



Public Comments  
Report to the Legislature on DPR  
Deadline: 10/25/16 12:00 noon

October 24, 2016

Members of the State Water Resources Control Board  
c/o Ms. Jeanine Townsend, Clerk  
State Water Resources Control Board  
1001 I Street, 24th Floor, Sacramento, CA 95814  
*Transmitted via email to commentletters@waterboards.ca.gov*

**Subject: Report to the Legislature on Direct Potable Reuse**



Dear Board Chair Marcus and Members of the State Water Resources Control Board:

Thank you for this opportunity to share some brief comments on behalf of Clean Water Action (CWA) and our 50,000 California members on the Division of Drinking Water's draft report to the Legislature on direct potable reuse (DPR).

CWA's mission includes ensuring that all people have access to safe, clean, and affordable water, and we have been a leader in establishing California's recognition of the "human right to water". We also focus on protecting both surface and ground water sources, and ensuring the sustainability of California's water resources for future generations. CWA was pleased to serve on the Advisory Group established by SB 322 (Hueso) to advise the state's Expert Panel and the State Water Resources Control Board (the Board) on the development of the feasibility report for DPR and to join in the development of the Advisory Group's recommendations that appear as an appendix to the draft report. We wish to commend all the participants in the Advisory Group, including Board staff, for coming together, sharing their expertise, and being committed to ensuring that any water delivered through a California DPR system is safe and that the public can have confidence in it.

**DPR as part of California's water portfolio:** CWA agrees with the Board's overall assessment that DPR is an important part of California's sustainable water portfolio and that it is ultimately feasible to develop uniform water recycling criteria to ensure that it is safe. For this reason, we strongly advise the State Board not to delay in beginning the process to develop criteria for DPR implementation as we look down a road of continued drought and climate change. While the Expert Panel made recommendations for further study, they concluded that the regulatory process could reliably proceed concurrently with continued data collection. Such research, particularly on the performance of DPR treatment trains, better characterization of pathogens in raw wastewater, identification of options for final treatment processes, and on contaminants of emerging concern (CECs), will better inform criteria development, helping to avoid over investment while protecting public health and safety. However, while the report outlines some of the ongoing research being done, it is unclear which of these and other studies are deemed necessary for criteria development, which can follow to inform future improvements, and how the initial research will be carried out in tandem with developing uniform criteria. We recommend, therefore, that the report provide more detail on the Implementation Plan, including at least general timeframes that demonstrate a combined research/criteria development process that is deliberative without creating undue delay.

1010 Vermont Avenue NW, Suite 400  
Washington, DC 20005

Ph: 202.895.0420 | Fax: 202.895.0438

350 Frank Ogawa Plaza, Suite 200  
Oakland, CA 94612

Ph: 415.369.9160 | Fax: 415.369.9180

[www.cleanwateraction.org/ca](http://www.cleanwateraction.org/ca)

**Criteria should be broad:** While the criteria should focus on public safety, California water systems should also be provided with clear guidance on how to demonstrate DPR-specific technical, financial, and management (TMF) capacity and sustainability. We also strongly support, as the report suggests, the establishment of operator certification that is specific to DPR.

**Avoid case by case permitting:** While the Advisory Group took a liberal stance on permitting potential DPR projects on a case by case basis before the Board develops uniform water recycling criteria, CWA would discourage this approach. We understand that permanent projects in Texas, New Mexico, and Namibia, as well as emergency projects in Kansas and Texas have been implemented without uniform criteria. In addition, pilot programs such as that in Santa Clara County show tremendous promise. However, given the lack of a DPR regulatory structure or formal guidance, California would be unwise to proceed without Board criteria for the following reasons:

- The report states *“that there are additional knowledge gaps that remain before criteria can be written to address issues unique to DPR. These knowledge gaps primarily relate to the quantification of reliability, and the associated concepts such as redundancy, resiliency, and robustness, such that adequate public health protection is ensured. These issues are particularly important because the Expert Panel has identified them as critical to ensuring the level of protection that is otherwise afforded by an environmental buffer...”* (Chapter 3, page 17). Without addressing these knowledge gaps and then developing uniform criteria, it is unclear that projects will be able to demonstrate that finished water is not only safe for public consumption, but also involves the most responsible level of investment and sustainability.
- Given the above, uniform criteria and consistent terminology (see the glossary developed by the Advisory Group to enable its deliberations) are necessary to provide water providers employing DPR with clarity on regulatory expectations, best practices, and minimum safety measures and will enable them to avoid non-compliance or additional investments (both technical and financial) once the criteria are developed. Conversely, without uniform criteria, communities run the risk of over investing in treatment that may prove to be unnecessary.
- Uniform DPR criteria and demonstrations of how water systems meet those criteria are essential in building acceptance by a doubting public.
- While the current drought and long term effects of climate change create important incentives to move forward with DPR in California, it is essential to avoid projects that are motivated by political considerations.
- Operator certification should precede implementation.

It is important to reiterate that while CWA believes that uniform criteria are essential to ensure public safety, public acceptance, and responsible investment, we also advocate for the Board to begin criteria development immediately.

**Develop common framework:** The report states that while the 3 different types of DPR will each require their own set of criteria, it is possible to create a common framework *“that addresses a variety of factors, including the complexity of treatment, the high degree of reliability required, the very short time period to detect and respond to failures and treatment plant upsets, and the lack of experience in operating DPR facilities in California [which] will require a deliberate and phased approach to developing DPR criteria to*

*ensure public health protection and continued consumer confidence in the public water supply.” (Chapter 3, pages 18-19). Given the general lack of consistency in terminology related to DPR that the Advisory Group identified (which is why it created a glossary to aid in its deliberations), it is essential that the report establishes clear definitions and terms for the three types of DPR California is exploring. In addition, while these different scenarios will pose distinct challenges and requirements, the development of the common framework will be essential in ensuring that DPR projects can move forward with careful expediency.*

**Research on CECs:** While DPR systems must meet the same drinking water standards as traditional systems, the possibility that emerging contaminants such as pharmaceuticals, phthalates, and flame retardants may pose a more concentrated problem in wastewater creates additional challenges. CWA is particularly concerned with the implications of nanoparticles, such as nanosilver coming from washing machines, textiles, and personal care products, and recommends that the Board ensure that these materials are incorporated into research on CECs and treatment.

**Pollution prevention:** While DPR will always involve advanced treatment, with sophisticated and redundant treatment trains, preventing CECs and regulated chemical contaminants from entering wastewater is an important strategy for success. We recommend that as characterization of wastewater provides a better understanding of what chemicals are particularly prevalent and/or difficult to remove, the Board work with the Department of Toxic Substances Control (DTSC) to identify sources and develop safer alternatives under the Safer Consumer Products program. For instance, if specific flame retardants are entering the waste stream, either through human excretion or product use, the Board could petition DTSC to require products that are major sources of the chemical to undergo an alternative assessment and regulate its use.

In summary, CWA believes that DPR projects will ultimately prove to be an important part of a multi-faceted strategy to provide California with a sustainable water supply and a resilient response to climate change, drought, and an increasing population. It must be done correctly, however, to ensure safety, sustainability, affordability, and public acceptance. While we are convinced that it is the goal of water providers, regulators, and public interest groups to ensure these objectives, we recommend that establishing criteria in a deliberative, phased manner be done before implementing full projects. That said, we agree with the Expert Panel that we can begin developing those criteria now, while concurrently filling in data gaps that will help inform the criteria and provide further improvements in future. We, therefore urge the Board to begin this process without delay and we look forward to continuing to engage in making safe drinking water from reused sources a reality.

Sincerely,



Andria Ventura  
Toxics Program Manager

