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May 27, 2016

Mr. Scott Maloni, Vice President
Poseidon Water
5780 Fleet Street, Suite 140
Carlsbad, CA 92008

Re: Inquiry to Discharge Concentrated Seawater to OCSD Treatment Plant No. 2

I am writing in response to your inquiry about the availability of the Orange County Sanitation District (OCSD) Treatment Plant No. 2 to discharge concentrated seawater from the proposed Huntington Beach Desalination Plant. OCSD's Wastewater Ordinance does not currently allow disposal of concentrated seawater from a desalination plant directly to the outfall, and OCSD's treatment plant is not able to treat concentrated sea water through its wastewater treatment process. In order to approve such a discharge, OCSD's Board of Directors would need to amend its Wastewater Ordinance, and an extensive technical, engineering and environmental analysis would be required before the feasibility of utilizing OCSD Treatment Plant No. 2 could be determined.

A recent amendment to the Water Quality Control Plan for Ocean Waters of California addressing Desalination Facility Intakes, Brine Discharges (Desalination Amendment) states that the preferred approach for brine discharge is comingling with treated municipal wastewater that would otherwise be discharged to the ocean, unless wastewater can be sufficiently treated and distributed locally. This poses a challenge to OCSD as the agency is undergoing a study to maximize effluent reuse. In other words, over time, less fresh (low salinity) water is available to dilute concentrated sea water in the outfall. Any such consideration would require a thorough evaluation of the impacts to the receiving water of such a discharge for environmental compliance with OCSD's ocean discharge permit.

OCSD Treatment Plant No. 2 includes a 120-inch, 4.5-mile ocean outfall that today discharges an average of 80 million gallons per day (MGD) of treated wastewater to the ocean. OCSD has adopted a 5-year Strategic Plan that establishes a goal for *Future Water Recycling – Determine partnerships, needs, strategies benefits and costs associated with recycling of Plant No. 2 effluent water*. In this regard OCSD is working with the Orange County Water District (OCWD) on the final phase of the Groundwater Replenishment System (GWRS) which will reduce the long-term wastewater discharge from Treatment Plant No. 2 by an estimated 30 MGD. The remaining 50 MGD of effluent will have an estimated salinity of approximately 3 parts per thousand (ppt).





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This anticipated reduction in wastewater flows does not take into account additional wastewater recycling efforts that could further reduce long-term discharge volumes. We understand the proposed Huntington Beach Desalination Project is designed to withdraw an annual average of 106 MGD and discharge back to the ocean an average of 56 MGD of concentrated seawater with a salinity level of approximately 63 ppt. As such, it is not anticipated that future wastewater discharges at Treatment Plant No. 2 would be adequate to meet the receiving water limitations for salinity for either partial or full discharge of the desalination plant's 56 MGD discharge through OCSD's ocean outfall.

If you have any further questions or comments regarding this letter, please contact the undersigned at (714) 593-7450.

A handwritten signature in black ink, which appears to read "James E. Colston". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

James E. Colston
Director of Environmental Services

JC:on