



Pure Water
San Diego

2025 Annual Report

Construction of the Phase 1 Projects forges ahead for the City of San Diego Pure Water Program, the largest infrastructure project in City history



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Program Overview

Pure Water San Diego Program



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 increased nearly sixfold over the last 25 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. Beyond these direct benefits to the region's local water supply, Pure Water ensures the City of San Diego is in compliance with federal regulations and the Clean Water Act. Once complete, Pure Water will significantly reduce treated discharges from the Point Loma Wastewater Treatment Plant into the Pacific Ocean.

What is Pure Water San Diego?

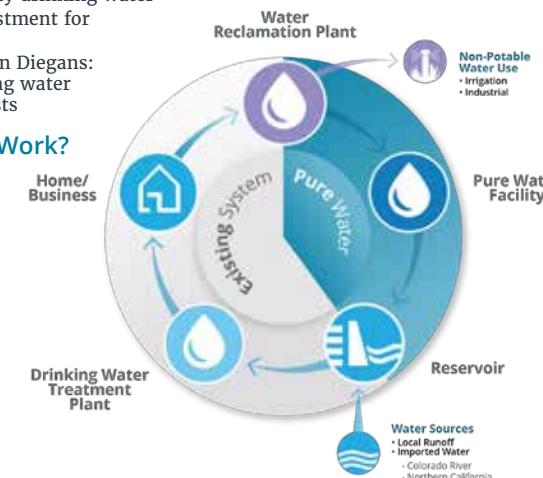
Pure Water San Diego is a phased, multi-year program that will provide nearly half of San Diego's water supply locally by 2035.

Pure Water San Diego:

- Uses proven technology to clean recycled water to produce safe, high-quality drinking water
- Offers a cost-effective investment for San Diego's water needs
- Provides a dual value for San Diegans: reliable, sustainable drinking water and avoided wastewater costs

How Does Pure Water 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. Pure Water 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

January 2026

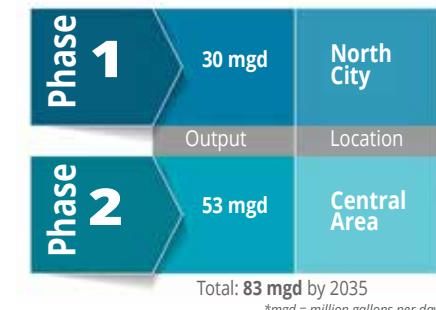
Completing our Water Cycle, Securing our Future

Where is Pure Water?

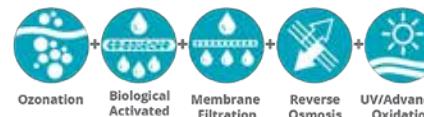
The Pure Water facilities will be located in two different geographical areas: North City (Phase 1) and Central Area (Phase 2).



When Will the New Facilities be Built?



What are the Steps of the Water Purification Process?



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

More than 145,000 water quality tests have confirmed the water is safe and meets all federal and state drinking water standards.

What is the schedule for Phase 2?

Phase 2 is currently in the planning stages. Construction is wrapping up on the Central Area Small-Scale facility in Point Loma, which is required for the state's approval of Phase 2. The Pure Water team is currently reassessing conditions that have changed since the original plans were developed in 2011.

Did You Know?

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

What will the New Facilities Cost?

Phase 1 capital costs are \$1.76 billion. 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:



Want to Know More?

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



*“The future of
San Diego’s
water supply”*

Major Accomplishments/ Executive Summary

“Construction of the Phase 1 North City Pure Water Projects is nearly 85% complete”

With 2025 coming to a close, we are pleased to share significant progress on the City of San Diego’s Pure Water Program. Construction of the Phase 1 North City Pure Water Projects is nearly 85% complete, positioning the City to deliver purified water near the end of 2026.

At the North City Pure Water Facility, the heart of Pure Water Phase 1, preparations for the startup and operation of the facility are well underway. Operations, maintenance and laboratory staff are preparing to transition into the new building and lab spaces to better support the advanced water purification and monitoring process, while the North City Water Reclamation Plant has switched to 24 hours, 7 days a week operations and is holding monthly readiness meetings to prepare for full-scale operations.

In addition, pipeline installation across the Program is over 87% complete. More than 26 miles of pipeline has been successfully installed by the three contractors working on large-diameter pipeline installation in the Morena, Bay Park, Clairemont and University City communities. In May, we successfully completed the tie-in of newly installed southern pipelines to the Morena Pump Station, which will connect at the northern end to the North City Water Reclamation Plant. In October, crews reached the east side of Interstate 805, the longest and deepest tunnel, as part of Phase 1. The I-805 tunnel connects the Morena Pipelines to the North City Water Reclamation Plant, marking the completion of 14 of the 15 tunnels on the Program. Hydrostatic testing of the pipeline segments began in 2025 and will be ongoing through 2026 to ensure all installed pipes are functioning as intended. We appreciate the community’s patience as this essential work continues through the Phase 1 Project communities.

The Pure Water Program proudly continues to create jobs for San Diegans. Through the City’s Project Labor Agreement (PLA) and associated apprenticeship programs, City residents have earned over \$50 million in wages, with over \$37 million being earned by underrepresented groups in the construction industry. The City also has 154 craft workers across PLA-covered construction who are veterans of the United States armed forces.

From a water industry perspective, we were thrilled to host industry professionals from the WateReuse California Annual Conference and the California Association of Sanitation Agencies Annual Conference at the North City facilities to showcase Pure Water San Diego. City staff and consultants continue to lead the industry by sharing insights and lessons learned from Phase 1 at multiple industry conferences. As a part of our industry outreach efforts this summer, we introduced a sustainable, dry-hopped lager in partnership with AleSmith Brewing Company, demonstrating an innovative application of water reuse and engaging the San Diego business community in a meaningful way.

Looking ahead to 2026, we plan to complete final paving and restoration activities along pipeline routes and continue to prepare for the startup and commissioning of all facilities. We anticipate the first delivery of 7.5 million gallons per day of purified water to Miramar Reservoir near the end of next year, ushering in a new era for the San Diego region with the availability of Pure Water San Diego. Pure Water San Diego will provide dual value for San Diegans, significantly reducing discharges from the Point Loma Wastewater Treatment Plant and providing nearly half of San Diego’s water supply locally by 2035.

Thank you for your continued support as we work together to secure a reliable water future for our region. We look forward to years of planning, coordination and hard work becoming a reality for the City of San Diego and its residents.

Here’s to the future of San Diego’s water supply!

Juan Guerrero
Director
City of San Diego Public Utilities Department

2025 Milestones



01

JANUARY

In January 2025, crews completed the installation of two lime towers at the North City Pure Water Facility. Coming in at 60 feet tall and 14 feet in diameter, these towers hold lime, an important mineral for product water stabilization in purified water.



02

FEBRUARY

Significant headway was made on the dechlorination facility as part of the North City Pure Water Pipeline project. The dechlorination facility will remove disinfectants from purified water before the water is added back into Miramar Reservoir—which is beneficial for recreation and helps protect the reservoir's plant and animal habitats. In February, the facility walls were installed, and site utility connections were made.



03

MARCH

In spring 2025, crews began assembling and installing 150-foot diameter dome covers for the secondary clarifiers at the North City Water Reclamation Plant. Each metallic dome cover was lifted into place via crane. Secondary clarifiers are integral to the advanced purification process as they help separate solids from treated water to increase water quality.

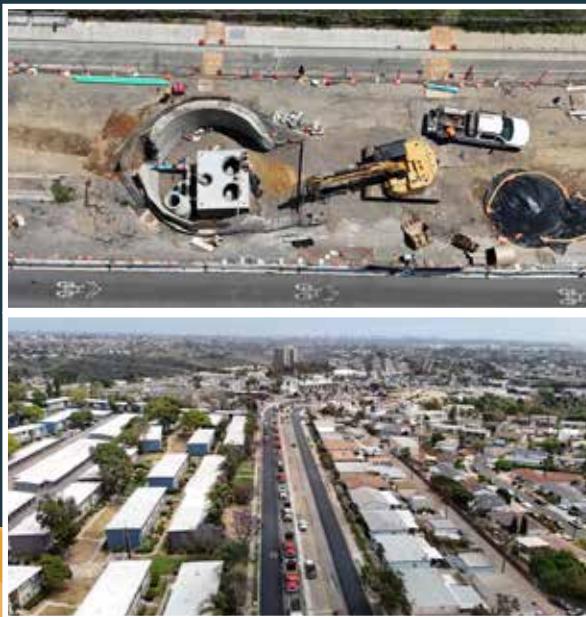


04

APRIL

The Pure Water outreach team attended the Linda Vista Street Fair in April, where they offered water tastings, engaged with the community, and ran into the City of San Diego Mayor, Todd Gloria!

2025 Milestones



05

MAY

To kick off the summer, crews on the Morena Conveyance South and Middle project completed work to tie in newly installed pipelines to the Morena Pump Station. This is the southernmost point of the 10.5 miles of pipeline that will connect the Morena Pump Station in Bay Park to the North City Water Reclamation Plant on Eastgate Mall.

06

JUNE

At the Rose Canyon site, crews finished three of the four large-diameter, highly technical tunnels on the Morena Northern Pipeline and Tunnels Project – bringing the project to over 75% completion!

Paving began for the Morena Conveyance South & Middle project along Clairemont Drive, a huge step in restoring the roadways for the community after pipeline installation.

07

JULY

In July, the Pure Water Team hosted industry professionals from the California Association of Sanitation Agencies 2025 Annual Conference at the North City Water Reclamation Plant and North City Pure Water Facility.

08

AUGUST

The City of San Diego proudly partnered with AleSmith Brewing Company to create “Re:Beer,” a dry hopped lager, with the purified water from the North City Pure Water Demonstration Facility.



2025 Milestones



09

10

11

12

SEPTEMBER

Another successful WateReuse California Conference in the books! In September, the Pure Water team hosted a group at the North City Pure Water Facility to learn about the program's advanced water purification process.

OCTOBER

On the Morena Conveyance Northern Pipeline and Tunnels Project, construction crews completed over 1,000 feet of tunneling beneath Interstate 805.

The I-805 tunnel is the longest and deepest tunnel across the Pure Water Phase 1 projects.

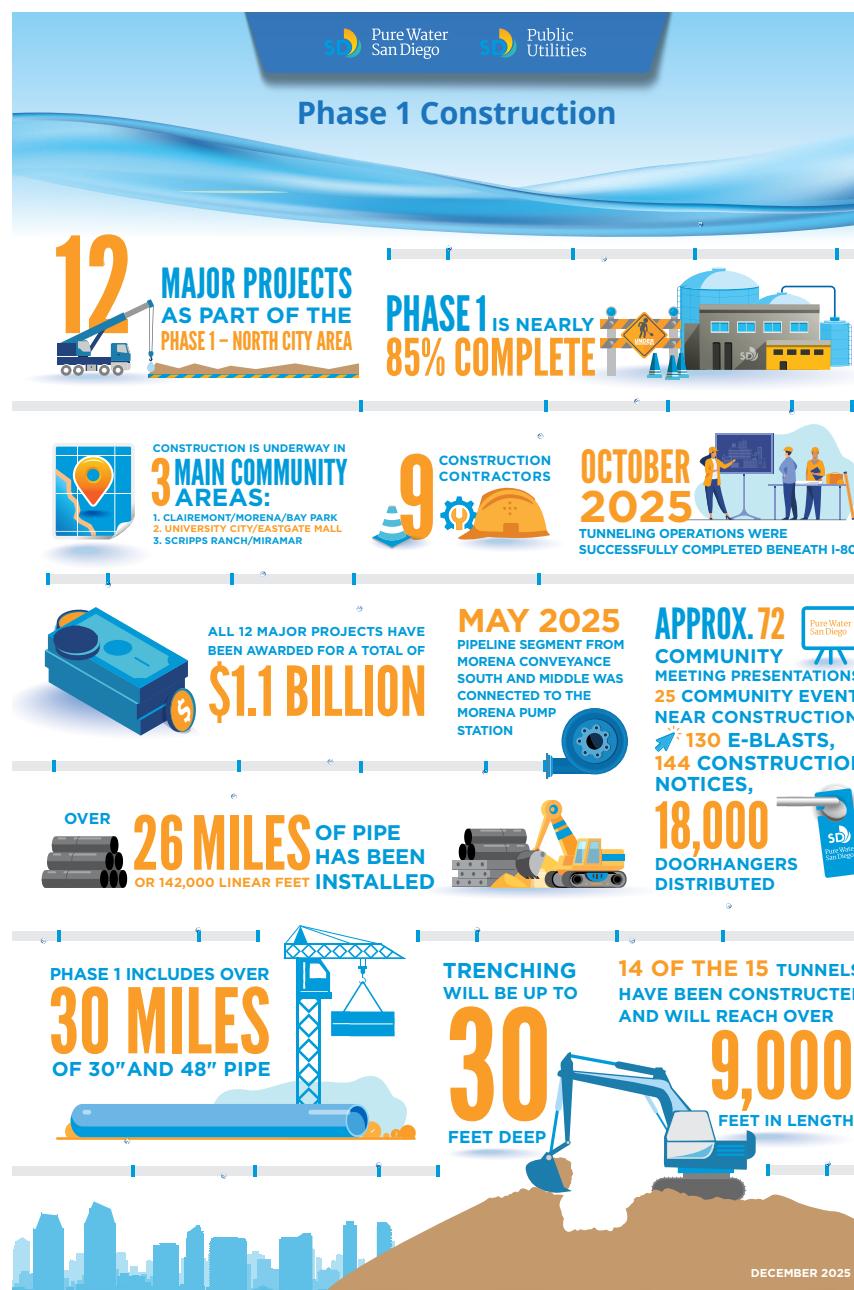
NOVEMBER

Base paving started at the North City Pure Water Facility. This process builds the foundation for the final surface paving for roadways on the site and is important for load distribution, drainage and stability.

DECEMBER

Landscaping and other restoration work is occurring at Miramar Reservoir. Previous landscaping was removed to allow for the construction of the subaqueous pipeline and parking lot improvements at the reservoir. The restored landscaping serves as screening for the adjacent Miramar Drinking Water Plant.

Phase 1 Construction Overview



Phase 1 North City Construction

Pure Water Phase 1 construction involves 12 major projects, two of which are completed. The table below shows each project and the anticipated completion dates. To learn more about Pure Water Phase 1 construction, visit the [Phase 1 Projects](#) page.

Project Name	Anticipated Completion	Current Status	Construction Award Date	Prime Contractor	Contract Amount
Early Site Work and Mass Grading	-	Completed	Apr-19	AECOM Energy & Construction, Inc.	\$16.4M
Morena Pump Station	2026	Ongoing	Apr-21	Flatiron	\$110.4M
Morena Conveyance South and Middle and Morena Bike Lanes	2026	Ongoing	Aug-22	Sukut Construction	\$129.7M
Morena Conveyance Northern Pipelines Alignment and Tunnels	2026	Ongoing	Apr-21	OHL	\$95.2M
North City Reclamation Plant Expansion	2026	Ongoing	Jun-21	Kiewit	\$255.1M
North City Water Reclamation Plant Flow Equalization Basin	2026	Ongoing	Nov-21	Kiewit	\$11.9M
Metropolitan Biosolids Center Improvements	2026	Ongoing	Aug-21	PCL	\$40.1M
North City Pure Water Facility and Pump Station	2026	Ongoing	Mar-21	Shimmick	\$356.7M
North City Pure Water Pipeline, Dechlorination Facility and Subaqueous Pipeline	2026	Ongoing	Apr-21	W.A. Rasic	\$102.7M
Miramar Reservoir Pump Station Improvements	2026	Ongoing	Aug-22	Shimmick	\$12.7M
Miramar Reservoir Automated In-Water Quality Monitoring System	-	Completed	Oct-21	Soundnine Inc.	\$1.0M
Peñasquitos Pump Station Oxygenation System	2026	Ongoing	Feb-23	Blue Pacific	\$4.4M
TOTAL					\$1.14 Billion

Phase 1 Construction Progress:

Morena Pump Station

Construction began in June 2021, 87% Complete

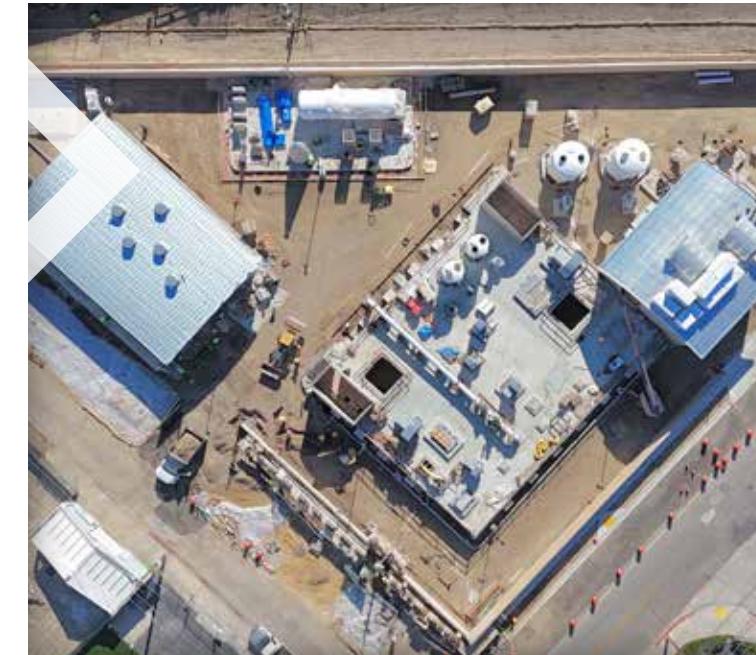
The Morena Pump Station will divert an average of 32 million gallons of wastewater per day through the Morena Pipeline to the North City Water Reclamation Plant for treatment and then the North City Pure Water Facility for purification. In 2025, crews worked on the upper level of the pump station by continuing progress on the facility's screening facility, hydromodification tank and wet wells. Installation moved forward on the pump station's electrical building, perimeter walls, and site utilities. Additionally, work on the diversion structures, underground infrastructure located underneath Friars Road that will divert wastewater to the Morena Pump Station, continued throughout the year. Friars Road is expected to reopen in early spring as work transitions from construction to commissioning activities.

Morena Conveyance Southern and Middle Project

Construction began in October 2022, 89% Complete

The Morena Pipelines Southern and Middle project will connect the Morena Pump Station to the Morena Pipelines Northern Alignment and Tunnels. In 2025, crews completed segments of pipeline installation on Clairemont Drive between the South and Middle segments. Crews are currently focused on the final phase of pipeline work, which includes the remaining segments along Morena Boulevard and Genesee Avenue. Final paving and striping has occurred at the segment of Clairemont Drive located between Erie Street and Lakehurst Avenue. These operations are expected to continue through 2026.

Morena Pump Station



Morena Conveyance Northern Pipelines and Tunnels Project



Morena Conveyance South & Middle Alignment

Morena Conveyance Northern Pipelines and Tunnels Project

Construction began in June 2021, 88% Complete

The Morena Northern Pipelines and Tunnels will connect to the Morena Pipelines South and Middle Alignment and the North City Water Reclamation Plant. In 2025, crews completed the tunnels at Rose Canyon and underneath Interstate 805, reaching a critical milestone by breaking through to the other side at the North City Water Reclamation Plant. Most of the pipeline installation for the project has been completed, and hydrostatic testing has begun. One of the four primary pipeline segments has been successfully tested, and hydrostatic testing will continue into next year as the full system is prepared for commissioning and startup. Installation of various pipeline appurtenances is ongoing across all project areas with curb-to-curb paving expected to follow in 2026.

Phase 1 Construction Progress:

North City Water Reclamation Plant Expansion



North City Water Reclamation Plant Expansion

Construction began in August 2021, 74% Complete

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 2025, crews moved forward with concrete work and focused on accelerating mechanical and electrical installation. Mechanical teams installed piping and process equipment throughout all major facilities, coordinating shutdowns to integrate new components with the existing plant infrastructure. Clean water commissioning has begun in all four secondary clarifiers, and to prepare for the system's startup, operations staff have begun checking gates and valves as well as testing equipment. The pump station at the North City Water Reclamation Plant will convey recycled water to the North City Pure Water Facility for advanced purification beginning in 2026. The capacity treated through the plant is expected to ramp up progressively throughout the next year.

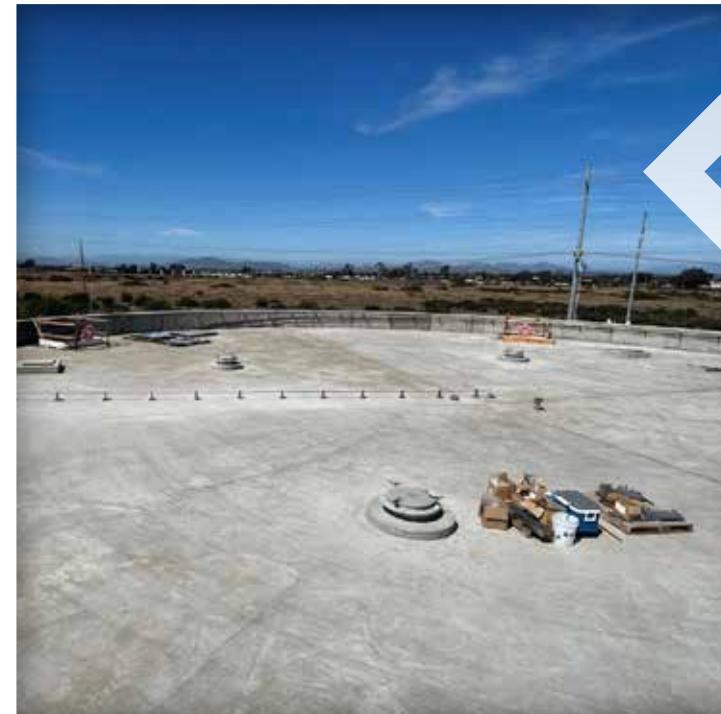


Metropolitan Biosolids Center Improvements

Construction began in September 2021, 85% Complete

To accommodate increased biosolids to the Metropolitan Biosolids Center due to the expansion at the North City Water Reclamation Plant, upgrades at the Metropolitan Biosolids Center are necessary. In 2025, sludge and polymer feed pumps were installed. The project moved toward completion as crews prepared dewatering and thickening centrifuges and related systems for commissioning. Other key progress includes the successful start-up of Thickening Centrifuge #1 and its associated pumps. Commissioning efforts are ongoing for several Distributed Control System (DCS) control strategies, and the final flare start-up is currently projected to occur later this year. Currently, training sessions are being held to ensure operators are equipped to work with the new system upgrades and improvements.

Metropolitan Biosolids Center Improvements



North City Water Reclamation Plant Flow Equalization Basin

North City Water Reclamation Plant Flow Equalization Basin

Construction began in December 2021, 75% Complete

A 2.35-million-gallon Flow Equalization Basin is being built on the North City Water Reclamation Plant site and will regulate the peak wastewater flow rates to allow for more constant flow through the plant's treatment processes. This volume is equivalent to almost four Olympic-sized swimming pools. In 2025, this project achieved multiple critical construction milestones. Crews installed electrical and piping infrastructure as well as completed interior mechanical work and exterior architectural and structural work. Most notably, the equalization basin successfully passed its required leak test, which confirmed its structural integrity and water-retention capacity. As the project comes to a close, next steps include final architectural finishes, followed by system start-up and commissioning procedures.

Phase 1 Construction Progress:

North City Pure Water Facility and Pump Station

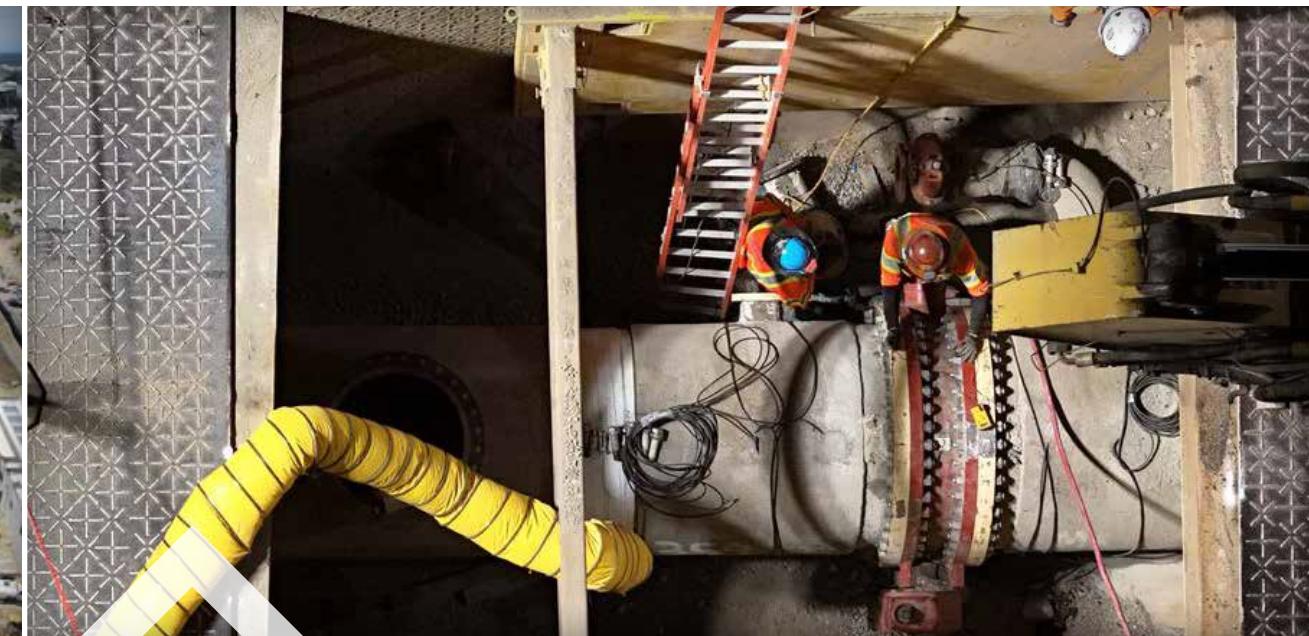
Construction began in April 2021, 87% Complete

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. Throughout 2025, construction crews focused their efforts on the ozone facility, biologically activated carbon filters, process area, chemical facility, and administration building. Above-grade mechanical and electrical installations remain the primary focus of ongoing construction efforts. Additionally, crews are beginning to prepare the facility for commissioning.

North City Pure Water Facility and Pump Station



North City Pure Water Pipeline, Dechlorination Facility and Subaqueous Pipeline



Miramar Reservoir Pump Station

Construction began in October 2022, 85% Complete

The existing Miramar Reservoir Pump Station moves water from Miramar Reservoir to the Miramar Drinking Water Treatment Plant. This pump station is being upgraded to ensure that it can continually pump purified water. In 2025, crews worked on the installation of vertical turbine pump refurbishments and electrical switchgear improvements, successfully completing the installation and wiring termination for both the new switchgear and generator. Final energization of this new equipment is currently pending the installation of an upsized transformer by SDG&E, an operation which began in Fall 2025.



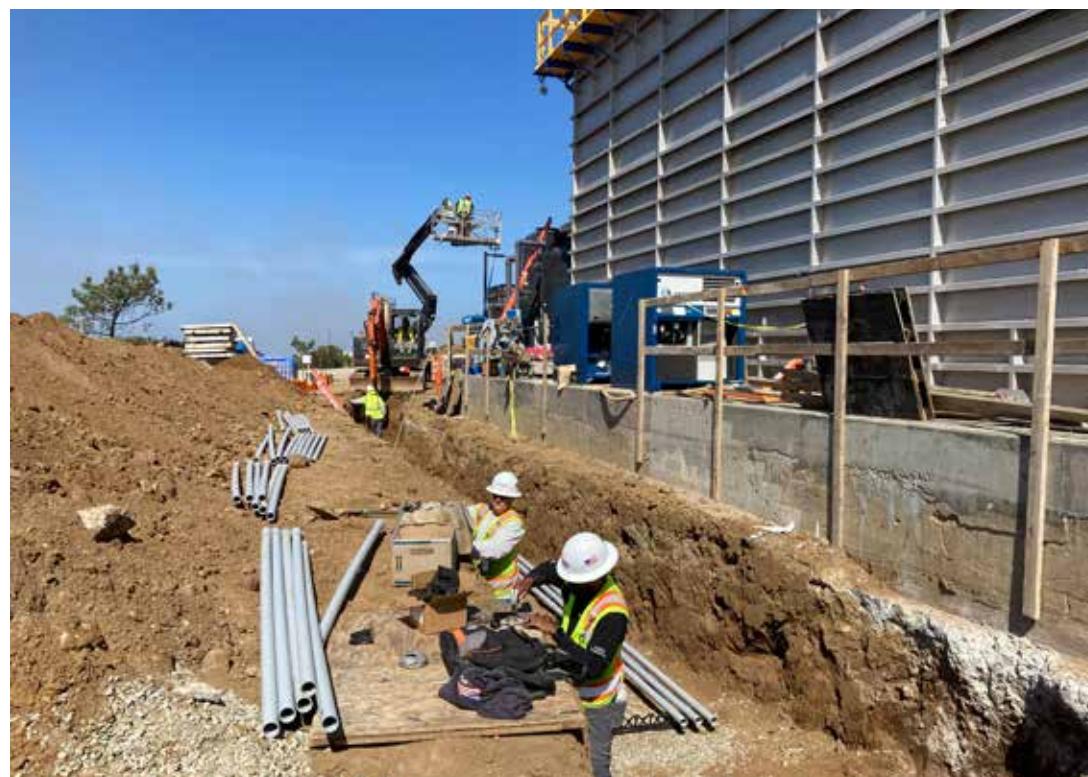
Miramar Reservoir Pump Station

North City Pure Water Pipeline, Dechlorination Facility and Subaqueous Pipeline

Construction began in June 2021, 79% Complete

The North City Pure Water Pipeline will convey purified water to Miramar Reservoir, while the Dechlorination Facility will remove residual chlorine levels necessary for transmission and disinfection prior to Miramar Reservoir delivery. As of Fall 2025, the North City Pure Water Pipeline project has successfully completed the installation of over 36,000 linear feet of pipeline. West of Interstate 15, the installation of pipe and wet appurtenances is finalized along Via Excelencia, Via Pasar, and Candida Street. East of Interstate 15, two sections of the pipeline have successfully undergone hydrostatic testing. Hydrostatic testing is projected to continue through 2026 as the system prepares for startup and commissioning. On Eastgate Mall, pipe installation is active, and the preparatory shoring installation for the Eastgate tunnel shafts has started. Significant progress has been made on both Dechlorination Facility and access structure. The Dechlorination Facility masonry structure, roof, floor slab, and equipment pads are complete, with ongoing interior mechanical buildout progressing.

Construction Workforce



In total, almost **3,142,466 labor hours** have been invested in Phase 1 construction through October 2025. The Project Labor Agreement Coordination Team has provided monthly updates regarding progress toward the Pure Water Program's hiring goals of City resident and targeted workers for the construction workforce.

Differentiated by project, the table below demonstrates the current hiring percentages of City residents and targeted workers, through October 2025. The 11 active construction projects have a workforce that is comprised of an average of **23% City residents**. **9 of the 11** projects exceed the **10% goal** of targeted worker representation.

Project Name	Contractor	City Resident % (Goal = 35%)	Targeted Worker % (Goal = 10%)
Metropolitan Biosolids Center	PCL Construction	42%	29%
North City Pure Water Pipeline	WA Rasic	30%	25%
Central Area Small-Scale Facility	Filanc	31%	28%
North City Pure Water Facility and Pump Station	Shimmick	28%	20%
Miramar Pump Station	Shimmick	22%	9%
North City Water Reclamation Plant Expansion	Kiewit	21%	16%
Morena Northern Pipelines and Tunnels	OH LA	18%	28%
North City Water Reclamation Plant Equalization Basin	Kiewit	16%	14%
Morena Pump Station	Flatiron	18%	8%
Peñasquitos Pump Station	Blue Pacific	40%	7%
Morena Conveyance South and Middle and Conveyance Bike Lanes Morena Southern	Sukut	7%	13%
Program Wide		23%	19%

Construction Workforce

The percentage of City residents employed continues to increase; currently, there are **1,602 City residents** employed on Pure Water projects. City residents constructing Pure Water projects have earned **\$49,595,928** through October 2025. It is critical that the City's largest infrastructure undertaking supports local San Diegans with jobs.

Veterans of the United States armed forces and apprentices make up a significant proportion of the targeted workers. Multiple project sites sponsor Helmets to Hardhats, a career program for veterans of the United States armed forces making the transition to civilian employment in the construction industry: 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 **133,340 hours** have been worked by veterans on the Pure Water projects through October 2025.



Morena Pump Station



Our People: Veterans in Construction



Meet Kathy Smart

Kathy Smart is a United States Navy veteran and an eighth-period Inside Wireman apprentice working at the North City Pure Water Facility and Pump Station.

Kathy proudly served in the U.S. Navy for 16 years before medically retiring as a Chief Warrant Officer Third. After retirement, Kathy continued her service to others by working as a paramedic firefighter. When her wife received new orders to San Diego, the couple relocated, where Kathy's father, an International Brotherhood of Electrical Workers (IBEW) union member, encouraged her to visit the IBEW and learn more about what the union had to offer. She applied and was accepted on her first attempt. Kathy credits her military experience with helping her transition smoothly into the construction industry. She points to the leadership skills she developed in the Navy, as well as the ability to adapt quickly, solve problems creatively, and work as part of a team to accomplish complex tasks. These qualities have served her well on the job site, where teamwork and precision are critical to getting the work done right.



Meet Jose Luis Garcia

Jose Luis Garcia is an apprentice who was sponsored on Pure Water San Diego. Thanks to the dedication and hands-on training he received, Jose has made tremendous progress in developing his craft and skillsets helping to advance his career.

Jose, a U.S. Army Veteran, is currently a fourth-period laborer apprentice on the Metropolitan Biosolids Center Improvements project. PCL Construction sponsored Jose as a first-period apprentice in March 2023. With over two years of field experience, Jose says that one of the most valuable lessons learned as an apprentice is the importance of completing tasks correctly the first time around. When asked about his on-the-job training, Jose emphasized how much he has learned about piping systems. Jose's long-term goal is to ultimately achieve a leadership position such as a foreman or a superintendent within the industry. When asked about a time in which he felt most accomplished on the job, he shared, *"I think installing the progressive cavity pumps. It's a bunch of pumps working together to work on one centrifuge. I got to do the layout, and everything worked out 100%. No mistakes."*

Program Funding



The City has received and continues to apply for grants and loans from both the federal and state governments, which will accrue direct savings to ratepayers. To fund Phase 1 projects, the City has been diligent in pursuing and securing as much federal and state funding as possible. The City is receiving funding in installments through multiple extremely low-interest loans (in the range of 0.8% to 1.82%) including the Water Infrastructure Finance and Innovation Act (WIFIA) and the Drinking Water State Revolving Fund (DWSRF). WIFIA loans from the U.S. Environmental Protection Agency are currently providing \$733.5 million for Phase 1 construction, while the State Water Board is providing \$664 million in DWSRF loans to further support Phase 1 construction. To date, the City has received \$581.6 million from WIFIA and \$415.8 million from the DWSRF. In addition to these loans, the City has received \$81.5 million in grants from federal and state agencies.

U.S. EPA
currently providing
\$733.5M
for **PHASE 1**
CONSTRUCTION

CITY HAS RECEIVED
\$81.5M
IN GRANTS



Phase 2 Lookahead

The City is continuing to prepare for the second phase of Pure Water with construction of the Central Area Small-Scale Facility at Point Loma nearing completion. Testing of the facility will begin early next year to demonstrate appropriate treatment options, including a potential direct potable reuse application, and reassess the facilities needed for Phase 2 of the program.

PHASE 2 RE-ASSESSMENT

The original Phase 2 plan was conceived during the development of the 2012 Recycled Water Study. Since that time, several important factors have changed to an extent that it merits re-examination of the plan. These factors include water supply and demand, wastewater flows and availability, water supply dam conditions, climate change and sea level rise, regulatory developments, and affordability for customers. The City is re-examining these factors, updating future projections, evaluating various Phase 2 options, and meeting with key stakeholders to prepare a plan that recognizes the changing conditions and manages constraints and opportunities.



REGULATORY
DEVELOPMENTS



WASTEWATER FLOWS
& AVAILABILITY



WATER SUPPLY
DAM CONDITIONS



CLIMATE CHANGE
& SEA LEVEL RISE



AFFORDABILITY



WATER SUPPLY
& DEMAND



Central Area Small-Scale Facility

PURE WATER PHASE 2 CENTRAL AREA SMALL-SCALE FACILITY

The Central Area Small-Scale Facility is under construction at the Point Loma Wastewater Treatment Plant. As with Pure Water Phase 1, a demonstration facility is a regulatory requirement for Pure Water Phase 2 because it will treat flow from a different wastewater collection area with different wastewater characteristics. In addition, the City will demonstrate the ability of the advanced treatment processes to meet the new requirements for direct potable reuse.

The Public Utilities Department has submitted a detailed testing and monitoring plan for the Central Area Small-Scale Facility to state regulators, together with a Quality Assurance Project Plan. Both documents require regulatory review before data collection can begin.



Operations and Maintenance Readiness

The City of San Diego is preparing for startup and operation of the Pure Water Program's Phase 1 – North City facilities, which includes numerous readiness efforts. In addition to the North City Pure Water Facility, the water, wastewater, and recycled water systems are all impacted by changes in operations due to incorporating Phase 1 of Pure Water. Below are highlights of several key readiness activities being conducted to prepare for commissioning and initial operation of Pure Water.

NORTH CITY WATER RECLAMATION PLANT:

To accommodate Pure Water, capacity will increase nearly twofold with significant process changes. As part of readiness activities, the North City Water Reclamation Plant has switched to 24-7 operations and continues holding monthly readiness meetings to prepare for full-scale operation.

NORTH CITY PURE WATER FACILITY

Preparing for North City Pure Water Facility operation has been a primary focus of the Pure Water Operations Division. During the last five years, weekly readiness meetings have been held to plan for the successful startup and operation of the facility. As construction wraps up on the North City Pure Water Facility, the Pure Water Operations Division is preparing to move into the new operations building, continuing to hire for operations and maintenance positions, and procuring contracts for operations, such as chemicals and facility maintenance contracts.

NORTH CITY PURE WATER LABORATORY

Laboratory staff are also preparing to move into the new North City Pure Water Laboratory. Other major readiness focused efforts include lab-specific monthly meetings and preparing for laboratory certification audits.

MIRAMAR WATER TREATMENT PLANT

The Miramar Water Treatment Plant will be treating the new purified water source water that will be introduced to Miramar Reservoir. Monthly readiness meetings are held to discuss new operational strategies for Miramar Reservoir once it begins receiving purified water as well as prepare for any impacts to the treatment process at Miramar Water Treatment Plant, considering the higher purity source water coming through Miramar Reservoir.

In addition to spanning multiple Public Utilities Department divisions, Phase 1 – North City also involves other City departments. The team is proactively coordinating and communicating with select divisions and departments to successfully prepare for Phase 1 startup and operation.



Our People: Operating the Water System

From process operations to water quality monitoring to system maintenance, our employees keep the water flowing. Employees in advanced water purification operations are responsible for monitoring, controlling, and maintaining the complex systems and equipment that purify water to meet stringent regulatory standards. They are essential for protecting public health and the environment.

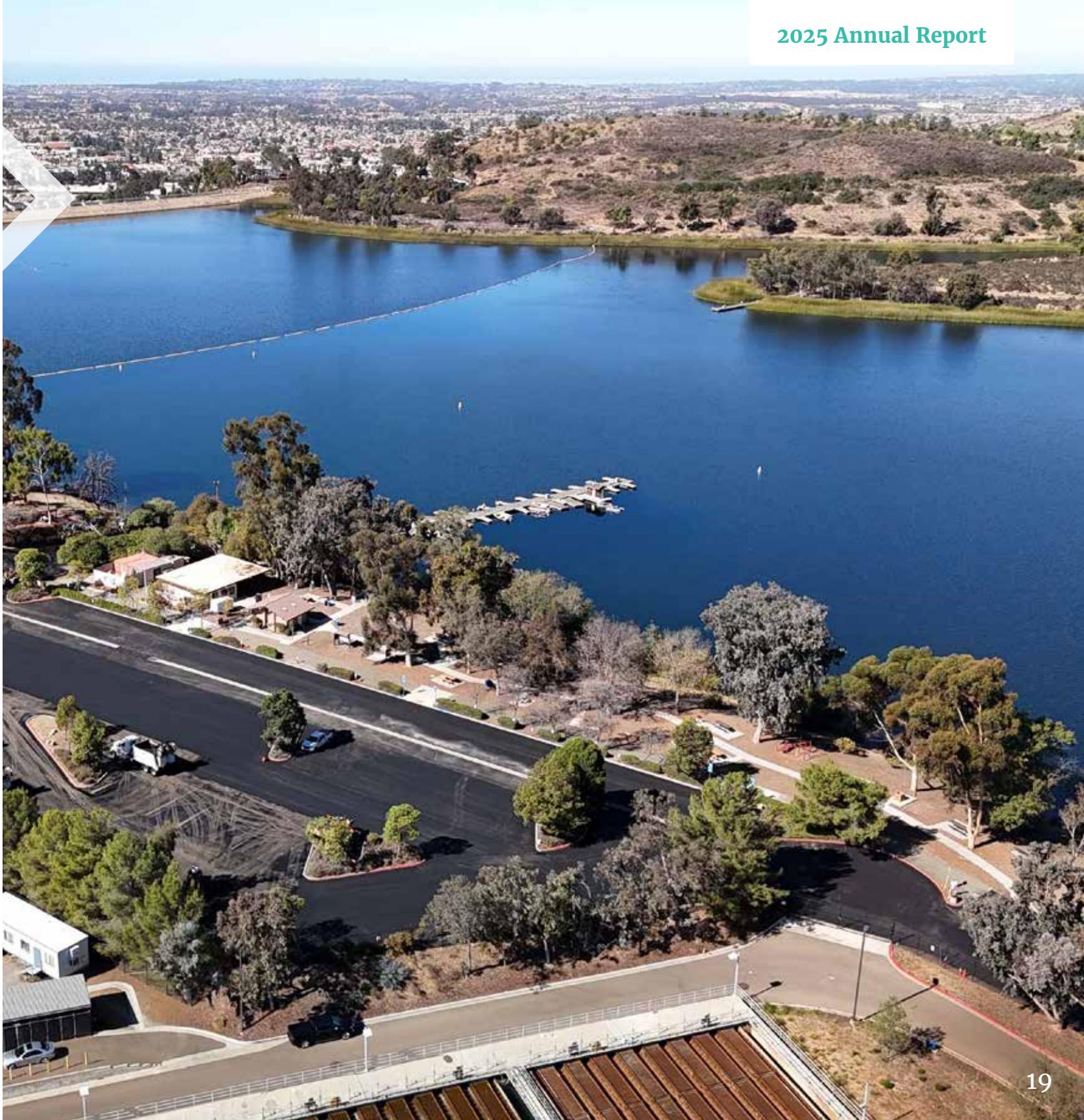
Regulatory and Environmental Progress

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

At the end of 2024, the City submitted a Report of Waste Discharge to the Regional Water Quality Control Board (RWQCB) for the five-year renewal of the Miramar National Pollutant Discharge Elimination System (NPDES) permit. In 2025, the Board issued an administrative extension for the NPDES permit beyond the June 30, 2025, expiration date to allow the Board additional time to prepare and reissue the permit.

The City was also required to update the Title 22 Engineering Report for the North City Pure Water Project, that was accepted by California Division of Drinking Water (DDW) in July 2019 and served as the basis for many conditions in the NPDES permit for Miramar. The updated report was submitted to DDW and the RWQCB according to schedule on July 11, 2025. The regulatory agencies may use some of the updated information in the Title 22 Report to update the permit requirements. In the meantime, the City will continue to operate under the conditions of the initial Title 22 Engineering Report requirements.

The City continues to address the approximately 40 conditions that must be met prior to releasing purified water into the reservoir under the current NPDES permit for Miramar Reservoir. The City has been working closely with DDW and the RWQCB regulators to finalize three first-of-their-kind reports under the Indirect Potable Reuse Surface Water Augmentation Regulations: the North City Pure Water Project Operations Plan, Operational Ramp-Up Plan, and Joint Plan. 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.



Miramar Reservoir



Regulatory and Environmental Progress

In November 2025, the City received final approval of the Joint Plan. In December 2025, the City received minor comments on the Operational Ramp-Up Plan and will submit a final draft for approval in early 2026. The major focus at this time is the Operations Plan, which specifies how the North City Pure Water Facility will be operated to achieve regulatory compliance. Actions specified in the Operations Plan will be reviewed and confirmed during a multi-day, on-site inspection by DDW after the 30-day North City Pure Water Facility acceptance test in 2026. Because the language in the Surface Water Augmentation regulations is subject to interpretation, the City is diligently clarifying information requests from DDW prior to the on-site inspection.

Other documents that were completed in 2025 and submitted to regulators for their review included:

- **Tracer Study Protocol** – Two Tracer Studies in Miramar Reservoir must be performed within the first six months of operations, the first when the reservoir is expected to be at 7.5 mgd of purified water release, and again at 30 mgd of purified water release to validate the hydrodynamic model used to demonstrate that sufficient dilution is always achieved.
- **Ultraviolet/Advanced Oxidation (UV/AOP) Test Plan** – To demonstrate adequate removal of specific contaminants at the design dosage, a flow-through test at design flow must be performed on the Ultraviolet Advanced Oxidation Process system. This is a critical milestone in the commissioning and startup process and requires significant sampling and lab analysis.
- **Local Limits Study** – As a part of the City's wastewater source control program, an Enhanced Local Limits Study was required to be completed prior to diverting wastewater from Morena Pump Station. Local limits are restrictions on industrial discharges for contaminants that could adversely affect treatment plant operations or jeopardize compliance with the permit.

Regulatory and Environmental Progress

DIRECT POTABLE REUSE REGULATIONS

The Direct Potable Reuse (DPR) regulations were written into the California Code of Regulations on Oct. 1, 2024. These regulations provide the definitive framework for the development of Phase 2 alternatives, should a direct potable reuse approach be selected.

In 2025, the City continued to review the regulations to determine areas that require interpretation, in case a DPR project is implemented for Phase 2 of the Pure Water Program. Regulations for DPR projects in California require ozone and biologically activated carbon processes ahead of reverse osmosis in the advanced water purification process. These regulations build on research conducted by the Public Utilities Department at our Pure Water Demonstration Facility.

POINT LOMA WASTEWATER TREATMENT PLANT PERMIT

The reissuance of the NPDES permit for the Point Loma Wastewater Treatment Plant (PLWTP) is almost complete. The treatment plant has a modified permit for enhanced primary treatment that is jointly issued by the U.S. Environmental Protection Agency (EPA) and RWQCB. Like the NPDES permit for Miramar Reservoir, the PLWTP NPDES permit has been administratively extended while the RWQCB and EPA review the City's application and write the new permit.

The City was expecting approval from the RWQCB in spring 2025 after the Coastal Commission voted their approval. A ruling by the United States Supreme Court regarding use of receiving water limitations and a recent California appellate court ruling regarding toxicity testing requirements, however, required the RWQCB and EPA to re-review the PLWTP permit to ensure the permit complies with the outcomes of these rulings. The updated permit was released for public comment in September 2025, and the City expects final adoption by the RWQCB and the Environmental Protection Agency in February 2026. Once adopted, the permit will cover a period of five years from the effective date.



Point Loma Wastewater Treatment Plant

Regulatory and Environmental Progress

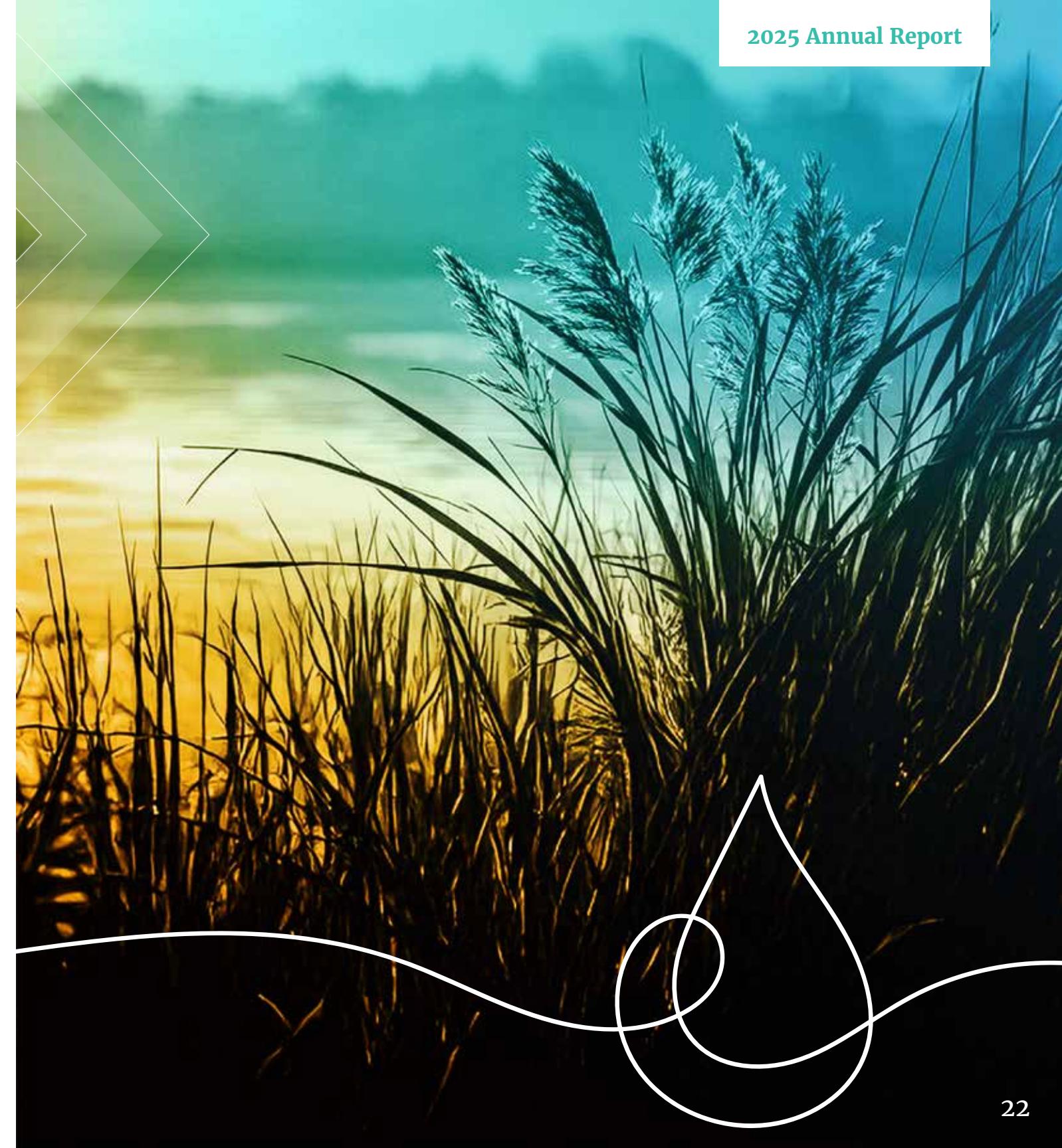
OCEAN POLLUTION REDUCTION ACT II

On February 14, 2025, Congressman Scott Peters reintroduced the Ocean Pollution Reduction Act II (H.R.1390), which proposes modifying the permitting requirements for discharge of pollutants from the PLWTP. This bill contains required milestones in line with projected reductions in both the treated discharges from the treatment plant and the production of purified 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. 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 projects in accordance with the Mitigation, Monitoring and Reporting Program adopted as part of the Final Environmental Impact Report and 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 five of a seven-year maintenance and monitoring program. Maintenance work in 2025 focused on continued weed control by removing non-native biomass throughout the site. Additional signage was installed throughout the site, and anthropogenic trash removal and boundary fence repairs also occurred. The five-year maintenance and monitoring program at the Pueblo South Native Grassland Mitigation Creation site was completed in 2024. The Pueblo South site created 2.46 acres of native grassland. Of this, the North City Project required 1.30 acres of mitigation, providing an additional 1.16 acres of mitigation for the City of San Diego. The site is maintained in perpetuity.



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 current research focus is the potential to increase the recovery, or throughput, of water for the reverse osmosis units. The current process that is being installed at the North City Pure Water Facility can achieve 85 percent recovery, which means that 15 percent of the water is rejected as brine and is returned to the wastewater collection system for treatment and discharge from the PLWTP. Given improvements in membrane materials and the high performance of processes preceding the reverse osmosis units, the current study is evaluating whether the recovery can be improved to between 90 and 95 percent. If successful, this will increase the volume of purified water that can be produced and reduce the volume of the reverse osmosis brine waste stream.

TRACER STUDY FOR MIRAMAR RESERVOIR

In addition, the Public Utilities Department has continued to work with the project's Independent Advisory Panel to prepare a tracer study protocol that will be performed once purified water is released to Miramar Reservoir. A tracer study is required to validate a 3D reservoir model that is used to demonstrate that Miramar reservoir provides sufficient dilution. The tracer study protocol was prepared and presented to the limnology subcommittee of the Independent Advisory Panel in December and submitted to the State Board for approval in May 2025.



2025 Cumulative Outreach Metrics



Informational Materials

NEW OUTREACH MATERIALS:

To better explain how the City tests and monitors water quality, a new brochure explaining the purification, testing and monitoring process was created in 2025. All brochures, fact sheets and informational resources can be found at purewatersd.org.

WANT TO LEARN MORE ABOUT THE PROGRAM?

View the Informational Materials page for the latest Pure Water materials.



Highlighting Pure Water San Diego in the Industry

At the July 2025 California Association of Sanitation Agencies conference, Pure Water staff hosted conference participants at the North City Facilities and shared more about the program's advanced water purification process. In September 2025, the WaterReuse Association California Conference was held in San Diego where staff presented program insights, lessons learned, and highlighted innovative projects within the Pure Water Program. To complement the conference, the team hosted tours of the North City Pure Water Facilities, engaging industry professionals on the benefits of potable reuse.

In October, the American Council of Engineering Companies brought the Engineering and Public Works Roadshow to San Diego. Attendees visited the North City Pure Water Facilities for a tour and a speech from Council President Joe LaCava, who represents the residents and businesses of San Diego City Council District 1.

In addition to tours held for the conferences, over **28 tours** of the North City Pure Water facilities took place in 2025 to select industry professional and educational groups including the California Division of Drinking Water, Metro Wastewater Joint Powers Authority, and various state departments.



Community Events

In 2025, the Pure Water outreach team engaged with the community members at **11 community events**: the CCBA San Diego Chinese New Year Fair, San Diego Festival of Science and Engineering Expo, Dexcom Earth Day Fair, Barrio Logan Science and Art Expo, Linda Vista Multi-Cultural Fair & Parade, Clairemont Garden Tour, Bike Anywhere Day, University City Community Association 4th of July Event, Mira Mesa Street Fair, Walter Munk Oceans Day and Clairemont's 75th Birthday Bash. These events provided an engaging way for the team to meet face-to-face with community members and residents; answer questions related to construction, and share updates about the program.

Pure Water tastings were available at select events to allow community members to taste Pure Water from the North City Pure Water Demonstration Facility. We are excited to have had more than **250 people** participate in our tasting program and look forward to bringing Pure Water to more events in the future.

AleSmith Partnership

In summer 2025, Pure Water partnered with San Diego craft brewery, AleSmith Brewing Company. Members from the AleSmith brewing team toured the North City Demonstration Facility to learn about the advanced water purification process and collaborated with the Pure Water team from the beginning to the end of the brewing process. Brewed with advanced purified water from the Pure Water Demonstration Facility, Re:Beer is a crisp dry-hopped lager and the culmination of months of collaboration. The water quality of our advanced purified water provided AleSmith with a unique brewing opportunity to create a local lager that isn't usually possible with San Diego's current water supply.

Partnering with a sustainable local business demonstrates the quality and safety of potable reuse in a tangible format, showcasing Pure Water's innovation and environmental leadership.



Construction Outreach

Proactive, robust construction outreach is ongoing as part of the Pure Water Phase 1 projects in Morena, Bay Park, Clairemont, University City, Miramar and Scripps Ranch. The construction outreach team fielded and resolved approximately 140 construction-related stakeholder inquiries in 2025 via the three community phone lines and dedicated email address: purewatersd@sandiego.gov.

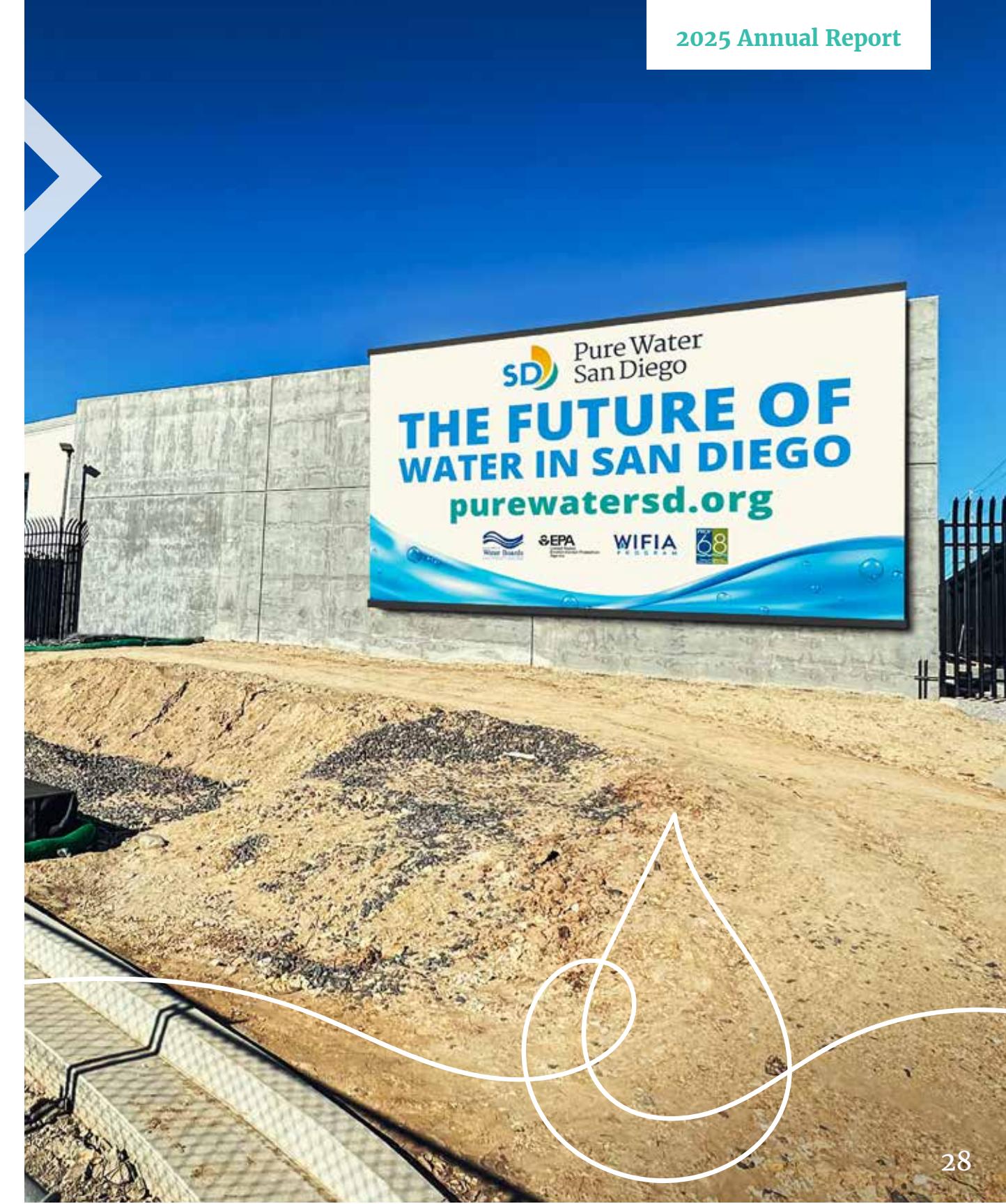
To inform Phase 1 communities, the outreach team strategically distributed project and schedule information via construction notices, website updates, social media content, flyers, door hangers, e-blasts and community newsletters. Each outreach liaison worked together with the City construction management team, contractor and community groups, stakeholders and residents to ensure the timely delivery of construction-related information. Monthly meetings and updates continued with the University Community Planning Group, Clairemont Planning Group, Clairemont Town Council, and University City Community Association. Ad-hoc presentations were provided to the Scripps Ranch Planning Group.

2025 Construction Outreach Recap

140+ CONSTRUCTION
INQUIRIES RECEIVED
AND RESOLVED

40+ CONSTRUCTION NOTIFICATION
E-BLASTS DISTRIBUTED TO
OVER 4,000 RECIPIENTS

39 PHASE 1 PROJECT PRESENTATIONS GIVEN
TO COMMUNITY GROUPS, INFORMING
APPROXIMATELY 1,015 PEOPLE IN
VARIOUS COMMUNITY ORGANIZATIONS



The City of San Diego continues to provide safe, high quality drinking water for its customers each and every day. Here's to the future of water in San Diego!

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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