of existing and potential beneficial uses. Moreover, the Sources of Drinking Water Policy is also intended

to protect waters from impairment of drinking water beneficial uses. However, effects from climate change or the increase in water supply demand may degrade water quality. As the state's population grows, the volume of treated wastewater from municipal sewage treatment plants can be expected to increase. Since no increase is anticipated in the volume of natural water supply from rainfall, the percentage of treated wastewater in the receiving water bodies (discharge-receiving water bodies) will likely increase. A point may be reached when the percentage of wastewater is high enough that the approval of the recipient stream as a source of drinking water will be questioned, especially if CECs are detected at higher concentrations. DDW<sub>2</sub> and the Regional Water Boards<sub>2</sub> and DWQ will continue coordinate<sub>1</sub>on to ensure that no losses of drinking water supplies occurs as a result protect drinking water beneficial uses.

*CVCWA requests the following revisions on page 48:*

As the state's population grows, there are commensurate increases in the volume of waste discharges from industries and municipal sewage. These discharges, except along the coast, are into rivers and streams (surface waters) or groundwater used as drinking water supplies. In the past, those discharges have been just minor contributors to the drinking water supply (generally less than five percent in most supplies); however, the increase in the population is increasing the percentage of sewage in drinking water supplies. Population increases and land use changes should be evaluated to better understand future available water supply and impacts to water quality. Other factors such as climate change, changes in agricultural demands, and inter-basin water transfers will also continue to impact localized water supplies. While population growth may increase the number of users, wastewater treatment and water conservation minimize the impact and reduce the per capita volume of treated wastewater discharged. Higher quality treated wastewater and improved land use development practices mitigate the effect of population increases on the loadings of many parameters, as demonstrated for organic carbon and other constituents in the Central Valley Drinking Water Policy Synthesis Report. More study and modeling approaches are needed to evaluate the effect of these factors in other regions and additional constituents of particular concern.

Thank you for the opportunity to provide these comments. Please let me know if you have questions on our comments.

Sincerely,



Debbie Webster,  
Executive Officer