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June 26, 2018

Via Email: commentletters@waterboards.ca.gov

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

Subject: **Comment Letter – Proposed Recycled Water Policy Amendment**

Dear Ms. Townsend:

Orange County Sanitation District (OCSD) is a large wastewater district in Southern California that partners with the Orange County Water District (OCWD) in providing over 100 million gallons per day (MGD) of potable recycled water for the Groundwater Replenishment System (GWRS). This is a partnership and one of the largest recycled water projects in the United States. As the supplier of secondary treated wastewater to the GWRS, OCSD has a strong and vested interest in ensuring the quality, safety, and reliability of its feedwater for potable reuse. To this end, OCSD is grateful for the opportunity to review and provide comments on the State Water Resources Control Board's proposed Recycled Water Policy Amendment. We support the science-based recommendations and findings provided by the Science Advisory Panel and the Board's mission to protect human health through recycled water quality monitoring. However, we believe that certain key recommendations provided by the Science Advisory Panel were omitted in the draft Policy amendment and should be reconsidered for inclusion. We would appreciate your time in reviewing our comments and reconsidering a few important points.

Bioanalytical Methods for CEC Monitoring

OCSD supports the use of cell bioassays as a tool to monitor for the presence of unknown CECs in recycled water, and believes that this technique can complement current targeted methods in CEC monitoring. We agree with the Science Panel that the methods are standardized and ready to help guide monitoring efforts. However, we have several concerns about the bioanalytical testing requirements as stated in the proposed amendment of the Recycled Water Policy.

1. Cell bioassays have not been used by most water or wastewater agencies, and they have not been regularly performed by agency and laboratory staff. Therefore, we ask that you

consider allowing a one-year grace period following adoption of the Policy amendment before implementation of the initial monitoring phase. This would allow laboratories to prepare for these tests by procuring funds for large capital equipment (e.g., microplate readers and incubators) and supplies, and for staff to demonstrate competency with the method. This period would also allow laboratories to conduct calibration exercises and limit of detection (LOD) studies that will ultimately result in reliable and consistent data. The wastewater, recycled water and drinking water communities pride themselves on taking a proactive and responsible approach to conducting business and protecting human health. Allowing our agencies to adequately prepare and practice the methods for a short one-year defined timeframe will ensure the protectiveness of bioanalytical methods is upheld as intended.

2. There are currently only a few laboratories that can perform commercial testing for cell bioassays. Allowing a one-year grace period following adoption of the Policy amendment before implementation of the initial monitoring phase not only allows staff to budget for equipment and practice the new methods, it will also provide needed time for more agencies and commercial laboratories to begin building new laboratories for this impending requirement. This is important from a financial feasibility perspective to ensure monitoring costs are reasonable and not inflated due to an inadequate competitive market for sample analysis. For it to be possible for new laboratories to build, the State Water Board must incentivize and encourage this growth and allow a reasonable and specific timeframe before implementation. We believe the one-year grace period would significantly help. Additionally, the State Water Board currently has no minimum requirements outlined in the draft amendment on what will qualify as a State-approved laboratory for bioanalytical testing. OCSD encourages the State to cite the minimum requirements so that there is clear understanding for new labs to start building a competitive market and for agencies to begin testing in-house. This would help alleviate State-wide concerns by all parties regarding the current lack of laboratories to complete the analysis work for bioanalytical monitoring.

3. OCSD supports the Science Panel's recommendation of a phased, performance-based approach for implementing the CEC monitoring programs and a multi-tiered framework for interpreting the resulting data. That recommended framework allowed for a flexible, adaptable response to increase or decrease monitoring requirements, and it provided cost-effective means for incremental data gathering. OCSD was disappointed that the State did not move forward with the Panel's recommendations as they represent the expert opinion and had Stakeholder buy-in to that process. The phased approach described in the draft Policy amendment does not have the same intentions or value as that proposed by the Science Panel. Specifically, the Science Panel proposed that the goal of the Initial Phase of monitoring (Phase I) would be as a data collection exercise to determine the range of responses standardized for water quality monitoring. More importantly, the Panel determined that the data collected in Phase I could then be used to more appropriately determine trigger limits relevant to human health, as well as to

guide the interpretive framework for cell bioassay results. This recommendation was made because the Science Panel explicitly stated that it was premature to include trigger levels at this time. OCSD respectfully requests that the State Water Board reconsider the recommendations of the Science Panel and remove trigger limits in the initial Phase I of monitoring (year 1 of the monitoring program). The requirement to perform cell bioassays without trigger limits will not lessen the regulatory charge, but will provide agencies with the confidence to perform initial bioassays and gather the data needed for the State Water Board to evaluate and determine more relevant trigger limits for Phases II and III.

4. The requirements for bioanalytical trigger limits, especially for the initial phase (year 1) of CEC monitoring as mentioned previously, is concerning. The arbitrarily low trigger limit for the aryl hydrocarbon (AhR) bioassay is cause for alarm. The proposed trigger limit is set at the reporting limit. Laboratories will have difficulty in reporting data below the trigger limit / reporting limit because data below the reporting limit are estimations. Unlike the estrogen receptor alpha (ER-α) bioassay, there does not seem to be reasonable justification for the AhR trigger limit determination. OCSD supports the Science Panel's recommended trigger limit for the estrogen receptor alpha (ER-α) bioassay. However, the Science Panel was clear that a health-based trigger limit had not yet been developed for the AhR bioassay. OCSD recommends that the State Water Board adopt the Science Panel's recommendation to delay implementing a trigger limit for the AhR bioassay until a peer review panel of experts determines a Predicted No Effect Concentration (PNEC) for human health for this bioassay. OCSD supports performing AhR bioassays in all monitoring phases to help move the science forward to attain appropriate limits in the future.

5. The language for response actions after an exceedance of a trigger limit is too broad and vague as currently written. OCSD recommends clarifying the response actions to include examples of frequency and duration of testing, similarly to the language provided in National Pollutant Discharge Elimination System (NPDES) permits that require accelerated testing when aquatic toxicity bioassays exceed permit limits. We believe that this would at least provide utilities with an understanding of the extent of follow-up actions in the event of a trigger limit exceedance in Phases II and III of monitoring, and would help them better allocate resources and prepare for additional testing.

Data Collection/Analysis

OCSD agrees with and would like to support the larger stakeholder community in the request to uphold the Science Panel's recommendation for the formation of a bioanalytical advisory group. OCSD suggests including language in support of the

formation of an advisory group made up of voluntary CEC Science Panel members, stakeholder members, bioanalytical experts, commercial laboratories, and State Water Board staff. We believe that by including language supportive of this effort in the Policy amendment, it would accelerate information sharing to the benefit of all stakeholders and to the State. At the recent Bioanalytical Screening of Recycled Water Workshop held at SCCWRP on June 11, it was clear that an education bridge was needed between the

SCCWRP science team/State Board staff and the stakeholders who would be participating in the new program. The advisory group would provide a mechanism between those important groups to accumulate guidance and assistance in many of the technical issues that have caused concern for stakeholders, including extraction and method protocols, interpretation of data, and quality control guidelines. Moreover, the volunteer based advisory group could be used as a platform to organize intercalibration exercises between agencies and laboratories State-wide. A bioanalytical advisory group in the Policy amendment would be important to all as data is gathered in the preliminary stages of implementation and would enhance ongoing and future guidance and recommendations related to the Policy moving forward. The Science Panel and the stakeholders strongly recommend a volunteer-driven process and stakeholders across various agencies are willing to give the State Water Board a strong commitment to provide time and resources towards this effort.

At this time, it remains unclear if the State Water Board has the funding, staff, time, or resources to immediately implement the data portal program recommended by the Science Panel. The final recommendations do not mention what resources or data portal system will be used. OCSD does support the data process recommended by the Science Panel, however, no clear system or pathway is outlined in the policy. For this reason, OCSD suggests that the first phase of data collection be an initial voluntary bioassay data collection period and that SCCWRP be hired to help organize the technical advisory group of volunteers. Advisory members from academia, wastewater, drinking water, and regulatory agencies could initially go through the voluntary data and assess the results and feasibility of data collection, as well as standardize formats and data submissions. This trial period would give everyone time to build a database system, understand the process and work out the challenges before appropriate permittees State-wide are participating. Everyone in this process needs time to prepare and test the new system and figure out how to submit the data. We recommend that the State and the new Advisory Group schedule a series of data workshops to help stakeholders with permit-required data submissions.

Conclusion

OCSD supports a phased, performance-based approach for implementing the CEC monitoring program and a multi-tiered framework for interpreting the resulting data. This suggested framework will allow for a flexible, adaptable response in monitoring requirements, and it provides cost-effective means for incremental data gathering. We appreciate that the State recognizes the need to prioritize time, cost, and staff resources into monitoring efforts for public health, and it has developed a framework that is feasible, responsible, and ensures a meaningful process. We are also in agreement with the CEC compounds that were added and removed in this updated draft report.

In summary, we ask that the State please consider the following:

1) Provide agencies time to prepare:
a. One year to set up labs, purchase equipment, perform intercalibration studies, practice methods, learn how to submit data
b. Make the initial phase, or first year, a data submission period without trigger limits and review the submitted data for trends and to determine more appropriate trigger limits moving forward
c. Do not include trigger limits for AhR bioassay during Phase I (there is no basis for the proposed limit)
2) Develop science-based trigger limits for AhR bioassay to start in Phase II
3) Determine minimum requirements for in-house laboratories and commercial laboratories
4) Incentivize the program for agencies to start in-house bioassay testing
5) Provide more clarity on testing frequency and duration after a trigger limit exceedance
6) Form a Bioanalytical Advisory Group to help educate, collaborate, and keep moving the science behind the CEC program forward in a stakeholder-driven process

OCSD is actively engaged with SCCWRP on many collaborative research-based projects including CECs and bioassay development. We look forward to continuing to support the State and help move the CEC program forward in line with the Science Panel's recommendations and encourage the State Water Board to adopt and follow the Science Panel's guidance. For questions regarding this letter, please contact Lisa Haney at (714) 593-7404.

Sincerely,

Ron Coss
Laboratory, Monitoring, and Compliance Manager

RC:lh:vr