December 10, 2014

Sent via Electronic Mail to commentletters@waterboards.ca.gov

Felicia Marcus, Chair, and Members
State Water Resources Control Board
1001 I Street, 24th Floor Sacramento, CA 95814
c/o Ms. Jeanine Townsend, Clerk to the Board

Subject: CASA Comments on Safe Drinking Water Plan for CA

Dear Chair Marcus and Board Members,

The California Association of Sanitation Agencies (CASA) appreciates the opportunity to provide comment on the proposed Safe Drinking Water Plan for California (hereafter “Drinking Water Plan”). CASA is a statewide association representing more than 100 municipalities, special districts, and joint powers agencies that provide wastewater collection, treatment, clean energy and water recycling services to millions of Californians. While some of CASA’s members are also drinking water suppliers, the focus of our comments is limited to references in the Drinking Water Plan to wastewater treatment facilities and potential impacts to ground and surface waters from wastewater.

Overall, we are concerned that the Drinking Water Plan mischaracterizes the potential impacts of wastewater treatment systems on drinking water sources in the State. Some sections refer to “sewage” in the drinking water supply or potential “health impacts” from increases in wastewater discharges. Many of these statements are misleading, inflammatory, and factually untrue. Some of these references could undermine important goals of the state and the State Water Board itself, and specifically efforts to increase recycled water production and use. Some of these references can be addressed through simple language changes, and others require additional information to clarify the intent of the Drinking Water Plan. CASA has identified the following sections where changes should be made to more adequately reflect realities of how wastewater treatment systems interact with sources of drinking water in California.

Section 3.2.2 Current Threats to Drinking Water Sources

Section 3.2.2.1 Microbial Contaminants (Drinking Water Plan at p. 40)

“...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. While DDW is tasked within the State Water Board to oversee the regulation of the treatment of water
used for drinking water, DDW is not involved in the regulation of wastewater treatment. DDW, however, does provide consultation to the Regional Water Boards, which regulate such discharges.”

The purpose of this reference is not clear, and it overstates the threat to surface waters posed by wastewater facilities and discharges. More specifically, this section appears to emphasize wastewater treatment plants as the predominant source of pathogens in rivers and streams, when in reality there are several other more significant sources of pathogens such as recreation, agriculture, and non-anthropogenic (natural) sources. Moreover, permitted wastewater treatment facilities are required to remove pathogens to appropriate levels as determined by their individual NPDES permits, consistent with state and federal standards, and are not allowed to discharge “inadequately treated wastewater.” Permitted wastewater discharges are specifically and thoroughly regulated to ensure that they do not pose “unacceptable health risks” to those who use surface water supplies for drinking water. The manner in which wastewater facilities have been characterized above implies there are regular violations of discharge permits by wastewater entities, which is simply not the case. CASA requests that this language be modified to reflect the role wastewater treatment plays in the protection of public health and safety, and the limited impact such facilities have on drinking water supplies.

Section 3.2.2.3 Chemicals of Emergent Concern (Drinking Water Plan at pp. 46-47)

“Chemicals of Emerging Concern (CECs) are a number of chemicals that are present in wastewater and, therefore, may reach surface water or groundwater supplies of drinking water... CECs have received a lot of attention in the past decade owing to possible health concerns related to their presence in wastewater and in drinking water supplies. As a result, the State Water Board’s statewide Recycled Water Policy addresses CEC monitoring requirements... The CECs considered to be important to monitor were determined based on consideration of their presence in recycled water, the concentrations found therein, and the potential for adverse health effects in people should that water be ingested as drinking water.

The replenishment or recharge of groundwater basins with recycled water continues to involve more basins and will increase, in terms of percent of the contribution of wastewater, in existing projects. Contamination of a groundwater basin by chemical contaminants (NDMA, 1,4-dioxane) in wastewater has already occurred (in the late 1990s in an Orange County water recycling project), which prompted new attention to wastewater treatment and industrial source control. Monitoring will determine if similar incidents will occur in newly recharged basins or in existing basins using more recycled water. Improvements in the design and construction of membranes used as part of the treatment process may reduce the likelihood of such occurrences. The State Water Board’s Recycled Water Policy requires groundwater monitoring for CECs.

Even though the Water Boards have addressed CECs for groundwater recharge, CECs from wastewater are also present in surface water sources into which
wastewater is discharged. 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 and the Regional Water Boards and DWQ will continue coordinate to ensure that no losses of drinking water supplies occurs as a result. (Emphasis added.)

Use of recycled water for irrigation will continue to increase in the future as it has been for the past four decades and is addressed in the State Water Board’s Recycled Water Policy.”

This section focuses almost exclusively on wastewater and recycled water as a source of CECs, which is entirely inappropriate. CECs can originate in groundwater from sources other than recycled water, such as industrial discharges and certain fuel contamination in soils. Moreover, as the above language notes but does not emphasize, it is highly treated wastewater that is being discharged into groundwater through recycled water projects. As stated in the State Water Resources Control Board Science Advisory Panel on Chemicals of Emerging Concern in Recycled Water April 15, 2010 Draft Panel Report Communications Fact Sheet, “…many CECs are removed or reduced in conventional wastewater treatment facilities.” Moreover, the statement made (highlighted in bold above) regarding the state reaching a point when the percentage of wastewater in a surface water stream is so high as to reconsider that stream as a drinking water source is entirely speculative and should be removed from the Drinking Water Plan. Finally, recycled water is an essential component of the State’s water supply plan for the future. Exclusive emphasis on wastewater and recycled water as the only or as the primary source for CECs jeopardized public confidence in the use of recycled water and undermines a host of other actions being taken at the state and federal level to encourage recycled water production and utilization. CASA suggests that the entire section above be reworked to emphasize the diverse sources of CECs in the environment, the ongoing nature of analysis related to the impacts of CECs in drinking water supplies, and the importance of recycled water to California even if some CECs may be present in certain discharges.

**Section 3.2.2.4 Wastewater (Drinking Water Plan at p. 48)**

“There may be health concerns about the use of water supplies that receive such discharges for drinking water unless the wastewater treatment is adequate to protect public health...

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.”

When water supplies are not affected by wastewater or other human activities, the chance for contamination is diminished....A Fact Sheet on the Water Board’s 2010 map of impaired surface water bodies, required by the federal Clean Water Act, is available...” (Emphasis added.)

There are several problems with the above paragraphs related to the impact of wastewater treatment on drinking water supplies. First, permits, statutes and regulations already set water quality requirements that are adequate to protect public health. Implying that there are health concerns “unless” wastewater treatment is adequate to protect public health, as the Drinking Water Plan does, ignores a significant amount of important work being done by publicly owned treatment works (POTWs) and mischaracterizes the current (and future) state of affairs. Second, the sentence highlighted in bold above implies that sewage is discharged into drinking water, which is entirely misleading and inaccurate. POTWs treat wastewater prior to discharge to land or surface water, and such discharges are regulated by the State Water Resources Control Board and the Regional Water Quality Control Boards. Releases of untreated sewage from sewer collection systems to waters are prohibited and aggressively enforced. Treated wastewater, generally in compliance with all applicable health and safety standards as well as state and federal statutes and regulations, is discharged to surface waters or utilized as groundwater recharge. That treated wastewater is blended with natural supplies, and then treated again by drinking water supply agencies to Title 22 standards. By simply stating (incorrectly) that an increase in population correlates with an increase in the percentage of “sewage” in drinking water supplies, the Drinking Water Plan oversimplifies the complex processes by which water is treated, discharged, and treated again before making its way back into the water supply. This statement is entirely inappropriate, and we ask that it be removed or significantly modified.

Section 3.3.1. Disinfection and Disinfection Byproducts (Drinking Water Plan at p. 52)

“The nitrosamine NDMA is currently unregulated and has been found to result from water chlorination and can be present in drinking water and also in wastewater. In this regard, the production of NDMA can be considered a disinfection byproduct. At high enough levels, it can be of concern for drinking water and for wastewater that is destined for use in a recycled water project involving the augmentation of drinking water supplies.”

No references are provided to support this statement. It is not clear whether the concerns over NDMA are speculative or if data and trends analysis have led to a general concern over NDMA presence or concentrations in wastewater. NDMA is currently regulated for POTW’s, and most wastewater treatment facilities must comply with the State Implementation Plan (SIP). More clarification is needed regarding this point in the Drinking Water Plan.
Section 4.2.3. Inorganic Chemicals (Drinking Water Plan at pp. 68 - 72)

“The second most significant groundwater quality issue affecting PWS serving less than 10,000 service connections is nitrates. Nitrates have historically been a major groundwater contaminant. The use of nitrogen fertilizers and large dairy operations and cattle feeding facilities and to a lesser extent individual sewage disposal practices have been the principal sources of the contamination…”

As a somewhat minor point, we assume that the reference to “individual sewage disposal practices” refers to septic systems and tanks. Clarification is needed on this point.

Thank you for the opportunity to provide comments on the Safe Drinking Water Plan for California. If you have any questions or would like to discuss any of these comments further, please do not hesitate to contact me at alink@casaweb.org or (916) 446-0388.

Sincerely,

[Signature]

Adam D. Link
CASA Director of Government Affairs