

WORTH ONE'S SALT

CLOSE EXAMINATION OF TWO PROPOSED ORANGE COUNTY DESALINATION PROJECTS UNDERWAY



Welcome to **Orange County's Water Wise Lifestyle**, an ongoing series to help you navigate the new normal of California's water resources. Various water districts will be offering important information and tips along with rebates and cost-saving incentives for homeowners and businesses.

BY CATHI DOUGLAS

Orange County imports about 50 percent of its water from two increasingly strained sources: the Colorado River, which is providing Southern California with as much water as possible, and the Sacramento River Delta, which is laboring under conservation restrictions and divisive competing interests.

So it makes sense to consider other alternatives for providing clean, drinkable water to homes and piping in recycled water for irrigation. Why not treat and distribute readily available seawater from the Pacific Ocean?

WHAT DESALINATION DOES

One of the world's earliest forms of water treatment, desalination is a popular treatment solution throughout the world and is seen today as an increasingly important element of California's water supply.

There are two types of desalination: reverse osmosis and electrodialysis. It is a process that removes minerals from saline water.

According to CalDesal, a nonprofit organization of water industry leaders that leads efforts to expand ocean desalination, many Southern California water agencies are studying the process as a way to provide more reliable water supplies. Thanks to funding from bond measures, local agencies are moving ahead with feasibility studies, pilot projects and other research into desalination.

Opponents claim that desalination will lead to higher water prices and could damage the coastal environment.

WHERE DESALINATION IS UNDERWAY

To date, four California plants are in operation,

or readying to start: Carlsbad, Sand City, Santa Barbara and Avalon. The \$1-billion Carlsbad desalination plant constructed by Poseidon Resources is the largest desalination plant in the United States and began operating last December, providing 50 million gallons a day to 110,000 customers in San Diego County. In Santa Barbara, the Charles Meyer Desalination Facility, constructed in 1992, is expected to be re-activated in the summer of 2016. The new Pebbly Beach Generating Station in Avalon augments Catalina Island's fresh water supply with a maximum daily output of about 200,000 gallons.

California has 17 desalination plants in the works, either partially constructed or through exploration and planning phases. Two of these are in Orange County.

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SOUTH ORANGE COUNTY DESALINATION

Several South OC agencies studied the potential of a desalination plant at Doheny State Beach, but South Coast Water District is moving ahead with the project alone, with technical assistance from the Municipal Water District of Orange County.

With an estimated completion date of 2018, the Doheny Desalination facility could supply 15 million gallons a day of drought-proof, local drinking water.

"We want a reliable, sustainable, and drought-proof source of potable water for South Orange County," notes Andy Brunhart, general manager for South Coast Water District. "Proven, state-of-the-art reverse osmosis technology will be used and the intake system will utilize slant well to protect marine life."

HUNTINGTON BEACH DESALINATION PROJECT

The Huntington Beach Desalination Project is a 50-million-gallon per day facility in late-stage development adjacent to the AES Huntington Beach Power Station. It is scheduled to be operational by 2019.

"If the Coastal Commission approves it in July and the board members decide to move forward, we will start designing facilities to deliver water, prepare the Environmental Impact Report and begin final negotiations with Poseidon," says John Kennedy, executive director of Engineering and Water Resources for the Orange County Water District.

Desalination is the latest proposal to provide water to a parched region, notes Cathy Green, OCWD board president and former Huntington Beach City Council member. "I think we have done everything we can to find local drought-proof supplies of water, and the next logical step is desalination." ■

Learn More about the Water Wise Lifestyle at the OC Register's Knowledge Café:
ocregister.com/sections/knowledge-café

AGENCY PROFILE: CITY OF NEWPORT BEACH

With 53 square miles ranging from sea level to the San Joaquin Hills, the city of Newport Beach is in the coastal center of Orange County. It was incorporated in 1906. Newport Beach has more than 85,000 residents living in more than 38,000 households, but in the summer months the population grows to more than 100,000, with 20,000 to 100,000 tourists daily.

Newport Beach has an international reputation for its beautiful bay and eight miles of ocean beaches. It offers a multitude of unique shopping opportunities and a strong business community, and is has a high-quality school system. The city itself surrounds Newport Bay, where approximately 4,300 boats are docked, offering outstanding fishing, swimming, surfing, and aquatic sports activities.

Water service is provided by the city's Water Services Department.

Newport Beach announced April 1 that Mayor Diane Dixon has joined mayors from across the U.S. in the fifth annual Wyland Mayor's Challenge for Water Conservation. The contest runs through April 30, with cities of similar population competing for the most water and energy conserved during the month. Residents are encouraged to accept the challenge by visiting mywaterpledge.com to sign up, take a four-step conservation pledge, and see the city's current standings.

newportbeachca.gov/government/departments/municipal-operations/water-services

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CALENDAR OF EVENTS

OC GARDEN FRIENDLY EVENTS:

Free events where you can learn about **DROUGHT-TOLERANT LANDSCAPE**, efficient irrigation and how to save water and eliminate runoff.

APRIL 30: 8AM - 12PM
Home Depot - Costa Mesa
2300 S. Harbor Blvd.

CALIFORNIA LANDSCAPE TRAINING CLASS:

Learn Six Ways to Make Your Garden California Friendly.® Join us for an evening of **LANDSCAPING TIPS, DO'S AND DON'TS** of water wise gardening. RSVP Required: Call 949-644-3195

APRIL 21: 6 - 9PM
Newport Beach
100 Civic Center Dr.

Orange County's Water Wise Lifestyle page is brought to you weekly by the family of OC water providers, including the cities of Brea, Buena Park, Fountain Valley, Garden Grove, Huntington Beach, La Habra, Newport Beach, Orange, San Clemente, Seal Beach and Tustin, and the East Orange County, El Toro, Irvine Ranch, Santa Margarita, Serrano, South Coast, Trabuco Canyon and Yorba Linda water districts. The Municipal Water District of OC and the OC Stormwater Program are also participating.