

February 10, 2022

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

Sent via email: Tom.Luster@coastal.ca.gov

Re: Expert Report of Poseidon – Irvine Ranch Water District Studies

Dear Mr. Luster,

On behalf of the environmental coalition, we appreciate your consideration of the attached Irvine Ranch Water District (IRWD) comment letter and presentation and their inclusion into the administrative record. The enclosed IRWD comment letter and presentation offer an independent third-party analysis of the substantial risks to the water quality of the Orange County groundwater basin from the Poseidon-Huntington Beach Project.

- **Irvine Ranch Water District (IRWD) Comments on the NPDES Permit Renewal for Proposed Huntington Beach Desalination Project (HBDP).** This letter details the technical investigations IRWD commissioned on the impacts that the HBDP will have on the water quality of potable and recycled water supplies of IRWD and other retail water agencies that utilize local groundwater. These investigations provide important information that is essential when considering the HBDP permit. Attachment A to this letter provides a summary of the investigations and an overview of the expected water quality impacts from the HBDP to the local groundwater basin and to the retail water agencies that rely on this water. The purpose of this letter is to provide the results of these investigations and to describe impacts, conclusions, and recommendations related to the permit.

The letter concludes that the investigations conducted by Harder, HDR and Trussell quantified significant water quality impacts to the Basin as well as to the water supplies of IRWD and other Producers that have not been previously analyzed in compliance with the California Environmental Quality Act (CEQA). Trussell has demonstrated that avoiding the impacts of boron will require subjecting 80 percent to 100 percent of the flow through the HBDP to a second pass RO treatment process. These second pass treatment requirements will significantly increase the flow rates through the seawater intake and brine discharge facilities proposed by Poseidon.

To Avoid Impacts:

The HBDP, as it is currently being proposed, would require an ocean water intake capacity of 106.7 million gallons per day (MGD) and a brine discharge capacity back to the ocean of 56.6 MGD. Using an 80 percent second pass RO treatment process to avoid water quality impacts to IRWD's recycled water system (caused by the recharge of the HBDP product water) would require approximately a 127-MGD intake and a 77-MGD brine discharge. Using a 100 percent second pass RO treatment process to avoid additional boron accumulation in the Orange County Groundwater Basin would require approximately a 131-MGD intake and an 81-MGD brine discharge. Until the HBDP treatment process is refined, the HBDP cannot be evaluated by the Regional Board for an NPDES permit.

- **IRWD Investigations of Water Quality Impacts of Proposed Huntington Beach Seawater Desalination Project.** This presentation accompanies and provides visual detail of the issues discussed in the IRWD Comment letter. The presentation clearly shows that Chlorides and Boron from the Poseidon Huntington Beach project will have significant impacts on IRWDs' direct delivery and recharge operations.

We respectfully request that the IRWD comment letter and presentation be considered by the Coastal Commission as part of the administrative record. The report demonstrates that the Poseidon – Huntington Beach Project must take in and discharge more water than was permitted by the Santa Ana Regional Water Quality Control Board to protect water quality in the Orange County aquifer. This will require significantly more mitigation than has currently been proposed for the project.

Sincerely,

A handwritten signature in cursive script that reads "Raymond T. Hiemstra". The signature is written in dark ink and is positioned above the typed name and title.

Raymond Hiemstra
Associate Director of Programs
Orange County Coastkeeper