BACWA
BAY AREA
CLEAN WATER
AGENCIES

May 9, 2025

Courtney Tyler
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814
Submitted via email to: commentletters@waterboards.ca.gov

Subject: Comments on SBDDW-22-001: Onsite Treatment and Reuse of Nonpotable Water Regulations

Dear Courtney Tyler:

On behalf of the Bay Area Clean Water Agencies (BACWA), we thank you for the opportunity to provide comments on the Division of Drinking Water's proposed regulations for Onsite Treatment and Reuse of Nonpotable Water[1]. BACWA is a joint powers agency whose members own and operate publicly-owned treatment works and sanitary sewer systems that collectively provide sanitary services to over seven million people in the San Francisco Bay Area.

BACWA member agencies support a wide variety of water recycling projects. About two dozen BACWA member agencies provide recycled water for industrial uses, landscape and golf course irrigation, agricultural irrigation, and other nonpotable uses. Based on data reported to the State Water Resources Control Board, approximately 10% of influent wastewater in the region[2] is treated and distributed for these recycled water uses. BACWA member agencies are continuing to develop additional recycled water programs to meet local water resources needs and to fulfill the requirements of the region's Nutrients Watershed Permit (Order R2-2024-0013), which requires wastewater treatment plants to reduce loads of nutrients to San Francisco Bay through wastewater treatment, recycled water diversions, and other efforts.

San Francisco Public Utilities Commission (SFPUC), one of the five principal members of BACWA, was the first municipality in the nation to adopt local rules for buildings to collect, treat, and reuse water onsite to meet nonpotable demands such as toilet flushing and irrigation. BACWA understands that the proposed regulations for Onsite Treated Nonpotable Water Systems (OTNWS) would supersede some technical requirements of the SFPUC's existing Onsite Nonpotable Reuse Program. BACWA supports the comments submitted by SFPUC as the agency seeks to mitigate these impacts.

BACWA's additional comments are listed below.

[1] State Water Resources Control Board. "Regulations for Onsite Treatment and Reuse of Nonpotable Water (SBDDW-22-001)." March 21, 2025. Available online at https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/otnws_regs.html. Accessed April 16, 2025.
[2] Region 2, which falls within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board. The 10% is a 4-year average of influent and recycled water data reported in Volumetric Annual Reports. https://www.waterboards.ca.gov/water_issues/programs/recycled_water/volumetric_annual_reporting.html

1. Wastewater conveyance and treatment is a public health concern that should be addressed in OTNWS documents such as the Engineering Report and Commissioning Plan.

The draft OTNWS regulations are based on Senate Bill 966 (SB 966), which added Sections 13558 and 13558.1 to the California Water Code. Section 13558[3] contains requirements for local jurisdictions to consult with sewer service providers, but this consultation process is not explicitly included in the draft OTNWS regulations. Section 13558 requires that local jurisdictions give the local "sewer service provider the opportunity to demonstrate that the proposed ordinance could result in a significant adverse impact to any of the following:

(I) Operations, maintenance, or management of the existing sewer collection or treatment system due to reduced flows.
(II) Existing or planned centralized recycled water or potable reuse facilities or projects due to reduced flows.
(III) Receiving waters."

The code above was written to address the well-established effects of water conservation on sewer systems, such as solids accumulations and odors, which have been documented in the State's analysis of water efficiency standards[4]. Wastewater agencies will also be impacted by OTNWS due to the anticipated variability of flows and loads, as noted below:

- **Design Challenges with Automated Diversions –** The proposed OTNWS regulations require a connection to a community sewer system for fully automated diversions of off-spec water. During periods when the OTNWS system is not operational, blackwater and greywater will have to be diverted to the community sewer. This means the community sewer system and wastewater treatment plant will need to be designed to convey and treat **all** sewage from the commercial, multi-family, or mixed-use development. Establishing the appropriate design specifications and capacity fees for this range of operating conditions will require consultation between the OTNWS and community system sewer system.

- **Operational Challenges with Automated Diversions** – Automated diversions, commissioning, and decommissioning could rapidly change the quantity and quality of influent wastewater reaching the local wastewater treatment plant, causing challenges for biological treatment systems. In some cases (i.e., for a large OTNWS), it may be appropriate for the OTNWS operator to notify the wastewater treatment facility of a diversion event.

- **Solids from MBR Systems.** Although not required by the draft OTNWS regulations, it is possible that some systems will send waste sludge from membrane bioreactors (MBRs) to the community sewer system, either as a routine practice that is expressly authorized by the local sewer agency, or as an unauthorized practice.

---

[3] California Water Code, Section 13558. Available online at https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=13558.&lawCode=WAT Accessed April 16, 2025.
[4] "Making Conservation a Way of Life Regulations" Research Contract 19-058-240, Task 5, Summary of Environmental Effects – Wastewater. January 2022. Available online at https://www.waterboards.ca.gov/conservation/regs/docs/task5-wastewater-excerpt.pdf. Accessed April 16, 2025.

To address these concerns, BACWA requests that technical requirements arising from the consultation between the OTNWS and wastewater agencies be documented in the Engineering Report. Wastewater agencies should also be notified of commissioning and decommissioning. The requested edits are shown below:

[Page 27, Section 60680 – Engineering Report]

(15) Other report elements specified by the local jurisdiction to evaluate the effectiveness of the proposed OTNWS.

(16) Other report elements specified by the sewer service provider in order to prevent significant adverse impacts to the community sewer system from operation of the OTNWS.

[Page 30, Section 60684 – Commissioning Plan and Report]

(f) A commissioning report documenting the OTNWS commissioning must be submitted to the local jurisdiction for review and approval within 30 days of completion of the commissioning period. The commissioning report must also be submitted to the appropriate public water system, community sewer system, and when applicable the recycled water agency within 30 days of completion of the commissioning period.

[Page 37, Section 60696 - Decommissioning]

(a)The responsible entity must provide notification to the local jurisdiction, public water system, and community sewer system at least 30 days prior to the start of decommissioning activities.

2. The draft OTNWS Regulations should provide more flexibility for programs to align with existing use area requirements for "purple pipe" nonpotable recycled water found in Title 22, §60301 - §60316.

Many local jurisdictions in California already oversee the distribution and/or use of disinfected tertiary recycled water per Title 22, §60301 - §60316. BACWA understands that the draft OTNWS regulations purposely avoid using the term "recycled water," and that there are legitimate differences in quality between the two types of systems. However, some of the differences between existing Title 22 regulations and the proposed OTNWS regulations are likely to make it needlessly confusing for site supervisors or local jurisdictions that deal with both types of systems. The differences may also make it difficult for programs to transition from one type of source to the other in the future (e.g., convert from OTNWS to "purple pipe").

BACWA requests that the OTNWS regulations be written with more flexibility to align use area requirements and signage requirements for OTNWS with current "purple pipe" requirements in Title 22, §60301 - §60316, as detailed below in greater detail:

- **Indoor and Outdoor Uses –** Title 22 §60301 - §60316 identifies many more uses of recycled water than those included in the draft OTNWS regulations. The OTNWS regulations should provide more flexibility for programs to incorporate other uses that are currently allowable under Title 22. This is especially for uses that are allowed for disinfected secondary-2.2, disinfected secondary-23, or undisinfected secondary recycled water in Title 22, §60303 -

§60307. For example, Title 22 §60304 allows **undisinfected** secondary-treated recycled water to be used for irrigating orchards and vineyards where the recycled water does not come into contact with the edible crop. The OTNWS regulations should likewise allow irrigation of fruit trees and vines, which are often incorporated into urban landscaping. In the same vein, the draft OTNWS regulations should also allow use in landscape impoundments, which Title 22 §60305 allows for disinfected secondary-23 recycled water.

The proposed edit below would allow the State Board to authorize additional indoor or outdoor uses for local jurisdictions when it deems appropriate. This approach is similar to other sections of the draft OTNWS regulations, which allow the State Board to approve alternative treatment trains (Draft §60634) and alternative cross connection testing procedures (Draft §60704).

- **Use Area Types - Signage –** Title 22, §60310(g) allows flexibility regarding the precise wording used on public signage. This flexibility should also be included in the OTNWS regulations.

The requested edits are shown below:

[Page 9, Sections 60620 and 60622]

Section 60620. Allowed Indoor Uses.

(a) Allowable indoor uses of onsite treated nonpotable water are limited to toilet and urinal flushing, clothes washing, and drain trap priming.

(b) Use of onsite treated nonpotable water for clothes washing is allowed if non potable hot water is available for clothes washing by either: (1) Clothes washers that have an electric tankless heater that heats non potable water at the point of use; or (2) A building that has a boiler system that provides non-potable hot water to the clothes washer.

(c) Alternative indoor uses may be allowed if the local jurisdiction consults with the State Board and receives written approval prior to allowing the alternative indoor use.

[Page 9, Section 60622 - Allowed Outdoor Uses]

Section 60622. Allowed Outdoor Uses.

(a) Allowable outdoor uses of onsite treated nonpotable water are limited ~~to ornamental plant irrigation, landscape~~ irrigation, dust suppression, decorative fountains, landscape impoundments, and car washing.

(b) Outdoor use of onsite treated nonpotable water for decorative fountains must meet the pathogen log reduction targets for indoor use specified in section 60630**.**

(c) Alternative outdoor uses may be allowed if the local jurisdiction consults with the State Board and receives written approval prior to allowing the alternative outdoor use.

[Page 36, Section 60692 – Signage]

The local jurisdiction may accept alternative signage and wording, provided the applicant demonstrates to the local jurisdiction that the alternative approach will assure an equivalent degree of public notification.

3. Minor Comments.

The phrase "Public Water System" is defined in California Health and Safety Code, Section 116275[5] The phrase "municipally-supplied potable water" is not typically used in code, but is used in the draft OTNWS regulations. Not all public water systems are municipally owned or operated; some are run by private entities. For consistency with existing code, the phrase "Public Water System" should be used in the proposed regulations when referring to a distribution system of potable water. The requested markup is shown below.

[Page 20, **Section 60670 - Supplemental Source of Water for OTNWS.]**

An OTNWS producing onsite treated nonpotable water for indoor uses must have ~~a municipally-supplied potable water source serving~~ potable water from a public water system as a supplemental source of water. Connection to the potable water supply must be protected by an air gap separation.
..

The responsible entity must obtain the public water system's ~~municipal potable water supplier's~~ and/or recycled water supplier's approval that potable water and/or recycled water will be used as the OTNWS's supplemental source of water

Thank you for your consideration of our comments.

Respectfully Submitted,

Lorien Fono, Ph.D., P.E.
Executive Director
Bay Area Clean Water Agencies

cc: BACWA Executive Board
BACWA Recycled Water Committee

[5] Available online at https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC&sectionNum=116275. Accessed April 16, 2025.