



March 1, 2018

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Costa Mesa, CA 92626

*(sent via email – Keithm@sccwrp.org)*

Dear Mr. Maruya:

On behalf of WaterReuse California (WRCA), the California Association of Sanitation Agencies (CASA), Bay Area Clean Water Agencies (BACWA) and the Association of California Water Agencies (ACWA) we thank you for the opportunity to provide comments on the draft report -- "Monitoring Strategies for Constituents of Emerging Concern (CECs) in Recycled Water" (Report). The 2018 Science Panel's charge was significantly expanded from the scope of the 2010 review. This broader charge included updating its risk-based framework, examining the need for CEC monitoring for all non-potable recycled water uses, evaluating the relationship of antibiotic resistance to the use of recycled water and providing recommendations for additional research. We fully support this expanded charge as a critical step in the ongoing development of the Water Board's CEC monitoring program for recycled water.

### **Support for the Risk-Based Framework**

We strongly agree that the risk-based screening framework, as developed in 2010 by the Panel and proposed to be updated in 2018, should continue to be the primary approach for developing CEC monitoring programs in the state. Appropriately, this framework incorporates a very large margin of safety, which is built into each step of the overall human health CEC screening process. This flexible framework allows for the addition of new compounds to the monitoring list, as well as the removal of CECs previously recommended for monitoring, based on updated occurrence data. This risk-based framework should continue to be applied to update the CEC monitoring list in the future.

### **Voluntary Bioassays and Removal of Monitoring Trigger Levels**

For potable reuse projects the Panel proposed the use of two bioassays (ER and AhR) conducted quarterly to evaluate more comprehensively the gamut of potential exposures to

CECs. While bioassays potentially hold promise for the detection of a wide spectrum of unmonitored CECs, we are concerned about the availability, standardization, and reliability of the methods. We request that utilities be allowed to conduct these two bioassays on a **voluntary** basis as a data collection process to inform the Water Board, the Expert Panel, and the Phase 2 Bioanalytical Toolbox Development project. These data will help the Water Board assess the development and appropriateness of different testing methods and the standards for verifying commercial laboratory capability. If the testing is mandatory, we recommend that only potable reuse facilities above a certain size (e.g., 10 MGD) be required to participate due to the methodological complexity and significant cost burden of the required bioassay monitoring.

As written, the report is unclear as to whether the data collected during this period will be subject to the actions described in the Panel's screening approach (Figure 7-1). That approach requires positive bioactivity results to trigger additional investigatory steps—including both targeted and non-targeted analysis—to further identify the constituents causing this activity. We do not believe that it is the Panel's intention to implement this framework now, but rather to collect the data to inform future decisions about the needs and benefits of using bioassays as part of the state's CEC monitoring program for recycled water.

As such, we would like the Panel (Final Report) to state that the results obtained during the voluntary data collection period will neither (a) trigger additional actions (e.g., additional investigation via targeted and non-targeted analysis, as described in Figure 7-1 and Appendix F), nor will it (b) be subject to the trigger-based action levels described in Section 7.5.3.

We strongly recommend that the trigger levels for bioassays (e.g., pg. 78) be removed from the monitoring requirement during the data collection period. In Section 7.5.3 on decision-making logic for interpretation of bioassay results, the potential monitoring trigger levels are also referred to as PNECs or action levels (ALs). While these trigger levels were not intended for regulatory action per earlier parts of the Report, the Report is inconsistent since it later suggests halting a project if a monitoring trigger level is exceeded consistently at a certain level (Section 7.5.3). This would, in effect, transform the trigger levels into a regulatory standard for compliance, which is not consistent with the Panel's stated purpose. Similarly, the term "non-compliance" (Section 2.3) is inconsistent with the Report's statements that the bioassays are used as screening tools, and should be removed. Furthermore, the lack of established trigger levels may lead to inconsistent interpretation of results around the state.

Finally, we recommend that the Water Board's Environmental Laboratory Accreditation Program develop approved methods and certify laboratories for conducting the recommended bioassays to ensure the reliability of the bioassay data. The Water Board should provide a list of approved laboratories to agencies conducting the monitoring.

### **Support for Title 22 Non-Potable Use Findings**

We support the overall finding of the Panel that no CEC monitoring is necessary for non-potable Title 22 uses of recycled water based on the very low potential for exposure and risk associated with CECs. Given the extraordinary time it would have taken to quantify the potential exposure and risks for all possible CECs in over 40 non-potable exposure scenarios, the Panel instead developed an approach for evaluating exposure to CECs that compares non-potable recycled water exposure to groundwater recharge via surface spreading by analysis of the water quality at the point of application. This is an appropriate and conservative approach as water quality at the point of application for groundwater recharge via spreading is very similar to most non-potable uses. The comparison revealed that total exposure associated with non-potable use scenarios is less than 10% of potable use ingestion and is likely to be less than 1% for most CECs.

### **Recommendations for Improving the Water Board's CEC Monitoring Program**

While not specifically the charge of the Panel, the report recommends a number of potential improvements to the Water Board's CEC monitoring program. We agree with the overall assessment that in order to improve the state's CEC monitoring program a standardized method for data compiling and analysis is needed. As many potable reuse projects are planned in the near future, it is the appropriate time to develop a standard reporting method for utilities and processes for compiling and assessing that information at the Water Board. However, it is important that reporting requirements are not duplicative. Utilities should only have to report a data set once. The data analysis should be conducted by the Water Board staff and made available to the Panel before they next meet.

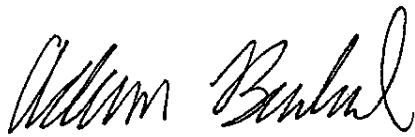
While we agree that the Water Board should develop a standard method for data collection, the report proposes creation of a database using information that is currently not required from existing potable reuse facilities. For example, high frequency data is not required information, is voluminous in nature and does not appear to be of great use to regulators. Before a database is created we urge the Water Board to carefully assess what information will be truly needed from future potable reuse projects and appropriate levels of confidentiality. We look forward to working with the Water Board on the development of a data management program and the other recommendations on page 10 through 13.

Finally, we strongly support the Panel's recommendation on page 10 that the Division of Drinking Water (DDW) should permit all potable reuse projects that produce a raw water source or finished water rather than the Regional Boards. This is appropriate given that DDW has the authority to regulate drinking water and the Regional Boards have the authority to regulate waste. The regulation of concentrate waste streams from potable reuse projects should continue to be regulated by the Regional Boards as recommended by the Panel.

## Conclusion

Again, we thank the Panel for its hard work in completing the Report in a short time frame. In general, with the exception of the recommendation to require bioanalytical testing, we are very pleased with the conclusions in the Report and believe the Panel's work will further strengthen public confidence in the safety of recycled water and potable reuse and provide guidance and direction for the Water Board on ways to continuously improve CEC monitoring for the protection of human health.

Sincerely,



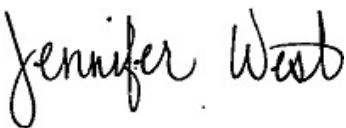
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