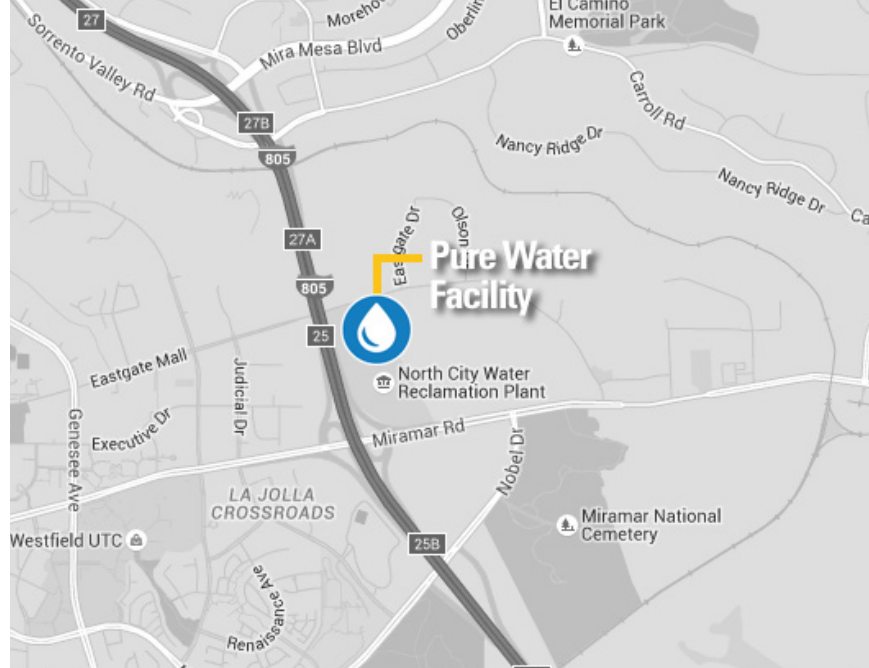


The North City Pure Water Facility is scheduled to produce 30 million gallons of purified water per day beginning in 2021. By 2035, San Diego will produce 83 million gallons of purified water per day, which is 1/3 of San Diego's future water supply needs. Learn more about the Pure Water San Diego Program at www.purewatersd.org.

Request a presentation about Pure Water San Diego for your group or organization at www.purewatersd.org/presentations or call (619) 533-7572.



Tasting is **Believing**

You are invited to tour the demonstration Pure Water Facility. During the free walking tour, you will see and learn about each step of the water purification process up close and have the opportunity to compare samples of purified water produced at the facility to tap, recycled and bottled water.

The demonstration Pure Water Facility is located at the North City Water Reclamation Plant at 4949 Eastgate Mall, San Diego, CA 92121. Register for a public tour at www.purewatersd.org/tours or call (619) 533-7572.

Want to **know more?**

Visit www.purewatersd.org and sign up for a free tour of the demonstration Pure Water Facility!



Pure Water San Diego



PureWaterSD



@PureWaterSD



purewatersd

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Pure Water
San Diego

The City of
SAN DIEGO

A look at the technology behind

SD Pure Water
San Diego

A safe, reliable and sustainable
drinking water supply for San Diego

Innovation for San Diego's Water Future

Pure Water San Diego is the City's phased, multi-year program that uses proven water purification technology to clean recycled water to produce safe, reliable, high-quality water. Pure Water will provide 1/3 of San Diego's water supply locally by 2035.

The Purification Process

The demonstration Pure Water Facility began operating in June 2011 and purifies one million gallons of recycled water every day. More than 28,000 water quality tests have confirmed the purified water produced meets all federal and state drinking water standards. The facility's water purification process uses a multi-barrier approach of consecutive treatment steps which work together to remove or destroy contaminants. Each barrier includes frequent and continuous water quality monitoring, and safeguards are built into the process to ensure public health protection. Here is a look at the process, which starts with recycled water that is clean enough to be used for irrigation and industrial purposes:

The Process

Barrier 1
Ozonation



Ozone is a gas produced by subjecting oxygen molecules to high electrical voltage. The ozone gas is infused into the water and the water travels through a long series of pipes, called the ozone contactor. The ozone destroys microorganisms and reacts with and breaks down contaminants in the water. Prior to the next step, the ozone is consumed and breaks down into oxygen.

Barrier 2
**Biological
Activated Carbon
Filters**



Biological activated carbon (BAC) filters are filled with carbon granules covered in "aerobic" bacteria, which thrive in the presence of oxygen. The bacteria on the granules consume 30-50% of the organic matter (anything that is or was living). The "helpful" bacteria, along with any other bacteria still in the water, are removed in the next treatment step.

Barrier 3
**Membrane
Filtration**



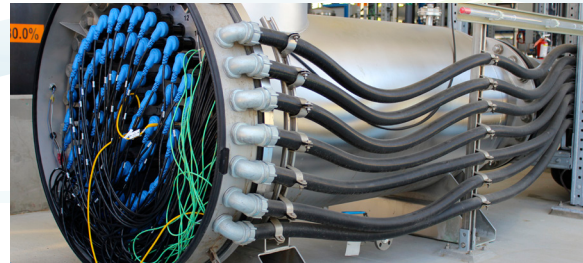
Membrane filtration uses canisters filled with straw-shaped hollow fibers that provide 99.99% removal of microscopic particles including suspended solids, bacteria and protozoa. The filters are tested daily to confirm their consistent removal of contaminants. The pores in the fibers are smaller than 1/300 the diameter of a human hair.

Barrier 4
Reverse Osmosis



Reverse osmosis uses high pressure to force water through spirally wound membranes that remove most salts and minerals, and 99% of dissolved organics, including pharmaceuticals and personal care products. This process is used by the bottled water industry.

Barrier 5
**Ultraviolet
Disinfection/
Advanced
Oxidation**



Inside a reactor are 72 ultraviolet lights that break down the DNA of any microbes or viruses. At the same time, advanced oxidation generates powerful reactive molecules that oxidize and destroy any trace contaminants that may remain in the water.

San Diego is among many innovative cities implementing water purification technology to provide a safe, reliable and sustainable drinking water supply.