



## CARLSBAD DESAL PLANT ONE-YEAR LANDMARK

The Claude “Bud” Lewis Carlsbad Desalination Plant provides the region with a new source of water that is drought-proof and something to celebrate. In December 2015 one of the most complex, unique and technologically advanced seawater desalination plants in the Western Hemisphere opened right here on the sunny shores of San Diego, California. This month the 50 million gallons per day Carlsbad plant and largest ocean desalination plant in the Americas will be celebrating its one-year anniversary.

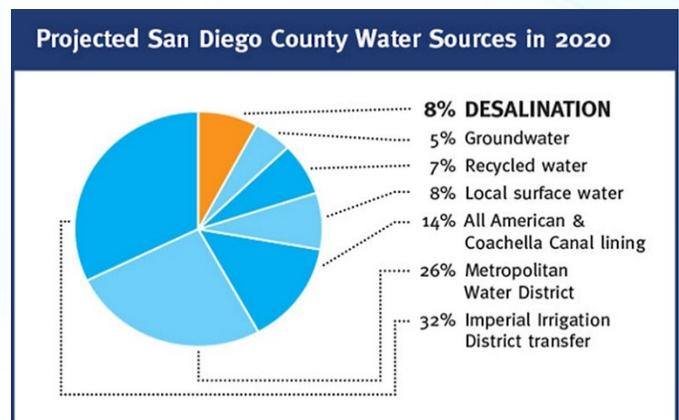
The plant arose out of an overwhelming concern for the regions lack of local water supplies. After suffering a severe drought lasting from 1987 to 1992 a proposed fifty percent cut to water deliveries for Metropolitan Water District’s member agencies was seriously being discussed by their board members. Metropolitan Water District supplied about 95 percent of the water used in the county at the time and had been a reliable source of water in the county. It was crucially apparent that we needed to diversify our supplies and ocean desalination soon became part of that plan. In 2000 Poseidon Water began a feasibility study for the building of a desalination plant and in 2001 the San Diego County Water Authority voted to spend \$50,000 to begin searching for good locations for the plant.

Since its opening the plant has been honored with numerous prestigious awards including: the Global Water Award as the International Plant of the Year for 2016 by Global Water Intelligence, the Grand Golden Watchdog Award for the project and unique collaboration between Poseidon Water and the San Diego County Water Authority, the 2016 Water Energy Nexus Champion by San Diego Gas & Electric (SDG&E), 2016 Project of the Year and National Award of Excellence by the Design-Build Institute of America to name a few.

With the extended drought conditions, diminishing sources and challenging treatment requirements driving the cost of traditional water sources higher and higher desalination has evolved into a much needed, highly desirable and viable water supply alternative. Since pioneering the use of evaporation and distillation by ancient Greeks, to turn seawater into potable water to meet their fresh water needs, there have been great advancements in this technology. A local born development the spiral module patented in 1964 by General Atomics of San Diego, CA is a more energy-efficient process than thermal distillation and is used in the Sea Water Reverse Osmosis process at the plant.

The plant is designed to produce 50 million gallons per day which is enough water for 400,000 people. So I think we can all breathe a little easier knowing that our quest for a dependable supply of local sources of this valuable commodity is well on its way to becoming a reality.

To learn more about the future of our water go to the San Diego County Water Authority website and type in <http://www.sdcwa.org/futureplanning>



**RAINBOW  
MUNICIPAL  
WATER  
DISTRICT**

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**FEATURE SPOTLIGHT**

Last month our wastewater and system operations crews banded together to replace an internal pump seal which prevents raw sewage or liquids from entering the motor house at our largest lift station/wet wells. Lift Station #2 located on Old River Road in Bonsall pumps an average of 400,000 gallons per day of sewage and services 3,800 customers. The replacement of a seal of this size normally takes a crew of three one to two days to complete.

A lift station or wet well is a holding sump for gravity-flow sewer systems. As sewage enters the wet well and the water levels rise pumps such as the one pictured below are engaged to pump out the sewage to a forced main or lifted to a higher grade to continue the gravity flow to the outlet point.

Continuous monitoring for abnormal or rising sewage levels in our systems is done through our Supervisory Control and Data Acquisition (SCADA) system. The SCADA allows operators to interface with the machinery to oversee and issue process commands to the system.



**BOARD MEMBER VACANCY – APPLICANTS SOUGHT FOR BOARD**

The Rainbow Municipal Water District is accepting applications from residents of Division 3 who are interested in being appointed to the District's governing board.

Candidates must be a resident of Division 3 (Water Code Section 71250). If you are unsure if you live in Division 3 you may contact the district's customer service staff at 760-728-1178 to find out or go to the Board section of our website and use the Mapping tool to the right of the page.

Interested persons who have the time to commit to the Board may contact the Board Secretary at 760-728-1178, Ext. 129. We will need your name, address and contact information, and a brief background of your education and experience. This information must be received by noon on January 15, 2017.

The Board intends to interview applicants at the January 2017 Board meeting and make the appointment either at that meeting or as soon as possible thereafter.