

THE ORANGE COUNTY REGISTER

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RENDERING COURTESY OF POSEIDON RESOURCE

An artist's rendering shows desalination facilities, in the bottom right-hand corner adjacent to the AES power plant in Huntington Beach.

Seawater desalination is water independence

By Denis R. Bilodeau

Managing our existing water supplies and planning for future needs require thoughtful deliberation. Significant fluctuations in the manifestation and intensity of seasonal weather conditions, symptoms of climate change, are becoming the new normal and there is no "one-size-fits-all approach" to dealing with its effects. Consider that, in just this current decade, California has gone from its most severe drought to one of its wettest winters in recorded history, and now back to a below-average winter snowpack this year. This unpredictability requires us to take a closer look at our traditional water resources and how we can diversify to reduce dependence on climate-dependent water supplies.

Let's not be mistaken. We must remain strong in our embrace of conservation, efficiency and wise water-use habits and look for opportunities to do more in these areas. However, adapting to climate change means that we must also put an increased emphasis on developing new local water resources. My goal is water supply independence for Orange County.

We should not be beholden to others for the most basic element of life. Clean water is essential to Orange County's public health and safety and economic stability.

This goal is shared regionally. The Metropolitan Water District of Southern California, in a letter last fall to the California State Lands Commission in support of the Huntington Beach Desalination Project, addressed the issues of drought and climate change and the need for greater water resource diversification as part of its own water reliability efforts. The letter explained how the district's "long-term Integrated Water Resources Plan (IRP) achieves diversification with an 'all of the above' approach [that] includes maintaining Colorado River Aqueduct supplies and restoring the reliability of the State Water Project, while also developing local climate-resilient resources such as seawater desalination." Even with imported water supplies expected to be secured by the CA Water Fix, Metropolitan anticipates a need for the additional 600,000 acre-feet per year of new, local supply by the year 2040 to meet future demand and to reduce dependence on imported supplies.

I have served on the Orange County Water District board for 18 years and wholeheartedly support the district's policies that emphasize the need to develop new, local water supplies like our world-renowned Groundwater Replenishment System as part of a diversification and water independence strategy.

OCWD supports Metropolitan's IRP local supply development goal and believes that Orange County's interests would best be served if it could meaningfully reduce its dependence on climate-driven, imported water supplies. For this very reason, it has actively been exploring for a decade the proposed Huntington Beach Seawater Desalination Project as a new, local water supply option for Orange County. With an annual production capacity of 56,000 acre-feet, it would be the single largest source of new, high-quality, locally controlled, droughtproof water available to the county.

OCWD also believes that the project can provide flexibility in how the district manages the Orange County groundwater basin. Specifically, the desalinated water could be used to augment supplies that we inject into our Talbert Seawater Barrier to help

prevent seawater intrusion into the groundwater basin and to buffer against any reductions in base flows from the Santa Ana River.

The Pacific Ocean offers an inexhaustible, droughtproof source of supply that can be used with the right environmental protection measures. Desalination opponents point to cost as a reason for their opposition. While we share concerns about cost, our own experience with GWRS confirms that smart capital investment today will save ratepayer dollars tomorrow.

At the price of a half-penny per gallon, seawater desalination is cost-competitive with the development of other new water supplies and on par with the household impact from the state's recent mandatory conservation measures. Nonetheless, that doesn't mean OCWD is without its concerns or is willing to overpay for desalinated water. We will continue to conduct our due diligence and only commit to purchasing water once state regulators approve a project we determine is economically feasible.

Denis R. Bilodeau, P.E., is the Orange County Water District board president.