



October 25, 2016

Honorable Felicia Marcus
Chair, State Water Resources Control Board
and Board Members
PO Box 100
Sacramento, CA 95812-0100

Dear Chair Marcus:

What follow are comments from Sierra Club California on the State Board's draft report to the legislature on the feasibility of regulating direct potable reuse. We support the recommendations of the Expert Panel, and urge the Board to begin the regulatory process.

Timely Adoption of Regulations

We all understand that water situations vary widely around the state. There are places in California where direct potable reuse (DPR) is the only available solution to water shortages that exist now and are looming in the future. We believe the State Board should facilitate potable reuse by timely adoption of regulations that assure safe reuse.

Regulations provide certainty that projects now being considered will ultimately get regulatory approval, and allow cost estimates to be done to inform local decision making on specific projects. Delays in adopting regulations could make the State Board an obstacle rather than a facilitator for DPR.

We are concerned that the State Board, in its draft report to the legislature, proposes to delay starting the regulatory process for DPR pending the completion of more studies. No one questions the desirability of more scientific analysis, and we urge that the studies recommended by the Expert Panel proceed. But we suggest the State Board adhere to the key commendation of the Expert Panel, and develop and implement uniform criteria for DPR now, not waiting for further studies.

The State Board's draft report indicates that "knowledge gaps...primarily relate to the quantification of reliability, and the associated concepts such as redundancy, resiliency, and robustness, such that adequate public health is ensured." The draft report also concludes that the Board can begin developing regulations now. We agree that these gap areas are adequately defined by the Expert Panel and Advisory Group such that regulations can be developed. Additional research on these concepts can be used to inform the State Board as it develops regulations, or modifies regulations in the future, but should not be an impediment to begin developing regulations now.

Time Lines for Action

There are no estimated or proposed timelines in the draft report's Recommendations. Without timelines implementing DPR becomes an open-ended process. The draft report acknowledges that there are existing as well as proposed research projects which are expected to answer some of the questions raised by the Expert Panel as well as the State Board's "knowledge gap" concerns. We recommend that the draft report establish a timeline for the completion of existing and proposed research projects. This is especially important as the State Board has expressed a desire to rely on such research projects in order to complete development of uniform regulations for DPR.

The "milestones" in the draft report's Recommendations do not have any timelines for their achievement. The same argument made above (relating to research) applies to non-research Recommendations.

The State Board should establish a timeline for completion of the regulation process. This process cannot be left open-ended as that can too easily lead to unacceptable delays. Having a timeline will maintain a sense of urgency, and provide the public and project proponents with an expectation of when regulations will be completed.

Hybrid Projects

Potable reuse regulations categorize projects as direct or indirect groundwater recharge, surface water augmentation, or direct potable reuse. These categories seem to make sense, but the reality is less tidy. For example any project that makes use of unlined ponds will cause groundwater recharge, often to a substantial degree. Or there could be projects that include some underground storage, but not as much as current regulations require.

Given this situation, we strongly concur with the notion that regulations should cover a continuum of situations, with partial credit given for local conditions of storage, subsurface movement and the passage of time. As the Advisory Committee recommended, "Ensure that a viable regulatory pathway exists to permit potable reuse projects with environmental buffers that do not meet current regulatory requirements. Options to consider include alternative provisions for groundwater basins (e.g. travel time_ and for surface water reservoirs (e.g. dilution or retention time) ..."

Reliability

The source water for a DPR system is the effluent from a sewage treatment plant (STP) that provides secondary biological treatment or advanced secondary. We need to recognize that for the overall DPR treatment system to work reliably, the STP just upstream must be just as reliable as the treatment system it feeds into.

The Expert Panel has recommended that redundancy be built into DPR treatment systems, presumably at significant additional cost. We believe that a waiver provision should be included in regulations for cases where a backup water supply system exists for use during upsets in the DPR system. The backup system should be sufficient for the anticipated duration of a possible process outage, in order to fully protect the public health.

Creation of such backup capacity is now under way in the SF Bay area, as major water utilities construct interconnections with one another. If there is a supply interruption for one utility, the

interties make it possible for other utilities to temporarily provide water. These interties are mostly aimed as reliability during earthquakes, but the concept could also make sense for DPR systems.

Having a backup water supply would still leave the issue of what to do with off-spec water. This would normally mean that standby storage capacity must be provided. It may be feasible for a reservoir, or complex of reservoirs, to be used for multiple purposes. We concur with the observation that equalization of water quality is one function that a reservoir can provide.

In closing let us stress that we concur with the recommendations of the Expert Panel and Advisory Committee as convened by the State Board for safe use of DPR. Consider moving forward with regulations and studies necessary to advance this resource, while still protecting public health and the environment.

Sincerely,



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