



THE CITY OF SAN DIEGO



June 26, 2018

VIA EMAIL TO: commentletters@waterboards.ca.gov

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

Subject: Draft Amendments to Policy for Water Quality Control for Recycled Water ('Recycled Water Policy')

Dear Clerk Townsend:

The City of San Diego (City) appreciates the opportunity to provide public comments on the proposed draft amendments to the state Policy for Water Quality Control for Recycled Water ('Policy'). The City currently operates facilities capable of producing 45 million gallons per day of Title 22 recycled water, and is also in the process of implementing the Pure Water San Diego program, which when fully implemented in 2035 will serve approximately one third of the City's water needs through high-quality, advanced treated potable reuse water. In arid and populated areas like Southern California, water recycling is a critical tool to ensuring we are able to sustainably meet our water needs, both now and in the future. The Recycled Water Policy should be structured so as to wholly support the expansion of safe, cost-effective water recycling projects throughout the state, and ensure that both water providers as well as all Californians are stewards of this invaluable public resource.

The City offers the following comments regarding the proposed language in the Recycled Water Policy Amendments:



1. *The proposed new language regarding “minimize[ing] the direct discharge of treated...wastewater to the ocean” should be moved from the Goals section of the Policy to the Benefits section.*

The City is concerned about new language in the Policy creating a 'Goal' to "minimize the direct discharge of treated municipal wastewater to enclosed bays, estuaries and coastal lagoons, and ocean waters, except where necessary to maintain beneficial uses." The City agrees with WaterReuse California and others, that minimizing ocean discharges is a means to meeting the state's recycled water goals but shouldn't be a goal in and of itself under the Recycled Water Policy. The Policy's goal should be to facilitate a safe and successful implementation of water recycling projects in California.

For example, when Pure Water San Diego, the City's potable reuse project, is completely implemented in 2035, discharges from the Point Loma Wastewater Treatment Plant are expected to be significantly reduced. Reduction of discharge to the ocean is an ancillary benefit of increased water recycling, whereas the goal is increased water reliability and a sustainable water supply. Discharge reductions such as this should occur on a case by case basis, as each locality's circumstances vary in ways that can impact the cost-effectiveness and feasibility of a recycled water project.

2. *The new reporting requirements constitute good public policy, but the Board should align them with existing reporting processes to eliminate inefficient duplicative mandates on regulated agencies.*

The City understands the need for thorough reporting to the state of influent, water produced, and treated water disposed, and is supportive of this policy as long as it is aligned with other existing reporting requirements, so that costly and inefficient duplicative reporting is avoided.

The new language requires reporting to the State Water Resources Control Board (SWRCB) of the different beneficial uses to which recycled water is applied. Unfortunately, the list in the Policy excludes a number of valuable environmental uses, and the City supports comments made by the Los Angeles County Sanitation Districts, stating that uses such as natural system restoration, wetlands, wildlife habitat, and required minimum stream flows, should be included in the Policy's

list of ‘beneficial uses’ of recycled water that must be reported to the state.

3. *The City has concerns regarding the proposed bioanalytical monitoring requirements.*

The City believes that bioanalytical monitoring has the potential to provide valuable screening tools to assist in identifying Constituents of Emerging Concern (CECs) that may pose a risk to human health in potable recycled water systems. However, to be effective, the two proposed bioassays—along with any proposed response actions based on their results—must first be appropriately vetted before they are used for routine monitoring.

The City has three primary concerns with the bioassay provisions of the proposed Policy:

1. The recommended bioassay methods are not sufficiently standardized to allow recycled water producers to implement a full-scale monitoring program.
2. Subjecting recycled water producers to response actions at the initial stages of monitoring is premature, as it is based on unverified and unstandardized testing protocols.
3. The draft policy does not incorporate an adaptive framework that would allow a pilot evaluation to be completed under the direction of the CEC Science Advisory Panel (‘SA Panel’) before response actions are imposed on recycled water producers.

The City believes that the draft Policy’s approach to bioanalytical monitoring implementation should be replaced with the three-phase approach recommended by the SA Panel in their report ‘Monitoring Strategies for Constituents of Emerging Concern in Recycled Water’ (SA Panel Report), though it may be possible to adjust the time frame for each phase and still provide a workable solution. This approach, along with several additional criteria, should be followed to provide a thorough assessment of the readiness and applicability of the two proposed bioanalytical methods for routine monitoring.

Elements of the SA Panel’s three-phase approach that should be included in the Policy (as well as other, additional provisions that we

believe are necessary) in order to produce defensible data from these bioassays, are described below.

a. Replace the phasing proposal currently included in the draft Policy with the SA Panel's recommended three-phase structure.

The City supports the need to begin collecting data in order to advance the science of biomonitoring. However, the SA Panel Report reiterates that requiring response actions during the initial data collection phase is premature and thus not appropriate until such methods are fully validated, critically evaluated, and certified by the appropriate entities [e.g. the SWRCB's Environmental Lab Accreditation Program (ELAP)]. The City supports the SA Panel's recommendation that there be a phased approach to testing without immediate regulatory repercussions (SA Panel Report, Section 7.4). This would allow municipalities and labs to build an historical dataset, understand the extraction, analytical, and QA process, and troubleshoot challenges, prior to full-scale implementation of the new testing.

Disregarding the SA Panel's recommendation of a phased implementation approach is inappropriate and could lead to unsupported conclusions regarding the safety of recycled water.

b. Convene a new, ongoing advisory entity—the Bioanalytical Advisory Group—and charge them with the development of uniform standard operating procedures (SOPs) for all participating laboratories, before the commencement of the data collection period.

The SA Panel recommends the creation of a "Bioanalytical Advisory Group" which would consist of select SA Panel members, other stakeholders, SWRCB staff, and representatives from commercial laboratories (SA Panel Report, Section 7.4.3). The purpose of the group would be to define goals for bioanalytical monitoring; specify protocols for sampling, extraction, measurement, data reporting, and laboratory intercalibration; and provide guidance for interpretation of bioanalytical monitoring results, including Quality Assurance/Quality Control (QA/QC) data.

However, we disagree with the SA Panel that the proposed bioassay methods are ready to be used in Phase I of implementation. These are not methods that are typically relied upon in recycled water or

wastewater laboratories today. It would be beneficial for these standardizations to be documented in SOPs before Phase I is initiated.

Therefore, the City recommends that the Bioanalytical Advisory Group be convened before the start of Phase I in order to provide guidance to municipalities and outside laboratories during the initial phases of testing. This will ensure the appropriate levels of standardization are implemented from the beginning of the monitoring program.

The draft Policy is silent regarding the establishment of a Bioanalytical Advisory Group, leading to concern that it will not be formed. The duty to establish the Group should be expressly stated in the Policy, along with a clear description of the Group's purpose.

- c. Require the SA Panel and Bioanalytical Advisory Group to develop, oversee, and test an interim interpretive framework for the application of the proposed bioassays, based on the interpretation of data from Phase I.**

The SA Panel Report warned that an interpretative framework had not yet been completed, noting that established *In Vitro* Bioassay (IVB) Monitoring Trigger Levels (MTLs) do not yet exist, making it "premature to propose a framework describing appropriate responses to varying BEQ/MTL ratios at this time."

It is clear the SA Panel believes that the biomonitoring interpretive framework, including the determination of appropriate MTLs and of associated response actions, should not be developed until after the Phase I data collection period is completed and those data interpreted. The City supports the SA Panel's approach and recommends that the development of this interim interpretive framework, including the assignment of appropriate response actions, be directed by the SA Panel with input from the Bioanalytical Advisory Group, SWRCB staff, and stakeholders. After the interim interpretive framework is written, the Phase II pilot evaluation of this framework could commence.

- a. At the conclusion of Phase II pilot evaluation, the CEC Science Advisory Panel should assess the applicability of the proposed bioassay methods and recommend associated response actions for inclusion in routine monitoring of potable recycled water systems.**

Because Phase II (as described in the SA Panel Report, section 7.4.3) is a pilot evaluation, this framework must be subject to a critical assessment after its completion.

In addition, the City recommends that the results of the Phase II evaluation—which is necessary before the full implementation of bioanalytical monitoring— be used to support the future development of recommended response actions. This corresponds to Phase III as described in the SA Panel Report.

b. Any response actions associated with biomonitoring must be clearly enumerated, defined and consistently applied

Both Table 8 and Table 10 specifically enumerate response actions, but also include two provisions allowing for open-ended authority for water boards to impose any number of additional required responses. This lack of clarity in enforcement procedures will make it difficult for recycled water producers to plan operational responses or anticipate an appropriate budget for compliance, since many of the listed possible actions are expensive and potentially unending. The City requests that the Policy's existing open-ended allowances for the imposition of additional response actions be replaced with specific, stepwise responses.

4. *The City recommends changes related to QA/QC protocols for monitoring of CECs to ensure the defensibility of data produced.*

- a. As more information about CECs becomes available, the rate at which the state of the science improves will accelerate. The process should be flexible enough to allow for additional opportunities to adjust the policy to incorporate recent developments. To do so, the City recommends that section 10.2.1 be revised to state:

“The State Water Board shall convene a Science Advisory Panel at least every five years as needed to guide future actions relating to CECs.”

- b. Current language in 10.2.2 could be interpreted to mean panel members are required to be proficient in all areas of expertise or that all areas must be represented. The City recommends that section 10.2.2 be revised to state:

“The Panel shall be composed of members representing one or more of the following areas of expertise: human health toxicology, environmental toxicology, epidemiology, biochemistry, civil engineering (particularly the design and construction of recycled water treatment facilities), analytical chemistry (particularly the design and operation of advanced laboratory methods for the detection of CECs), and human health pathology (particularly antibiotic resistant bacteria and antibiotic resistance genes)....”

- c. Ensure that Section 1 of Attachment A is consistent with ELAP regulations.

As currently drafted, some of the provisions of Section 1 appear to be inconsistent with the ELAP regulations being developed. The Board should ensure that the requirements and definitions included in the Policy be consistent with the final adopted ELAP regulation in order to provide clarity and to support proper implementation by laboratories under ELAP’s jurisdiction.

Thank you for the opportunity to comment on the Recycled Water Policy. The City would welcome the opportunity to work directly with Board staff on the specific language of the changes requested above. If you have questions, please contact Carolyn Ginno at (858) 654-4286 or at cginno@san Diego.gov.

Sincerely,



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