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June 26, 2018

**Public Comment**  
**Proposed Recycled Water Policy Amendment**  
**Deadline: 6/26/18 by 12 noon**

**ELECTRONIC MAIL**

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

Dear Ms. Townsend:



**COMMENT LETTER – PROPOSED RECYCLED WATER POLICY AMENDMENT**

The City of Los Angeles (City) Bureau of Sanitation (LASAN) appreciates the opportunity to provide comments and recommendations on the State Water Resources Control Board's (State Water Board) Proposed Amendment to the Recycled Water Policy (RWP). This letter incorporates by reference the comments submitted by WateReuse California and the California Association of Sanitation Agencies.

Recycled water is a resource that preserves potable water supplies and can help to reduce the State's consumption of energy and resulting greenhouse gas emissions associated with supplying potable water throughout the State.

The City is committed to the use of recycled water for irrigation and all other potable and non-potable purposes and is ambitious in reaching its goals of reducing the City's per capita potable water use by 25% in 2015 and reduce the purchase of imported water by 50% in 2024. The City continues to expand its recycled water program and in FY '16 – '17 the City recycled and reused 136,000 acre-feet per year (AFY) reducing the City's potable demand by 8,030 AFY.

LASAN commends the State Water Board in its efforts to encourage water recycling through the development of a streamlined policy driven by stakeholder input and the most current scientific information to date. LASAN appreciates a number of positive changes included in the proposed RWP; specifically, it 1) removes water recycling mandates and replaces them with goals; 2) affirms that Constituents of Emerging Concern (CEC) monitoring is not required for landscape irrigation projects; 3) only requires Salt and Nutrient Management Plans, if needed; 4) terminates coverage under Regional Water Quality Control Board General Orders for non-potable uses for transfer to Order WQ 2016-0068-DDW (Water Recycling Requirements); 5) follows the scientific framework and risk-based phased approach recommended by the Science Advisory Panel's (Panel) Final Report,

*zero waste • one water*

**AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER**

*“Monitoring Strategies for Constituents of Emerging Concern (CECs) in Recycled Water: Recommendations of a Science Advisory Panel (CEC Report).”*

LASAN encourages the State Water Board to adopt the recommendations of the Panel’s CEC Report into the RWP without modification. The recommendations in the Panel’s report represent the “best available science” on the potential health effects of CECs. Relying on the Panel’s expertise is the best way to ensure a safe and reliable supply of recycled water that complies with all recycled water use requirements allowed under Title 22. Any deviation from the Panel’s recommendations may inadvertently result in unnecessarily diverting scarce public resources with little environmental benefit.

Consistent streamlined requirements are essential to encourage the development of new water recycling projects so that the State Water Board can achieve its new goal of increasing the use of recycled water from 714,000 AFY in 2015 to 1.5 million AFY by 2020 and to 2.5 million AFY by 2030.

Recycled water provides a consistent supply of high quality water that reduces potable water demand and is drought resistant. Both the California Constitution and Water Code require maximizing the beneficial use of this valuable resource.

The City hopes that the detailed comments proposed in Attachment A will assist the State Water Board in revising its latest draft of the proposed RWP and looks forward to working with them in developing a RWP that encourages water recycling and the use of this valuable resource throughout the state.

If you have any questions, please contact Mr. Hassan Rad, Regulatory Affairs Division Manager, at (213) 847-5186 or via e-mail at [hassan.rad@lacity.org](mailto:hassan.rad@lacity.org).

Sincerely,



ENRIQUE C. ZALDIVAR, P.E.  
Director and General Manager  
LA Sanitation and Environment

ECZ:HR:mtb:es

Attachment

c: Traci Minamide, LASAN  
Mas Dojiri, LASAN  
Adel Hagekhalil, LASAN  
Timeyin Dafeta, LASAN  
Roshan Aflaki, LASAN  
Shahram Kharaghani, LASAN  
Fernando Gonzalez, LASAN  
Hassan Rad, LASAN

## Attachment A

### Water Recycling Goals

LASAN supports the State Water Board in replacing the mandate found in the previous RWP (to increase the use of recycled water by 200,000 AFY by 2020 and by an additional 300,000 AFY by 2030) with the goal to encourage the increased use of recycled water (to increase the use of recycled water from 714,000 acre-feet per year (AFY) in 2015 to 1.5 million AFY by 2020 and to 2.5 million AFY by 2030).

The RWP adds another goal:

3.1.2. 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. For the purpose of this goal, treated municipal wastewater does not include brine discharges from recycled water facilities or desalination facilities.

LASAN does not support the inclusion of this goal. This should not be a goal in and of itself because the need for recycled water and the ability to recycle water is not coastal specific. It is not appropriate to incorporate a goal only applicable to coastal discharges to the entire state. The intent of the RWP is to streamline water recycling for successful water recycling in California. Discharge volume and water conservation issues of ocean/bay discharges and water quality impacts to these water bodies should be left with the Regional Boards and their National Pollution Discharge Elimination System's or waste discharge permit requirements.

Creating a goal for coastal ocean dischargers, many of which currently employ only secondary treatment, should only be a goal if it is reasonable, cost effective, feasible, and applicable. Without consideration of cost-effectiveness, feasibility, or recycled water use needs in the new RWP goal language, the State Water Board's goal could soon become a future unfunded mandate.

What is reasonable in one situation, coast, or region changes over time as future economic, climate, and water conservation conditions are uncertain and always changing. LASAN requests that the goal to minimize the direct discharge of treated municipal wastewater to enclosed bays, estuaries, coastal lagoons, and ocean waters be removed from the RWP.

If the State Board decides to keep the goal, LASAN requests the following language be substituted:

3.1.2. Maximize the use of treated municipal wastewater from coastal municipal water reclamation plants that discharge to enclosed bays, estuaries, coastal lagoons, and ocean waters if it is reasonable within that coastal region and it makes financial sense. For the purpose of this goal, treated municipal wastewater does not include brine discharges from recycled water facilities or desalination facilities.

## Response Actions

LASAN supports all the recommendations found in the Science Advisory Panel's (Panel) Final Report, "Monitoring Strategies for Constituents of Emerging Concern (CECs) in Recycled Water (CEC Report)."

LASAN continues to support the incorporation of bioanalytical screening methods into CEC monitoring programs and the investment in research to expand the bioscreening toolbox. LASAN supports the tiered, "adaptive management" strategy that minimizes regulatory restrictions by utilizing bioanalytical methods as a screening tool in conjunction with chemical analysis to identify whether chemicals missed by targeted monitoring are potentially problematic. LASAN supports the risk-based framework, bioanalytical screening methods, phased approach, and flexibility for CEC monitoring recommended by the Panel in their CEC Report.

LASAN also supports the formation of a "Bioscreening Implementation Advisory Group" composed of the State Water Board, bioassay experts, municipalities, and other stakeholders recommended by the Panel in the CEC Report. CEC bioassay monitoring is new and has several technical concerns.

A Bioscreening Implementation Advisory Group is necessary to guide water recyclers through implementation of CEC monitoring and data collection; to define goals for bioanalytical monitoring specify protocols for sampling, extraction, measurement, and data reporting; and to provide guidance for interpreting bioanalytical monitoring results, including QA/QC data.

While LASAN supports the Panel's recommendations in the CEC Report, the RWP deviates from the Panel's recommendations by requiring premature response actions for methods that are not yet "fully validated and certified by the appropriate entities."

The RWP requires immediate resampling and analysis if the BEQ/MTL ratio is >10 and additional actions including, but not limited to, targeted analytical monitoring, higher frequency, and source identification. If the BEQ/MTL ratio is >1000, additional actions include, but are not limited to, toxicological studies, engineering removal studies, non-targeted analysis, modification of facility operations, and monitoring multiple locations.

The Panel's CEC Report states the following:

*"While the Panel has outlined a process to interpret and respond to in vitro bioassay results, this process is not sufficiently mature to justify response actions at this time. Thus, the Panel recommends a phased implementation of bioanalytical screening, with Phase I consisting of a three to five-year data collection period, with no response actions required during this time (viii)."*

*"The Panel recognizes the need for a robust interpretive framework for bioanalytical monitoring results and has proposed a framework to establish monitoring trigger levels and appropriate response actions. However, the Panel feels that requiring response actions during Phase I data collection is premature (p. 82)."*

As interpretive guidance for bioscreening data is not yet mature and studies are not yet complete, response actions, such as identification of bioactive chemicals, are encouraged, but should not be required during the data collection or pilot phases.

CEC monitoring for water reuse requires a dynamic process that must take into account new chemicals coming into commerce, better treatment methods to tailor water quality to various reuse applications, new water reuse practices, and constantly changing and more sensitive analytical tools (both chemical and bioanalytical), with the overall goal of assuring that public health is protected.

LASAN recommends that the State Water Board follow the recommendations of the Panel that specifically states that regulatory response actions are premature and not advised until additional data collection, research, and pilot projects can be performed.

The State Water Board is currently funding a study with Water Research Foundation that involves standardizing and validation of bioanalytical tools for recycled water. This study should help inform the process. Response actions are premature until the study is complete. The flexibility to remove or add new CECs to the monitoring list and to wait until data and scientific studies are complete is crucial in achieving cost effective, meaningful data to guide future policy.

LASAN recommends the State Water Board remove from the RWP all response actions during Phase 1 (3-5 year data gathering stage) and Phase 2 (1-year pilot evaluation of bioassay framework). LASAN believes that response actions should only be included during Phase 3 (full implementation phase) as applicable. The RWP should also support the formation of the "Bioscreening Implementation Advisory Group," as recommended by the Panel in the CEC Report.

### **Laboratory Standardization, Validation, and QA/QC of Bioassay Methods for Recycled Water**

The Panel's CEC Report defines standardization as "the ability of a bioassay to conform to measurement standards for a recycled water sample, such that they provide utilities and regulators confidence in the comparability of results for recycled water." Validation of a standardized method is the next step in the process of method development and application, which typically entails additional exercises meant to provide a high level of confidence in terms of data accuracy and comparability.

CEC bioassay monitoring is new. Technical concerns, limited availability of labs that use similar approaches/methodologies, and the lack of uniform standardization and validation procedures make method consistency challenging and the resulting data costly and possibly meaningless.

While standardization of bioassays is possible and has been achieved for multiple endpoints, the commercial availability of test products (bioassay kits) and commercial service labs that offer bioanalytical testing for matrices of interest to the recycled water community remains limited and small. There are only four bioassay labs listed in the Panel's CEC Report (Indigo Biosciences, IonTox, Attagen, and BDS), only three of which are in the United States, and they all utilize different methodologies and approaches.

RWP Attachment A Section 1.1.1 requires labs to “comply with the management and technical requirements applicable to their operations in accordance with The National Environmental Laboratory Accreditation Conference Institute (TNI) 2016 Standard Volume 1...” At this moment, SWRCB’s Environmental Laboratory Accreditation Program (ELAP) is considering implementing TNI standards. This rule should be applicable only after ELAP has adopted the TNI Standards.

RWP Attachment A Section 1.2.1 requires that a laboratory providing analysis of CECs shall be accredited by ELAP. CECs are analyzed using different methods, and ELAP or a functional equivalent must be available to certify all CEC methods.

RWP Attachment A Section 1.3.2 requires that a laboratory submit Method Detection Limit (MDL) studies and Reporting Limit (RL) verification data to the State Water Board for review and approval prior to beginning any sampling and analysis to ensure that the data meets the required RLs in Table 3. Recycled water producers should not be responsible to maintain a laboratory’s Quality Control (QC) documentation; laboratory oversight is a requirement meant for validating labs such as ELAP.

LASAN recommends that the Bioscreening Implementation Advisory Group review alternative certifications currently held by laboratories to determine their sufficiency and to ensure laboratories submit necessary and sufficient information regarding RLs and MDLs.

The Panel’s CEC Report describes a planned State Water Board and Water Research Foundation study on “Standardizing Bioanalytical Tools...for Recycled Water” which is planned to begin in mid-2018. LASAN recommends that the Bioscreening Implementation Advisory Group become involved with this study to investigate inter-laboratory methodological differences and to develop standardized consistent approaches to Bioassay monitoring.

### **Wastewater 1211 Change Petitions**

Water Code section 1211 requires the following: (1) the owner of any wastewater treatment plant obtain the approval of the State Water Board before making any change in the point of discharge, place of use, or purpose of use of treated wastewater where changes to the discharge or use of treated wastewater have the potential to decrease the flow in any portion of a watercourse.

In order to approve the proposed change, the State Water Board must determine that the proposed change will not operate to the injury of any legal user of the water involved (California Water Code [CWC] §1702), and the State Water Board also has an independent obligation to consider the effect of the proposed change on public trust resources and beneficial uses established for areas downstream of the discharge point, and to protect those resources where feasible. (National Audubon Society v. Superior Court (1983) 33 Cal.3d 419 [189 Cal. Rptr. 346].)

The State Water Board is required to review the 1211 petition for impacts to other water users (the "no injury" rule), impacts to the environment (no unreasonable impacts on fish and wildlife), and whether granting the petition in the public interest.

The changes in the RWP go above and beyond CWC 1211 and create uncertainty rather than clarity and otherwise provide for an unnecessary, duplicative process.

RWP Section 5.1 adds a new requirement that prior to receiving state funding for a recycled water project, a “determination” from DWR must be made that the project is in compliance with Section 1211. RWP Section 5.3 states that the Division of Water Rights (DWR) may cumulatively consider the impacts from “past present and probable future projects with the potential to decrease the stream flow.”

LASAN supports a collaborative stakeholder-driven approach in determining ideal stream flows and the most appropriate beneficial uses for recycled water; however, allowing the State Water Board to consider cumulative impacts is duplicative and not necessary to be included in the RWP. CEQA-compliant projects will already have considered the cumulative impacts of past and present projects, and it is unclear how the agency or the State Water Board can be expected to evaluate “probable future projects” reliably.

The goal during the RWP scoping process was to streamline the 1211 process; however, the RWP does not streamline the process and has the potential to complicate review for majority of projects. The RWP requires a new 1211 for every project, despite applicant’s belief that the change is not reducing flow into the watercourse. The RWP also represents a huge challenge for the State Water Board and water recycling stakeholders who are trying to increase water recycling while maximizing the beneficial use of recycled water. This is a duplicative requirement.

LASAN recommends that the State Water Board scale back the language in the RWP to exactly express what 1211 says including CEQA and any cumulative impact requirement analysis. LASAN also recommends the formation of a stakeholder-driven 1211 advisory group to determine the best uses of recycled water.

### **Reporting Requirements**

The draft Policy also requires that agencies report how much wastewater they are discharging to the ocean and bays. LASAN fully supports this requirement, but recommends the monitoring/recording frequency be monthly with an annual reporting frequency.

### **Conservative Safety Factor**

LASAN appreciates the Panel recognizing that there is no evidence to date that has linked recycled water produced for potable and non-potable reuse to adverse human health effects. The Panel’s CEC Report clearly points to the safety of potable and non-potable reuse in California. Explicit and implicit conservative safety factors result in an overall margin of safety of at least 1,000-fold and perhaps exceeding 1,000,000-fold for the average person and an overall margin of safety is likely to be at least 10 to 100-fold for relatively highly exposed individuals. The Panel appreciates that there may exist people with one or more exposure characteristics that could lead to higher exposures than assumed by the CEC screening process for that characteristic (e.g., water consumption rate, body weight).

Coupled with the large margin of safety inherent in the risk-based screening framework utilized by the Panel, MEC/MTL screening results indicates that it is very unlikely that any of the RWPs have the potential to pose a risk to public health.

LASAN supports the Panel’s recommendation to establish a formal process to help identify and incorporate new information on the occurrence and toxicity of potentially relevant RWPs in

recycled water and believes the RWP should include a public education component to inform the public of the very large margin of safety built into each step of the overall human health CEC screening process.

**Termination of Coverage under RWQCB General Orders for Non-Potable Uses to Maximize Consistency in Permitting Related Water Projects**

While LASAN supports the termination of coverage under RWQCB General Orders for non-potable uses for transfer to Order WQ 2016-0068-DDW (WRR), the mandatory nature of the transition and the time frame of 1 year are too restrictive. LASAN supports the transfer of General Orders for non-potable uses to the WRR; however, producers of recycled water should be allowed to opt-into the WRR and there should be no timeline for this option. Water recycling facilities currently operating under existing WDRs and who are in full compliance with all applicable regulations, plans, and policies should be allowed to continue coverage under their existing WDR.