The City of SAN DIEGO

Pure Water San Diego

Media Kit

The City *of*
SAN DIEGO

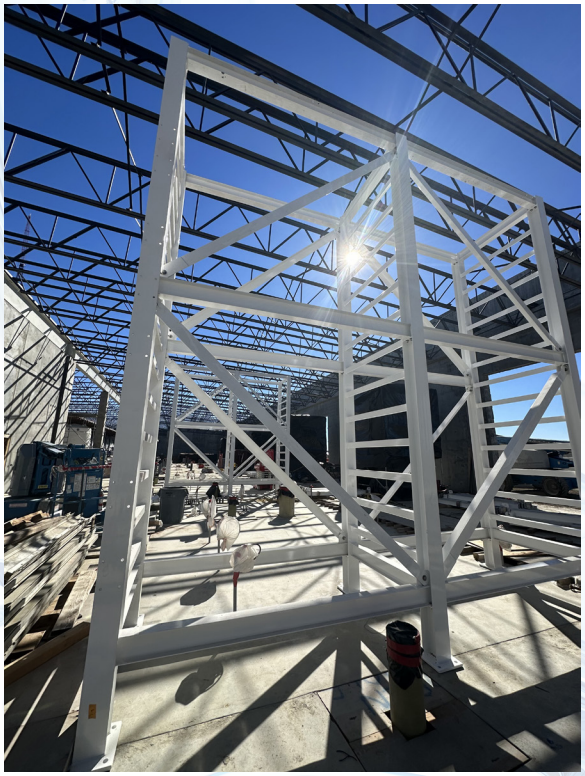
Media Contact Information

Please contact our press team with any inquires with the contact information below. Pure Water Photos can be provided upon request.

sandiego.gov/communications

Media Line: 619-533-4555

communications@sandiego.gov



Pure Water San Diego Program

The City of SAN DIEGO

Completing our Water Cycle, Securing our Future

Why is Pure Water San Diego Being Implemented?

San Diego relies on importing 85% of its water supply from the Colorado River and Northern California Bay Delta. The cost of this imported water has tripled in the last 15 years and continues to rise. With limited local control over its water supply, the City of San Diego is more vulnerable to droughts, climate change and natural disasters.

What is Pure Water San Diego?

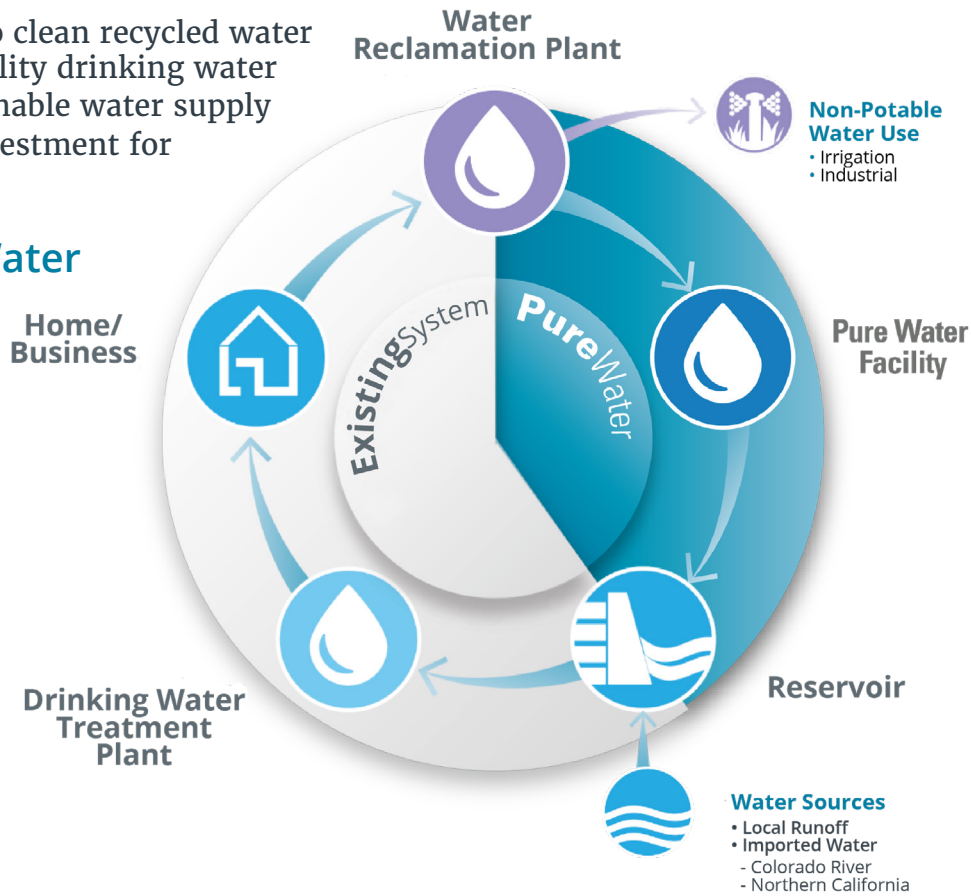
Pure Water San Diego is a phased, multi-year program that will provide nearly half of San Diego's water supply locally by 2035.

The Pure Water Program:

- Uses proven technology to clean recycled water to produce safe, high-quality drinking water
- Provides a reliable, sustainable water supply
- Offers a cost-effective investment for San Diego's water needs

How Does the Pure Water Program Work?

With San Diego's existing water system, only 8% of the wastewater leaving homes and businesses is recycled; the rest is treated and discharged into the ocean. The Pure Water Program transforms the City's water system into a complete water cycle that maximizes our use of the world's most precious resource—water.

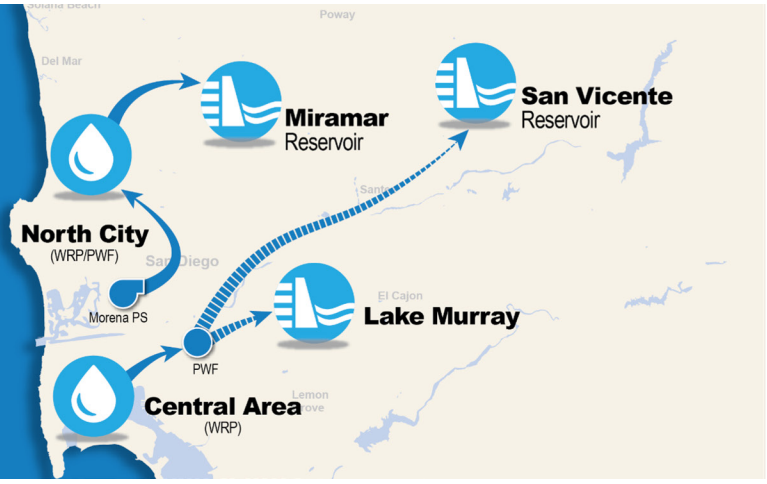


Questions? Visit purewatersd.org or email purewatersd@sandiego.gov

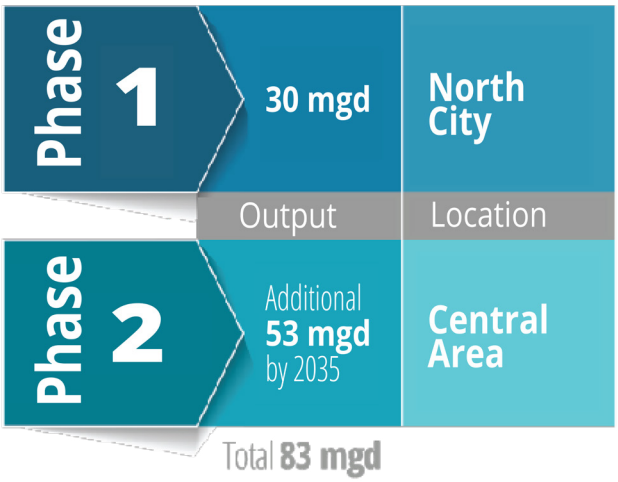
October 2023

Where is the Pure Water Program?

The Pure Water facilities will be located in two different geographical areas: North City (Phase 1) and Central Area (Phase 2).

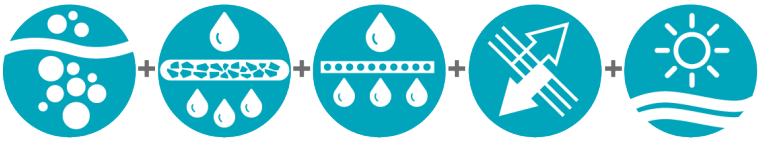


When Will the New Facilities be Built?



**mgd = million gallons per day*

What are the Steps of the Water Purification Process?



Since June 2011, the City has produced 1 million gallons of purified water every day at its Pure Water Demonstration Facility.

More than 50,000 water quality tests have confirmed the water is safe and meets all federal and state drinking water standards.

Did You Know?

The Pure Water Program is the largest integrated infrastructure program the City of San Diego has undertaken.

What will the New Facilities Cost?

Phase 1 of the Pure Water Program will cost $1.5 billion for planning, design and construction. Phase 2 costs are currently being prepared.

Local residents, community groups, environmental organizations and local businesses support the Pure Water Program.

Do you support Pure Water? Like us, follow us:

@PureWaterSD

Want to Know More?

Visit purewatersd.org for more information on the Pure Water Program and the individual projects that make it possible.

Pure Water San Diego

Pure Water San Diego | Phase 1 Projects

The City of SAN DIEGO

Completing our Water Cycle, Securing our Future

What is Pure Water San Diego?

Pure Water San Diego is the City of San Diego's (City) program that will provide nearly one-half of San Diego's water supply locally by 2035. The Pure Water Program will include a system of treatment facilities, pump stations and pipelines that will be constructed in multiple phases and will:

- Use proven technology to clean recycled water to produce safe, high-quality drinking water
- Provide a reliable, sustainable, water supply
- Offer a cost-effective investment for San Diego's water needs

	Output	Location
Phase 1	30 mgd	North City
Phase 2	Additional 53 mgd by 2035	Central Area

Total **83 mgd**

**mgd = million gallons per day*

What Does Phase 1 Include?

The Pure Water Program is the largest integrated infrastructure program the City of San Diego has ever undertaken. Phase 1 - North City is comprised of several projects that will deliver 30 million gallons per day (mgd) of purified water for San Diego. The purified water will be piped to the Miramar Reservoir for storage and then will be treated again at the Miramar Drinking Water Treatment Plant before it is distributed to the public.

The projects under construction as part of Phase 1 include the Morena Pump Station, Morena Pipelines Southern and Middle Alignment, Morena Pipelines Northern Alignment, North City Water Reclamation Plant Expansion, and Flow Equalization Basin, the North City Pure Water Facility and Pump Station, the North City Pure Water Pipeline and Metropolitan Biosolids Center Improvements. A detailed map of the project locations can be viewed at phase1.purewatersd.org.

Phase 1 - North City

Legend

- Water Reclamation Facilities
- Pure Water Facilities
- Drinking Water Facilities
- Biosolids Facilities

Stay Connected!

Sign Up For Construction Updates

October 2023

Phase 1 - North City Projects

Morena Pump Station

The Morena Pump Station will be constructed at the southwest corner of Sherman Street and Custer Street off Morena Boulevard, just north of Interstate 8 and east of Interstate 5. When completed, the pump station will divert 32 million gallons per day (mgd) of wastewater to the North City facilities for purification.

Morena Conveyance South & Middle and Conveyance Bike Lanes

The Morena Conveyance South & Middle and Conveyance Bike Lanes project will connect the Morena Pump Station at Sherman and Custer Streets in Bay Park with the Morena Pipelines Northern Alignment and Tunnels in University City. This project includes portions of two 10.5-mile pipelines: one 48-inch wastewater pipeline, which will carry wastewater north to the North City facilities for purification, and one 30-inch brine line that will carry the biproduct from water purification south to the Point Loma Wastewater Treatment Plant.

The Morena Pipelines Middle Alignment begins on Clairemont Drive Iroquois Avenue to Clairemont Mesa Boulevard (north of Clairemont Town Square), Clairemont Mesa Boulevard to Genesee Avenue and Genesee Avenue to between Appleton Street and State Route 52.

The Morena Pipelines Southern Alignment begins at the Morena Pump Station at Sherman Street and Custer Street and continues north on Morena Boulevard, Milton Street, Chicago Street and Denver Street to Clairemont Drive. This project will install improved bikeways along the following impacted roads within the project limits: Genesee Avenue, Clairemont Mesa Boulevard, Clairemont Drive, Morena Boulevard and West Morena Boulevard.

Morena Pipelines Northern Alignment and Tunnels

The Morena Pipelines Northern Alignment and Tunnels will connect to the Morena Pipelines Middle Alignment to the south and the North City Water Reclamation Plant to the north. This project begins on Genesee Avenue between Appleton Street and State Route 52 and continues on Genesee Avenue, Nobel Drive, Towne Centre Drive and Executive Drive. Tunneling will be completed at Genesee Avenue and SR-52, at Genesee Avenue and Rose Canyon, and under Interstate 805. It will also carry wastewater north to the North City facilities for purification and the biproduct from water purification south to the Point Loma Wastewater Treatment Plant.

North City Water Reclamation Plant (NCWRP) Expansion

This project will increase the amount of recycled water the NCWRP produces. The NCWRP is located on Eastgate Mall and treats wastewater to recycled water standards for irrigation and industrial uses. The plant capacity will increase from 30 mgd to 52 mgd to continue to meet non-potable water demands, as well as supply to the NCPWF. A new pump station located at the NCWRP will convey up to 42 mgd of recycled water to the new NCPWF across the street for further purification.

NCWRP Flow Equalization Basin

As part of the North City Water Reclamation Plant (NCWRP) expansion, a new Flow Equalization Basin will be constructed to expand the capacity of the primary effluent storage. The Flow Equalization Basin will expand the capacity of the primary effluent storage and it will regulate the peak wastewater flow rates in order to balance flow rates to the plant treatment processes.

North City Pure Water Facility (NCPWF) and Pump Station

A new Pure Water Facility will be built on Eastgate Mall across the street from the existing NCWRP to clean the recycled water further to produce 30 mgd of safe, high-quality water that meets all state and federal drinking water standards. The NCPWF will use the proven five-step water purification process of ozonation, biological activated carbon filters, membrane filtration, reverse osmosis, and ultraviolet disinfection with advanced oxidation. Upon completion, the pump station will convey purified water to the Miramar Reservoir for storage.

North City Pure Water Pipeline, Dechlorination Facility & Subaqueous Pipeline

This project will transport purified water produced at the NCPWF to Miramar Reservoir. An 8.4 mile long pipeline will convey 30 mgd of purified water and will start on Eastgate Mall, follow Miramar Road, and continue through Scripps Ranch and end in the Miramar Reservoir for storage.

Miramar Reservoir Pump Station Improvements

Operational improvements associated with the treatment of purified water will be made to the Miramar Pump Station. The Miramar Pump Station will convey 30 mgd of purified water to Miramar Reservoir.

Metropolitan Biosolids Center (MBC) Improvements

MBC is the City's regional biosolids facility that receives and processes solids from both the NCWRP and the Point Loma Wastewater Treatment Plant. To accommodate the increase in flows and loadings that will result from the NCWRP expansion, this project involves upgrades at MBC, including equipment replacements and improvements.

Local **residents**, community **groups**, environmental **organizations** and local **businesses** support the **Pure Water** Program.

Do you support Pure Water? Like us, follow us:

@PureWaterSD

Want to Know More?

Visit virtualtour.purewatersd.org to tour the Pure Water Demonstration Facility.

Pure Water San Diego

October 2023

Pure Water San Diego FAQ

The City of SAN DIEGO

Completing our Water Cycle, Securing our Future

What is Pure Water San Diego?

Pure Water San Diego is the City of San Diego's phased, multi-year program that will provide nearly half of San Diego's water supply locally by the end of 2035. The Pure Water Program will use proven water purification technology to clean recycled water to 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 water supply.

What are the steps to purify recycled water?

The water purification process includes five steps: ozonation, biological activated carbon filters, membrane filtration, reverse osmosis, and ultraviolet light with advanced oxidation. The water purification process is constantly monitored to make sure all water meets water quality standards.

How was it determined that purifying recycled water is safe?

Pure Water is as pure and safe as the water you drink now. It goes through a state-of-the-art, five-step treatment process that starts with water that has already been cleaned three times – known as "recycled water." This water is purified so that all potentially harmful substances are taken out of the product water. More than 50,000 tests have been performed to date on the purified water at the San Diego Pure Water Demonstration Facility with outstanding water purification results. Like the rest of our water, Pure Water is subject to stringent regulations for quality.

What other places have implemented water purification projects?

There are several similar operating projects, including the Groundwater Replenishment System in Orange County, which has operated since January 2008 and uses nearly the exact same technology to purify its water. There are several other potable water facilities in the United States as well as internationally.

When will the water be part of the drinking water supply?

By 2035, the City will produce 83 million gallons of purified water daily, which is nearly half of San Diego's water supply needs. At full build out, the purified water will be distributed to all communities in the City of San Diego.

Where are the Pure Water facilities being built?

The new advanced treatment facility for Phase 1 of Pure Water San Diego is being built across the street from the North City Water Reclamation Facility in the University City area, and the pipelines that will take the water to Miramar Reservoir go along Miramar Road and through parts of Mira Mesa and Scripps Ranch.

What's the schedule for the Pure Water Program?

Phase 1 of the Pure Water Program will begin producing purified water in 2025, starting with purified water production of approximately 7.5 million gallons per day (mgd) and then ramping up to 30 mgd once the Morena Pump Station comes on line (likely a year after the launch of operations). We expect Phase 1 to conduct start-up testing efforts in 2025, and distribution of the water to begin thereafter. Phase 2 is set to produce an additional 53 mgd of new purified water by the end of 2035. All in all, the Pure Water program will provide a year-round supply with an annual average of 93,000 acre-feet per year. An acre-foot is a measurement that equates to filling one acre with one foot of water.

How much will the program cost?

The Pure Water Program is a forward-thinking, cost-effective investment for the City of San Diego that will help ensure a local, sustainable water supply for generations to come. Phase 1 of Pure Water will cost approximately $1.5 billion for planning, design and construction. The operations and maintenance costs for Phase 1 are projected to be a little less than $60 million per year. Phase 2 costs are currently being prepared.

How will Pure Water San Diego be funded?

The City has received and continues to apply for grants and low-interest loans from both the federal and state governments, which will accrue direct savings to ratepayers. Grants do not have to be repaid, but loans must be repaid over time. To fund the Phase 1 projects, the City has been diligent in pursuing and securing as much federal and state funding as possible. To date, the City has received low-interest loans totaling $733.50 million from the Federal government and $664 million from the State of California, as well as $81.5 million in grants. The costs for Pure Water Phase 1 were included in recent water and wastewater cost of service studies conducted by the City of San Diego, and are then factored into water and wastewater rates.

How will Pure Water San Diego impact my water and wastewater rates?

We anticipate rates will increase at a slower rate because of this project compared to the cost of water without this project. The cost of the project will be spread across the entire ratepayer base that includes both residents and businesses. You will always get a notice in advance of any proposed increase in water and wastewater rates – no matter the reason why rates are being raised – and rate changes adhere to the California Proposition 218 process for public utility rate-setting.

How does the cost of water purification compare with other sources?

Costs associated with our traditional sources of imported water increase annually and are reflected in your water bill. Imported water costs have more than tripled since 2000 and are projected to continue to rise in the future. Having local water supply sources will continue to be vital to protect our economy and quality of life in San Diego. Within the next 10 to 15 years, the City expects that the cost of purified water will be comparable to or less than imported sources. This new, local, drought-proof water supply is very cost competitive with other new supplies such as ocean desalination and will be available year-round.

How else will the Pure Water program benefit San Diego?

The City of San Diego operates the Point Loma Wastewater Treatment Plant (PLWTP), which currently processes the wastewater generated by 2.5 million people from the City of San Diego and 15 adjacent cities. The PLWTP began operation in 1963 and is located on a constrained 40-acre site on a bluff facing the Pacific Ocean. Upgrading this facility from its current advanced primary treatment level to the federal standard secondary treatment level would be logistically challenging and exceedingly expensive due to its difficult location. In an effort to find an alternative to the expensive and environmentally impactful upgrades to the PLWTP, a coalition of City leaders, environmental organizations, business groups and residents pursued the idea of potable reuse for San Diego, which ultimately became Pure Water San Diego. The City has been able to work with the Federal Government on proposed modifications to the Clean Water Act by agreeing to advance Pure Water San Diego, which significantly curtails future wastewater flows to the PLWTP. Ultimately, Pure Water San Diego will significantly reduce treated discharges into the Pacific Ocean, in addition being a local water supply source for San Diego.

Local **residents**, community **groups**, environmental **organizations** and local **businesses** support the **Pure Water** Program.

Do you support Pure Water? Like us, follow us:

@PureWaterSD

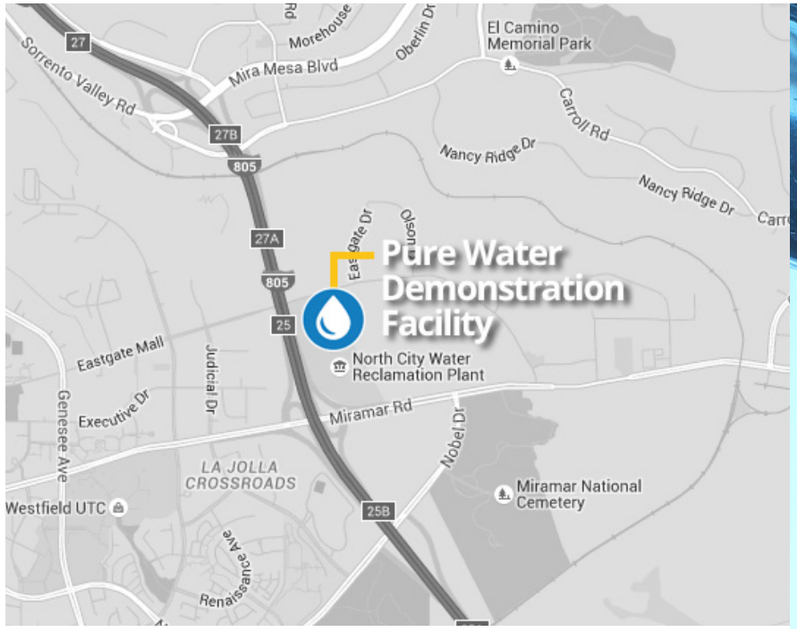
Want to Know More?

Visit purewatersd.org for more information on the Pure Water Program and the individual projects that make it possible.

Pure Water San Diego

The NCPWF will produce 30 million gallons of purified water per day. Learn more about the City of San Diego's Pure Water Program at www.purewatersd.org.

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



Tasting is **Believing**

You are invited to tour the Pure Water Demonstration Facility. During the walking tour, you will see and learn about each step of the water purification process up close and have the opportunity to taste the purified water produced at the facility.

The Pure Water Demonstration 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 Pure Water Demonstration Facility!

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Contact us:
Pure Water San Diego Program
9192 Topaz Way
San Diego, CA 92123
purewatersd@sandiego.gov
(619) 533-7572

Pure Water San Diego

(REVISED 12-2018)

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 Pure Water Demonstration Facility began operating in June 2011 and purifies one million gallons of recycled water every day. 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.

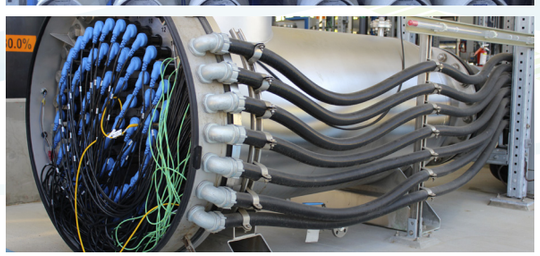
Barrier 3 **Membrane Filtration**

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 agencies implementing water purification technology to provide a safe, reliable and sustainable drinking water supply.

The City of SAN DIEGO

ANNUAL DRINKING WATER QUALITY REPORT 2022

City of San Diego's Tap Water Supply Meets All State and Federal Health Standards in 2022

The City of San Diego is committed to providing you with a clean, safe and stable water supply. It's the priority of every employee of the City's Public Utilities Department. Those efforts matter. Based on the water quality monitoring data collected in 2022, the City's tap water met all state and federal drinking water health standards, which are the primary standards for treating and monitoring water. The U.S. Environmental Protection Agency (EPA) and the California Division of Drinking Water mandate all water agencies produce an annual document educating customers about their drinking water quality for the previous year. This annual Drinking Water Quality Report details the origin of the City's water supply, what it contains and how it meets health standards.

Message from the Public Utilities Director

You may not give much thought to the water that you use every day, or the process it takes for you to receive that water. But in fact, there's a lot involved in bringing water to our customers.

Today, we import about 90% of our water, which then goes through a rigorous water quality treatment process. Once that is complete, a complex system of pumps, valves and pipelines delivers the water to you. This entire process is overseen by a dedicated team of men and women to make sure your water quality meets all state and federal standards and regulations.

It is the job of all of us to make sure we use our water efficiently and not waste this precious resource.

I encourage you to read through this Drinking Water Quality Report to learn more about the water we use daily and how to use it wisely.

Thank you,

Juan Guerreiro
Director of Public Utilities
City of San Diego

CONTACT

Public Utilities Emergency Hotline	619-515-3525
General and Billing Information	619-515-3500
Water Quality Lab	619-668-3232
	drinkingwaterquality@sandiego.gov
Capital Improvements Projects	619-533-4207
City Reservoirs Recreation	619-465-3474
Pure Water Program	619-533-6638
Stormwater Pollution Prevention	619-235-1000
Report Water Waste	619-533-5271

VISIT

City of San Diego Public Utilities	sandiego.gov/public-utilities
San Diego County Water Authority	sdcwa.org
Metropolitan Water District	mwdh2o.com
California Division of Drinking Water	waterboards.ca.gov
U.S. EPA	water.epa.gov/drink
American Water Works Association	awwa.org
Be Water Wise	bewaterwise.com
Pure Water Program	purewatersd.org
Think Blue	thinkblue.org

ENGAGE

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Water Supply – What's in Your Water Before It's Treated?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- Radioactive contaminants that can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Imported Water Supply and the Impact on Water Quality

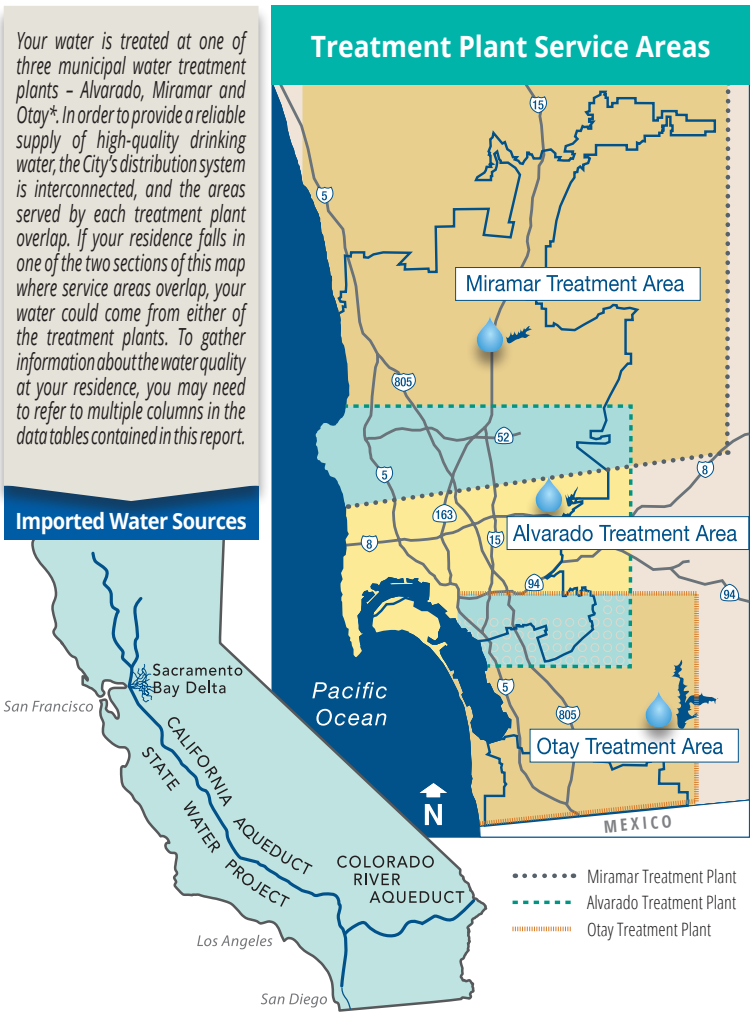
The City of San Diego currently imports most of its water supply, the bulk of which is raw (untreated) water purchased from the San Diego County Water Authority. All raw water is treated before entering the City's drinking water distribution system.

Less than 10% of the imported water purchased from the County Water Authority is a blend of treated water from the Metropolitan Water District's Skinner Water Treatment Plant, the County Water Authority's Twin Oaks Valley Water Treatment Plant and the Carlsbad Desalination Plant.

Most of the imported water from the County Water Authority is a blend from the Colorado River and State Water Project (see map below).

Throughout the year, the ratio of water from each source changes. The constituents that make up the City's source water are influenced by the water source, climate, geology and the land activities that they flow through. The City continually monitors the source water and adjusts its treatment process to ensure that the water is always healthy and safe.

Your water is treated at one of three municipal water treatment plants – Alvarado, Miramar and Otay. In order to provide a reliable supply of high-quality drinking water, the City's distribution system is interconnected, and the areas served by each treatment plant overlap. If your residence falls in one of the two sections of this map where service areas overlap, your water could come from either of the treatment plants. To gather information about the water quality at your residence, you may need to refer to multiple columns in the data tables contained in this report.*



*A small portion is treated water supplied by Metropolitan Water District's Skinner Water Treatment Plant and the San Diego County Water Authority's Twin Oaks and Carlsbad Desalination water treatment plants.

Is Your Bill Unusually High?

THERE ARE THREE MAIN REASONS WHY THIS CAN OCCUR

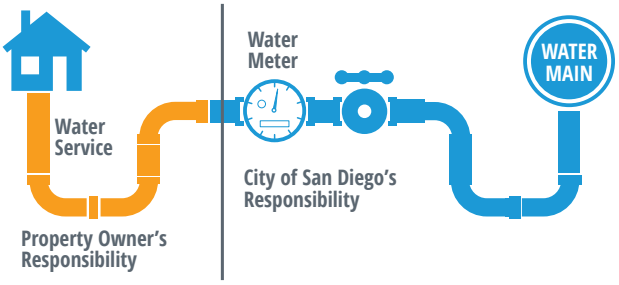
1. You Have A Leak On Your Property

This happens quite often and even a seemingly small leak can cause a huge increase in your bill. It might be a running toilet or a problem with your irrigation system.

To check for a non-irrigation system leak you will need to find your water meter (see image below). It is generally located near the curb in front of your home or place of business in a direct line with the main outside faucet. It is housed in a concrete box usually marked "water." Carefully remove the lid by using a tool such as a large screwdriver. Insert the tool into one of the holes and pry the lid off. Check the area around the meter to make sure there are no harmful insects or other animals.

Then, turn all water-using appliances off so that no water is being used anywhere on the property. Check the position of the meter dial and wait. If after 15 minutes the dials haven't moved, congratulations! You have a water-tight property. If the dials have moved, start checking hose connections, faucets and toilets for water leaks. If you have everything turned off and are sure the toilets and connections aren't leaking, yet the dials are still turning, you may have a hidden leak in an underground pipe. If this is the case, you may need to call a plumber for assistance.

How to Locate Your Water Meter



*Your water meter could be located in an alley or in a canyon.

*The water meter box and its lid are maintained by the City unless it's a private water service.

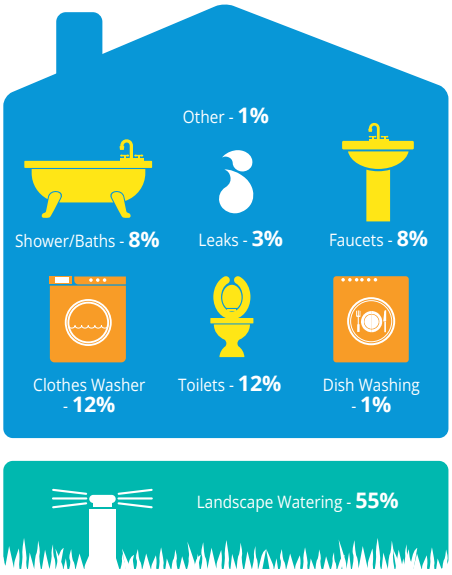
2. You Used More Water Than Usual

This is the most common reason for a higher than normal bill. Perhaps you refilled a swimming pool, or put in some new landscaping which required watering. Maybe a family member moved back home.

3. An Error Occurred When Reading Your Meter

While the Public Utilities Department has a high meter reading accuracy rate, errors can occur. If you don't have a leak and you haven't used more water lately, it could be that your most recent meter read was incorrect.

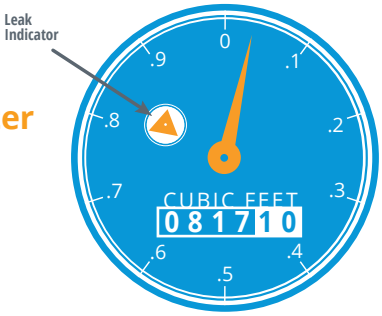
Typical Water Use In A Single-Family Home



Here's What To Do:

- Read your water meter. In the picture of the water meter register shown below, note the figures shown under the words CUBIC FEET. In this example the meter shows 81,710. Because charges are based on units of 100 cubic feet, we ignore the last two numbers (the ones in the white background below). So, the reading in this case is 817.
- Compare the read that is displaying on your water meter right now to the read on your last bill. If the meter read printed on your last bill is higher than the read that is currently displaying on your meter, then likely there has been an error when the read was obtained by the Public Utilities Department for your billing statement.

Water Meter



If you believe your water meter was misread, please visit sandiego.gov/water-meter-read for directions on how to obtain a new read for your meter. Alternatively, you can call our Customer Support Division at 619-515-3500.

Highlights of 2022

FEBRUARY

Beginning Feb. 27, the City no longer requires property owners to file a Water Conservation Certificate when selling their property, simplifying plumbing requirements for property owners while ensuring consistency with state legislation.

MARCH

The City announced that a 17-acre parcel in Mission Valley will be the future site for a Pure Water facility as part of the program's Phase 2. Also, pipeline installation for the North City Pure Water Facility began.

APRIL

Fitch Ratings and S&P Global Ratings both assigned 'AA' ratings to approximately $158 million subordinate sewer revenue bonds, issued by the City's Public Facilities Financing Authority. In addition, S&P Global Ratings affirmed its 'AA+' long-term rating on the authority's senior sewer revenue refunding bonds. Fitch affirmed the rating on senior sewer revenue bonds at 'AA.' All bond proceeds will be used to finance sewer system capital improvement projects citywide.

MAY

The City celebrated the 100th anniversary of Barrett Reservoir, one of nine reservoirs that make up part of the City's vast water system.

Barrett Reservoir

OCTOBER

The last two of 10 major construction packages for Phase 1 of the City's Pure Water program began construction: Miramar Reservoir Pump Station and the Morena Pipelines Southern/Middle Alignment.

Join Our Team!

Have you considered a career in water and wastewater services? With approximately 1,900 positions and 187 classifications, the Public Utilities Department has a variety of job opportunities for people with diverse skills. Public Utilities provides water services for 1.4 million City customers and wastewater services for 2.2 million City customers and regional partners.

Available jobs have great healthcare benefits, flexible work times and retirement pension.

To learn more about how to join the Public Utilities team, visit **sandiego.gov/public-utilities/hiring**

How Do We Make Water Drinkable?

WATER TREATMENT

The City's Public Utilities Department provides high-quality drinking water by utilizing proven technology, modern facilities and state-certified operators. Water is treated using several processes, with each process providing additional water quality improvements. Using several treatment processes provides multiple barriers for added levels of safety. Our treatment plants employ a combination of time-tested conventional water treatment processes and innovative disinfection strategies. Both Alvarado and Miramar water treatment plants use ozone for primary disinfection, while the Otay Water Treatment Plant uses chlorine dioxide. Conventional water treatment consists of coagulation, flocculation, sedimentation and sand/multimedia filtration. This cost-effective, proven method of treatment is used throughout the modern world.

STAGES OF OUR WATER TREATMENT

Watershed protection: Protecting the watersheds prevents contamination of our water supply and is the most cost-effective process in water treatment. Extensive measures are taken to prevent contamination of our local and imported water. If you see "No Swimming" or "No Dumping" signs posted near water supplies, this is for the protection of your drinking water. The latest Watershed Sanitary Survey, which contains information on the City's watersheds, including water quality and vulnerabilities, is available at: sandiego.gov/public-utilities/water-quality/watersheds/sanitary-survey

Coagulation: This is the chemical process of rapidly mixing coagulants into the water entering the water treatment plant. Many of the particles in the source water have negative charges, causing them to repel each other, much like two magnets when the negative ends are put together. Coagulation changes these negative charges to neutral.

Flocculation: Coagulated water is slowly mixed causing the neutral particles to collide. When the collisions occur, the particles clump together forming floc. As the floc is formed, particles in the water are trapped within the floc. The floc looks like snowflakes suspended in the water.

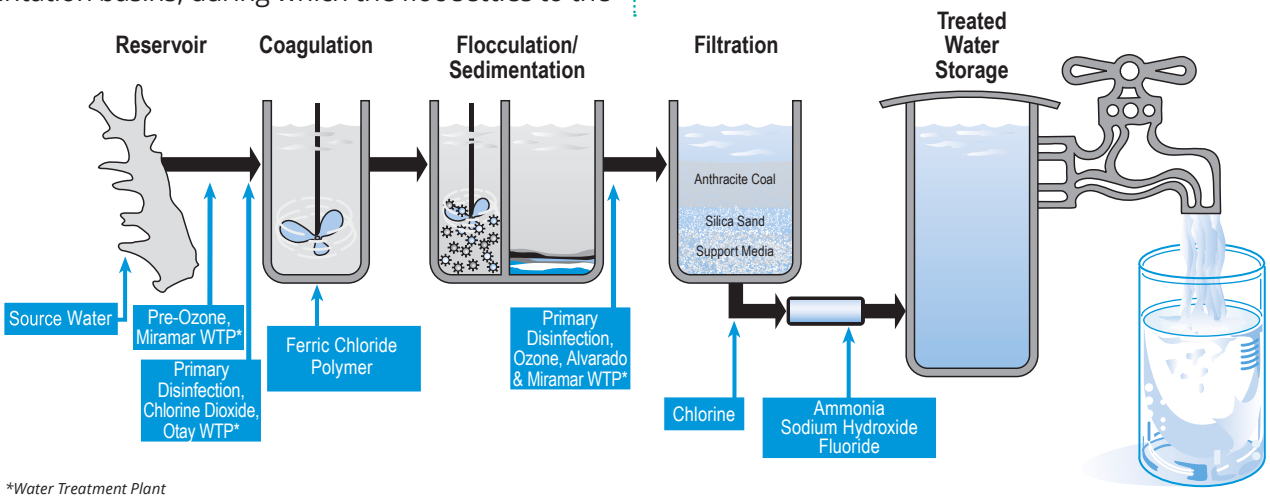
Sedimentation: The floc particles are heavier than water. Mixing is stopped and the water slowly flows through the sedimentation basins, during which the floc settles to the bottom and is removed. The clear water is collected from the top of the sedimentation basins.

Disinfection, Primary: Drinking water is further treated to remove or inactivate viruses, bacteria and other pathogenic organisms. Disinfection is accomplished in a variety of methods. The Alvarado and Miramar water treatment plants use ozone as the primary disinfectant. The Otay Water Treatment Plant uses chlorine dioxide as the primary disinfectant. These are advanced disinfection processes and have the advantage of providing higher quality water with better taste.

Filtration: Water is passed through deep filtration beds to produce water that is crystal clear. Extremely small particles are removed during this process. San Diego's water treatment plants produce water with turbidity (cloudiness) significantly better than drinking water standards, indicating a highly effective treatment process and resulting in high-quality drinking water.

Disinfection, Secondary: Chloramines are created by adding chlorine and ammonia to the water. Chloramines help prevent microbial contamination from occurring in the water distribution system.

Corrosion Control: The corrosivity of the water is controlled by adjusting the pH.



Water Treatment Plant

NOTICE OF VIOLATIONS

The State Water Board has determined that the City has failed to implement a cross-connection control program in compliance with CCR, Title 17, Sections 7584 (c), and 7604. Specifically, there are 11,543 identified services needing backflow protection devices that have not been installed. To return to compliance, the City will work with customers and developers to ensure proper backflow protection devices are installed to City standards.

Converting Your Lawn is Now Easier Than Ever

Lawns are estimated to require 44 gallons of water per square foot per year! One of the most effective ways to reduce water use is to replace a lawn with drought-resistant plants and landscaping. Californians can get more money to do just that thanks to state legislation that exempts local rebates for turf replacement from state income tax. This ensures more money can be spent on transforming lawns into water-wise yards.

The City offers a $1.25 per square foot rebate for all lawns that are converted. The Metropolitan Water District of Southern California may have additional funding up to an additional $3 per square foot. Your full amount will be determined after submitting an application. For more information, visit: wastenowater.org

Sign Up for a Free Water Survey

Looking for new ways to save water in your home or business? Water surveys can help you identify water-saving opportunities and evaluate your irrigation system.

Free residential and commercial survey programs are available to property owners and tenants located within the Public Utilities Department's service area.

To schedule a survey or find more information, please use the QR code below.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders and some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the EPA Safe Drinking Water Hotline (1-800-426-4791).

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at 1-800-426-4791. For detailed information on drinking water regulations, visit the California Division of Drinking Water (DDW) website at: waterboards.ca.gov/drinking_water

CRYPTOSPORIDIUM AND GIARDIA

Cryptosporidium and *Giardia* are microbial contaminants that are naturally present in the environment and found in surface water throughout the United States. Disinfection and filtration are highly effective in removing these contaminants; however, the disinfection and filtration methods cannot guarantee 100% removal. During calendar year 2022, the water supply to each of the City's water treatment plants was monitored for *Cryptosporidium* and *Giardia*, and neither was detected.

HOW TO READ THE TABLES

The tables on the following pages list parameters that DDW requires the City to monitor, which may be associated with primary (health), secondary (aesthetic) or no established standards. These tables summarize monitoring from January through December 2022. The tables list all parameters that were detected at or above DDW's Detection Limit for Purposes of Reporting (DLR). The map on page 2 of this report can be used to determine the treatment plant or plants that supply water to your residence. Less than 10% of San Diego's total water use comes from purchased treated water, which is a blend of water treated at the Metropolitan Water District's Skinner Water Treatment Plant, the San Diego County Water Authority's Twin Oaks Valley Water Treatment Plant and the Carlsbad Desalination Plant.

DEFINITION OF TERMS

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Location-based Running Annual Average (LRAA): The average of the most recent four quarters of monitoring performed at a distinct location in the distribution system. Location-based Running Annual Averages are calculated quarterly using 12 months of data and may include values obtained in 2020.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary Maximum Contaminant Levels are set as close to the Public Health Goals or Maximum Contaminant Level Goals as is economically and technologically feasible. Secondary Maximum Contaminant Levels are set to protect the odor, taste and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected health risk. Maximum Contaminant Level Goals are set by the U.S. Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. Maximum Residual Disinfectant Level Goals do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Notification Level (NL): Health-based advisory levels established by the Division of Drinking Water for chemicals in drinking water that lack Maximum Contaminant Levels. When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

Public Health Goal (PHG): The level of a contaminant in drinking water that does not pose a significant risk to health. Public Health Goals are not regulatory standards.

Primary Drinking Water Standard (PDWS): Maximum Contaminant Levels, Maximum Residual Disinfection Levels and treatment techniques for contaminants that affect health, along with their monitoring and reporting requirements.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

ABBREVIATIONS

A: absent

CA SMCL: California Secondary Maximum Contaminant Level

CU: color units

DLR: detection limit for reporting

gr/Gal: grains per gallon

MDL: City of San Diego Water Quality Laboratory Method Detection Limit – the lowest quantifiable concentration of a measured parameter detectable by the laboratory.

mL: milliliter

n/a: not applicable

ND: not detected (less than DLR, where applicable)

NTU: nephelometric turbidity units

OU: odor units

pCi/L: picocuries per liter (a measure of radiation)

pH: potential of hydrogen. pH is a measure of how acidic or basic water is. The range goes from 0 – 14, with 7 being neutral. pHs of less than 7 indicate acidity, whereas pHs greater than 7 are basic.

ppb: parts per billion or micrograms per liter (µg/L) – [1 ppb = 0.001 ppm]

ppm: parts per million or milligrams per liter (mg/L) – [1 ppm = 1,000 ppb]

µS/cm: micro-siemens/centimeter

< less than

> greater than

ENVIRONMENTAL MONITORING AND TECHNICAL SERVICES CONSUMER CONFIDENCE REPORT DATA - 2022

PRIMARY STANDARDS (MANDATORY HEALTH RELATED STANDARDS)

CHEMICAL PARAMETERS	UNITS	MCL	PHG	DLR	CITY OF SAN DIEGO TREATMENT PLANTS						PURCHASED TREATED WATER		MAJOR SOURCES IN DRINKING WATER
					ALVARADO		MIRAMAR		OTAY				
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Aluminum	ppm	1	0.6	0.05	ND	ND - ND	ND	ND - ND	ND	ND - ND	0.06	ND - 0.2	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic	ppb	10	0.004	2	ND	ND - ND	ND	ND - 3	ND	ND - ND	ND	ND - 2	Erosion of natural deposits, glass and electronics production waste
Barium	ppm	1	2	0.1	ND	ND - 0.1	0.1	0.1 - 0.1	ND	ND - 0.1	ND	ND - ND	Erosion of natural deposits; discharges of oil drilling wastes
Fluoride (naturally occurring)	ppm	2	1	0.1	0.3	0.3 - 0.4	0.3	0.2 - 0.4	0.3	0.2 - 0.4	0.5	0.2 - 0.9	Erosion of natural deposits
Fluoride (treatment-related)*	ppm	2	1	0.1	0.6	0.3 - 0.7	0.6	0.3 - 0.8	0.6	0.4 - 0.8	0.7	ND - 0.8	Erosion of natural deposits; water additive that promotes strong teeth
Nitrate (as N)	ppm	10	10	0.4	ND	ND - ND	ND	ND - ND	ND	ND - ND	ND	ND - 0.4	Erosion of natural deposits; runoff and leaching from fertilizer use
Perchlorate	ppb	6	1	2.0	ND	ND - ND	ND	ND - 2.8	ND	ND - ND	ND	ND - ND	Naturally occurring in arid regions; industrial waste discharge

* Note: Optimal Fluoride Level as established by U.S. Department of Health and Human Services and the State Water Resources Control Board is 0.7 ppm.

Primary standards (MCLs) are developed for the purpose of protecting the public from possible health risks associated with long-term exposure to contaminants. In this table there are six primary standards listed, which means that of the many primary standards set by DDW and the EPA, only these were detected at or above the DLR in San Diego's drinking water. These results are significantly below their respective MCLs. In general, no health hazard is expected to exist when contaminant levels are below a Primary MCL. A list of the parameters which were analyzed for, but not detected, in San Diego's drinking water is posted at ***sandiego.gov/public-utilities/water-quality/water-quality-reports****.*

California state law requires water agencies with more than 10,000 water service connections to supplement naturally-occurring fluoride in their drinking water. Our water system complies with this requirement to help prevent dental cavities in consumers. In 2022, the City of San Diego's source waters contained naturally-occurring fluoride between 0.2 and 0.9 ppm. State regulations require water producers to supplement this naturally-occurring fluoride to an optimum dose of 0.7 ppm. In 2022 treated water had fluoride concentrations ranging from ND to 0.8 ppm, with average values of 0.6 to 0.7 ppm. Information about fluoridation, oral health, and current issues is available at cdc.gov/fluoridation/index.html.

RADIOACTIVE PARAMETERS	UNITS	MCL	PHG (MCLG)	DLR	CITY OF SAN DIEGO TREATMENT PLANTS						PURCHASED TREATED WATER		MAJOR SOURCES IN DRINKING WATER
					ALVARADO^		MIRAMAR^		OTAY^				
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Gross Alpha Particle Activity	pCi/L	15	(0)	3	ND	Single Sample	3	Single Sample	3	Single Sample	ND	ND - 4	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	50*	(0)	4	7	Single Sample	5	Single Sample	5	Single Sample	4	ND - 8	Decay of natural and manmade deposits
Radium 228	pCi/L	----	0.019	1	ND	Single Sample	ND	Single Sample	ND	Single Sample	ND	ND - 1	Erosion of natural deposits
Uranium	pCi/L	20	0.43	1	3	Single Sample	1	Single Sample	ND	Single Sample	1	ND - 2	Erosion of natural deposits

* The State Water Resources Control Board considers 50 pCi/L to be the level of concern for beta particles.
^ Alvarado Beta and Radium 228 data from 2021. Miramar and Otay Alpha and Beta data from 2020; Uranium and Radium 228 data from 2017.

As water travels over the surface of the land or in underground aquifers, it dissolves naturally-occurring minerals and, in some cases, radioactive material. Radioactive materials can be naturally-occurring or a result of oil and gas mining activities. The results in the table above are presented in units of picocuries per liter (pCi/L), a standard measurement that represents an amount of radiation per liter of water. San Diego's drinking water is substantially lower than the MCL for all radioactive parameters.

MICROBIOLOGICAL	UNITS	MCL	MCLG	DLR	CITY OF SAN DIEGO DISTRIBUTION SYSTEM		MAJOR SOURCES IN DRINKING WATER
					AVERAGE*	RANGE*	
Total Coliform Bacteria	% Positive	5% Positive	0	n/a	0.1%	0 - 0.3%	Naturally present in the environment
E. Coli (State Revised Total Coliform Rule)	Number	0	0	n/a	0	0	Human and animal fecal waste

* Based on Monthly Percentages of Positive Total Coliform samples for a system collecting at least 40 samples per month.

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2021. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021.

DDW regulations require the City to test a minimum of 85 samples per week throughout our distribution system for total coliform bacteria, and to report the results, including the percentage of total coliform positive samples in a given month. To meet this requirement, in 2022 the City of San Diego collected and analyzed 6955 total coliform samples from the distribution system, an average of 134 per week. The test also examines the presence of E. coli, which is a subgroup of total coliform. The MCL for E. coli is 0 positive samples and for total coliform is the presence of coliform in 5 percent or more of the samples analyzed in one month, meaning that if 100 samples are collected in March and five contain total coliform, a violation of the MCL has occurred. The regulations are written as a percentage of monthly samples because multiple variables can cause a positive result, including localized contamination at the tap. In 2022, the City did not exceed the monthly MCL for total coliform or E. coli. In fact, this has never occurred in the City's system since this rule was established in 1989. The maximum value recorded in 2022 was 0.3 percent of monthly samples. When any sample tests positive for total coliform or E. coli, additional samples associated with that site are collected and the cause of the positive result is investigated.

TURBIDITY	UNITS	MCL	PHG	CITY OF SAN DIEGO TREATMENT PLANTS			PURCHASED TREATED WATER	MAJOR SOURCES IN DRINKING WATER
				ALVARADO	MIRAMAR	OTAY		
Turbidity	NTU	TT = 1 NTU	n/a	Max Level Found = 0.11	Max Level Found = 0.09	Max Level Found = 0.09	Max Level Found = 0.05	Soil runoff
		TT = 95% of samples ≤ 0.3 NTU		100% of samples ≤ 0.3	100% of samples ≤ 0.3	100% of samples ≤ 0.3	100% of samples ≤ 0.3	

Turbidity is a measure of the cloudiness of the water and is regulated as a Treatment Technique (TT) – an indicator of the effectiveness of our treatment. The City's three water treatment plants (WTPs) monitor turbidity every 15 minutes to ensure consistent, high-quality drinking water production for our customers. TT performance goals established by DDW state that all samples should have turbidity less than 1 NTU, and 95% of the samples should have turbidity less than 0.3 NTU. All three of our treatment plants had 100% of turbidity values less than 0.3 NTU; the maximum values measured in 2022 were 0.11 NTU for Alvarado WTP, 0.09 NTU for Miramar WTP and 0.09 for Otay WTP. These consistent and very low turbidity results have led to our treatment plants receiving performance awards. For example:

- *The Otay WTP has been awarded the Director's Award from the American Water Works Association (AWWA) Partnership for Safe Water (PSW) Program for fifteen consecutive years.*
- *The Miramar WTP has received the Director's Award for eleven years and the President's Award for ten consecutive years.*
- *Our award-winning Alvarado Treatment Plant participates in the PSW program, meeting all turbidity standards.*

CONTINUED: PRIMARY STANDARDS (MANDATORY HEALTH RELATED STANDARDS)

LEAD AND COPPER STUDY	UNITS	ACTION LEVEL	PHG	DLR	SAMPLES TAKEN FROM CUSTOMER TAPS				Number of Schools Sampled for Lead	MAJOR SOURCES IN DRINKING WATER
					90th PERCENTILE CONCENTRATION	SAMPLING SITES	NUMBER EXCEEDING AL	VIOLATION		
Copper	ppm	1.3	0.3	0.05	0.4	54	0	NO	281*	Internal corrosion of household plumbing systems
Lead	ppb	15	0.2	5	ND	54	0	NO		Internal corrosion of household plumbing systems

Note: Lead and Copper Rule Monitoring mandated every three years. Most recent monitoring conducted in 2020.
In addition to the EPA Lead and Copper study and schools sampling, the City of San Diego analyzed 71 samples from our three drinking water treatment plants in 2022. All results were below the DLR.
* Represents total number of schools sampled in 2017, 2018 and 2019.

Lead and copper are at Non-Detectable levels in the water produced at San Diego's water treatment plants, but can enter drinking water through plumbing materials used in homes or businesses. Exposure to lead and copper may cause health problems ranging from stomach distress to brain damage. In 1991, the EPA published the Lead and Copper Rule (LCR) which, along with corrosion control and other treatment practices, requires monitoring of lead and copper at customer taps. The purpose of the LCR residential sampling is to assess the potential of lead and copper to leach into drinking water from the plumbing installed between the water meter and the tap in homes and businesses. If lead concentrations at customer taps exceed an Action Level (AL) of 15 ppb or copper concentrations exceed an AL of 1.3 ppm in more than 10% of taps sampled, we are required to inform the public and undertake a number of additional actions to ensure comprehensive corrosion control.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of San Diego is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at http://www.epa.gov/lead.

Lead and Copper Rule monitoring must be conducted every three years. In 2020, 54 customers provided samples from their taps to the City of San Diego for lead and copper analysis. None of the residences had a copper or lead result above the AL. Because less than 10% of our results were above the AL for both lead and copper, our water is considered non-corrosive, and no additional actions are required. Our next system-wide study will be conducted in the summer of 2023. Homes with lead or copper plumbing installed may be eligible to participate in our 2023 study or in future studies. To have your home considered, please contact the Water Quality Hotline at 619-668-3232 or e-mail DrinkingWaterQuality@sandiego.gov.

In 2017, DDW issued a Permit Amendment requiring water utilities to sample for lead in the drinking water of any school requesting testing. Additionally, Assembly Bill 746 was signed into law in October 2017, requiring California water providers to conduct lead testing at public K-12 schools within their service area to determine if lead is present in the school's private plumbing or water fixtures. The table lists the total number of schools the Public Utilities Department has tested under these programs. To obtain testing results from individual schools, please contact the school directly or visit the district website.

DETECTED DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUAL AND DISINFECTION BY-PRODUCT PRECURSORS

	UNITS	MCL	PHG	DLR	CITY OF SAN DIEGO TREATMENT PLANTS						PURCHASED TREATED WATER		MAJOR SOURCES IN DRINKING WATER
					ALVARADO		MIRAMAR		OTAY				
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Bromate*	ppb	10	0.1	5.0/1.0***	ND	ND - 5.6	ND	ND - ND	n/a	n/a	2.1	ND - 5.8	Byproduct of drinking water disinfection
Chlorate^	ppb	NL=800 PPB		20	n/a	n/a	n/a	n/a	183	86.6 - 302	206	75 - 440	Byproduct of drinking water disinfection
Chlorite**	ppm	1.0	0.05	0.020	n/a	n/a	n/a	n/a	0.22	0.05 - 0.46	n/a	n/a	Byproduct of drinking water disinfection
Total Organic Carbon (TOC)	ppm	TT	n/a	0.3	2.8	2.2 - 3.2	2.5	2.2 - 2.8	3.3	1.9 - 5.8	2.5****	1.3 - 3.3	Various natural and manmade sources; TOC is a precursor for the formation of disinfection byproducts

* Required for Alvarado, Miramar and Purchased Treated Water; compliance is determined by the quarterly Running Annual Average (RAA)
** Required for Otay ***City of San Diego DLR= 5, Purchased Treated Water DLR = 1 ****Highest Running Annual Average

	UNITS	MCL [MRDL]	PHG [MRDLG]	DLR (MDL)	CITY OF SAN DIEGO DISTRIBUTION SYSTEM			MAJOR SOURCES IN DRINKING WATER
Disinfectant Residual (Chloramines as Cl_2)	ppm	[4.0][B]	[4]	(0.1)	Distribution system average = 2.2	Range = ND - 3.7	----	Drinking water disinfectant added for treatment
Chlorite[A]	ppm	1.0	0.05	0.020	Distribution system average = 0.2	Range = ND - 0.4	----	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5)	ppb	60[C]	n/a	----	Maximum LRAA = 8	Range = ND - 11	Violation - NO	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHMs)	ppb	80[C]	n/a	----	Maximum LRAA = 31	Range = 7.1 - 42.4	Violation - NO	Byproduct of drinking water chlorination

[A] Chlorite monitoring required only in the Southern section of the distribution system.
[B] Compliance is determined by the distribution system average.
[C] Total Trihalomethane and HAA5 compliance is based on quarterly Locational Running Annual Averages (LRAA).

Drinking water must be disinfected to ensure that any potentially harmful microbes are neutralized. There are a variety of disinfection strategies used throughout the United States. San Diego utilizes some of the more advanced disinfection technologies available. Our Alvarado and Miramar treatment plants use ozone and chloramines for disinfection. Ozone produces fewer disinfection byproducts than chlorine or chloramines alone and is considered a superior disinfection method. However, all disinfectant strategies have the potential to create a byproduct. When ozone is used, bromate is monitored as a disinfection byproduct. The City's Otay WTP uses chlorine dioxide and chloramines for disinfection. When chlorine dioxide is used, chlorite is monitored as a disinfection byproduct in the plant effluent and distribution system. All 2022 results for bromate and chlorite are below the MCLs. Total Organic Carbon (TOC) has no health effects. It is monitored and reported here because it provides an assessment of potential disinfection byproduct formation.

As drinking water travels from the City's WTPs through the distribution system to homes and businesses, a disinfectant residual must be maintained in order to prevent growth of potentially harmful microbes. In San Diego, chloramines are used for this purpose. The City performs frequent and comprehensive monitoring to ensure that disinfectant levels remain in the proper range throughout our large and complex distribution system. The Maximum Residual Disinfectant Level (MRDL) is 4.0 ppm. In 2022 the City analyzed 7590 samples for chloramines throughout the distribution system; the average residual was 2.2 ppm and the maximum was 3.7 ppm.

Another category of disinfection byproducts that the EPA and DDW regulate are Total Trihalomethanes (THMs) and Haloacetic Acids (HAA5). Compliance with EPA's Stage 2 Disinfection ByProduct (DBP) rule is based on the running annual average at each location monitored in the distribution system. The MCL for THMs is an LRAA of 80 ppb, and the MCL for HAA5 is an LRAA of 60 ppb. The City has had no violations of the EPA Stage 1 and Stage 2 DBP MCLs since the program was formalized in 2002. In 2022, our highest LRAA for TTHM was 31 ppb, and individual measurements ranged from 7.1 to 42.4 ppb. For HAA5, our highest LRAA was 8 ppb, and individual measurements ranged from ND to 11 ppb.

SECONDARY STANDARDS (AESTHETICS STANDARDS)

				CITY OF SAN DIEGO TREATMENT PLANTS						PURCHASED TREATED WATER		
				ALVARADO		MIRAMAR		OTAY				
	UNITS	CA SMCL	DLR (MDL)	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER
Aluminum	ppm	0.2	0.05	ND	ND - ND	ND	ND - ND	ND	ND - ND	0.06	ND - 0.2	Erosion of natural deposits; residue from some surface water treatment processes
Chloride	ppm	500	(0.5)	111	104 - 121	105	95.3 - 114	145	110 - 190	101	20.0 - 119	Runoff/leaching from natural deposits; seawater influence
Color	CU	15	(1)	ND	ND - 1	ND	ND - 1	ND	ND - 2	ND	ND - 2	Naturally - occurring organic materials
Odor - Threshold	OU	3	1	ND	ND - 1	ND	ND - ND	1	1 - 2	ND	ND - 1	Naturally - occurring organic materials
Specific Conductance	µS/cm	1,600	n/a	927	823 - 1000	920	758 - 1010	946	229 - 1100	789	345 - 1030	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	0.5	195	174 - 211	208	160 - 222	194	158 - 267	150	13.0 - 229	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1000	(10)	586	553 - 620	600	507 - 633	622	507 - 670	481	138 - 651	Runoff/leaching from natural deposits

Secondary standards (Secondary MCLs) are set to protect the odor, taste, and appearance of drinking water. If present at or above the Secondary MCL, these parameters may cause the water to appear cloudy or colored, or to have a different or unusual taste or odor. These parameters are not considered to present a risk to human health at or above Secondary MCL levels. All measurements of Secondary Standards were at or below the Secondary MCL in 2022.

OTHER PARAMETERS THAT MAY BE OF INTEREST

					CITY OF SAN DIEGO TREATMENT PLANTS						PURCHASED TREATED WATER	
					ALVARADO		MIRAMAR		OTAY			
	UNITS	MCL	PHG	MDL	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE
Sodium	ppm	n/a	n/a	20	96.1	75.4 -116	92.6	70.4 - 99.6	105	76.5 - 125	85.6	52.7 - 103
Total Hardness	ppm	n/a	n/a	10	256	207 - 275	266	221 - 283	260	216 - 277	198	41.9 - 282
Total Hardness	gr/Gal	n/a	n/a	0.6	15.0	12.1 - 16.1	15.5	12.9 - 16.5	15.2	12.6 - 16.2	11.6	2.45 - 16.5
Alkalinity - Total as $CaCO_3$	ppm	n/a	n/a	20	126	114 - 134	125	107 - 133	121	96.1 - 130	105	46.0 - 130
pH	pH	n/a	n/a	n/a	8.06	7.50 - 8.35	8.17	7.26 - 8.61	8.03	7.49 - 8.70	8.34	8.0 - 8.71

Water quality parameters that may be of interest to our consumers, but do not have MCLs or PHGs and are not considered to present a risk to human health, are included in the table above. Although sodium and hardness do not have MCLs, they are of interest to many consumers who are concerned about sodium intake and may believe that the hardness of the water could affect their health. Therefore, monitoring and reporting are required by DDW. Sodium refers to the salt present in the water and is generally naturally occurring. Hardness is the sum of positively-charged mineral ions present in the water, essentially the sum of magnesium and calcium. These minerals are usually naturally occurring. Alkalinity and pH are included here because they have proven to be of interest to our customers.

DETECTED UNREGULATED PARAMETERS

				CITY OF SAN DIEGO TREATMENT PLANTS						PURCHASED TREATED WATER	
				ALVARADO		MIRAMAR		OTAY			
	UNITS	NOTIFICATION LEVEL	DLR (PHG)	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE
Boron	ppm	1	0.1	0.1	0.1 - 0.1	0.1	0.1 - 0.2	0.2	0.1 - 0.2	0.3	0.1 - 0.9
N-Nitrosodimethylamine (NDMA)	ppt	10	(3)	n/a	n/a	n/a	n/a	n/a	n/a	2	ND - 4.4
Chromium, hexavalent (CrVI)	ppb	----	(0.02)*	0.06	Single Sample	0.05	Single Sample	0.06	Single Sample	0.04	ND - 0.22

* The DLR of 1 ppb and the MCL of 10 ppb for Chromium VI were repealed in 2017. The value listed here is the PHG for Chromium VI.

UCMR4 STUDY

			CITY OF SAN DIEGO TREATMENT PLANTS						CITY OF SAN DIEGO DISTRIBUTION SYSTEM	
			ALVARADO		MIRAMAR		OTAY			
UCMR4 PARAMETERS[1]	UNITS	UCMR4 MRL (MDL)	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	MAX LRAA	RANGE
Bromide*	ppm	(0.02)	0.10	0.05 - 0.16	0.06	0.04 - 0.11	0.20	0.04 - 0.35	n/a	n/a
Manganese	ppb	0.4	2.2	ND - 8.2	0.9	0.6 - 1.2	0.2	ND - 0.7	n/a	n/a
Total Organic Carbon (TOC)*	ppm	(1)	3.2	2.7 - 3.7	2.7	2.6 - 2.9	4.9	2.6 - 7.0	n/a	n/a
HAA9**	ppb	n/a	n/a	n/a	n/a	n/a	n/a	n/a	26	4.1 - 40

[1] UCMR4 samples were collected in 2018
* As measured in untreated plant influent
** HAA9 is the sum of bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, and trichloroacetic acid.

The parameters listed in the Detected Unregulated Parameters section are not regulated by DDW or the EPA, and monitoring is not required. Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated. Boron and N-Nitrosodimethylamine (NDMA) have been issued Notification Levels (NL) by DDW. If detected above the NL, customers must be notified of the presence of these parameters. The results presented here are significantly lower than the NL. Hexavalent Chromium (CrVI) was issued an MCL of 10 ppb and a DLR of 1 ppb by DDW in 2014. However, these were withdrawn in 2017. The values presented here are approximately 100 times less than 10 ppb.

As part of the 1996 Safe Drinking Water Act (SDWA) amendments, every five years EPA selects from the Contaminant Candidate List (CCL) up to 30 unregulated contaminants to be monitored by public water systems as part of the Unregulated Contaminant Monitoring Rule (UCMR) program. The CCL is a list of contaminants that are not regulated but are known or anticipated to occur in public water systems and may warrant future regulation under the Safe Drinking Water Act. The results of UCMR studies provide a basis for future regulatory actions to protect public health. The City of San Diego conducted UCMR4 sampling in 2018.

San Diego's drinking water was tested by an EPA-approved contract laboratory in 2018 for 30 UCMR4 unregulated contaminants. This included 10 different cyanotoxins, none of which were detected. Twenty additional chemicals were monitored, including metals, pesticides, and alcohols. Of these 32 parameters, two were detected – manganese and HAA9. Additionally, two indicators of water quality were monitored in untreated water – bromide and Total Organic Carbon (TOC).

The City *of*
SAN DIEGO
Public Utilities Department
9192 Topaz Way
San Diego, CA 92123

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The City *of*
SAN DIEGO

This report contains important information about your drinking water. Please contact the City of San Diego Public Utilities Department at 619-515-3500 for assistance.

Farsi, Persian

تماس بگیریداین گزارش حاوی اطلاعات مهمی در مورد آب آشامیدنی شماست. برای دریافت اطلاعات بیشتر با ما City of San Diego Public Utilities Department, 619-515-3500.

French

Ce rapport contient des informations importantes concernant votre eau potable. Veuillez contacter City of San Diego Public Utilities Department à 619-515-3500 pour de plus amples informations en français.

Hmong

Tsab ntawv no muaj cov ntsiab lus tseem ceeb hais txog koj cov dej haus. Thov hu rau City of San Diego Public Utilities Department ntawm 619-515-3500 yog koj xav tau kev pab hais lus Hmoob.

Japanese

この報告書には上水道に関する重要な情報が記されております。 ご質問等ございましたら、City of San Diego Public Utilities Department, 619-515-3500 まで日本語でご連絡下さい。

Korean

이 보고서는 당신의 식수에 관한 중요한 정보를 포함하고 있습니다. 한국어로 된 도움을 원하시면 City of San Diego Public Utilities Department, 619-515-3500 로 문의 하시기 바랍니다.

Mandarin (Simplified)

这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 City of San Diego Public Utilities Department 以获得中文的帮助: 619-515-3500.

Russian

Этот отчет содержит важную информацию о вашей питьевой воде. Пожалуйста, свяжитесь с City of San Diego Public Utilities Department по 619-515-3500 для получения помощи на русском языке.

Spanish

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse City of San Diego Public Utilities Department a 619-515-3500 para asistirlo en español.

Tagalog

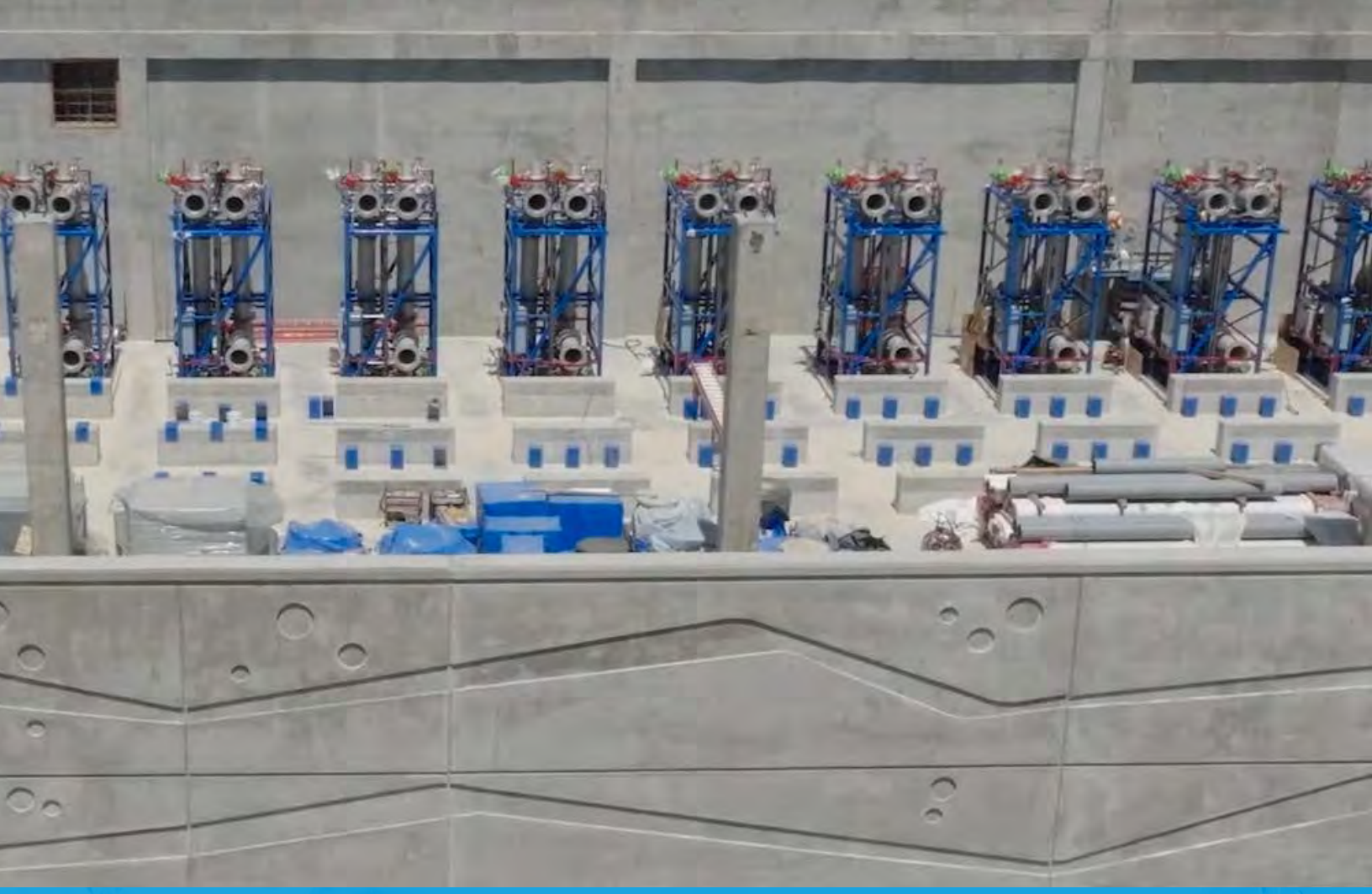
Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa City of San Diego Public Utilities Department o tumawag sa 619-515-3500 para matulungan sa wikang Tagalog.

Vietnamese

Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên lạc City of San Diego Public Utilities Department tại 619-515-3500 để được trợ giúp bằng tiếng việt.

This information is available in alternative formats upon request.

Printed on recycled paper



2023 Annual Report

The City of SAN DIEGO

The City of San Diego forges ahead on construction of the Pure Water Phase 1 Projects, the largest public works infrastructure program in City history.

SD Pure Water San Diego


MCTC
WATERWORKS

Table of Contents

Program Overview

The City of SAN DIEGO

Completing our Water Cycle, Securing our Future

Why is Pure Water San Diego Being Implemented?

San Diego relies on importing 85% of its water supply from the Colorado River and Northern California Bay Delta. The cost of this imported water has tripled in the last 15 years and continues to rise. With limited local control over its water supply, the City of San Diego is more vulnerable to droughts, climate change and natural disasters.

What is Pure Water San Diego?

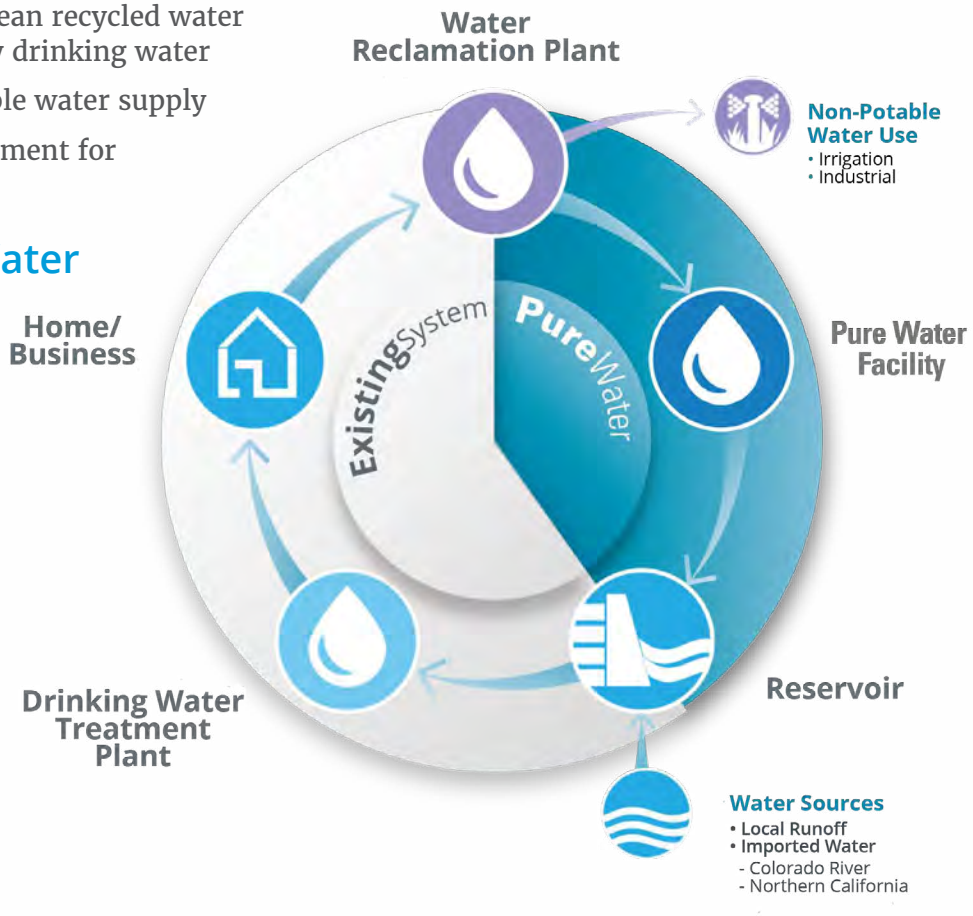
Pure Water San Diego is a phased, multi-year program that will provide nearly half of San Diego's water supply locally by 2035.

The Pure Water Program:

- Uses proven technology to clean recycled water to produce safe, high-quality drinking water
- Provides a reliable, sustainable water supply
- Offers a cost-effective investment for San Diego's water needs

How Does the Pure Water Program Work?

With San Diego's existing water system, only 8% of the wastewater leaving homes and businesses is recycled; the rest is treated and discharged into the ocean. The Pure Water Program transforms the City's water system into a complete water cycle that maximizes our use of the world's most precious resource—water.



Executive Summary

The progress on the Phase 1 Pure Water facilities in 2023 can be measured in concrete and steel. Significant headway is being made on all treatment facility and pipeline projects. The majority of equipment for the North City Pure Water Facility and Metropolitan Biosolids Center has arrived. The North City Pure Water Facility has surpassed **50% completion**, while two of the four new 150-foot diameter secondary clarifiers are nearing completion at the North City Water Reclamation Plant. The Morena Pump Station is beginning to take shape northeast of the Interstate 8 and Interstate 5 interchange near the San Diego River, and one diversion structure is finished with the other three well underway.

Large-scale pipeline construction is continuing on Clairemont Drive, Genessee Avenue, Miramar Road, Kearny Villa Road and Meanley Drive. We are proud that we were able to complete the crossing of the busy Towne Centre Drive/La Jolla Village Drive intersection ahead of schedule in late June with minimal disruption and no incidents. We recognize that at times the construction reduces the lanes for traffic flow and interrupts our customers' daily routines, and we appreciate everyone's continued patience as we navigate complex construction in the public right-of-way.

Construction in a major intersection for the Morena Northern Pipelines & Tunnels project in University City.

Over at Miramar Reservoir, we are beginning in-water construction activity. We completed the tunnels for the North City Pure Water Pipeline south of Miramar Reservoir and have begun construction of the Subaqueous Pipeline that will disperse the purified water throughout the reservoir. At the same time, we have been upgrading the 60-year-old pump station that delivers the water from the reservoir to the Miramar Water Treatment Plant. As we reached the latter part of 2023, **$1.4 million per day** of construction is underway on the City's largest infrastructure program in its history. The low-interest State and Federal financing that the City locked in is being put to good use!

Contractors continue to exceed the goals for hiring historically under-represented workers in the construction field under the Project Labor Agreement and almost **140 City residents** have been hired as apprentices. The Helmets to Hardhats program has successfully placed **more than 60 military veterans** in jobs on the Phase 1 Projects. There are also many preparation activities underway at the North City Water Reclamation Plant and at Miramar Reservoir to ensure that all existing facilities are upgraded and ready to go when purified water is released. These readiness tasks are a mix of new projects, as well as existing facility and component upgrades.

2023 also marked the submittal of three first-of-its-kind reports to the regulatory agencies for their approval. One is a comprehensive plan for how the facilities will be operated to meet strict regulatory requirements, the second plan describes how the purified water flow will be released in a stepwise manner during start-up, and the third plan describes how the many City departments engaged in Pure Water will interact and assigns responsibilities for **more than 100 operating scenarios**.

Planning continues for Phase 2, and we expect to significantly increase the effort as we move into 2024. The following pages further detail our Phase 1 and Phase 2 activities. Although California experienced a very wet winter in 2022-2023, we will continue to have drought cycles for as long as we can predict. A **safe, reliable and locally controlled water supply** continues to be essential to our quality of life in San Diego. Thanks to our customers for your continued support of this critical program!

Juan Guerreiro, Director
City of San Diego Public Utilities Department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Genie S-65
STOP

Virtual Construction Tour Video

Since Phase 1 construction started in 2021, there has been significant progress on the various integrated Pure Water pipelines, treatment facilities and pump stations. These projects have made so much headway that each project site is almost unrecognizable from week to week. In 2023, the City of San Diego developed the Virtual Construction Video for the Pure Water San Diego program not only to highlight and share timely progress with the San Diego community, but also to show some of the faces of those who make Pure Water San Diego happen every day. As the largest infrastructure project that the City has undertaken so far, and after years of planning and engineering, it takes the technical knowledge and skill of more than 2,000 people program-wide to provide a reliable, sustainable and local water supply for generations to come.

youtube.com/watch?w=RCUJZOYZfAo

The Virtual Construction Video includes remarks from Mayor Todd Gloria, an overview of the projects from Deputy Director Amy Dorman and a spotlight on the cornerstone Pure Water project, the North City Pure Water Facility and Pump Station, from Pure Water Construction Manager, Jeff Soriano.

Watch the Virtual Construction Tour on your phone.

Use your phone camera to scan the QR code and click the link:

Mayor Todd Gloria (left) and Senior Civil Engineer and Construction Manager Jeff Soriano (right) share the progress that has been made at the North City Pure Water Facility and Pump Station and the importance of the Pure Water Program for the future of San Diego's drinking water supply.

2023 Milestones

JANUARY/FEBRUARY 2023

Began construction on the Interstate 805 tunneling for the Morena Northern Pipelines and Tunnels Project *(photo, left)*; participated in the San Diego Tết Festival as part of citywide multicultural and multilingual outreach efforts.

MARCH/APRIL 2023

Participated in multiple sustainability-focused community events for Earth Month *(photo, right)*; prepared for community presentations.

MAY/JUNE 2023

Started construction on the Morena Pipelines Southern and Middle Alignment and Conveyance Bike Lanes project in Bay Ho/Clairemont *(photo, left)*; installed the final steel beam at the North City Pure Water Facility and Pump Station.

JULY/AUGUST 2023

Completed the intersection crossing at La Jolla Village Drive and Towne Centre Drive ahead of schedule for the Morena Northern Pipelines and Tunnels project *(photo, right)*; awarded the construction contract for the Phase 2 – Central Area Small-Scale Facility; began construction at Miramar Reservoir for the North City Pure Water Pipeline and Subaqueous Pipeline project.

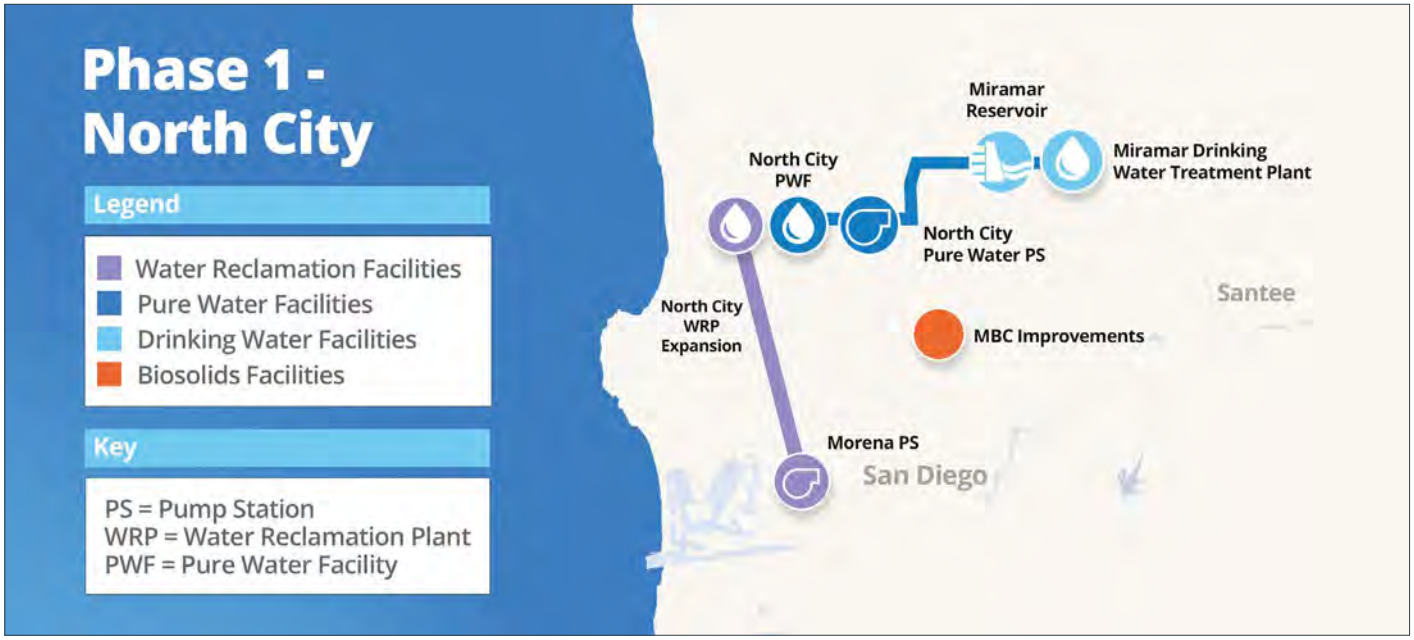
SEPTEMBER/ OCTOBER 2023

Construction at the North City Pure Water Facility & Pump Station *(photo, left)* is more than 50% complete; presented to City Council Environment Committee on Pure Water Program progress.

NOVEMBER/ DECEMBER 2023

Began the Interstate-15 tunneling shaft for the North City Pure Water Pipeline project; participated in December Nights event at Balboa Park *(photo, right)*.

Phase 1 – Construction Overview



Pure Water Phase 1 North City construction includes 10 total projects, one of which is completed. The table below shows each project and the anticipated completion dates. In total, the budget for the work currently underway for Phase 1 North City is $1.5 billion. To learn more about Pure Water Phase 1 – North City construction, visit the Phase 1 Projects page.

Phase 1 North City Project	Start Date	Anticipated Completion	Contract Amount	Prime Contractor
Early Works at the North City Water Reclamation Plant	May 2019	Completed	$16.4M	AECOM Energy and Construction, Inc.
Morena Pump Station	Jun 2021	2026	$110.4M	Flatiron West Inc.
Morena Pipelines Southern/ Middle Alignment	Oct 2022	2025	$129.8M	Sukut Construction
Morena Pipelines Northern Alignment and Tunnels	Jun 2021	2024	$95.2M	OHL USA Inc.
North City Water Reclamation Plant Expansion	Aug 2021	2026	$255.1M	Kiewit Infrastructure West Co.
North City Water Reclamation Plant Flow Equalization Basin	Dec 2021	2024	$11.9M	Kiewit Infrastructure West Co.
Metropolitan Biosolids Center Improvements	Sep 2021	2025	$40.1M	PCL Construction Inc.
North City Pure Water Facility and Pump Station	Apr 2021	2025	$356.7M	Shimmick Construction Inc.
North City Pure Water Pipelines, Dechlorination Facility and Subaqueous Pipeline	Jun 2021	2025	$123.5M	W.A. Rasic Construction
Miramar Reservoir Pump Station	Oct 2022	2025	$12.7M	Shimmick Construction Inc.
Total Combined Construction Contract Amount:				**$1,151,727,837**

Phase 1 – Construction

There were nine active construction contracts in 2023 (starting with the Morena Pump Station, moving north):

Morena Pump Station
(*Construction began in June 2021*)

Morena Pump Station will divert an average of 32 million gallons per day of wastewater through the Morena Pipeline to the North City Water Reclamation Plant for treatment and the North City Pure Water Facility for purification. In 2023, the contractor completed the construction of four of the eight off-site junction and diversion structures on Friars Road, as well as the new groundwater management system for the pump station excavation. Work is progressing on a fifth structure near Napa Street and Friars Road intersection and at the pump station.

Morena Conveyance South & Middle and Bike Lanes
(*Construction began in October 2022*)

The Morena Pipelines Southern and Middle Alignment and Conveyance Bike Lanes project will connect the Morena Pump Station to the Morena Northern Alignment and Tunnels. In 2023, more than 3,000 linear feet of pipeline has been installed on Clairemont Drive.

Morena Pipelines Northern Alignment and Tunnels
(*Construction began in June 2021*)

Morena Pipelines Northern Alignment and Tunnels will connect with the Morena Conveyance South & Middle and Bike Lanes and the North City Water Reclamation Plant. In 2023, more than 8,000 linear feet of pipeline has been installed. In July 2023, crews completed the intersection crossing at La Jolla Village Drive and Towne Centre Drive ahead of schedule and completed the intersection crossing at Genesee Avenue and Governor Drive. Construction crews are working in two areas (Genesee Avenue and Towne Centre Drive) and will meet in the middle near Nobel Drive in 2024. Construction at the tunnel projects – San Clemente Tunnel, Rose Canyon Tunnel and Interstate-805 Tunnel – is ongoing.

North City Water Reclamation Plant Expansion
(*Construction began in August 2021*)

The North City Water Reclamation Plant is being expanded to increase production capacity from 30 million gallons per day to 52 million gallons per day. In 2023, about 100 trade workers continue daily construction of underground pipeline throughout the project and the clarifier tanks, which will each hold almost 2.5 million gallons of water and are approximately 150 feet in diameter. Work is also ongoing at the first and second stage bioreactors.

North City Water Reclamation Plant Flow Equalization Basin
(*Construction began in December 2021)*

A 2.35-million-gallon Flow Equalization Basin is being built on the North City Water Reclamation Plant project site and will regulate the peak wastewater flow rates to allow for a more constant flow through the plant's treatment processes. This volume is equivalent to almost four Olympic swimming pools. In 2023, all underground piping and electrical, and structural foundation has been completed, and work has begun on the interior columns.

Phase 1 – Construction

Metropolitan Biosolids Center Improvements

(Construction began in September 2021)

To accommodate increased biosolids due to increased treatment at the expanded North City Water Reclamation Plant, upgrades at the Metropolitan Biosolids Center are necessary. Work to install the dewatering centrifuge, dewatering sludge feed pump and associated polymer pump is complete. Crews continued to work on the second dewatering centrifuge, as well as associated pumps and pipes in 2023.

North City Pure Water Facility and Pump Station

(Construction began in April 2021)

The North City Pure Water Facility and Pump Station will produce an annual average of 30 million gallons per day of purified water, which will be conveyed by the pump station to Miramar Reservoir for storage. In 2023, this cornerstone project of the suite of Pure Water projects is more than 50% complete. Additionally, more than 73% of the concrete structural work has been completed. Almost 1,000 workers have been constructing the North City Pure Water Facility and Pump Station and crews continue to place and install the filtration equipment that will purify treated wastewater from the North City Water Reclamation Plant through a five-step advanced treatment process to create Pure Water.

North City Pure Water Pipeline, Dechlorination Facility and Subaqueous Pipeline (*Construction began in June 2021*)

The North City Pure Water Pipeline will convey an annual average of 30 million gallons per day of purified water to Miramar Reservoir for storage. The dechlorination facility will remove chlorine necessary for disinfection in the pipe from the purified water before it is delivered into the reservoir. In 2023, more than 4,200 feet of pipe was installed east and west of Interstate 15, including along Miramar Road. Construction associated with the Subaqueous Pipeline started at Miramar Reservoir in August 2023. This construction will involve pipeline assembly and permanent installation on the floor of the lakebed. Ongoing construction includes completion of tunneling into the reservoir and construction of the Subaqueous Pipeline.

Miramar Reservoir Pump Station Improvements

(Construction began in October 2022)

The existing Miramar Reservoir Pump Station pumps the water from Miramar Reservoir to the Miramar Water Treatment Plant. This pump station is being rehabilitated to ensure that it can continually pump 30 million gallons per day on an annual average basis. In 2023, crews completed the 66-inch pipeline replacement and continue to perform generator improvements and installation of the photovoltaic equipment.

Phase 1 Projects By The Numbers

CONSTRUCTION WORKFORCE

In total, almost 1,065,000 labor hours have been invested in Phase 1 construction through October 2023. The Project Labor Agreement Coordination Team has provided monthly updates regarding progress toward the Pure Water Program's hiring goals of City residents[1] and targeted workers[2] for the construction workforce. These reports have kept the Pure Water team apprised as to the Project Labor Agreement goals and enhanced connectivity and communication.

Differentiated by project, the table below demonstrates the current hiring percentages of City residents and targeted workers, through October 2023. The North City Pure Water Facility, North City Pure Water Pipeline and Metropolitan Biosolids Center Improvements projects have a workforce that is comprised of at least one-quarter City residents. Seven of the nine projects are exceeding the 10% goal of targeted worker representation.

Hiring percentages by project, cumulative through October 2023

Project Name	Contractor	City Resident % (Goal = 35%)	Targeted Worker % (Goal = 10%)
North City Pure Water Facility and Pump Station	Shimmick Construction Inc.	25%	17%
Morena Pump Station	Flatiron West Inc.	20%	5%
Morena Pipelines Northern Alignment and Tunnels	OHL USA Inc.	17%	25%
North City Pure Water Pipeline, Dechlorination Facility and Subaqueous Pipeline	W.A. Rasic Construction	37%	23%
North City Water Reclamation Plant Expansion	Kiewit Infrastructure West Co.	19%	14%
North City Metro Biosolids Center Improvements	PCL Construction Inc.	31%	23%
North City Water Reclamation Plant Flow Equalization Basin	Kiewit Infrastructure West Co.	17%	22%
Morena Conveyance South & Middle and Bike Lanes	Sukut Construction	3%	16%
Miramar Reservoir Pump Station Improvements	Shimmick Construction Inc.	21%	5%
Pure Water Program Phase 1 Projects Total:		**23%**	**16%**

Table 1: Hiring percentages by project, cumulative through the latest report as of October 2023.

Note: The Morena Pipelines Southern/Middle Alignment is an additional Pure Water Project but is not yet depicted in this table as it has just started.

1 "City Residents" is defined as a City of San Diego permanent resident at the time of initial employment on a Covered Project or a Veteran residing anywhere.

2 "Targeted worker" means any individual qualifying for one or more of the following Targeted Worker categories: (a) Is a veteran, or is the eligible spouse of a veteran of the United States Armed Forces, under Section 2(a) of the Jobs for Veterans Act (38 United States Code [U.S.C.] 4215 [a]); (b) At initial time of employment on a Covered Project, is an Apprentice with less than 10% of the work hours required for graduation to become a Journeyperson; (c) Has no high school diploma or general education diploma; (d) Is homeless or has been homeless within the last year; (e) Is a former foster youth; (f) Is a custodial single parent; (g) Is experiencing protracted unemployment (receiving unemployment benefits for at least three months); (h) Is a current recipient of government cash or food assistance benefits; (i) Has a documented income at or below 100% of the Federal Poverty Level; and/or (j) Is formerly incarcerated with a history of involvement with the criminal justice system.."

Construction Workforce

The percentage of City residents employed continues to increase; currently, there are 565 City residents employed on Pure Water projects. City residents constructing Pure Water projects have earned $12,417,000 in wages and benefits through September of 2023. It is critical that the City's largest infrastructure undertaking supports local San Diegans with jobs.

Veterans and apprentices make up a significant proportion of the targeted workers. Four project sites sponsor Helmets to Hardhats, a career program for veterans: the North City Pure Water Facility and Pump Station; the North City Water Reclamation Plant Expansion; the North City Pure Water Pipeline, Dechlorination Facility and Subaqueous Pipeline; and Metropolitan Biosolids Center Improvements.

In total, more than 33,180 hours have been worked by veterans on the Pure Water projects through June 2023. In May, the 2023 class of apprentices graduated from the San Diego College and Southwestern College Apprenticeship Readiness Programs. On their way to becoming journeypersons, apprentices support the construction of Pure Water projects while completing their final hours to certification.

Jose Luis Garcia

Meet Jose Luis Garcia, a former Corporal in the United States Army who chose to begin his construction career as a laborer because he felt it was a good transition for the transferable skills he gained working in field artillery in the Army. With a growing family, the living wages, healthcare and stability to put down roots in one location helped solidify his choice. Jose went to the LIUNA Laborers Local 89 boot camp and currently works on the Metropolitan Biosolids Center Improvements project.

Program Funding

The City has received and continues to apply for grants and loans from both the federal and state governments. Water Infrastructure Finance and Innovation Act loans from the U.S. Environmental Protection Agency are currently providing $733.5 million for Phase 1 construction. The larger loan – $614 million – has an interest rate of only 1.29%, and the second loan – $119.5 million – has a low-interest rate of 1.82%. In April, the State Water Board signed four separate loans for a total of $664 million to also support Phase 1 construction. The State Water Board loans have very favorable interest rates between 0.8 and 1.1%. As of October 2023, the City has received $240 million from Water Infrastructure Finance and Innovation Act and $88 million from the Clean Water and Drinking Water State Revolving Fund loans.

In addition to these loans, the City has received $81.5 million in grants from funding agencies, which do not have to be repaid and accrue a direct savings to ratepayers.

WIFIA PROGRAM

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS


CM TEAM

Phase 2 Lookahead

Although Pure Water Phase 1 construction and other activities in preparation for releasing purified water to Miramar Reservoir are taking center stage, planning for the Pure Water Phase 2 facilities is underway.

PURE WATER PHASE 2 CENTRAL AREA SMALL-SCALE DEMONSTRATION FACILITY

As with Pure Water Phase 1, a small-scale demonstration facility is a regulatory requirement for Pure Water Phase 2 because it will treat water from a different wastewater collection area with different wastewater characteristics. In addition, there will be two unique treatment trains to address different regulatory requirements depending on whether the City pursues Indirect Potable Use or Direct Portable Reuse. The small-scale facility will be located at the Point Loma Wastewater Treatment Plant; its design was completed in October 2022, and the construction contract was awarded in July 2023.

A detailed testing and monitoring plan will be implemented when the Central Area Small-Scale Facility begins operating in 2025. The plan details the process equipment, operations testing, monitoring for pathogen and chemical control, and additional testing to compare the performance of treatment technologies. This plan was vetted by the City's Independent Advisory Panel comprised of experts in potable reuse treatment and public health. Upon approval from the Independent Advisory Panel, it was submitted to the California Division of Drinking Water, who also approved it.

Initial site work at the Central Area Small Scale Facility began in October 2023.

SCENARIO PLANNING

Rapidly developing changes in climate and water supply associated with drought cycles, water conservation and consequent reductions in wastewater flows, and socio-economic factors – and the continued uncertainty in these influences that strongly affect Phase 2 of the Pure Water Program – led the Public Utilities Department to undertake a Scenario Planning process. Scenario Planning is an adaptation of classic military intelligence methods that combine known facts with plausible alternative social, technical, economic and political trends that are key driving forces affecting an uncertain future. Since the 1970s, this technique has been used extensively in private enterprise and started being used by many water agencies in the early 2000s. It allows the Public Utilities Department to make decisions that would be most beneficial to the Pure Water Program no matter how the future unfolds.

Scenario Planning Workshop

The Public Utilities Department's Scenario Planning process developed alternative futures based upon driving forces (e.g., regional water supply and demand) that are hard to predict but will have a significant impact on how Pure Water Phase 2 is implemented. Common elements among the futures were identified that should be implemented regardless of how the future unfolds. Key data needs to inform decision making were also identified, and the Public Utilities Department is now using these data to refine and validate the Pure Water Phase 2 facility plan. The validated plan will become the basis for budgeting, scheduling and preparation of the Pure Water Phase 2 Program Environmental Impact Report and facility designs.

Operations and Maintenance Readiness

OPERATIONS AND MAINTENANCE READINESS

The Pure Water Operations division is working to ensure City staff are prepared to operate and maintain the North City Pure Water Facility 24 hours per day, 365 days per year. A total of 45 positions across the operations, maintenance, engineering and administrative disciplines have been approved for Pure Water Operations for this effort. Recruitments are being conducted according to a hiring plan that synchronizes with the construction schedule. Specific readiness tasks include:

Rendering of the North City Pure Water Facility.

- All senior operations staff must obtain the new Advanced Water Treatment Operator Certification. There are three levels of certification, and the higher the operator classification, the higher the required level of certification. Four of our staff have obtained all their required certifications. As new senior operations staff come on board, they will receive various forms of training to not only learn how to operate the purification process but to also prepare for their certification exams.
- Staff must participate in various construction-related activities such as commissioning planning, equipment submittal reviews, and the development of instrumentation and control screens.
- Staff must create North City Pure Water Facility asset maintenance plans and service schedules within enterprise asset management. In addition, they must observe and document construction from start to finish to ensure awareness of facility locations and configurations, and flag logistical conflicts.

To help ensure these staffing needs are met, Pure Water Operations has implemented comprehensive and innovative measures as part of a multi-pronged hiring effort. This includes wide-reaching, industry-targeted advertisement of open positions as well as attending recruitment events. In addition, the division is participating in the Cuyamaca Center for Water Studies Industry Advisory Group to assist in securing a pipeline of future high-performing employees. In 2023, Pure Water Operations completed the hiring and onboarding of two Pure Water Plant Operations Supervisors, one Instrumentation and Control Technician, one Instrumentation and Control Trainee and one Plant Process Control Electrician.

CERTIFICATION AND TRAINING

To ensure proper training and certification of our staff, Pure Water Operations implemented an Operator Training Program. This training program includes self-directed trainings, skills-based training, instructor-led training, construction and contractor training, and specialty training. Hands-on training is accomplished at the City's Pure Water Demonstration Facility, a 1 million gallons per day plant that includes the same treatment and monitoring equipment that will be included at North City Pure Water Facility.

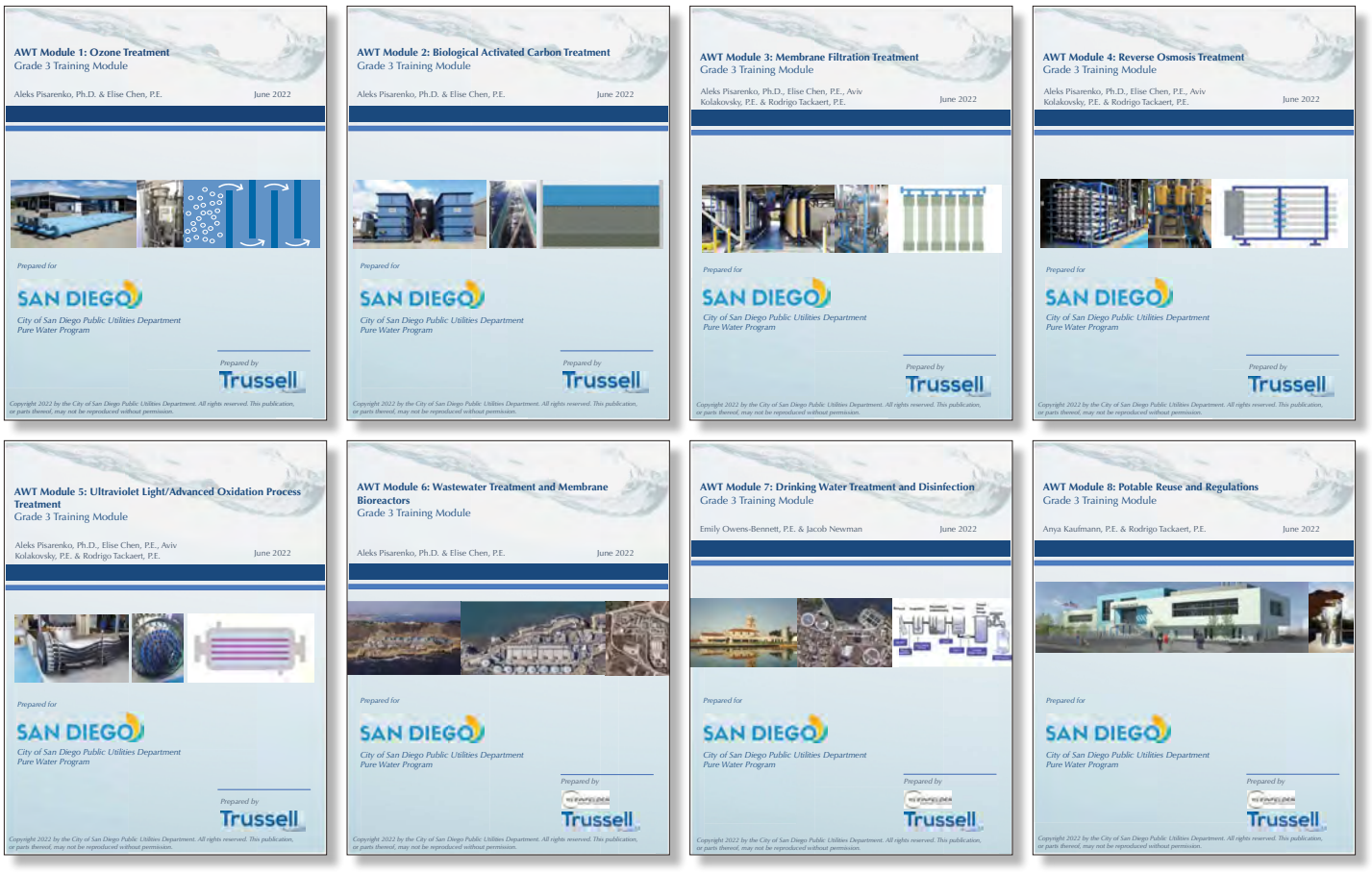
Advanced Water Treatment (AWT) certification training course, photo courtesy of Trussell Tech.

To ensure operators have the proper knowledge base to operate an Advanced Water Treatment facility, the City, along with agencies across the state, partnered with the American Water Works Association and the California Water Environment Association to develop the Advanced Water Treatment Operator Certification program; this certification is designed to ensure certified drinking water and wastewater operators are equipped to operate potable reuse facilities in compliance with regulations. To prepare staff to obtain this new certification, the City enlisted the assistance of a consultant to develop and implement a first-of-its-kind Advanced Water Treatment Academy. In this academy, operators learn about each of the purification processes, critical performance measures and controls, and water quality monitoring. The Academy was presented to 28 City staff in early 2023 and will be offered again to staff in January of 2024. Subsequent academies will be taught by Pure Water Operations staff.

An instructor speaks to a class as part of the Advanced Water Treatment (AWT) certification training course, photo courtesy of Trussell Tech.

Advanced Water Treatment Operator Training Materials

The AWT3 Training conducted January 2023 included 3 new and a total of 8 modules: Ozone, BAC, Membrane Filtration, Wastewater and MBR, Drinking Water and Disinfection, Potable Reuse Regulations.




Facility 10 - Primary Sedimentation Tanks
GM Town

Regulatory and Environmental Progress

MIRAMAR RESERVOIR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT AND WATER SUPPLY PERMIT

The first reservoir augmentation project in the State of California will be the Pure Water Subaqueous Pipeline at Miramar Reservoir (photo by MrGALL).

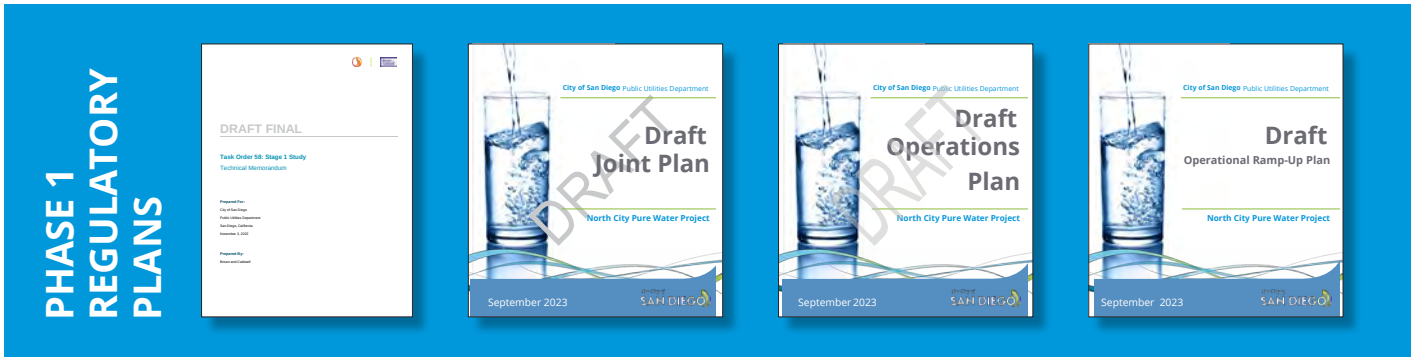
There are approximately 40 conditions under the Miramar Reservoir National Pollutant Discharge Elimination System permit for Miramar Reservoir that must be met prior to release of purified water into the reservoir. Three of them are first-of-their-kind reports under the Indirect Potable Reuse Surface Water Augmentation Regulations that were adopted by the California State Water Resources Control Board in March 2018. The North City Pure Water Project Operations Plan, Operational Ramp-Up Plan, and Joint Plan were all submitted to the California Division of Drinking Water on Sept. 1, 2023, for their review and comment. These plans are the foundation for operating the Pure Water Phase 1 integrated system and managing the release of purified water to Miramar Reservoir, the first reservoir augmentation project in the State.

- The Operations Plan details how the North City Pure Water Facility will be operated to ensure regulatory compliance, including sections on the detailed operational requirements for each of the North City Pure Water Facility unit processes (e.g., reverse osmosis), operation of Miramar Reservoir, water quality monitoring and other support systems.
- The Operational Ramp-Up Plan details how flow will be introduced to Miramar Reservoir, reliability approaches, the requirements to progress through the three sequential increased flow periods and monitoring at the Miramar Water Treatment Plant.
- The Joint Plan outlines how various Public Utilities Department divisions will interact, assigns division responsibility for each of almost 100 operational and regulatory activities, how different divisions will communicate to ensure requirements are met, and how emergencies will be addressed and managed.

These documents establish strict requirements and protocols that must be followed to maintain public health and safety of the drinking water supply. All Public Utilities Department divisions that will participate in the production of Pure Water were deeply engaged in the preparation and review of these documents.

Comprising a total of almost 2,000 pages, the three documents were released almost two years ahead of the required deadline. Such an early submittal satisfied the California Division of Drinking Water's request for advanced copies given the prototypical nature of these submissions. The early submittal also allows time to refine the documents based on the California Division of Drinking Water's comments, and for that next revision to be utilized during system-wide commissioning. Lessons learned during system-wide commissioning will be incorporated so these guiding documents can be continuously improved.

In addition, the first part of a two-stage study to establish any additional limits on discharges to the collection system to protect the Pure Water facilities and reservoir water quality was completed in early 2023 and reviewed by regulators. Sampling for the second stage is underway and builds upon the first stage of the study. Findings of this study are expected to be released in 2024.



DIRECT POTABLE REUSE REGULATIONS

The State Water Resources Control Board is required to issue final regulations for direct potable reuse by December 31, 2023. As with the Indirect Potable Reuse regulations that were adopted by the State Water Resources Control Board in 2018, the City has been working very closely with the California Division of Drinking Water to provide a real-world example of how the draft direct potable reuse regulations could be applied. With the City's example in hand, the California Division of Drinking Water modified the draft regulations in ways that are appropriate and adaptable to future project proposers. The State Water Resources Control Board released its draft direct potable reuse regulations for public review on July 21, 2023, and an updated draft on October 4, 2023. The October draft incorporated many changes requested by the City, notably in the areas of alternative treatment for pathogen control and the impact of blending on total organic carbon in the distribution system. The leadership position that the City has taken in bringing issues with defined examples to the regulators will benefit the application of potable reuse in San Diego, and elsewhere in California.

POINT LOMA WASTEWATER TREATMENT PLANT PERMIT

The Point Loma Wastewater Treatment Plant

In addition to the ongoing activities to address regulatory requirements for the Pure Water Phase 1 facilities, the renewal of the National Pollutant Discharge Elimination System permit for the Point Loma Wastewater Treatment Plant is underway. The Point Loma Wastewater Treatment Plant has a modified permit for enhanced primary treatment that is jointly issued by the U.S. Environmental Protection Agency and the San Diego Regional Water Quality Control Board, as long as Pure Water is implemented. The current permit was adopted in October 2017. As required, the City submitted a renewal application in March 2022, six months prior to the expiration date. The permit was administratively extended on Sept. 27, 2022, to allow for continued operation under the current permit until a new one is issued. The San Diego Regional Water Quality Control Board is currently preparing a draft Tentative Order that will then be released for public comment. Following the public comment period, the San Diego Regional Water Quality Control Board will respond to comments and prepare and adopt a Final Order. The City estimates that it will receive the final permit in 2024.

OCEAN POLLUTION REDUCTION ACT II

On March 22, 2023, Congressman Scott Peters reintroduced the Ocean Pollution Reduction Act II (H.R.1720), which proposes modifying the permitting requirements for discharge of pollutants from Point Loma Wastewater Treatment Plant. This bill contains required milestones in line with projected reductions in both the treated discharges from the Point Loma Wastewater Treatment Plant and the production of potable water expected with Pure Water Phase 1 and Phase 2. Congressman Peters continues to work with staff from the Committee on Transportation and Infrastructure to schedule a hearing for the Ocean Pollution Reduction Act II, similar to the last two Congresses. The bill must go through the Committee before the House floor and then on to the Senate for consideration.

PURE WATER PHASE 1 PROJECTS ENVIRONMENTAL COMPLIANCE

Biological, archaeological and paleontological monitoring is conducted for active Pure Water Phase 1 construction packages in accordance with the Mitigation, Monitoring and Reporting Program adopted as part of the Final Environmental Impact Report/Environmental Impact Statement for Pure Water Phase 1.

The SANDER Vernal Pool and Upland Mitigation Site, which offsets impacts to sensitive biological resources at the North City Pure Water Facility, completed year three of a seven-year maintenance and monitoring program. Maintenance work in 2023 focused on weed control by removing non-native biomass throughout the site. In addition, anthropogenic trash removal and boundary fence repairs also occurred.

The Pueblo South Native Grassland Mitigation Creation Site *(photos, below)* completed year four of a five-year maintenance and monitoring program. The impetus of maintenance work for 2023 also included controlling weeds before they set seed. Additional work included ongoing gopher control and hand broadcasting native seed mix in sparse locations throughout the site. The site continues to exceed the annual performance standards.

Engineering and Process Optimization Support Studies

NORTH CITY PURE WATER FACILITY RESEARCH

The City continues to operate and maintain the Pure Water Demonstration Facility, a 1 million gallon per day plant that comprises the advanced treatment processes that will be used in the North City Pure Water Facility. The Pure Water team completed a U.S. Bureau of Reclamation grant-funded research project that evaluated the impact of bromide on reverse osmosis membrane oxidation and compliance with water quality regulations. In 2023, an additional round of testing was completed to evaluate effectiveness of selected control measures to minimize disinfection by-products and bromate formation, as well as determine reverse osmosis membrane performance under different operating conditions. The report was finalized in March 2023.

The Pure Water Demonstration Facility

In addition, the team modified the demonstration facility to perform high-recovery testing for the reverse osmosis membranes. In 2023, the City started evaluating the impact on water quality when reverse osmosis recoveries are increased from 85% recovery to between 90% and 95% recovery. Higher recovery increases the amount of purified water produced for a given influent flow. It also reduces the reject water that must be disposed of.

A tracer test through the North City Water Reclamation Plant treatment processes was performed in 2022 to provide additional information on hydraulic performance that will aid the Independent Advisory Panel's assessment of additional treatment credit at the plant. The Independent Advisory Panel reviewed the results of the study in 2023 and the City is preparing a draft report to seek additional pathogen removal credit from the regulators. Additional credit would recognize the added levels of protection provided during treatment, provide flexibility for treatment operations for the Pure Water Phase 1 facilities and aid in reliably maintaining regulatory compliance.

2023 Pure Water Outreach By The Numbers

Informational Materials

PHASE 1 WEBSITE IMPROVEMENTS

In 2023, an audit of the current Pure Water website was conducted to identify areas for improvement. Based on the audit recommendations, the website is currently being enhanced to demonstrate progress and highlight the comprehensive outreach on Pure Water Phase 1 projects, while making sure the webpages are as visually compelling as possible. The updated website will ensure optimal wayfinding for key information and facilitate increased user accessibility.

GIS MAP

The regularly updated Phase 1 North City interactive closure map enables users to quickly find information on road closures, detours and impact-related information by project.

FACT SHEETS IN NEW LANGUAGES

Pure Water fact sheets have been available in Spanish and English. The accessibility of Pure Water Phase 1 information has been expanded into three more languages: Vietnamese, Korean and Mandarin. Fact sheet materials are available on the Informational Materials page of purewatersd.org.

YOUTH ACTIVITY BOOKLET

The redesigned youth activity booklet was launched in spring 2023 as a resource targeted to a younger audience, providing information about water reuse and sustainability through interactive games. This booklet includes simplified information about the purification process, shared through writing prompts, key words and coloring activities.

Examples of fact sheets
(available in English, Spanish, Mandarin, Korean, Vietnamese)

The Pure Water Youth Activity Booklet

View the Informational Materials webpage

Use your phone camera to scan the QR code and click the link:

Phase 1 Projects fact sheet
(available in English, Spanish, Mandarin, Korean, Vietnamese)

Community Outreach and Industry Engagement

COMMUNITY EVENTS

The Pure Water outreach team engaged with the community members at 16 community events: the Festival, Dexcom Earth Day Fair, SONY Earth Day Fair, Bike Anywhere Day, Ocean Beach Street Fair, University City 4th of July, Scripps Ranch 4th of July, Filipino-American Friendship Festival, Standley Summer Safety Splash, Mayor Gloria's Back to School Celebration, Girl Scouts Volunteer Conference, Clairemont Family Day, Mira Mesa Street Fair, University City Oktoberfest, Walter Munk Oceans Day and December Nights. These events provided a fun and engaging way for the team to meet face-to-face with stakeholders and residents, answer questions and share updates about the program.

The Pure Water team attended multiple community events in 2023 and were joined by several city officials, including Mayor Todd Gloria and Councilmembers Kent Lee and Jennifer Campbell.

SPEAKERS BUREAU PROGRAM

As construction activity increased in 2023, the Speakers Bureau program expanded to include new speakers, a refreshed presentation with engaging, interactive maps and timely construction content. Pure Water held informational meetings for a variety of organizations, community groups and planning groups like the University of California San Diego, Marston Middle School and the League of Women Voters.

During these presentations a wide range of topics was covered, including program regulations, project maps, wastewater treatment processes, the history of recycling drinking water and project updates. Additionally, we held internal trainings to increase our knowledge across City departments including the Public Utilities Department and Strategic Capital Projects Department.

Pure Water team members presented to Marston Middle School students.

An audience receives a presentation before touring the Demonstration Facility.

INDUSTRY AND ELECTED OFFICIAL TOURS

While tours at project sites like the North City Pure Water Facility and Pump Station and the Pure Water Demonstration Facility continue to be paused for public access due to ongoing construction and site safety protocols, select industry and elected official tours were accommodated in 2023. These select tours were an opportunity for industry leaders and community leaders to see the progress and learn more about what the community can expect once the Pure Water Phase 1 projects are completed.

In 2023, more than 40 tours and presentations were given to industry group members and community stakeholders, including City of San Diego employees, the American Society of Civil Engineers, San Diego Regional Policy and Innovation Center, U.S. Navy environmental personnel, participants from the California Association of Sanitation Agencies annual conference, I Love a Clean San Diego, American Public Works Association Expo conference participants and DC Water. Construction progress-focused tours were also offered to team members from the offices of Senator Toni Atkins, Governor Gavin Newsom, Assemblymember Chris Ward and City Council Districts 1, 3, 5, 6, 7, 8 and 9.

Representatives from offices of Sen. Toni Atkins, Gov. Newsom, Asm. Chris Ward check out the construction progress.

DC Water tours the North City Pure Water Facility and Pump Station.

Participants from the California Association of Sanitation Agencies taste Pure Water at the Demo Facility after the annual CASA conference.

CONFERENCE PARTICIPATION

At the 2023 National WateReuse Symposium in March, the Pure Water team hosted about 100 attendees for a 60-minute panel about the planning for Pure Water Phase 2. In April, the Pure Water team presented a session to a packed room on the history, regulations, construction status and operational readiness planning efforts at the California Water Environment Association Annual Conference as part of an update on potable reuse initiatives in the San Diego area. Additionally, the Pure Water team presented at the American Public Works Association's National Public Works Expo in August. Finally, at the California WateReuse Annual Conference in November, the Pure Water team delivered two lessons learned presentations describing the complexities of reservoir management for potable reuse and the regulatory activities that must be completed to allow augmentation of a surface water reservoir. Industry conferences are an important avenue to gather water professionals from across the country to learn and share about their practices and innovations.

Pure Water panelists at the American Public Works Association's National Public Works Expo in August 2023.

CONSTRUCTION OUTREACH

Proactive, robust construction outreach is ongoing as part of the Pure Water Phase 1 projects in Linda Vista, Clairemont, University City, Miramar and Scripps Ranch. In addition, programmatic outreach continues citywide. The construction outreach team fielded and resolved approximately 90 construction-related stakeholder inquiries in 2023 via the three community phone lines and a dedicated email address, purewatersd@sandiego.gov.

Pure Water Project Contact Information purewatersd@sandiego.gov	
Community	**Phone**
Morena, Bay Park and Clairemont	833-MOR-PWSD (833-667-7973)
University City and Eastgate Mall	833-UTC-PWSD (833-882-7973)
Scripps Ranch and Miramar	833-MIR-PWSD (833-647-7973)

The outreach team strategically distributed project and schedule information via construction notices, website updates, social media content, fliers, doorhangers and e-blasts. Each outreach liaison worked together with the project-specific construction management team, contractor and community groups, stakeholders and residents to ensure the timely delivery of construction-related information.

Monthly meetings and updates resumed to the University Community Planning Group and University City Community Association. Ad-hoc presentations were provided to the Clairemont Planning Group, Clairemont Town Council, Scripps Ranch Planning Group, Scripps Ranch Civic Association, Mira Mesa Planning Group, and Miramar Ranch North Planning Committee and Pure Water Working Group members.

2023 Construction Outreach Recap

32 e-blasts distributed to approximately **4,108** recipients

90 inquiries received and resolved

20 presentations given to community groups, informing approximately **450** people in various community organizations

Outreach teams tabled at the Miramar Reservoir project site for **10** days

The outreach team shared information about planned work at Miramar Reservoir.

The City of San Diego continues to provide safe, high quality drinking water for its customers each and every day.

Visit purewatersd.org to learn more about the Pure Water Program.

@PureWaterSD

Pure Water San Diego

Pure Water San Diego Program

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