



**Irvine Ranch
Water District**

May 4, 2022

Mr. Tom Luster
Senior Environmental Scientist
California Coastal Commission
455 Market Street, Suite 300
San Francisco, CA 94105

Re: Opposition to Poseidon's Proposed Seawater Desalination Project in Huntington Beach

Mr. Luster:

Irvine Ranch Water District (IRWD), a retail water agency serving over 500,000 customers in central Orange County, is currently the largest producer of groundwater within the boundaries of Orange County Water District (OCWD). OCWD is considering a commitment to purchase all water produced by Poseidon Water's proposed Huntington Beach Desalination Plant (HBDP) for a 30-year period. As such, IRWD is a major stakeholder in the ongoing deliberations regarding issuing a Coastal Development Permit for the HBDP. The purpose of this letter is to describe IRWD's policy principles regarding desalination projects, which explain why IRWD opposes the HBDP.

IRWD Policy Position on Desalination Projects:

IRWD, as a recognized leader in state and federal water resources public policy and governance discussions, works every day to promote smart and effective policies that allow IRWD, along with other water purveyors in California, to enhance the quality, reliability and resiliency of water supplies. To clearly state IRWD's position regarding the HBDP and other desalination projects, the IRWD Board of Directors adopted a revised Policy Position Paper on Desalination Projects, dated March 28, 2022 and provided as Exhibit "A". The policy principles explained in this paper articulate the basis for IRWD's opposition to the HBDP.

Bases for IRWD Opposition to HBDP:

Poseidon's proposed HBDP by Poseidon is deeply flawed, and it is not needed in Orange County. The bases for IRWD's opposition to the HBDP are summarized as follows:

- 1) Participation in the HBDP must be voluntary, which it currently is not;
- 2) There is no need for water from the HBDP;
- 3) The HBDP will create negative and unnecessary financial impacts; and
- 4) The HBDP will degrade the quality of water in the Orange County Groundwater Basin (Basin).

Detailed explanations supporting each of IRWD's determinations are as follows.

Participation in HBDP Must be Voluntary:

1. IRWD is an independent retail water agency that is accountable to its hundreds of thousands of customers and it responsible for its own water supply reliability. Over the years, IRWD has invested in its own water supply infrastructure and supplies, and IRWD must not be forced to receive or pay for water from the HBDP that IRWD does not want or need. IRWD has determined that it will receive no benefit from this water, and as such it must not be required to pay for this water.
2. Water from the HBDP should only be paid for by retail water agencies that choose to take delivery of and benefit from the project supplies. Without the ability to opt-out of the project, IRWD is forced to oppose the HBDP.
3. Poseidon and OCWD have not allowed IRWD and the other retail water agencies to opt out of participation in the HBDP. IRWD and other retail water agencies should not be forced to take and pay for water they do not need or want.
4. OCWD has indicated that it would purchase water from the HBDP and recharge it into the Basin. By doing so, IRWD and the other producers would be forced to take and pay for water that they do not need or want. OCWD's actions would also force the retail water agencies to construct significant new infrastructure – paid for by millions of retail water customers – to pump this water back out of the ground. The cost of this new infrastructure is expected to exceed \$100 million, which is in addition to the over one billion dollars required for the HBDP.

There is No Need for the HBDP:

1. IRWD plans for and invests in its own water supply reliability, which is why it has adequate water supplies. IRWD has developed water banking projects in Kern County that provide supplies during droughts, major supply interruptions, and emergencies. Accordingly, IRWD does not need water from the HBDP.
2. OCWD has not demonstrated a need for water from the HBDP. OCWD already has access to diverse and reliable water supplies and is not at risk of running out of water. OCWD is currently completing construction of the final expansion of its Groundwater Replenishment System, which will increase supplies to the Basin. To further increase supplies to the Basin, OCWD can purchase, recharge and store additional imported water for use during droughts, major supply interruptions and emergency conditions.
3. While OCWD has been discussing this project with Poseidon, OCWD has not consulted with the groundwater producing retail water agencies it serves – agencies whose customers would ultimately pay for this project – as to the need for the project. IRWD is not aware of a need expressed by the retail agencies.
4. If OCWD were to purchase and recharge water from the HBDP, OCWD and the groundwater producers would need to forego access to existing low-cost imported water supplies and perhaps even Santa Ana River flows to which OCWD is entitled. By trading one supply for another, there is no increase in the availability of water to OCWD for recharge in the Basin.
5. By abandoning existing imported supplies in exchange for water from Poseidon, OCWD and the groundwater producers would not become more water independent. OCWD would simply become dependent upon Poseidon – a private Canadian company.

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Negative Financial Impacts of HBDP:

1. The cost of water from HBDP would be at least twice the price of the imported water that would be abandoned to purchase water from Poseidon. Under the current proposal OCWD would pay Poseidon over a billion dollars more for water over the next 30 years. These unnecessary increased costs would be forced upon each of the retail water agencies, which would then be forced on to the residents and businesses in northern Orange County.
2. The increased costs passed on to retail water customers would unduly burden disadvantaged communities and low-income customers. It would also further increase the cost of doing business in Orange County. These financial burdens would be imposed without any improvement in water supply reliability.

Water Quality Impacts of HBDP:

1. Investigations by highly reputable engineering consulting firms have quantified significant water quality impacts to groundwater supplies due to the recharge of water from the HBDP¹. These impacts will have detrimental effects on potable and recycled water supplies.
2. To mitigate the expected water quality impacts to the groundwater supplies, water quality experts have recommended that Poseidon make changes to its proposed HBDP treatment systems. Poseidon has refused to make these changes.

Without a demonstrated need, the HBDP is a project in search of a problem. By forcing IRWD and other retail water agencies to accept and pay for water from the HBDP, that they do not need or want, other problems are created, such as:

- 1) **Forcing communities to pay more for water with no improvement in water supply reliability;**
- 2) **Unduly increasing costs on disadvantaged communities and businesses; and**
- 3) **Degrading water quality in the Orange County Groundwater Basin.**

Accordingly, IRWD requests that the Coastal Commission deny Poseidon's application for a Coastal Development Permit.

IRWD greatly appreciates the opportunity to provide the above comments in opposition of Poseidon's proposed HBDP. Please provide a copy of this letter and Exhibit "A" to each of the members of the Coastal Commission. We hope that the information provided is helpful to you and the Commission in evaluating Poseidon's Coastal Development Permit Application. If you would like to discuss these issues further, feel free to contact me at (949) 453-5590 or cook@irwd.com.

Sincerely,



Paul A. Cook, MSCE, MBA, P.E.
General Manager

Exhibit "A" – Policy Position Paper on Desalination Projects, dated March 28, 2022

¹ IRWD retained three highly qualified consulting firms to conduct technical studies of the water quality impacts of the HBDP. These technical studies were presented in a letter to the Santa Ana Regional Water Quality Control Board on December 4, 2019. This letter and the associated technical study reports are available at <https://www.irwd.com/about-us/desalination>.

Irvine Ranch Water District

March 28, 2022

Policy Position Paper on Desalination Projects

As a state and federal leader in water resources public policy and governance, Irvine Ranch Water District (IRWD) works to promote policy initiatives that allow IRWD, along with other water purveyors in California, to enhance the quality, reliability and resiliency of water supplies. IRWD also works to advance thoughtful policies that would build resiliency into California's water systems and enhance the health of the state's waterways. As a means of providing input into the discussions surrounding the desalination projects, IRWD has compiled the following policy principles.

Issue Summary

Locally available brackish and ocean water sources may provide alternative supplies of water once treated to acceptable standards; however, desalination projects should be implemented only when costs for treatment and distribution are competitive with existing reliable supplies or with other supplies under development. The reality is that without substantial outside subsidies, ocean desalination is generally not cost effective at this time. Much less expensive water supply options are available including water transfers, exchanges, treatment of impaired groundwater and water recycling.

As future technological improvements reduce the cost of reverse osmosis membranes and the amount of energy used by the membrane process, the cost of producing desalinated ocean water will decline. For this reason, the water industry, and IRWD, should support development of desalination technologies, regulatory streamlining, and public acceptance – but only when the time is right.

Policy Principles

A key issue in Orange County affecting the implementation and acceptance of ocean desalination is cost recovery. Some retail agencies may receive greater benefit from ocean desalination than others. Moreover, some agencies may have other more cost-effective supply options and may not want to have any participation in a desalinated supply. The following are policy principles IRWD has adopted to ensure any potential ocean desalination project in Orange County follows good water resources planning, infrastructure investment, and beneficiary pays principles.

1) Cost-Effective Alternative Water Supplies Should be Investigated:

- IRWD supports the investigation of cost-effective alternative supplies of water. IRWD also supports the development of desalination technologies, regulatory streamlining, public acceptance, and the pursuit of regional, state, and federal funding programs to ensure the feasibility of future water supplies, and
- Based upon the diversity and reliability of IRWD's existing and planned water supplies and IRWD's current and projected cost of water, IRWD may consider participation in ocean desalination projects in the future when economics become more favorable and delivered costs to IRWD's system become comparable to alternative supplies then available to IRWD.

2) Ocean Desalination Projects Should be Evaluated Based on Water Supply Needs, Costs and Risks:

- The need for ocean desalination projects should be identified considering the frequencies, magnitudes, timing and durations associated with events that could affect the reliability of existing and alternative cost-effective supplies (e.g., banking water for use during short-term emergencies is more cost effective than replacing an existing annual imported supply with more expensive desalinated ocean water);



- Comparisons of the cost of water from a desalination project should not be made against the cost of full service treated imported water from Metropolitan Water District of Southern California (MWD) when the water from the desalination project is displacing purchases of available untreated water from MWD;
- The evaluation of the cost of construction, operation and maintenance of desalination projects should take into consideration the risks and uncertainties associated with significant features including intake and brine disposal facilities as well as uncertainties associated with rates of increases in electricity that are expected in the future; and
- MWD's Water Supply Allocation Plan formulas for sharing reliability during periods of allocation should be taken into consideration when evaluating the water supply benefits of desalination projects and in making estimates of the costs of water from the projects to its participants.

3) Ocean Desal Projects with High-Cost Water Should Not Be Pursued:

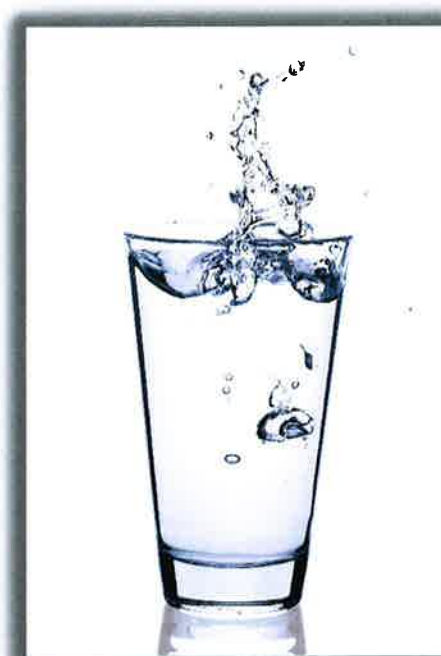
- Desalination projects in Orange County that exceed the cost of imported water from MWD should not be considered when imported water is available from MWD. As long as water from a desalination project is more costly than imported water that it replaces, the water supply benefit of the desalination project will be shifted to all other agencies in the MWD service area while Orange County customers pays for the water;
- Costs associated with desalination projects that are passed along to customers should not unduly burden disadvantaged communities or low-income customers, and should not add to the cost of doing business in California;
- Future operational cost reductions associated with improvements to efficiencies of membrane technologies should be shared among all participants in a desalination project; and
- The financing of desalination projects should occur using methods that result in the lowest cost of water and debt to the participating agencies. Project costs should not be "back-loaded" to initially understate the true cost of desalinated water.

4) Ocean Desal Projects Must Produce Water of Good Quality:

- Desalination product water must meet all applicable drinking water standards and must not create water quality impacts that impair the production of recycled water, reduce the quality of potable water delivered to IRWD customers or result in corrosive impacts to facilities.

5) Retail Water Supplier Participation in Ocean Desalination Should be Voluntary:

- IRWD opposes regional ocean desalination projects that do not provide the ability for individual retail agencies – such as IRWD – to opt out of participation;
- Projects utilizing ocean desalination for a new water supply should be funded exclusively by the retail water agencies that voluntarily participate in the projects. Participation in county-wide desalination projects should be available to agencies on an optional basis;
- Agencies volunteering to participate in ocean desalination projects should take into consideration comparisons of the costs and methods of delivery of the design, construction, and operation of desalination facilities by public agencies with the costs and methods of delivery of the design, construction, and operation through private partnerships. Participants should select the most cost effective and least risk method of project implementation;



- Potential participating retail agencies in Orange County should continue efforts to evaluate an ocean desalination project at the Huntington Beach site while less expensive sites located inland from the beach should be considered as an alternative to expensive beachfront sites; and
- A “wholesale water agency,” such as OCWD or MWDOC, should obtain desalinated water purchase commitments from the retail water agencies it sells water to before making any commitment to a proposed project.

6) MWD Investments in Desal Projects Should be Equitable:

- MWD should consider the development of cost-effective regional desalination projects that provide benefits to all MWD’s service area in an equitable manner;
- The consideration of Local Resources Program incentives from MWD for a desalination project should take into consideration that the sliding scale and fixed incentives would only be available to the extent that the incentives reduce the cost of water from the project towards the cost of treated water from MWD (i.e., the subsidy cannot reduce the cost of water below the MWD treated rate); and
- MWD should provide LRP incentives to desalination projects through separate funding initiatives that do not impair the ability of non-desalination-related local projects to receive funding under existing MWD limits for LRP investments.

7) Ocean Desalination Projects Should Only be Pursued by Agencies with a Proven Track Record:

- Local and regional partnerships for the construction, operation and maintenance of ocean desalination projects should rely on the experience of local agencies with proven track records constructing and operating desalination facilities.

8) IRWD’s Participation on Desalination Projects Will Be Principle Guided:

- IRWD’s consideration of participation in desalination projects shall be consistent with the Board’s adopted Potable Water Supply Reliability Policy Principles.

Conclusion

Desalination projects should be implemented when costs for treatment and distribution are competitive with existing reliable supplies or with other supplies under development. Without substantial outside subsidies, ocean desalination is currently not cost effective for Orange County at this time. Much less expensive water supply options are available including water banking, water transfers, exchanges, treatment of impaired groundwater and water recycling.

From IRWD’s perspective, while locally available brackish and ocean water sources may one day provide alternative supplies of water for Orange County, the proposed Huntington Beach Desalination Project does not meet this principle or the other policy principles listed above and, therefore, should not proceed.


Paul Cook, General Manager



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