PLANNING FOR THE FUTURE





FACT SHEET

Water Supply Diversification

Y OF SAN DIEGO

The City of San Diego has been reliably delivering quality water to customers for more than 100 years and has developed one of the most complex and sophisticated water systems in the world. However, San Diego is not blessed with an abundant local water supply. With an average annual rainfall of 10 inches on the coast, San Diego invested in infrastructure to capture local rainfall and then to import the majority of its water, approximately 85 percent, primarily from the Colorado River and the State Water Project in the Sacramento-San Joaquin Delta.

Today, rising imported water costs, population growth and ongoing drought presents a challenge to San Diego's water reliability. The City and the region are experiencing water supply reliability and sustainability challenges, resulting in a regional declaration of Drought Alert. The ongoing drought present situation further underscores the importance of local strategic planning for short-, mid- and long-term water supplies.

Pure Water San Diego Program

The City is moving forward on a program which will purify recycled water for drinking and ultimately provide a third of San Diego's water supply needs by 2035. The first phase is slated to produce 15 million gallons of water per day (MGD) by 2021.

Pure Water San Diego uses proven technology to purify recycled water through membrane filtration, reverse osmosis and advanced oxidation with ultraviolet light and hydrogen peroxide. To confirm the viability and safety of the water purification process, the City conducted a one-year demonstration project. One million gallons of water were purified every day for a year at the City's Advanced Water Purification Facility. More than 9,000 water quality tests and rigorous daily monitoring ensured no contaminants were present in the water and that recycled water can be purified and safely added to a reservoir. The California Department of Public Health (now the State Water Resources Control Board Division of Drinking Water Programs) and San Diego Regional Water Quality Control Board approved the water purification concept and confirmed the purified water meets all federal and state drinking water standards.

On November 18, 2014, the San Diego City Council voted unanimously to approve the advancement of Pure Water San Diego, which includes the City's submittal of an application to the U.S. Environmental Protection Agency to renew the modified permit for the Point Loma Wastewater Treatment Plant. Without the permit, the City would need to upgrade Point Loma Wastewater Treatment Plant to secondary treatment requirements, which would cost \$1.8 billion, require overcoming extreme space constraints and would produce no new water. Investing in the Pure Water program and seeking federal solutions to allow San Diego to meet modified secondary standards will eliminate the need for the costly upgrades, enable the City to divert more water for recycling, and reduce ocean discharges.







An initial 15 MGD water purification facility is planned to be in operation by 2021. The long-term goal, producing 83 MGD (one-third of San Diego's future drinking water supply), is planned to be reached by 2035. Pure Water will divert approximately 100 million gallons per day of wastewater from the Point Loma plant to three future advanced water purification facilities located at the North City Water Reclamation Plant, South Bay Water Reclamation Plant and a future centralized facility.

Free tours of the Advanced Water Purification Facility are available to members of the public. During the tour, participants get an up-close look at the water purification technology and have the opportunity to compare samples of purified, tap and recycled water. Visit **purewatersd.org** to sign up for a tour or presentation and learn more about Pure Water San Diego.

Groundwater

The City is exploring the feasibility of using local groundwater basins for augmenting water supply and providing water storage. Currently, the City is also generating 500 acre-feet of water, enough to sustain 2,000 houses for a year, from existing wells in East County. The City is partnering with the Sweetwater Authority on a groundwater desalination facility expansion that provides up to 2,600 acre feet of water to San Diego per year by 2018. The City is also actively exploring other areas of the region, coordinating with the U.S. Geological Survey and the U.S. Bureau of Reclamation. For more information, visit **http://bit.do/groundwater**.

Recycled Water

To meet future water demands while reducing our dependence on imported water, the City of San Diego has built the North City Water Reclamation Plant and the South Bay Water Reclamation Plant. These plants treat wastewater to a level that is approved for irrigation, manufacturing and other non-drinking (non-potable) purposes. The North City plant has the capability to treat 30 million gallons a day and the South Bay plant can treat 15 million gallons a day. Recycled water gives San Diego a dependable, year-round, locally controlled water resource. The City will continue to service customers along the City's recycled water distribution system, with approximately 660 connections in place in 2015. For more information, visit http://bit.do/recycled.

Rainwater Harvesting

Capturing rain from your roof is a quick way to conserve water and help prevent pollution by reducing the amount of runoff entering our storm drain system. The City initiated a rainwater harvesting program as a tool to raise public awareness of water issues, promote customer responsibility, and reduce imported water use. For more information, visit http://bit.do/rainbarrel.

Ocean Desalination

As the largest member agency of the San Diego County Water Authority, the City is supporting the Carlsbad Desalination Project, which includes the largest, most technologically advanced and energy-efficient seawater desalination plant in the Western Hemisphere. The plant will produce desalinated water for use throughout San Diego County.

The \$1 billion project is expected to produce drinking water for the San Diego region in fall 2015, providing a major new drought-proof water supply that will meet about 7 percent of the county's water demands. It will produce 50 MGD and account for about one-third of all the water locally generated in San Diego County. For more information, visit **sdcwa.org**.





