



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager



October 24, 2016

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

Dear Ms. Townsend:

RE: Comment Letter - Report to the Legislature on DPR

The Metropolitan Water District of Southern California (Metropolitan) appreciates the opportunity to comment on the State Water Resources Control Board's (State Water Board's) draft report on the Investigation on the Feasibility of Developing Uniform Water Recycling Criteria for Direct Potable Reuse (DPR) (hereafter referred to as the Feasibility Study). Metropolitan commends the State Water Board for its efforts in preparing this report, recognizing the significant work by State Water Board staff, the Expert Panel, and the Advisory Group. Metropolitan offers the following comments intended to help clarify specific topics within the Feasibility Study and ultimately assist the State Water Board in the development of practical DPR regulatory criteria that can move DPR forward while remaining fully protective of public health.

Background

Metropolitan is a regional water wholesaler that delivers approximately two million acre-feet per year to 26 member public agencies, who in turn provide water to more than 19 million people in Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura counties. To supply the more than 300 cities and unincorporated areas in Southern California with safe and reliable water, Metropolitan owns and operates an extensive water system including the Colorado River Aqueduct, 16 hydroelectric facilities, nine reservoirs, 830 miles of large-diameter pipes and five water treatment plants. Metropolitan also provides financial incentives supporting local projects within its service area in the development and use of recycled water. Since 1982, Metropolitan has provided over \$420 million to produce 2.4 million acre-feet of recycled water for non-potable uses and indirect potable reuse (IPR).

As part of Metropolitan's adaptive management strategy, Metropolitan identified future supply actions to help prepare the region for changing water supply conditions. These actions include promoting studies to reduce barriers to future water resource development. To date, Metropolitan, in partnership with our member agencies, has helped fund recycled water studies and initiatives, including the California DPR Research Initiative.

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Metropolitan closely followed the State Water Board's DPR activities since the passage of SB 918 in 2010 and SB 322 in 2013. These statutes required the State Water Board to establish an Expert Panel and Advisory Group to (a) explore the feasibility of developing uniform water recycling criteria for DPR and (b) provide a final report to the Legislature by December 31, 2016. The draft Feasibility Study concludes that it is technically feasible to develop uniform water recycling criteria for DPR, while acknowledging several knowledge gaps remain and should be addressed prior to adoption of DPR regulatory criteria.

The draft Feasibility Study recognized that DPR can come in different forms, each with differing risks. The State Water Board identified the following types of DPR projects:

1. A project delivering recycled water to a surface water reservoir, with the reservoir providing some benefits, but lacking the full complement of benefits provided by an environmental buffer;
2. A project delivering recycled water directly to a surface water treatment plant or a surface water reservoir, with the reservoir providing no benefits; and
3. A project delivering finished water to a public water system's distribution system.

As stated in the draft Feasibility Study, each type of DPR will have its unique set of criteria. The State Water Board indicated that a common framework across the various types of DPR will help avoid discontinuities in managing risk as progressively more difficult conditions are addressed. Developing a common framework 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.

Comments

Metropolitan offers the following comments on the draft Feasibility Study for the State Water Board's consideration:

1. DPR projects which augment *raw water* supplies should be clearly decoupled from DPR projects which deliver directly to a *treated water* distribution system.

While Metropolitan agrees with the State Water Board that the three DPR types listed exhibit different risk profiles, the third type—with direct delivery to a treated water distribution system—is significantly different from the first two. The first two DPR project types would blend recycled water with raw water supplies and include an intervening drinking water treatment plant with all of its associated process control, monitoring, storage, and oversight. Several unique challenges exist associated with direct delivery of advanced treated recycled water to a public water system's distribution system (often termed "flange-to-flange"), with significantly heightened levels of risk when compared with other forms of potable reuse. California should first gain operational experience with surface water augmentation, followed by "lower risk" forms of DPR, prior to adopting water recycling criteria for flange-to-flange DPR.

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Although the draft Feasibility Study indicates that a phased approach is necessary, Metropolitan recommends a more detailed, comprehensive approach that clearly separates those that augment raw water versus inject into treated water systems. Well-defined terminology for these two very distinct forms of reuse would be beneficial to the water industry's and public's understanding of the potable reuse options and varying risk profiles. In addition, a clear distinction between surface water augmentation and the first DPR project type should be specified as there is no general consensus on the boundary between surface water augmentation and DPR. Overall, a more thorough discussion of the State Water Board's proposed phased approach and clear, industry-accepted potable reuse definitions will allow the water industry and public to better envision the overall process and sequencing of research and information needs involved in developing uniform criteria for DPR that is protective of public health.

Section 3.4 of Appendix B of the draft Feasibility Study includes the Advisory Group's recommendations for phasing DPR regulations. Key elements of that discussion should be integrated into the main body of the draft Feasibility Study with efforts to further clarify the distinct differences and risk profiles between varying forms of DPR. While flange-to-flange DPR appears premature for uniform water recycling criteria at this time, a case-by-case approach to permitting such a project may be viable. In fact, permitting and operating a "one-off" or pilot project may allow a much clearer pathway to regulatory acceptance than developing broad uniform criteria all at once.

2. A "one-water" concept which enhances source control and optimizes wastewater treatment is a key element in the development of DPR regulatory criteria that are reliable, cost-effective and fully protective of public health.

The Advisory Group noted the importance of optimized wastewater treatment plant operations and source control programs on the successful implementation of DPR projects. Metropolitan agrees that these elements upstream of an advanced water treatment process are critical to the reliability and effectiveness of a DPR treatment train. Operational experiences with IPR projects throughout California have demonstrated the benefit of optimizing wastewater treatment plant operation (e.g., nitrification/denitrification) and rigorous source control programs (e.g., elimination of 1,4-dioxane) on improving advanced water treatment unit process operations and final water quality.

Metropolitan supports the inclusion of both wastewater treatment plant operation and source control provisions within the overall DPR regulatory criteria. The State Water Board should work closely with wastewater agencies to gain information on current practices and identify opportunities to enhance and optimize pre-treatment programs and wastewater treatment processes. By including these concepts directly into uniform DPR water recycling criteria, the State Water Board reinforces the "one-water" concept whereby the distinction between wastewater effluent and the potential source for potable water is minimized. As DPR criteria develop, it will be necessary to determine how the Clean Water Act and Safe Drinking Water Act regulatory pathways can be joined in a manner that ensures sensible regulation of DPR and allows for reliable operations that fully safeguard public health.

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3. Additional research should fill knowledge gaps prior to the adoption of DPR regulatory criteria

Metropolitan understands that there are multiple research efforts underway designed to provide important and much needed data over how to successfully implement DPR. Metropolitan recommends that the six research topics identified by the Expert Panel¹ be largely completed before the State Water Board adopts uniform DPR water recycling criteria. Metropolitan agrees with the Expert Panel that these six research efforts will provide a higher level of certainty that DPR regulatory criteria protect public health. However, Metropolitan requests more details be included in the draft Feasibility Study on the intended timeline to complete this important research.

4. Clearer and more quantifiable success metrics and milestones should be added in the Feasibility Study's Implementation Plan

The draft Feasibility Study's Implementation Plan found in Chapter 5 summarizes a series of recommendations, incorporating those provided by the Expert Panel and Advisory Group. As currently written, the Implementation Plan provides only cursory metrics for success and milestones. In most cases, the metrics do not provide a quantifiable measure of success, and the milestones often do not represent a clear endpoint which would then allow the State Water Board to proceed with regulatory development and/or adoption of uniform water recycling criteria for DPR. Metropolitan recommends that the State Water Board provide more specific metrics and milestones in the Implementation Plan. The Implementation Plan should provide a roadmap with at least general time frames such that the reader has a clear understanding of the regulatory process moving forward in developing uniform DPR criteria. Metropolitan understands that establishing firm deadlines for meeting each recommendation may be premature at this time; however, a more detailed and specific discussion associated with each of the ten recommendations is warranted. The Implementation Plan must clearly lay out the proposed path forward for filling the necessary research and knowledge gaps that would allow for the adoption of DPR regulatory criteria.

Conclusion

Metropolitan thanks the State Water Board for the opportunity to comment on the draft DPR Feasibility Study. We believe that the additions and further clarifications noted will result in a more robust and meaningful Feasibility Study with the ultimate goal of developing uniform DPR water recycling criteria for California.

If you have any questions in this matter, please feel free to contact Brad Coffey, Assistant Manager of Water System Operations, at bcoffey@mwdh2o.com or (213) 217-5845.

¹ See Chapter 3 of the Feasibility Study and Appendix A-- Expert Panel Final Report: Evaluation of the Feasibility of Developing Uniform Water Recycling Criteria for Direct Potable Reuse.

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Sincerely,

A handwritten signature in black ink that reads "Debra Man". The signature is written in a cursive, flowing style.

Debra Man

Assistant General Manager and Chief Operating Officer

BC:ae

o:adminfiles/corres/BC_RE: Comment Letter - Report to the Legislature on DPR

cc: Ms. Cindy Forbes
Deputy Director
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

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