

Fact Sheet: Lack of Need and Alternatives to the Poseidon Huntington Beach Seawater Desalination Project

Poseidon's Huntington Beach Seawater Desalination Project is Not Needed More Cost-Effective and Environmentally Sound Alternatives Are Available

Poseidon Water and the Orange County Water District (OCWD) are asking the Coastal Commission to approve the Poseidon Huntington Beach seawater desalination project.

But is the project really needed?

OCWD manages Orange County's extensive groundwater basin that provides water supplies to its member agencies. OCWD has not been able to secure any agreements from these water districts and cities to actually purchase the very expensive water the Poseidon project would produce (other than a very small amount of water at a discounted rate to the City of Huntington Beach). In testimony before the Santa Ana Regional Water Quality Control Board, OCWD officials admitted they don't have buyers for the water and that they would use the expensive Poseidon water to replace significantly less expensive water they currently buy from the Municipal Water District of Orange County (MWDOC).

Water from Poseidon's current plant in Carlsbad costs approximately \$2800 per acre foot which is a fair estimate of the cost of water that would come from the Huntington Beach facility. That water would be used to replace water that OCWD currently buys from MWDOC for about \$799 per acre foot – less than one-third of the cost of Poseidon water.

MWDOC adopted its most recent state-required "[Urban Water Management Plan](#)" in June 2021. The plan confirms that the "*water supplies available to the MWDOC service area are projected to meet full-service demands based on the findings by MET (Metropolitan Water District of Southern California) in its 2020 UWMP starting 2021 through 2045 during normal years, single dry year, and five consecutively dry years*" (page ES-3). MWDOC did not count on any water from the Poseidon Huntington Beach project in reaching this conclusion.

MWDOC wholesales water it buys from the MET to OCWD and other agencies. Over the past few decades, MET has made a series of smart water storage investments including constructing the off-stream Diamond Valley Reservoir and storing significant amounts of water in various groundwater basins. As indicated above, this additional storage capacity enabled MET to conclude in its [2020 Urban Water Management Plan](#) that it has sufficient supplies to meet Southern California water demands through 2045 even during significant drought events. As indicated above, MET did not include any water from the Poseidon desalination project in reaching this conclusion.

The ultimate policy question is whether significant damage to the environment and harm to low-income ratepayers should be allowed because OCWD prefers to replace reliable and less costly water they purchase from MWDOC with very expensive water from the privately-owned Poseidon project?

Better Alternatives Exist to Supplement Orange County's Water Supplies

Furthermore, there are more cost-effective alternatives available to meet future water needs. In February 2019, MWDOC adopted its "[Orange County Water Reliability Study](#)," which evaluated future water supply demands and alternatives to help meet Orange County's future water needs. MWDOC's independent analysis of six water supply alternatives including the Poseidon Huntington Beach project showed that:

- For the Orange County Basin (essentially OCWD's service area including northern and central Orange County):
 - "Need for additional water supplies is fairly small (and) OCWD has a number of pending projects that would provide significant supplies to meet the remaining gaps, or they can utilize demand curtailment at the level of 10% about once every 20 years to close the remaining gaps."
 - Poseidon Huntington Beach was the least cost effective of the alternatives reviewed.

- The Metropolitan Water District of Southern California’s Carson Regional Recycled Water Project would likely be the “least cost” alternative for increasing water supplies for this portion of Orange County.
- The Poseidon Huntington Beach project poses the most significant financial risk of the alternatives studied.

(Note: The Orange County Basin is a very significant groundwater resource)

- For Southern Orange County:
 - Although Southern Orange County does not have robust groundwater resources, MWDOC’s report also shows that Poseidon is not a cost-effective way to meet this area’s future water needs. (See page 25 of the MWDOC PowerPoint)
 - MWDOC study concludes that the “San Juan Watershed Project and Doheny (desalination) project provide cost-effective annual supplies and emergency supplies” that can meet south Orange County’s water needs. (see page 52 of the MWDOC PowerPoint)
 - In contrast to the Poseidon project, the Doheny project would use subsurface water intake technologies minimizing the environmental damage that would be caused by the project.

And of course, water conservation is the least expensive way to meet future water needs.

Major Water Recycling Projects Also Provide Better Alternatives

Water recycling facilities under consideration by MET and the City of Los Angeles’ Department of Water and Power could add more than 400,000 acre-feet of dependable capacity to Southern California’s annual water supply – about eight times the amount of water the Poseidon project would provide while reducing pollution discharged to coastal waters.

MET’s Carson Regional Recycled Water Project could provide 168,000 additional acre-feet of water for the Southern California region that includes Orange County. Water from the Carson project could be piped to Orange County meeting any potential need for additional water supplies. However, approval of the Poseidon project could divert needed funding away from more cost-effective and environmentally compatible projects like Carson. MWD is now seeking state funding to advance the design and planning for the Carson facility.

The City of Los Angeles’ “Operation Next” recycled water project at the Hyperion facility could expand the area’s annual water supply by 243,000 acre-feet while also decreasing the discharge of pollution to coastal waters. This facility could help meet a significant portion of the City of Los Angeles’ water needs freeing up other imported water that could be used in Orange County.

Together, the Carson and Operation Next projects are projected to create more than 59,000 jobs.

The bottom line is that the Poseidon project is not needed, the need for additional water supplies in Orange County is relatively small, conservation and existing MWDOC and MET capacity can meet those needs through 2045, and any future increased water demands can largely be addressed through conservation and several more cost-effective and environmentally compatible water supply alternatives.