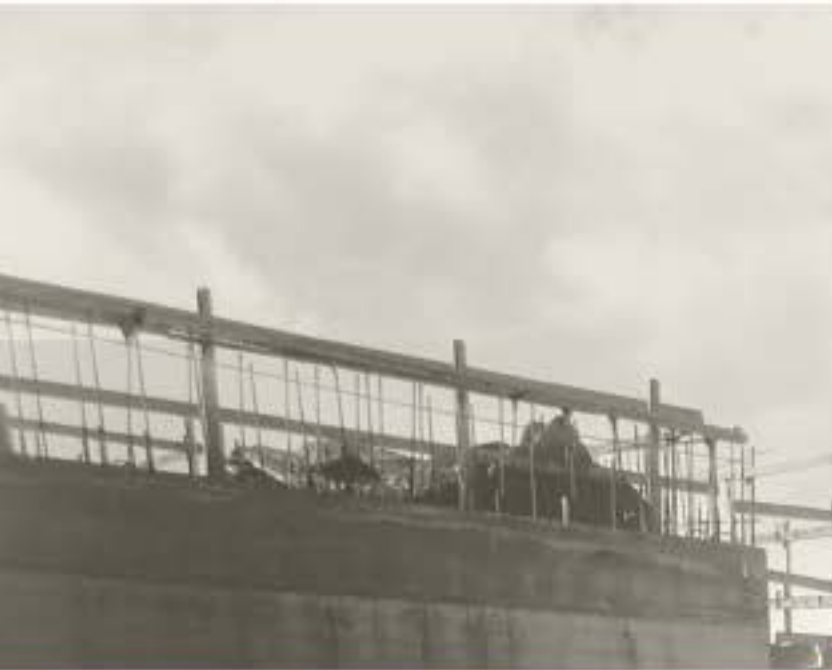




Pure Water  
San Diego



# 2024 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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## Executive Summary

As we reach the end of 2024, construction of the North City Pure Water projects has surpassed 70 percent completion. Construction activity across the treatment facilities, pump stations and pipelines is dynamic with a number of major milestones completed.

Throughout 2024, high-tech water purification equipment such as reverse osmosis vessels, microfiltration units, ozone generators, and ultraviolet reactors were installed. These units are the heart of the treatment process that will produce purified water. If you drive on Eastgate Mall, just east of Interstate 805, you will see the new blue and white Pure Water Operations Building to the north and major construction at the expanded North City Water Reclamation Plant to the south. At the reclamation plant, massive new infrastructure called secondary clarifiers have been water tested and will come on-line shortly, allowing for existing units to be rehabilitated and upgraded. This work is necessary to ensure that high-quality recycled water is produced both for non-drinking water purposes (such as landscape irrigation and industrial uses) as well as to pump across Eastgate Mall to the North City Pure Water Facility, where it will be treated to become drinking water.

More than 60 percent of the pipelines – or about 18 miles – of the pipelines for Pure Water will have been installed by the end of 2024. 8 of the 14 tunnels on the project are completed, and work is underway at all major freeway crossings. There are four crews working on large-diameter pipeline installation in the Morena, Bay Park, Clairemont and University City communities. Work is almost complete on the purified water pipeline

along Miramar Road and in Scripps Ranch that will convey purified water to Miramar Reservoir. Additionally, the subaqueous pipeline, which will disperse purified water throughout Miramar Reservoir, was completed in summer 2024. We appreciate the patience of our community members as construction crews have been working along thoroughfares that you travel frequently.

The Pure Water Program proudly continues to create jobs for San Diegans. Through our Project Labor Agreement (PLA) and associated apprenticeship programs, City residents have earned over \$30 million in wages with over \$20 million being earned by underrepresented groups in the construction industry. We also have 127 craft workers across PLA-covered construction who are veterans of the United States armed forces. In addition, almost two dozen graduates from our Construction Apprenticeship Readiness Program from the San Diego College of Continuing Education and Southwestern College have been employed on Pure Water projects.

As we look to 2025, we are busy readying our existing facilities at the North City Water Reclamation Plant and Miramar Reservoir for system-wide commissioning of the new facilities. We anticipate that recycled water will start flowing from the reclamation plant to the North City Pure Water Facility to begin facility testing by the end of 2025.

We appreciate your support and look forward to continued significant progress on Pure Water San Diego in 2025!

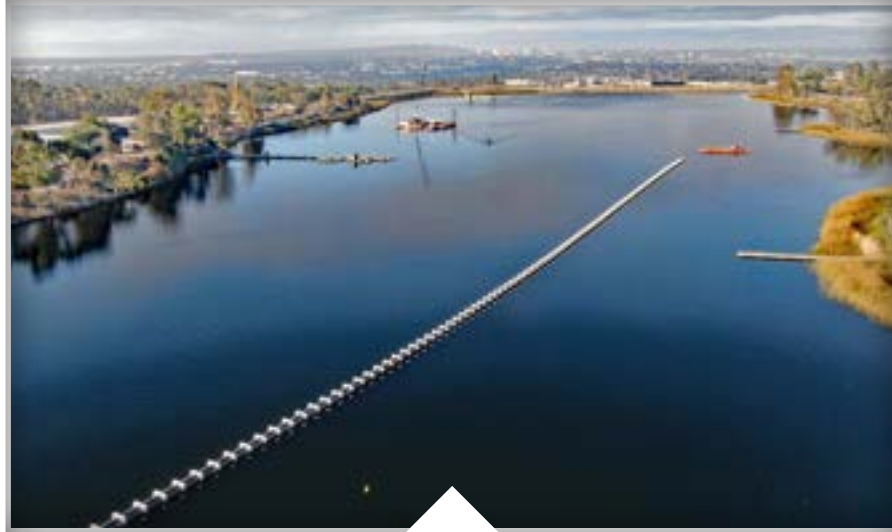
**Juan Guerriero**

Director

City of San Diego Public Utilities Department

*“Construction of the North City Pure Water projects has surpassed 70 percent completion”*

# 2024 Timeline



## March/April

In spring 2024, crews began innovative soil freezing operations at the Morena Pump Station Diversion Structure #3. Soil freezing is a technique that reinforces soil and improves site conditions by installing a closed system of pipes into the ground and running refrigerant through the pipes, freezing the surrounding soil and creating an impermeable wall for construction.

At the North City Pure Water Facility site, delivery and installation of ozone system components was completed.

The pipeline tunnel under the railroad tracks on Miramar Road was completed as part of the North City Pure Water Pipeline, Dechlorination Facility and Subaqueous Pipeline project.



## January/February

In January, crews sunk the trunk of the subaqueous pipeline from the surface of Miramar Reservoir to the lakebed. Assembly of the branches of the pipeline continued underwater by specialized divers into summer 2024.

Construction on the structural steel joists and deck in the main process building at the North City Pure Water Facility was completed.

On the Phase 1 pipeline projects, 52,700 linear feet – or nearly 10 miles – of total pipeline were installed through February 2024.



## May/June

The Pure Water team began offering tastings of Pure Water at SANDAG’s Bike Anywhere Day in May.

Pipeline installation on Executive Drive and Towne Centre Drive was completed as part of the Morena Pipelines Northern Alignment and Tunnels project.

# 2024 Timeline



## September/October

On the North City Water Reclamation Plant Expansion, leak tests have been completed on the remaining two of four clarifiers. Installation of the clarifier 3 mechanism has begun.

The Tecolote Creek pipeline crossing was completed as part of the Morena Conveyance South & Middle and Bike Lanes project.

On the Phase 1 pipelines projects, 91,927 linear feet of total pipeline – or about 17.5 miles – was installed through October 2024.



## July/August

In July, Miramar Reservoir reopened to on-water recreation activities following the successful installation of the 1-mile-long subaqueous pipeline.

Construction of the Morena Conveyance South & Middle and Bike Lanes project also began in July in the Clairemont neighborhood.

Construction crews completed a 500-foot tunnel under Interstate 15 as part of the North City Pure Water Pipeline, Dechlorination Facility and Subaqueous Pipeline project.



## November/December

Crews successfully completed pipeline installation and tunneling at Rose Canyon on Genesee Avenue as part of the Morena Pipelines Northern Alignment and Tunnels project.

# Phase 1 North City Construction

Pure Water Phase 1 construction involves 12 major projects, one of which is 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 & Middle and Bike Lanes	2025	Ongoing	Aug-22	Sukut Construction	\$129.7M
Morena Pipelines Northern Alignment and Tunnels	2025	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	2025	Ongoing	Nov-21	Kiewit	\$11.9M
Metropolitan Biosolids Center Improvements	2025	Ongoing	Aug-21	PCL	\$40.1M
North City Pure Water Facility and Pump Station	2025	Ongoing	Mar-21	Shimmick	\$356.7M
North City Pure Water Pipeline, Dechlorination Facility and Subaqueous Pipeline	2025	Ongoing	Apr-21	W.A. Rasic	\$102.7M
Miramar Reservoir Pump Station Improvements	2025	Ongoing	Aug-22	Shimmick	\$12.7M
Miramar Reservoir Automated In-Water Quality Monitoring System	Ongoing Monitoring of Reservoir	Ongoing	Oct-21	Soundnine Inc.	\$1.0M
Peñasquitos Pump Station Oxygenation System	2025	Ongoing	Feb-23	Blue Pacific	\$4.4M

TOTAL **\$1.14 Billion**

**Phase 1 Construction**

**12 MAJOR PROJECTS AS PART OF THE PHASE 1 - NORTH CITY AREA**

**PHASE 1 IS OVER 65% COMPLETE**

**CONSTRUCTION IS UNDERWAY IN 3 MAIN COMMUNITY AREAS:**  
 1. CLAIREMONT/MORENA/BAY PARK  
 2. UNIVERSITY CITY/EASTGATE MALL  
 3. SCRIPPS RANCH/MIRAMAR

**9 CONSTRUCTION CONTRACTORS**

**JULY 2024**  
 THE SUBAQUEOUS PIPELINE IN THE MIRAMAR RESERVOIR WAS COMPLETED

**ALL 12 MAJOR PROJECTS HAVE BEEN AWARDED FOR A TOTAL OF \$1.1 BILLION**

**APPROX. 33 COMMUNITY MEETING PRESENTATIONS, 14 COMMUNITY EVENTS NEAR CONSTRUCTION, 88 E-BLASTS, 102 CONSTRUCTION NOTICES, 16,000 DOORHANGERS DISTRIBUTED**

**ROUGHLY 18 MILES OF PIPE HAS BEEN INSTALLED OR 95,000 LINEAR FEET**

**PHASE 1 INCLUDES OVER 30 MILES OF 30" AND 48" PIPE**

**TRENCHING WILL BE UP TO 30 FEET DEEP**

**15 TUNNELS WILL BE CONSTRUCTED AND WILL REACH OVER 9,000 FEET IN LENGTH**

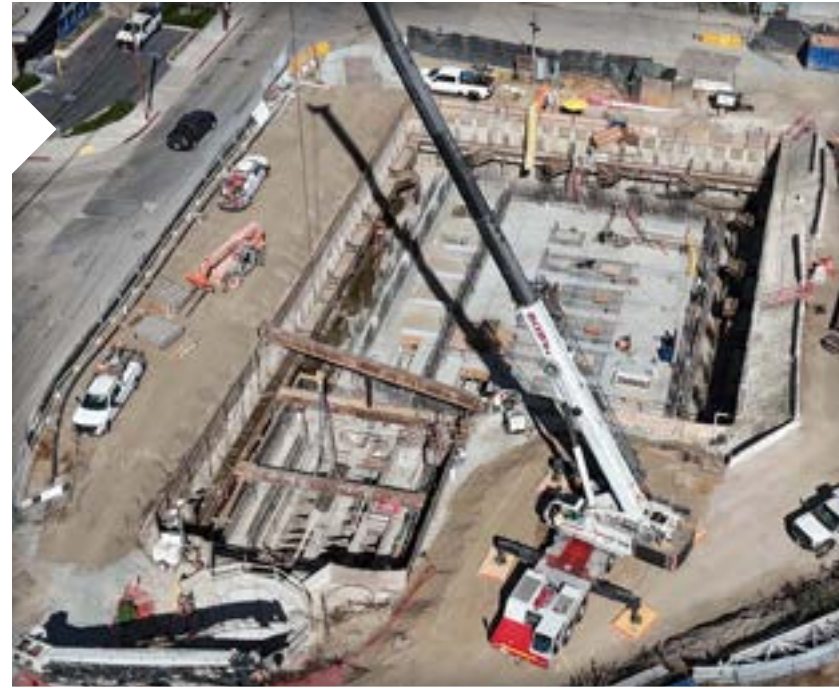
NOVEMBER 2024

# Pure Water San Diego 2024 Active Construction Projects

## Morena Pump Station

*Construction began in June 2021*

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 the North City Pure Water Facility for purification. In 2024, crews installed the lower concrete slab, walls and concrete support columns at the pump station, and began work on the intermediate deck level. The 60-inch diameter influent pipeline has been partially installed. Soil freezing operations continue on Friars Road at two diversion structures.



## Morena Conveyance South & Middle and Bike Lanes

*Construction began in October 2022*

The Morena Pipelines Southern/Middle Alignment and Conveyance Bike Lanes project will connect the Morena Pump Station to the Morena Pipelines Northern Alignment and Tunnels. In 2024, crews completed the pipe section on Clairemont Drive between the South and Middle segments, while work is ongoing north of Balboa Avenue on Clairemont Drive. Crews have installed pipeline on Morena Boulevard and completed the Tecolote Creek pipeline crossing.



## Morena Pipelines Northern Alignment and Tunnels

*Construction began in June 2021*

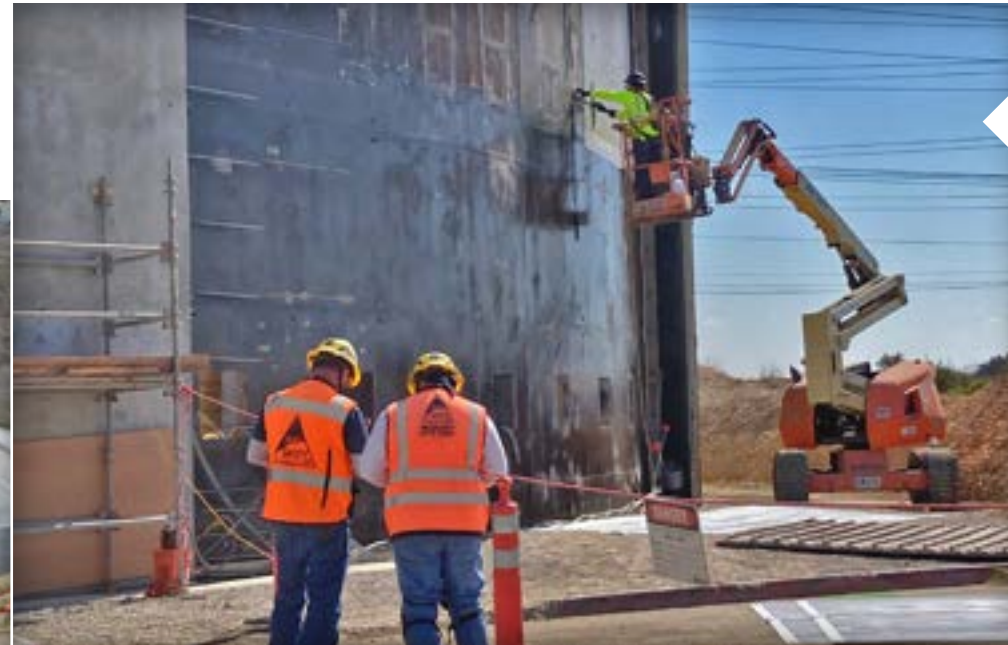
Morena Pipelines Northern Alignment and Tunnels will connect to the Morena Pipelines Middle Alignment and the North City Water Reclamation Plant. In 2024, crews began tunneling under Interstate 805 and Rose Canyon, and completed the tunnel under San Clemente Canyon and State Route 52. Pipeline construction is complete on Genesee Avenue from Appleton Street to Rose Canyon. The sections on Executive Drive and Towne Centre Drive are complete. Pipeline construction is ongoing on Nobel Drive.



## 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 2024, crews completed the concrete walls for the primary sedimentation tanks and the first stage bioreactors. The construction crew completed the concrete work and hydro testing of four new secondary clarifiers that are nearing commissioning.



## 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 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-sized swimming pools. In 2024, crews completed the foundation and majority of wall sections.



## Metropolitan Biosolids Center Improvements

*Construction began in September 2021*

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. Most of the construction is taking place on City-owned property and work to install the dewatering centrifuge, dewatering sludge feed pump and associated polymer pump has been completed. In 2024, crews worked on commissioning activities of centrifuge systems, feed pumps, pump systems and digesters.



## 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 2024, crews continued working on structural work focusing on the biological activated carbon filters, product water tank and the administration building areas. Work continues on the chemical facility and main electrical building. The operations building exterior is complete and the interior space is being built out. Advanced treatment equipment including ozone generators, ultrafilters, reverse osmosis and ultraviolet light reactors have also been installed. The contractor is also planning and coordinating for startup and testing.



## Miramar Reservoir Pump Station Improvements

*Construction began in October 2022*

The existing Miramar Reservoir Pump Station moves water from Miramar Reservoir to the Miramar Drinking 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 2024, crews worked on vertical turbine pump refurbishments and electrical switchgear improvements.



## 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. The dechlorination facility will remove chlorine necessary for disinfection before it is delivered into the reservoir. In 2024, crews completed nearly 6 miles of pipeline installation. The 500-foot tunnel under Interstate 15 is complete and the subaqueous pipeline in Miramar Reservoir was installed and tied in. Work is ongoing at the dechlorination facility and the team is looking ahead to startup and testing.

## Construction Workforce

In total, almost 1,959,105 labor hours have been invested in Phase 1 construction through October 2024. 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. These reports have kept the Pure Water team apprised of the Project Labor Agreement goals and enhanced connectivity and communication.

Differentiated by project, the table demonstrates the current hiring percentages of City residents and targeted workers, through October 2024. The 10 active Phase 1 construction projects have a workforce that is comprised of at least 23% City residents. 7 of the 10 projects exceed the 10% goal of targeted worker representation.

*“7 of the 10 active Phase 1 construction projects exceed the 10% goal of targeted worker representation”*

Project Name	Contractor	City Resident % (Goal = 35%)	Targeted Worker % (Goal = 10%)
North City Pure Water Facility and Pump Station	Shimmick Construction Inc.	28%	19%
Morena Pump Station	Flatiron	18%	7%
Morena Pipelines Northern Alignment and Tunnels	OHL USA Inc.	19%	25%
North City Pure Water Pipeline	W.A Rasic Construction	33%	19%
North City Water Reclamation Plant Expansion	Kiewit Infrastructure West Co.	18%	15%
Metropolitan Biosolids Center Improvements	PCL Construction Inc.	37%	26%
North City Water Reclamation Plant Flow Equalization Basin	Kiewit Infrastructure West Co.	18%	14%
Morena Conveyance South & Middle and Bike Lanes	Sukut Construction	7%	11%
Miramar Reservoir Pump Station Improvements	Shimmick Construction Inc.	24%	8%
Peñasquitos Pump Station Oxygenation System	Blue Pacific Engineering	22%	0%
<b>Pure Water Program Phase 1 Projects Total</b>		<b>23%</b>	<b>17%</b>



## Meet Tytiana

*Tytiana Alicea is a U.S. Navy Veteran and City of San Diego resident. She is currently sponsored by Shimmick Construction Co. as a painter, second period apprentice, on the North City Pure Water Facility and Pump Station project. After completing her service with the Navy and returning to civilian life, she knew construction was the path for her. She enjoys the camaraderie as well as the ability to work with her hands and express her creative side. During her time in the Navy, Tytiana learned the importance of safety and following direction. These learned skills allowed for an easy transition into the construction industry. Since joining the union she says, “I feel proud of my work, I feel happy and satisfied.”*

The percentage of City residents employed on Pure Water projects continues to increase; currently, there are 1,161 City residents employed on Pure Water projects. City residents constructing Pure Water projects have earned \$32,767,681 through September 2024. 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 currently employed 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 95,990 hours have been worked by veterans on the Pure Water projects through October 2024. In May, the 2024 class of apprentices graduated from the San Diego College of Continuing Education and Southwestern College Apprenticeship Readiness Programs. On their way to becoming journeymen, apprentices support the construction of Pure Water projects while completing their final hours to certification.

