



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager



December 18, 2017

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Dear Ms. Townsend:

Comments - Proposed SWA Regulations

The Metropolitan Water District of Southern California (Metropolitan) appreciates the opportunity to comment on the State Water Resources Control Board's (State Water Board's) revised proposed Surface Water Augmentation (SWA) Using Recycled Water regulations (SWA regulations). Metropolitan commends the State Water Board for its efforts in developing the proposed regulations which would establish specific regulatory criteria for general application by a Water Recycling Agency (WRA) and a Public Water System (PWS) engaged in a Surface Water Source Augmentation Project (SWSAP).

Metropolitan is a regional wholesaler that delivers water to 26 member public agencies. Metropolitan supplies safe and reliable high-quality water to nearly 19 million people in more than 300 cities and incorporated areas throughout Southern California. Metropolitan owns and operates an extensive water system including the Colorado River Aqueduct, 16 hydroelectric facilities, nine reservoirs, 830 miles of large-diameter pipes and five water treatment plants. Metropolitan also provides financial incentives supporting local projects within its service area in the development and use of recycled water. Since 1982, Metropolitan has provided over \$420 million to produce 2.4 million acre-feet of recycled water for non-potable uses and indirect potable reuse.

Metropolitan reviewed the proposed SWA regulations and submitted a comment letter to the State Water Board on September 11, 2017. Metropolitan thanks the State Water Board for incorporating specific comments from our letter such as adding *E.coli* to the augmented reservoir monitoring program, and requiring a WRA to consult with a PWS before applying for reduced on-going monitoring of the augmented reservoir. Adding *E.coli* testing to the monitoring program provides a more reliable indicator of the concentration of fecal bacteria introduced to the augmented reservoir. Similarly, consultation between a WRA and PWS before applying for reduced monitoring would ensure the protection of a source water reservoir utilized for drinking water purposes.

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However, despite these amendments, Metropolitan believes that ambiguities remain in some areas of the regulations that must be further clarified. We believe that resolving additional comments from our September 11th comment letter would result in well-defined regulations that are clear, implementable, and are protective of public health. To further strengthen the proposed regulations, Metropolitan reiterates the following comments.

General Comments

- 1. Definition of a SWSAP should be consistent with Assembly Bill (AB) 574 and include the planned placement of recycled water into constructed conveyance systems upstream of reservoirs.** *(General comment no. 1 from Metropolitan's original comment letter submitted on September 11, 2017)*

As currently written in section 60301.851 of the proposed SWA regulations, the current definition of a SWSAP is "a project involving the planned placement of recycled municipal wastewater into a surface water reservoir that is used as a source of domestic drinking water supply, for the purpose of supplementing the source of domestic drinking water supply". This definition does not specifically address the situation where recycled water is placed into a constructed water conveyance system upstream of a reservoir. California has an extensive network of water conveyance systems, including the California Aqueduct and Colorado River Aqueduct, which ultimately release water into reservoirs used for domestic drinking water supplies. Placement of recycled water by a WRA into water conveyance systems may be a more viable option than directly into a reservoir based on a project's proximity to surface water or other considerations. Therefore, it is essential that the SWSAP definition be expanded to include constructed conveyance systems upstream of reservoirs. This clarification would ensure that critical drinking water conveyance systems, such as the California Aqueduct and Colorado River Aqueduct, would be covered by the proposed SWA regulatory framework and specific water recycling criteria.

Also, AB 574, which was signed by Governor Brown and becomes effective January 1, 2018, redefines "surface water augmentation" as "reservoir water augmentation." Further, it includes the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system *or into a constructed system conveying water to such a reservoir*. Metropolitan requests that the State Water Board reconcile the definition in the SWA regulations with the definitions in AB 574.

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2. A set of criteria, or a process undertaken by the State Water Board, should be clearly identified that would categorize a recycled water discharge as a SWSAP to be governed under the proposed regulations (*General comment no. 2 from Metropolitan's original comment letter submitted on September 11, 2017*)

The proposed SWA regulations do not identify a clear set of criteria, or describe a process for the State Water Board to undertake, that would categorize a project as a SWSAP. Currently, *de facto reuse* occurs in many parts of California and throughout the United States where treated wastewater is discharged into surface waters used as sources of drinking water. These discharges are governed under waste discharge requirements (WDRs) through a National Pollutant Discharge Elimination System (NPDES) Permit. For a recycled water project discharging into a reservoir, or into a conveyance system upstream of a reservoir (as described in General Comment No. 1), the proposed SWA regulations do not clearly identify criteria or characteristics that would classify it as a SWSAP to be governed under the proposed regulations, as opposed to coverage under WDRs through an NPDES Permit.

Also, there may be cases where smaller recycled water projects seek to discharge into water conveyance systems to support water supply initiatives. It is unclear if the State Water Board would issue exemptions from the proposed SWA regulations for these smaller projects (minimal discharges) that would presumably result in a *de minimis* impact with no public health risk, and thereby not require full advanced treatment of the recycled water. The proposed SWA regulations should address any uncertainty of what constitutes a SWSAP. The State Water Board should identify a clear set of criteria, or indicate a case-by-case evaluation process with general criteria, that would determine whether a recycled water project discharging to a source of drinking water would be classified as a SWSAP and be governed under the proposed regulations.

3. Roles and responsibilities of a WRA, PWS, and reservoir owner and operator should be clearly defined in a joint plan to ensure operating and compliance responsibilities are appropriately designated (*General comment no. 3 from Metropolitan's original comment letter submitted on September 11, 2017*)

Successful implementation of a SWSAP requires close coordination between multiple entities, including the WRA, PWS, and owner and operator of the reservoir (if different than the WRA and PWS). Roles and responsibilities between these parties can vary, depending on the specific authorities each may have in a SWSAP. Responsibilities associated with operating a SWSAP also have implications on compliance, as the proposed SWA regulations identify specific requirements to be undertaken by a WRA and PWS.

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For example, section 60320.322 of the proposed regulations requires the WRA to submit an Operational Plan to the State Water Board and Regional Water Quality Control Board (Regional Water Board) for approval. This plan would address operations, maintenance, analytical methods, and monitoring associated with a SWSAP. However, conflicts may arise if the WRA does not have ownership of the augmented reservoir or simply may not be the appropriate entity to conduct this work. Section 60320.328 indicates that a WRA would provide an annual report of compliance status and monitoring results to the State Water Board and Regional Water Board, with a concurrent copy provided to each PWS. A PWS is ultimately responsible for drinking water compliance resulting from downstream treatment of water from the augmented reservoir and, therefore, must be involved with review and interpretation of this monitoring data prior to its submission. These examples emphasize the complexities associated with SWSAPs having multiple entities and authorities.

Section 60320.322 of the proposed regulations identifies a requirement for WRAs and PWSs to submit a joint plan to the State Water Board and Regional Water Board to address corrective actions to be taken by each entity in case of a violation, and the actions and procedures the WRA would take to provide proper notification of substantive operational changes. The elements of a joint plan as described in section 60320.322 should be further expanded to ensure responsibilities of the various parties for all phases of the project are established, including operating and compliance responsibilities. It is expected that formal agreements or memoranda of understanding would be needed to clearly assign roles and responsibilities for WRAs, PWSs, and owners and operators of the augmented reservoir.

4. WRA's Engineering Report for a SWSAP should include an approach to manage nutrients to ensure protection of downstream drinking water uses.
(General comment no. 4 from Metropolitan's original comment letter submitted on September 11, 2017)

As currently written, the proposed SWA regulations do not directly address the potential reservoir management and water quality issues that may arise with the levels of nutrients present in the effluent of a SWSAP, which could be further impacted by drought conditions. Nutrients have the potential to disrupt the ecology of the reservoir leading to growth of cyanobacteria that may result in taste and odor issues or production of cyanobacterial toxins. In California lakes, phosphorus is a limiting nutrient, so increased concentrations (even at lower levels that may be present in advanced treated water) could lead to increased cyanobacterial productivity and ultimately degrade the water quality of the reservoir. Control of nutrients in SWSAPs should be established on a case-by-case basis, in consultation with the reservoir owner

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and operator, based on a reservoir's condition and trophic state. It should be identified in the proposed regulations that a WRA, as part of its Engineering Report and in consultation with PWSs and the reservoir owner and operator, will develop an approach to manage nutrients to ensure protection of downstream drinking water uses.

Specific Comments

1. Section 60320.301 requires a WRA and PWS to submit a joint plan to the State Water Board and Regional Water Board for review and written approval. As currently written, the internal review and approval process between the State Water Board and the Regional Water Board is not clearly described in the proposed regulations. In addition, there is no time frame included in the regulations for review and approval of the joint plan. A clear time frame would help both the WRA and the PWS in planning and operation of the SWSAP. We recommend that a process similar to the "Permit Streamlining Act" that establishes maximum timelines for review and approval be included. We encourage the State Water Board and Regional Water Board to ensure close coordination between the two agencies to reduce potential for delays in project permitting and implementation. (*Specific comment no. 1 from Metropolitan's original comment letter submitted on September 11, 2017*)
2. Section 60320.308 establishes log reduction requirements to address pathogenic organisms present in the municipal wastewater. The State Water Board's "Initial Statement of Reasons" indicates that the baseline for log reduction requirements is raw sewage; however, the proposed regulations do not clarify whether log reduction requirements for the SWSAP treatment process starts at raw sewage or at the start of the advanced water treatment process. SWA regulations should clearly identify that the baseline for the log reduction requirements should start at raw sewage. (*Specific comment no. 2 from Metropolitan's original comment letter submitted on September 11, 2017*)
3. Section 60320.308(b) requires "on-going monitoring" to be included in the WRA's Operations Plan, and this on-going monitoring will be used to verify the performance of each treatment process. However, there is no definition of "on-going", which could be interpreted as continuous monitoring (e.g., daily) or undetermined monitoring frequency for the life of the project. The State Water Board should clarify the term "on-going monitoring". (*Specific comment no. 4 from Metropolitan's original comment letter submitted on September 11, 2017*)
4. Section 60320.322 (b) establishes training requirements for personnel operating and overseeing the SWSAP operations. The State Water Board's "Initial Statement of Reasons" indicates that only wastewater treatment plant operators can be certified to operate a WRA advanced treatment facility. However, California Urban Water

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Agencies in collaboration with Water Reuse California, California Water Environment Association, and California Association of Sanitation Agencies have published a whitepaper outlining a framework for potable reuse operator training and certification. Metropolitan supports these agencies efforts and encourages the State Water Board to establish an advanced operator treatment certification program that would allow operators with either water or wastewater background to operate an advanced treatment facility. *(Specific comment no. 7 from Metropolitan's original comment letter submitted on September 11, 2017)*

Metropolitan thanks the State Water Board for the opportunity to comment on the proposed revised SWA regulations. We believe the additions and clarifications noted in this letter will strengthen these regulations, aimed to further expand California's potable reuse development.

If you have any questions regarding this comment letter, please feel free to contact me at 213-217-5696 or mstewart@mwdh2o.com.

Sincerely,



Mic Stewart, PhD
Director of Water Quality

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