

## CALIFORNIA COASTAL COMMISSION POSTPONES REVIEW OF POSEIDON DESAL PROJECT PERMIT

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The Poseidon desalination plant is a 50-million gallon per day facility to be located adjacent to the AES Huntington Beach Power Station. It is scheduled to be operational by 2019. The plant's development permit was on the agenda to be considered by the California Coastal Commission on Sept 7th or 8<sup>th</sup>, but that agenda item has been postponed to a future date.

On May 5, 2015, the State Water Resources Control Board adopted a statewide policy for developing Ocean Desalination plants in California. The policy addresses adverse effects ocean desalination plants can have on water quality, aquatic life, and other beneficial uses of California's ocean waters, including impacts of seawater intakes and brine discharges to the ocean. In July 2016, the Santa Ana Regional Water Board sent a letter to Poseidon detailing the process that the Regional Water Board will follow in determining whether Poseidon's project complies with the Statewide Desalination Policy.

On May 14, 2015, the Orange County Water District Board voted to accept a Water Purchase Agreement approving the use of desalinated water from Poseidon. On July 6, 2016, the District approved a preferred option that would require Huntington Beach, Newport Beach and Costa Mesa to use 100% desalinated water from Poseidon and pumping the unused desalinated water from Poseidon into the ground to regenerate the groundwater.

Currently, Orange County's water is derived from local groundwater basins, the Sacramento Delta and the Colorado River.

The Huntington Beach Poseidon desal plant will be the second in California. The Claude "Bud" Lewis Carlsbad Desalination Plant in Carlsbad, California has been in operation since December 2015. The Carlsbad plant is a 50-million gallon per day seawater desalination plant located adjacent to the Encina Power Station in Carlsbad, California. A 30-year Water Purchase Agreement is in place between the San Diego County Water Authority and Poseidon Water for the entire output of the plant.

### **The Independent Scientific and Technical Advisory Panel's Review of the Project**

In 2014, an Independent Scientific and Technical Advisory Panel defined the objectives and procedures for the scientific review of the project and a technical report was prepared by CONCUR, Inc., a California firm specializing in facilitation and mediation processes to resolve complex technical disputes. In Phase 1 of the process, the Panel assessed the technical feasibility of subsurface intake technologies for the desalination facility proposed by Poseidon for the Huntington Beach site. The Panel reviewed nine subsurface intake technologies and concluded that two of the technologies, namely, a seafloor infiltration gallery (SIG) and beach infiltration galleries (BIG), would be technically feasible at the site. Phase 2 assessed the feasibility of those two subsurface intake technologies, considering economic, environmental, and social factors applicable to the proposed project. The second panel was expanded to include experts in natural resource economics and environmental and social science to complement experts in engineering, water quality and constructability issues associated with desalination plants and alternative intake systems.

The Panel considered various definitions of “feasibility” as defined in the Coastal Act, in the California Environmental Quality Act, and in the recent State Water Resource Control Board amendment to the California Ocean Plan. The Panel considered the definition of economic feasibility adopted in the May 6, 2015 amendment to the Ocean Plan, approved by the State Water Resources Control Board that states, “Subsurface intakes may be determined to be economically infeasible if the additional costs or lost profitability associated with subsurface intakes, as compared to surface intakes, would render the desalination facility not economically viable.”

At the Huntington Beach location, the seafloor is approximately 42 feet below Mean Sea Level and the area is subject to almost continuous long-period ocean swells that prevent the efficient use of conventional marine floating equipment. The project is considering two possible construction types: (1) “trestle” - construction performed off of a trestle elevated above the waves, and (2) “float in” - floating prefabricated modular equipment would be constructed offsite and then installed at the designated location.

The desalination process will likely consist of a seawater reverse osmosis membrane process with membrane pretreatment, brine disposal, disposal of pretreatment residuals, and other fluid management requirements. The Panel concluded that, though technically feasible, the SIG project may not be economically viable at this time.

Our California environmental attorneys will continue to monitor the California Coastal Commission’s monthly agenda for further information on the approval of the Poseidon project.