

AMY DORMAN

ASSISTANT DIRECTOR, PURE WATER PROGRAM. CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT



CITY OF SAN DIEGO'S PURE WATER PROGRAM

In August 2021, construction began on the largest infrastructure project in the history of the City of San Diego. When completed in 2035, the potable Pure Water system will generate nearly half of the City's drinking water.

Pure Water will use proven purification technology to clean recycled water and produce safe, high-quality drinking water. The program offers a cost-effective investment for San Diego's water needs and will provide a reliable, sustainable supply.

The fact that the water will be locally produced is significant because currently San Diego imports as much as 90% of its water. With threats of recurring droughts in California, having a local water resource is more important than ever. That is why the Pure Water Program is a key part of San Diego's Climate Action Plan for the City's resilience.

Pure Water will be a massive system built in two phases. Last year the City broke ground on Phase 1, which is scheduled to be completed in 2025. This phase consists of 11 construction projects, including the North City Pure Water Facility, pump stations and pipelines. Once completed, the City will be able to deliver 30 million gallons a day (mgd) of purified water to customers. Phase 2 is still in the planning stage but will include similarly intricate construction projects and produce an additional 53 mgd of purified water.

Because the construction projects are occurring in several neighborhoods, the City conducts a major outreach program to keep the public informed through regular presentations, meetings and social media posts. The Pure Water website includes interactive maps that allow residents to see regularly updated construction schedules and how they will affect their areas. The website also has a virtual tour video of the Pure Water Demonstration Project that shows viewers a step-by-step description of how the system works.

The process of turning wastewater into drinking water is complex. Wastewater will be diverted from the City's

Point Loma Wastewater Treatment Plant and pumped to the North City Water Reclamation Plant. The recycled water will then be transferred to the Pure Water Facility where it will undergo a state-of-the-art, five-step treatment process that includes ozonation, biological activated carbon filters, membrane filtration, reverse osmosis and ultraviolet light with advanced oxidation.

The water will then be transferred to a City reservoir and processed at a water treatment plant before it's delivered to customers through the City's water distribution system. With the completion of Phase 1, San Diego will be one of the first water suppliers to implement indirect potable reuse with a reservoir.

Upon the implementation of Pure Water, flows and solids loading to the Point Loma Wastewater Treatment Plant will be reduced. This diversion of flows to the plant will have a direct beneficial effect on overall plant discharge into the Pacific Ocean.

Phase 1 will cost approximately \$1.5 billion for planning, design and construction. Two Water Infrastructure Finance and Innovation Act (WIFIA) loans from the U.S. EPA are providing funding for up to \$733.5 million toward the Phase I projects. Additional funding for the construction is from Clean Water and Drinking Water State Revolving Fund loans in the amount of \$665.1 million and more than \$80 million in federal and state grants. The City will also receive a \$340 credit from the Metropolitan Water District of Southern California for every acre-foot of water produced in the Pure Water Program for 25 years. This corresponds to a credit of \$285.6 million over the life of the agreement. The costs for Phase 2 are being prepared, but the City will look for similar financial assistance.

Once fully operational, Pure Water will allow San Diego to better endure drought conditions and become a more sustainable city.

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