



## IRVINE RANCH WATER DISTRICT

15600 Sand Canyon Avenue • P.O. Box 57000 • Irvine, California 92619-7000 • (949) 453-5300 • [www.irwd.com](http://www.irwd.com)

July 6, 2016

Mr. Michael Markus, P.E.  
General Manager  
Orange County Water District  
18700 Ward Street  
Fountain Valley, CA 92708

Subject: Workshop #3 – Proposed Poseidon Resources Huntington Beach Seawater Desalination Project Distribution Options

Mike:

At tonight's meeting of the Orange County Water District (OCWD) Board of Directors, staff will be presenting progress on the three remaining options (2A, 2B, and 3) and two new options (5 and 6) to distribute 50 million gallons per day (MGD) of desalinated seawater produced by the proposed Poseidon Huntington Beach Seawater Desalination Project. As discussed previously in my February 3, 2016 and March 8, 2016 letters, Irvine Ranch Water District (IRWD) remains concerned about the significant impacts of:

- Recharging desalinated seawater that could have an impact on the quality of groundwater within the Orange County basin, on potable water delivered to IRWD customers, and on recycled water produced by IRWD;
- Increasing the Replenishment Assessment (RA) to subsidize the Orange County Water District's (OCWD) surface delivery of the project water that will likely violate Proposition 218 and Proposition 26;
- Requiring the involuntary participation by groundwater producer agencies in the seawater desalination project and subsidization of the cost of water by non-participating agencies which could violate Proposition 218's and Proposition 26's cost of service and proportionality requirements; and
- Optimizing the use of existing and future supplies available from Metropolitan Water District of Southern California (MWD) that would provide improvements in water supply reliability at the lowest cost and should be considered as a top-priority groundwater management practice by OCWD.

Since these aforementioned letters were submitted to OCWD, the further development of the Orange County Reliability Study by the Municipal Water District of Orange County has shown that the future water demands for Orange County are likely not as high as once thought, which calls into question the need for a 50 MGD base-loaded seawater desalination plant in North Orange County. Other options, such as the final expansion of the Groundwater Replenishment

Mr. Michael Markus, P.E.  
General Manager  
Orange County Water District  
July 6, 2016  
Page 2

System and the Carson Indirect Potable Reuse (IPR) Project proposed by MWD, should be prioritized as more viable and cost-effective alternatives.

Since OCWD is continuing its analysis of integrating a seawater desalination plant into the local water system, IRWD offers the following comments related to the two new distribution alternatives (Options 5 and 6) being presented for the Board's consideration tonight:

***1) Option 5 that will allow three coastal producers (Huntington Beach, Newport Beach and Mesa Water) to receive Poseidon water in-lieu of groundwater pumping should be evaluated against the less expensive use of existing supplies.***

- The option does not appear to be feasible because the inland groundwater producers do not have the production capacity to offset the decreased production by the coastal groundwater producer agencies.
- The benefits of implementing Option 5 would not be evenly distributed among the producer agencies because of differing groundwater production capabilities available to pump up to the resulting Basin Production Percentage (BPP). As a result, the option would violate Proposition 218's and Proposition 26's cost of service and proportionality requirements.
- Implementing a new Coastal Pumping Transfer Program that makes use of expensive water from the proposed seawater desalination project should be evaluated against the cost of implementing an in-lieu recharge program that would make use of water available from MWD at substantially reduced costs.
- Requiring producer agencies to subsidize the cost of water from the desalination project that could have been purchased from MWD at substantially reduced costs would violate best practices for water resource and financial management.
- Participation in the proposed seawater desalination project should be voluntary with no subsidization of the cost of water by non-participating agencies.

***2) Option 6 that will inject desalinated ocean water to the ground water basin will degrade the quality of water within the Orange County Groundwater Basin affecting beneficial uses and will not result in an even distribution of benefits.***

- Recharging desalinated ocean water into as many as 26 new injection wells (Option 6) would greatly increase the salt load within the Orange County basin, lower the quality of water within the basin and unreasonably affecting beneficial uses by increasing salt concentrations, a nuisance and pollutant, within the basin.
- Recharging desalinated water is expected to have a significant impact on the quality of groundwater within the Orange County basin, on potable water delivered to IRWD customers, and on IRWD's water recycling program. Groundwater modeling to quantify these impacts will be complete soon, and results will be provided to OCWD for its

Mr. Michael Markus, P.E.  
General Manager  
Orange County Water District  
July 6, 2016  
Page 3

consideration when preparing an Environmental Impact Report for the use of water from the seawater desalination plant for groundwater recharge.

- The benefits of implementing Option 6 would not be evenly distributed among the producer agencies because of differing groundwater production capabilities available to pump up to the resulting BPP. As a result, the option would violate Proposition 218's and Proposition 26's cost of service and proportionality requirements.

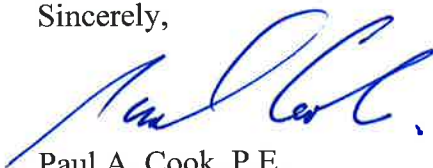
As IRWD has stated in previous communications, the Poseidon seawater desalination project should be funded exclusively by the retail water agencies that voluntarily choose to participate in a project depending on each agency's water supply reliability needs. Based on our analysis, a likely prerequisite for participation in the project by a retail agency is a determination that it does not consider supplies from MWD to be adequately reliable. Participation should be an agency-by-agency decision as follows:

- Retail agencies that elect to participate in a seawater desalination project should form an acceptable financial participation mechanism, such as a voluntary joint powers authority, to appropriately recover and allocate past and future costs associated with an ocean desalination project.
- Participation in the project via such a mechanism should eliminate the subsidization proposed in the remaining options. It would allow OCWD to avoid violating Proposition 218's and Proposition 26's cost of service and proportionality requirements through an increase in the RA, as proposed, to pay for the project.

Like the OCWD Board of Directors, IRWD believes that the development of a secure and reliable water supply for the residents of Orange County is important. As with any infrastructure investment, investments in water supply reliability must be cost-effective and should consider all of the factors discussed above related to environmental impacts, beneficiary pay principles, and alternatives. Additional investigation of long-term contracts with coastal producers, coastal groundwater levels and developing an equitable method of distributing project costs that do not violate Proposition 218 and Proposition 26 should be pursued now, ahead of further complicated and costly technical studies. OCWD's ability to secure long-term contracts with coastal producers should weigh heavily on selecting the production capacity of a seawater desalination plant in Huntington Beach.

Please provide a copy of this letter to each of your Board members so that they can consider IRWD's comments. I look forward to discussing these concerns in greater detail with you and your staff. Please contact me at (949) 453-5590 so that we can meet to discuss our comments.

Sincerely,



Paul A. Cook, P.E.  
General Manager