

A Proposed Framework for Regulating Direct Potable Reuse (DPR) in California

The State Water Board completed the [Report to Legislature on the Feasibility of Developing Uniform Water Recycling Criteria for Direct Potable Reuse](#) in December 2016. The report was required by Senate Bill 918 (Chapter 700, Statutes of 2009) and:

- Considered the advice of an Expert Panel on public health issues, and scientific and technical matters;
- Provided the State Water Board's analysis on whether creating regulations for the direct potable reuse of recycled water is achievable;
- Provided recommendations for DPR research needs and an implementation plan for developing criteria for DPR; and
- Concluded that:
 - Regulations cannot be adopted until specific DPR research and knowledge gaps are addressed in order to better protect public health.
 - The results of the DPR research will provide a higher level of certainty that the DPR criteria are protective of public health.
 - Critical knowledge gaps must be addressed in order to develop well-crafted objective criteria that are unambiguous and enable an objective determination of compliance.
 - The use of recycled water for DPR has great potential but presents scientific and technical challenges that must be addressed to ensure the public's health is reliably protected at all times.

The Report to Legislature asserted, "*Given the various possible types of DPR projects, a common framework will be needed to avoid discontinuities in the risk assessment/risk management approach as progressively more difficult conditions are addressed.*" The DPR Framework document discusses the risk assessment/risk management approach and provides a framework for regulating DPR.

The DPR Framework document:

- Reflects the State Water Board's current thinking on regulating DPR;
- Summarizes a risk assessment/risk management approach across the forms of DPR;
- Provides an update on DPR research progress;
- Addresses the legislative desire to develop a DPR framework and the repeal of the definition of "surface water augmentation" in Assembly Bill 574 (Chapter 528, Statutes of 2017);
- Provides stakeholder outreach; and
- Is not a regulatory document (Regulations for DPR will be developed, as appropriate, per the Administrative Procedure Act, the future.)

Key Take-away Messages

- The environmental buffer (groundwater soil/aquifer or surface water reservoir) is the key difference between indirect potable reuse (IPR) and direct potable reuse (DPR).
- There are many benefits of an environmental buffer for public health protection.
- When the environmental buffer is inadequate or not present, the loss of the benefits of the environmental buffer must be addressed in order to maintain an equivalent level of public health protection.
- The risk management approach for pathogens and chemicals across the various types of potable reuse is described in Chapter 5 of the DPR Framework document.
- For the purpose of developing raw water augmentation regulations (where “raw water augmentation” is the planned placement of recycled water into a system of pipelines or aqueducts that deliver raw water to a drinking water treatment plant that provides water to a public water system), the State Water Board intends to consider raw water augmentation to mean projects where:
 - The drinking water treatment plant is a filtration facility that has reliably demonstrated that it meets the requirements of California’s Surface Water Treatment Rule over a period of time;
 - The recycled water is mixed with raw water in the conveyance to a drinking water treatment plant such that the blend provides a meaningful public health benefit; and
 - The project is beyond the scope of the surface water augmentation (and future reservoir water augmentation) criteria.
- The State Water Board has partnered with two research organizations: The Water Research Foundation and the National Water Research Institute, to manage the completion of the needed DPR research.
- The DPR research is expected to be complete in the 2021/2022 time frame.

Next Steps

The State Water Board will:

- Continue to monitor research pertinent to DPR.
- Continue the process of developing criteria for raw water augmentation.
- Develop and subsequently adopt criteria for reservoir water augmentation.

For more information:

Visit our program page to view or download the Framework when it becomes available:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/direct_potable_reuse.html

View the [Report to Legislature on the Feasibility of Developing Criteria for Direct Potable Reuse](#)

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