OCEAN DAY FACT SHEET
OCEAN DESALINATION

Position Statement

Given the cost to the ratepayer, GHG emissions, and marine life impacts, ocean desalination should be an option of last resort and used cautiously only after water efficiency, stormwater capture, and water recycling have been fully considered. Once a community has no choice but to resort to ocean desalination, the project should fully comport with the statewide Ocean Desalination Policy.

- Ocean desalination is very expensive, costing on average four to eight times more than other options.
- Ocean desalination is the most energy intensive water supply option, resulting in significant greenhouse gas emissions.
- Multiple large ocean desalination projects are likely to have significant negative impacts to the valuable marine resources that California has invested millions of dollars to protecting.
- Experience demonstrates that large, expensive desalination facilities and associated infrastructure can take many years to build and bring online, yet the water demand and price may be insufficient to justify continued operation of the desalination plant when less expensive water supply and demand management alternatives are available: this creates significant financial risk for ratepayers and taxpayers.

Ocean Desalination is Very Expensive, Putting an Unnecessary Burden on Disadvantaged Communities

Desalinated water typically costs far more than preferred water resources such as conservation, efficiency, stormwater capture, and recycling: the average price per acre-foot of water produced by ocean desalination is four to eight times higher than alternative sources. These costs are passed on to consumers, some of which, already struggle to meet their monthly utility bills.

Water Supply	Cost per acre-foot
Agricultural Efficiency	$35 to $900
Water Efficiency	$223 to $522
Water Recycling	$300 to $1,300
Ocean Desalination	$1,900 to more than $3,000

According to studies, the Orange County Water Recycling Facility is between 35 percent and 75 percent less expensive than ocean desalination and will consume half the energy.

Ocean Desalination is Unreliable

In 1999, Florida approved the Tampa Bay facility with a capacity of 25 MGD. Project proponent – Poseidon – claimed that the cost of water would be very low and competitive with other local sources. The project was fraught with difficulties, and after 7 years, was still not in operation due to serious management and technological failures. Project proponents declared bankruptcy, forcing Tampa Bay Water to purchase the plant and assume full risk. Once the facility came online, the plant never operated reliably or to the expected capacity, driving up costs for rate-payers.

In 2016, the Posiedon-Carlsbad plant failed to deliver nearly 20 percent of the water that San Diego ordered from it. During the same period, there were 46 days when it delivered no water at all, according

to business and regulatory filings by the plant's owner, Poseidon Water. The plant's reliability has gotten worse since it first opened. As of 2017 Q3, Poseidon has only filled *43 percent of their promised allocation*.

We Do Not Oppose All Desalination

Monterey's CalAm project provides an example of how ocean desalination should ideally be done. CalAm was required to reduce its dependence on the Carmel River; which it did by first implementing water efficiency and water recycling measures before considering desalination. By implementing water efficiency and recycling first, CalAm sized its facility appropriately based on need, thereby reducing cost and energy demand. The smaller sized facility allowed CalAm to use environmentally preferred alternatives that include subsurface intakes; and brine dilution with treated wastewater.

Ocean Desalination Does Not Help the Delta, Colorado River, or Any Other Instream Flows

Water agencies are not proposing to leave water in waterways because of desalination. Southern California's water demand is too large to be offset by desalination, and agencies are not willing to pay for desalination to stop diversions from the Delta or Colorado River. The Metropolitan Water District of Southern California, the region's largest water utility, now provides subsides for desalination projects, but does so on the condition that desalination does not replace imported water.

Learn from Australia's Mistakes

When evaluating expensive desalination projects in response to pressing drought, California should learn from the past mistakes of Australia. Severe drought from the mid-1990s until 2012 prompted Australia to construct six large-scale seawater desalination plants at a cost of $10 billion Australian Dollars to provide an alternative source of drinking water.

The plants took years to build. By the time they were operational, the drought had eased, and cheaper alternatives made the water from the desalination plants impractical. Today, four of the six Australian plants stand idle, while water consumers continue paying $670 million annually for those plants without one drop of water being created.

RECOMMENDATIONS

- **DO NOT SUPPORT** Poseidon's Huntington Beach Seawater Desalination project. Leave politics out of the regulatory planning and allow California's regulatory agencies to do their job.
- **OPPOSE** any bill that sets a statewide desalination goal. Desalination goals encourage California to use the most expensive, unsustainable source of water available and diverts resources from local, resilient water supply alternatives, such as conservation and efficiency, stormwater capture and reuse, and water recycling.
- **SUPPORT** funding for water efficiency, stormwater capture, and water recycling so that communities will not have to resort to seawater desalination. ONLY fund brackish desalination that helps disadvantaged communities and communities that rely on polluted groundwater.

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