

Pure Water San Diego Phase 1 Construction Update Scripps Ranch Planning Group

John Stufflebean, Steve Lindsay, Clem Wassenberg
March 4, 2021

Point Loma Wastewater Treatment Plant

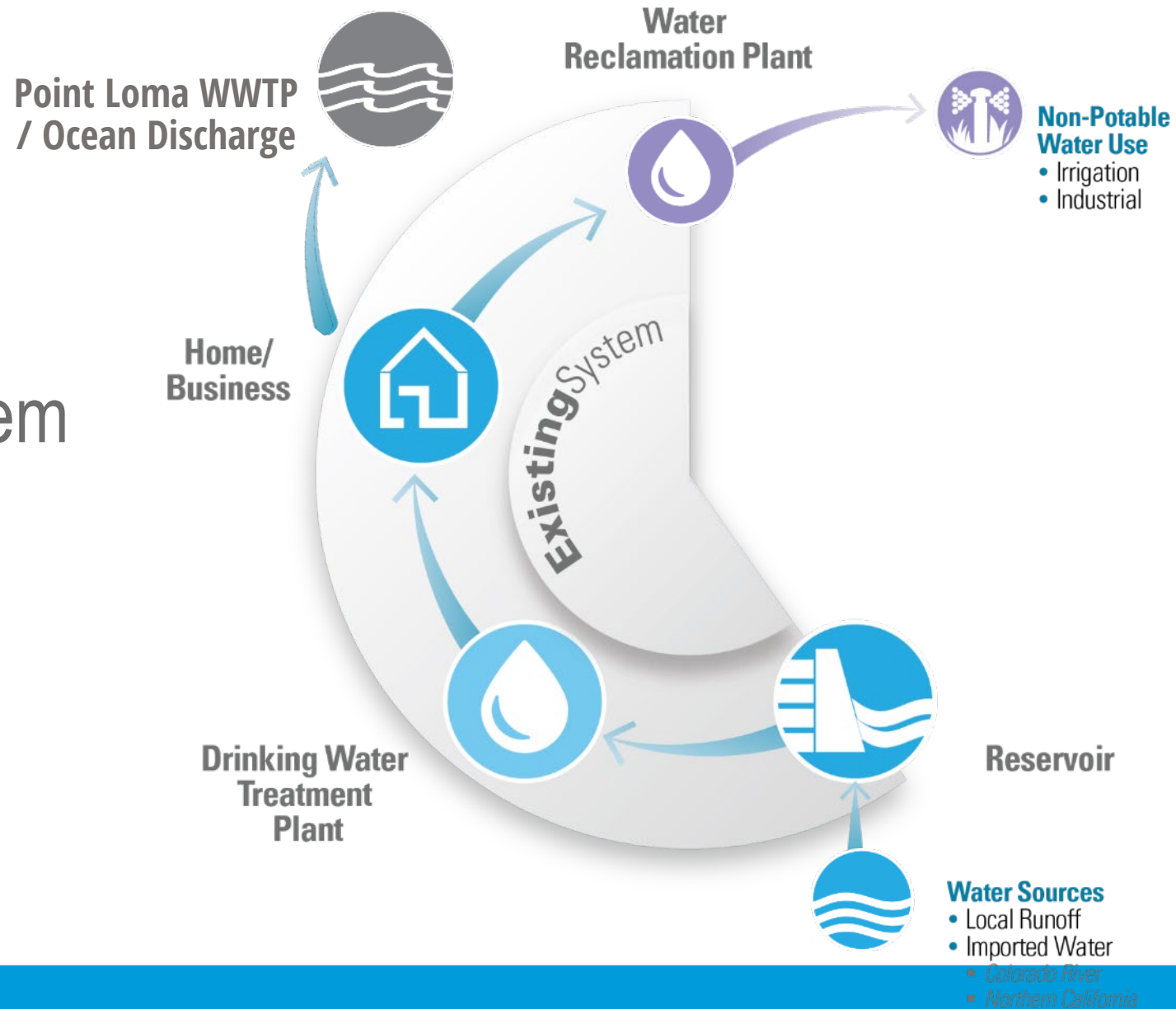
- Enhanced primary treatment
- Requires waivers
- Secondary treatment is the national standard
- A very challenging location



SD San Diego's Water Supply System

Existing System...

Primarily a Single-Use System



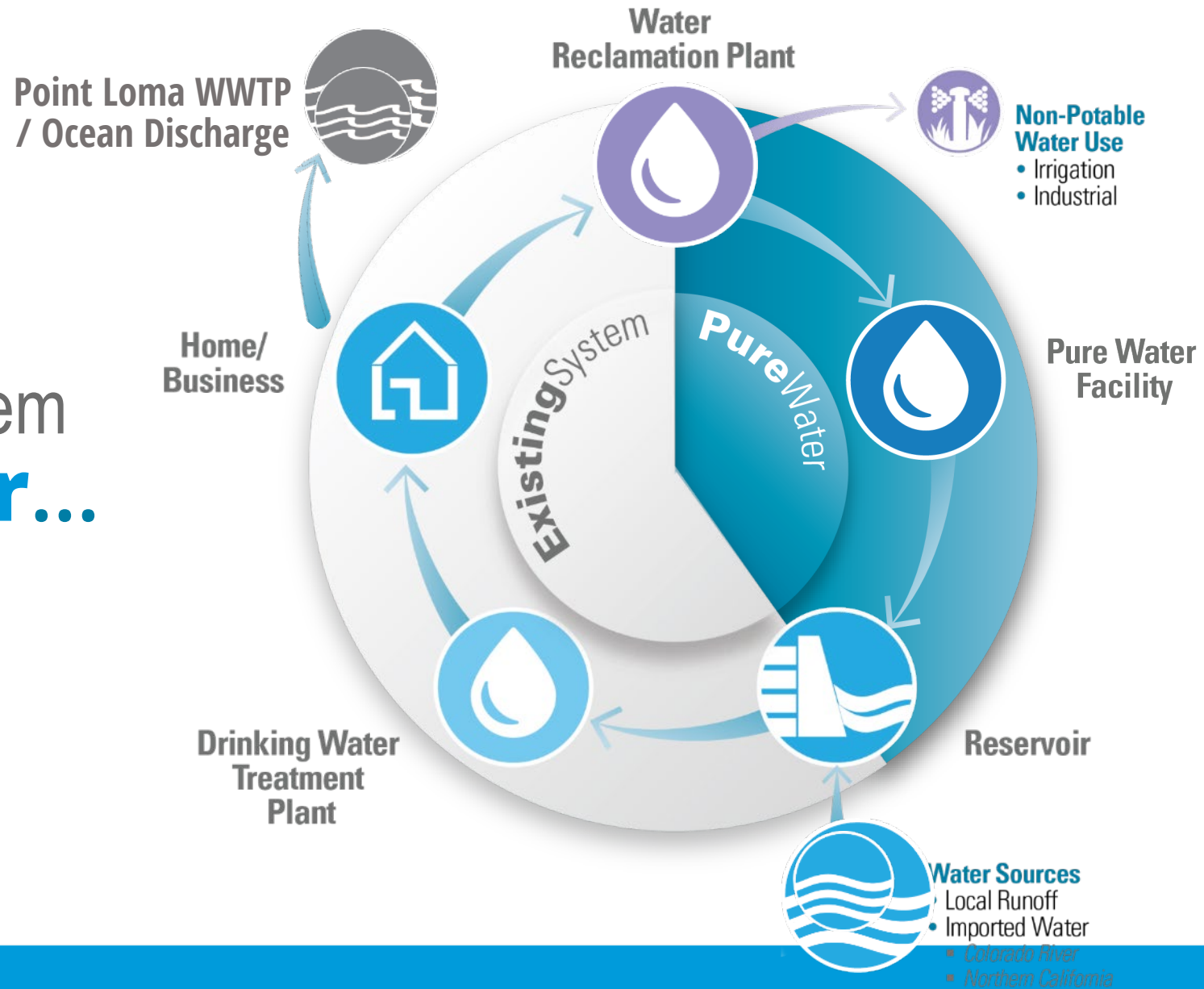
SD San Diego's Water Supply System

Existing System...

Primarily a Single-Use System

Pure Water...

Completes Our Water Cycle



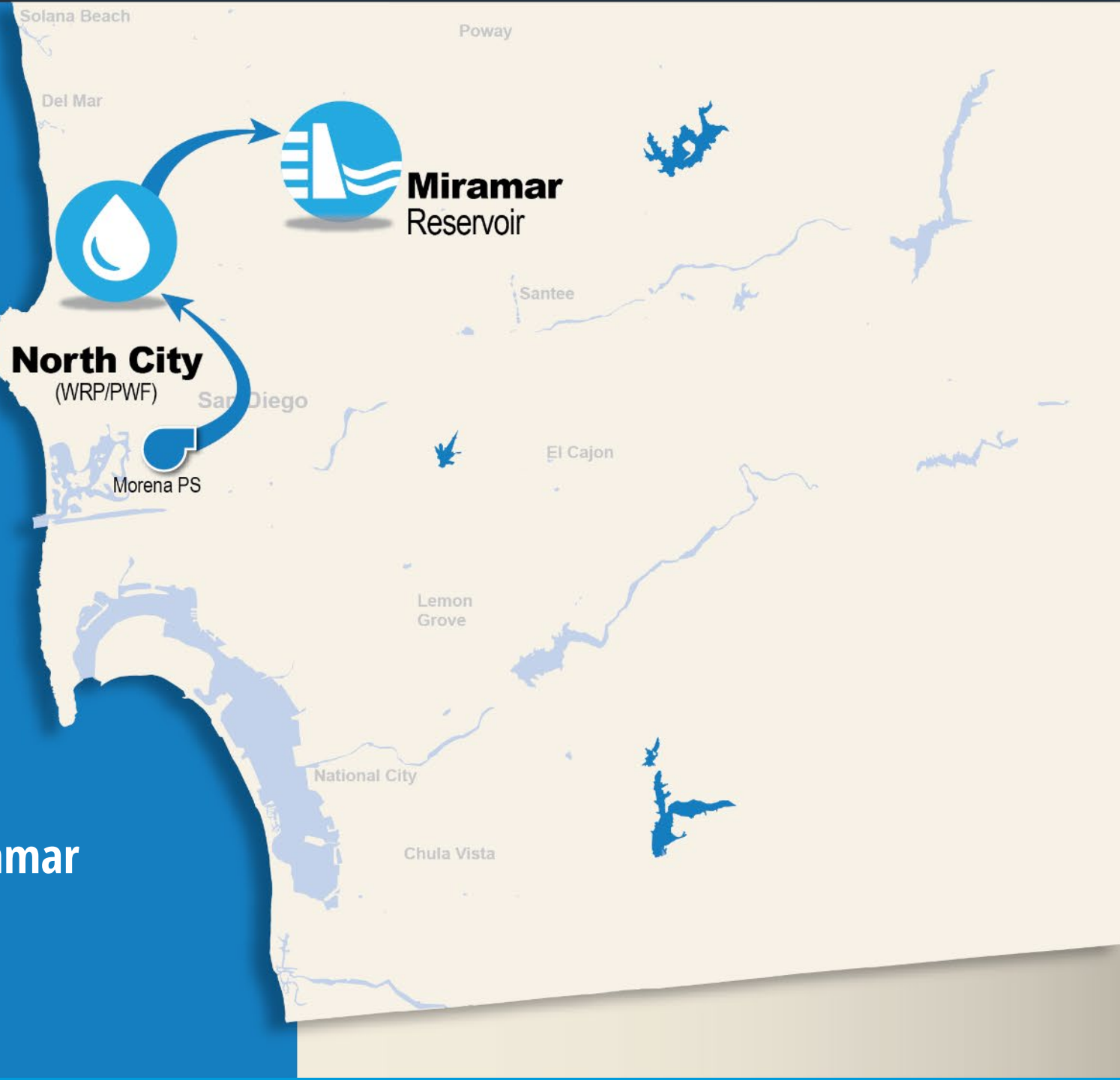
Pure Water
will produce

~~1~~ **3 1/2**

of your water
locally

Phase 1

- 30 mgd
- North City PWF to Miramar



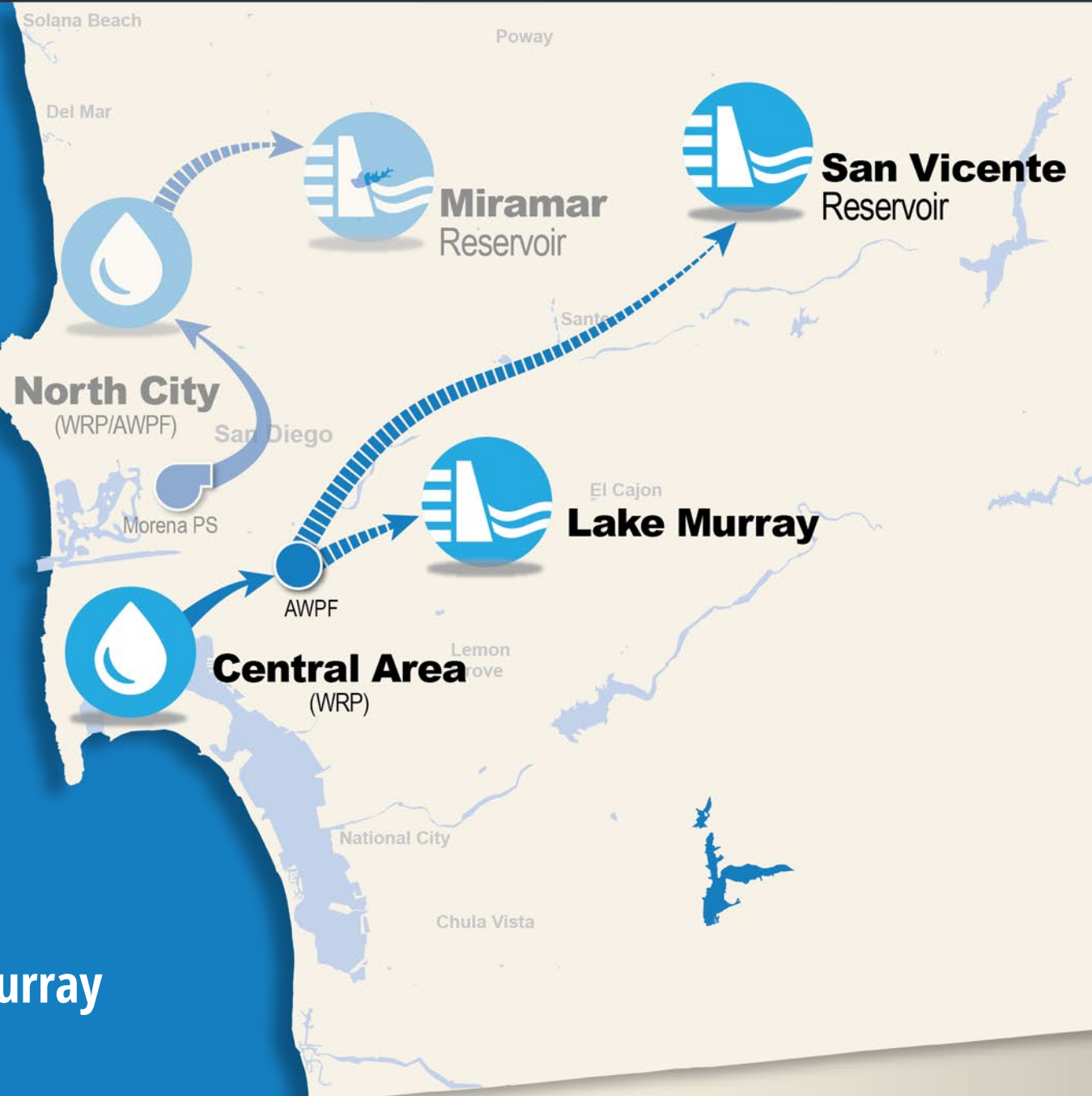
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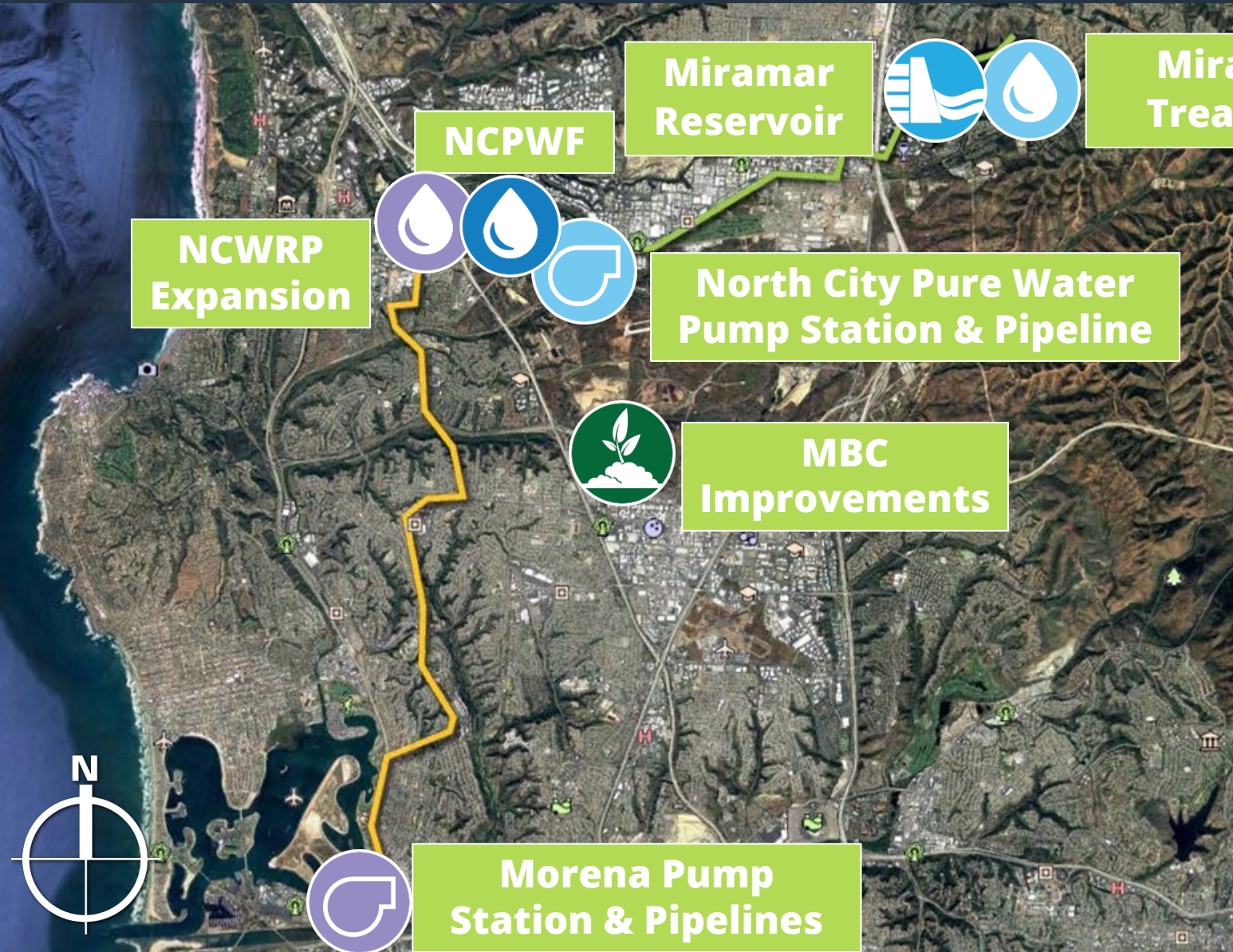
of your water
locally

Phase 2

- 2035 Completion
- 53 mgd
- Central Area PWF to San Vicente or Lake Murray



SD Phase 1 Projects



Phase 1 – North City will produce 30 mgd of purified water

100% Design Completed on all Phase 1 projects

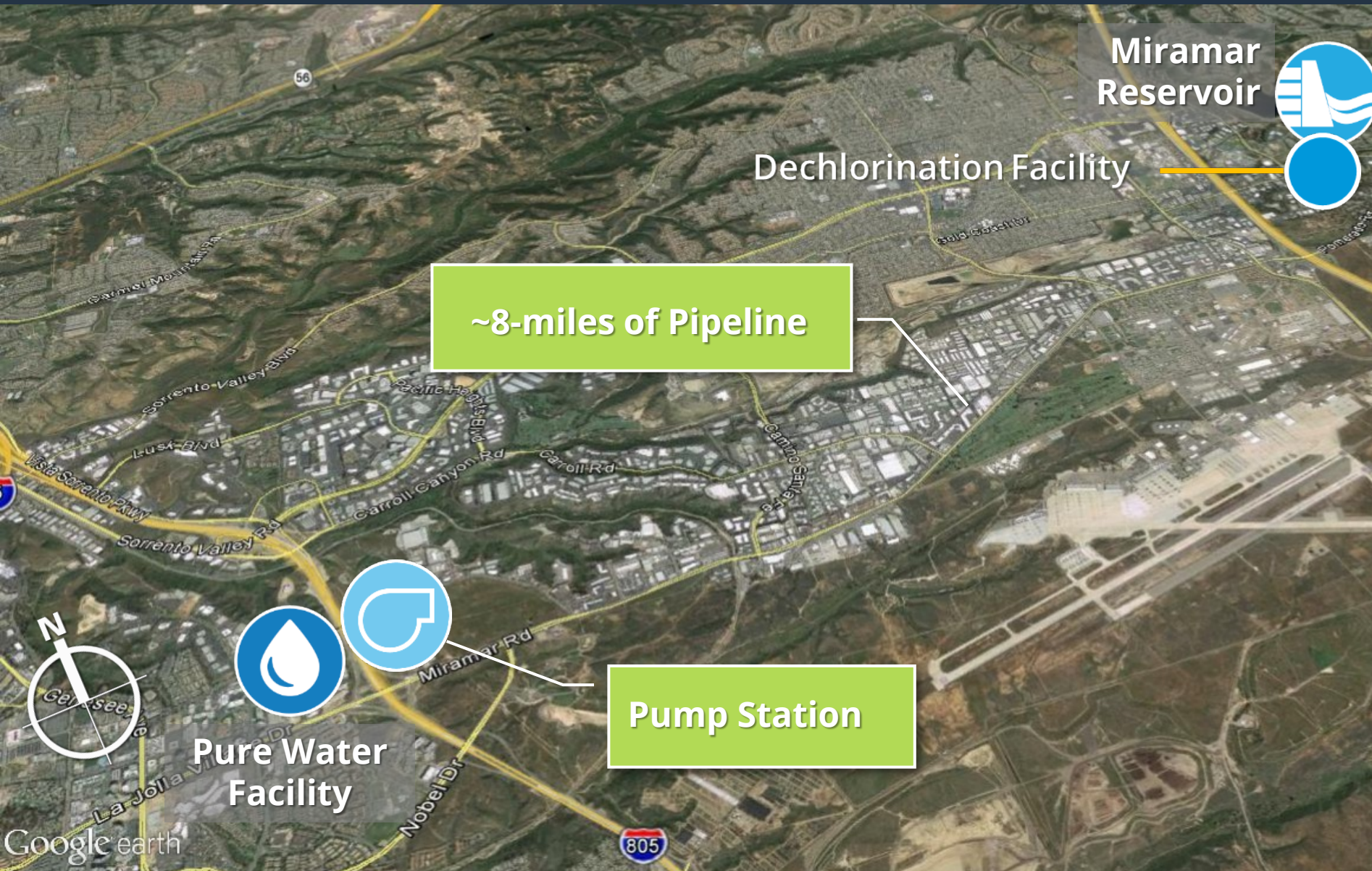
MBC = Metro Biosolids Center

NCWRP = North City Water Reclamation Plant

NCPWF = North City Pure Water Facility

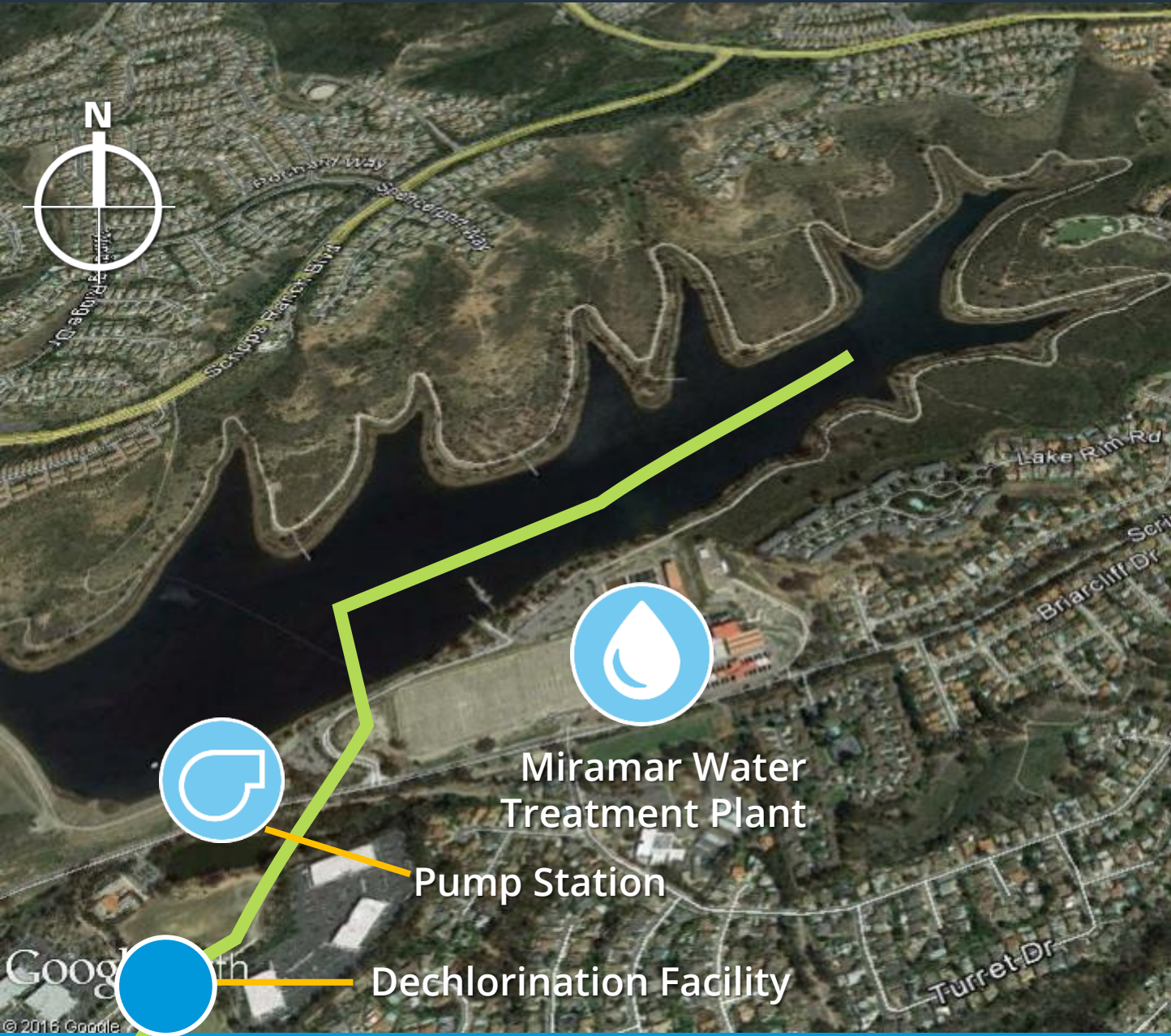


North City Pure Water Pipeline

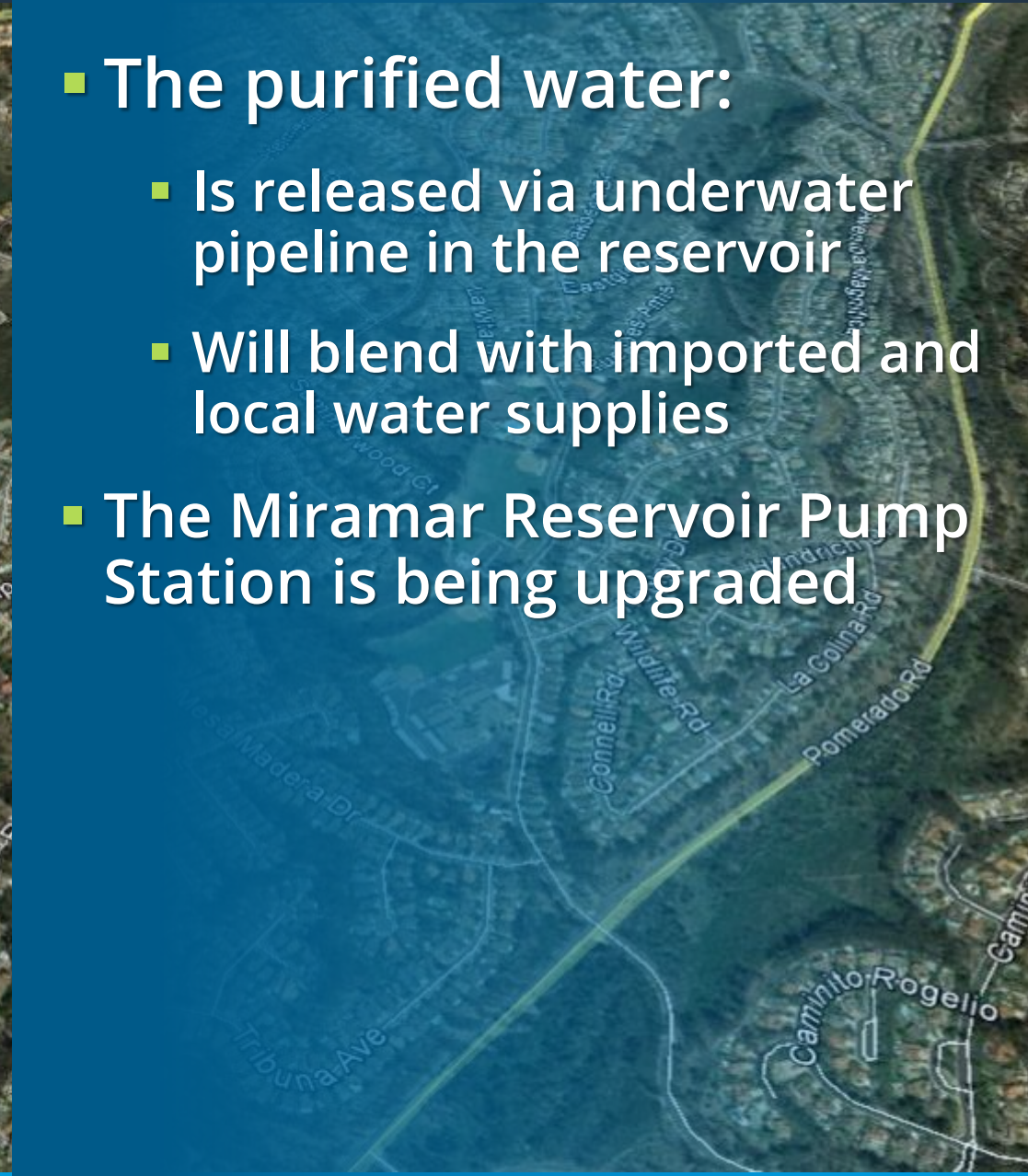


- Pure Water to Miramar Reservoir via:
 - Pump Station
 - Pipeline
- Water will be dechlorinated before release to reservoir
- Construction begins in summer 2021

SD Miramar Reservoir



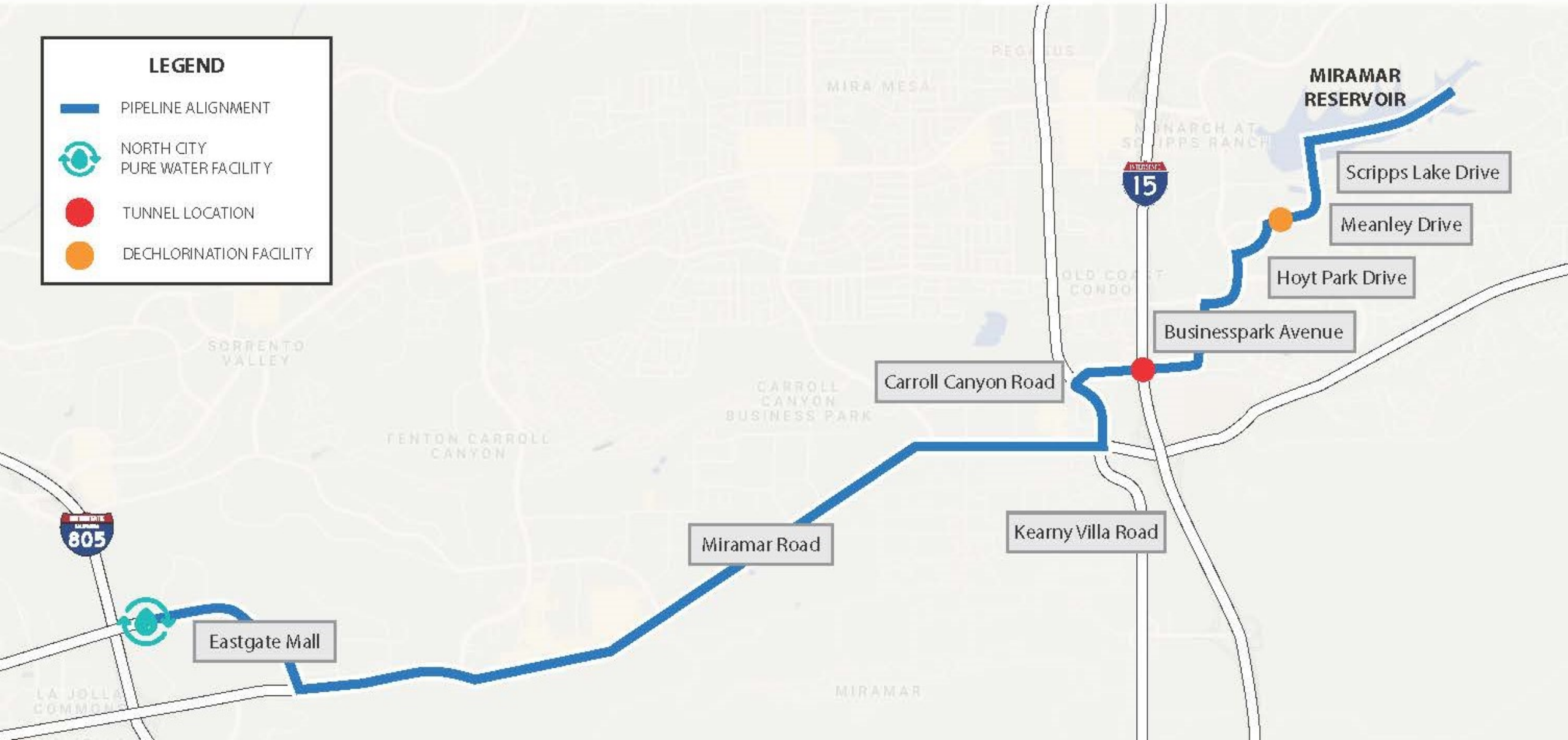
- The purified water:
 - Is released via underwater pipeline in the reservoir
 - Will blend with imported and local water supplies
- The Miramar Reservoir Pump Station is being upgraded



NORTH CITY PURE WATER PIPELINE AND DECHLORINATION FACILITY

LEGEND

- PIPELINE ALIGNMENT
- NORTH CITY PURE WATER FACILITY
- TUNNEL LOCATION
- DECHLORINATION FACILITY



SD What You Can Expect – Pipeline Work

- **Nighttime construction from 9 p.m. to 5 a.m.**
 - *Access for residents, businesses and emergency vehicles will be maintained*
 - *Expect delays due to traffic control*
- **At minimum, one lane in both directions open at all times**
- **Scheduled water outages**
- **Construction equipment and material staging areas will move along the alignment as construction progresses**
- **24/7 construction at the tunnel crossing at I-15**



FedEx

Eastgate Drive

Old Dominion
Freight Line

Olson Drive

North City Pure
Water Facility
(future site)

Storage West

Eastgate Mall

North City Pure Water Pipeline AC Water Group 1038

Eastgate Mall

Construction Project Components:

- 8 miles of 48-inch welded steel pipe transmission main (purified water pipeline)
- 6.4 miles of water main replacement of 6, 12 and 16-inch asbestos cement (AC) pipe with 16-inch polyvinyl chloride (PVC) pipe

Construction Segment Details:

- Night work: Monday to Friday, 9 p.m. to 5 a.m.
- Access maintained for businesses on Olson Drive, Eastgate Drive and Eastgate Court

Eastgate Court



North City Water
Reclamation Plant

Miramar Road

Eastgate Mall

Miramar Mall

Miramar Place

Velocity Truck
Centers - San Diego

Camino Santa Fe

Miramar Road

Railroad Crossing

Marine Corps Air
Station Miramar

Miramar National
Cemetery

North City Pure Water Pipeline AC Water Group 1038

Miramar Road to Camino Santa Fe

Construction Project Components:

- 8 miles of 48-inch welded steel pipe transmission main (purified water pipeline)
- 6.4 miles of water main replacement of 6, 12 and 16-inch asbestos cement (AC) pipe with 16-inch polyvinyl chloride (PVC) pipe

Construction Segment Details:

- Night work: Monday to Friday, 9 p.m. to 5 a.m.
- Coordination with LOSSAN agency about railroad crossing

Cabot Drive

Dowdy Drive

MCAS West
Entrance

Miramar Memorial
Golf Course

Camino Santa Fe

Miramar Road

North City Pure Water Pipeline AC Water Group 1038

Miramar Road near MCAS Miramar to Cabot Drive

Construction Project Components:

- 8 miles of 48-inch welded steel pipe transmission main (purified water pipeline)
- 6.4 miles of water main replacement of 6, 12 and 16-inch asbestos cement (AC) pipe with 16-inch polyvinyl chloride (PVC) pipe

Construction Segment Details:

- Night work: Monday to Friday, 9 p.m. to 5 a.m.
- Early work on Miramar Road
- Coordination with MCAS Miramar to ensure entrance access

Carroll Canyon Road



Camino Ruiz

Miramar Landing Shopping Center

Miramar Road

MCAS Miramar Main Entrance

MCAS Miramar

MCAS Miramar Operations

Audi San Diego

Porsche San Diego

Miramar Square Shopping Center

Mitscher Way

Padgett Street

Harbor Freight Tools

Cabot Drive

North City Pure Water Pipeline AC Water Group 1038

Miramar Road near MCAS to Padgett Street

Construction Project Components:

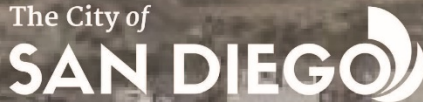
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- 6.4 miles of water main replacement of 6, 12 and 16-inch asbestos cement (AC) pipe with 16-inch polyvinyl chloride (PVC) pipe

Construction Segment Details:

- Night work: Monday to Friday, 9 p.m. to 5 a.m.

Vulcan Materials Company

Carroll Centre Road



Candida Street

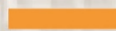
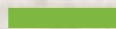
Black Mountain Road

Miramar Square Shopping Center

Padgett Street

Kearny Villa Road

Miramar Road

 Pipeline
 Tunnel

**North City Pure Water Pipeline
AC Water Group 1038**

Miramar Road to Kearny Villa Road to Candida Street

Construction Project Components:

- 8 miles of 48-inch welded steel pipe transmission main (purified water pipeline)
- 6.4 miles of water main replacement of 6, 12 and 16-inch asbestos cement (AC) pipe with 16-inch polyvinyl chloride (PVC) pipe

Construction Segment Details:

- Night work: Monday to Friday, 9 p.m. to 5 a.m.
- Tunnel work will be performed 24/7




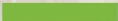
Inova Diagnostics, Inc.

Scripps
Montessori
School

Businesspark Avenue

WD-40 Company

Old Grove Road

 Pipeline
 Tunnel

North City Pure Water Pipeline AC Water Group 1038

Tunnel at Northbound Interstate-15

Construction Project Components:

- 8 miles of 48-inch welded steel pipe transmission main (purified water pipeline)
- 6.4 miles of water main replacement of 6, 12 and 16-inch asbestos cement (AC) pipe with 16-inch polyvinyl chloride (PVC) pipe

Construction Segment Details:

- Tunnel work will be performed 24/7

Meanley Drive

CoreLogic Credco

Scripps Ranch
High School

Hoyt Park Drive

H Cabinet

Scripps Ranch Boulevard

National University

ChargePoint
Charging Station

Delta Group
Electronics

Carroll Canyon Road

Businesspark Avenue

North City Pure Water Pipeline AC Water Group 1038

Businesspark Avenue and Carroll Canyon Road
to Scripps Ranch Boulevard

Construction Project Components:

- 8 miles of 48-inch welded steel pipe transmission main (purified water pipeline)
- 6.4 miles of watermain replacement of 6, 12 and 16-inch asbestos cement (AC) pipe with 16-inch polyvinyl chloride (PVC) pipe

Construction Segment Details:

- Night work: Monday to Friday, 9 p.m. to 5 a.m.

Scripps Miramar
Branch Library

Evan's Pond

— Pipeline
— Tunnel

CUSO Financial
Services, LP

Mission Federal
Credit Union

Dechlorination
Facility
(future site)

Meanley Open
Dog Park

Meanley Drive

Hoyt Park Drive

North City Pure Water Pipeline AC Water Group 1038

Hoyt Park Drive to Meanley Drive

Construction Project Components:

- 8 miles of 48-inch welded steel pipe transmission main (purified water pipeline)
- Dechlorination Facility
- 6.4 miles of water main replacement of 6, 12 and 16-inch asbestos cement (AC) pipe with 16-inch polyvinyl chloride (PVC) pipe

Construction Segment Details:

- Night work: Monday to Friday, 9 p.m. to 5 a.m.
- Tunneling by Evan's Pond
- Access to the library maintained at all times

Miramar Reservoir

— Pipeline
— Tunnel

Miramar Reservoir
Parking Lot

Miramar Water
Treatment Plant

North City Pure Water Pipeline AC Water Group 1038

Scripps Lake Drive to Miramar Reservoir

Construction Project Components:

- 8 miles of 48-inch welded steel pipe transmission main (purified water pipeline)
- 6.4 miles of water main replacement of 6, 12 and 16-inch asbestos cement (AC) pipe with 16-inch polyvinyl chloride (PVC) pipe

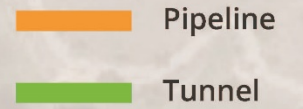
Construction Segment Details:

- Scripps Lake Drive to remain open at all times
- Tunneling past Evan's Pond to the reservoir
- Changes to reservoir parking lot configuration
- Full access to most recreation

Scripps Lake Drive

Scripps Miramar
Branch Library

Evan's Pond



Lake Miramar Trail

Natalie Park

Lake View Park

Miramar Reservoir

Miramar Reservoir
Pump Station

North City Pure Water Pipeline AC Water Group 1038

Subaqueous Tunnel Along Miramar Reservoir

Construction Project Components:

- 54-inch to 8-inch subaqueous pipe
- 94 Dual duckbill valve outlet ports
- Miramar Reservoir Pump Station Improvements
- Electrical and instrumentation

Construction Segment Details:

- Day work: Monday to Friday, 7 a.m. to 4:30 p.m.
- No boating allowed; shore fishing allowed
- Full recreation of parks and trail

Miramar Reservoir Storage: Now

*Before
Pure Water
Program*



Imported Water
(from the Colorado River and Northern California Bay Delta)



Miramar Reservoir
(stores imported water and local runoff)



Miramar Water Treatment Plant
(additional cleaning step)



Homes & Businesses
(as drinking water)



Miramar Reservoir Storage: With the Pure Water Program

*After
Pure Water
Program*



**North City Pure
Water Facility**
(purified water)



Miramar Reservoir
*(stores purified water
and local runoff)*



**Miramar Water
Treatment Plant**
*(additional cleaning
step)*



**Homes
& Businesses**
(as drinking water)



Imported Water
*(from the Colorado
River and Northern
California Bay Delta)*



Influent Structure
*(imported water
bypasses the
reservoir)*



SD Miramar Reservoir Water Quality Testing

- Introduction of purified water to the reservoir was predicted through extensive computer modeling that was validated in a 2019 tracer test
 - *30 sampling events with over 27,000 measurements and water quality testing*
- Reservoir will be well mixed with new purified water diffuser system
- Future water quality in terms of “conventional tests” will be similar to current water quality
 - *Buffering capacity, pH, temperature*
- Better water clarity and lower algae levels with purified water



Miramar Reservoir Access



Photo by MrGall

- **Lake closed to boating during construction**
- **Surrounding trails and loop around lake will remain accessible**
- **On-shore fishing maintained around most of the lake**

SD What You Can Expect – Reservoir Work

- Daytime construction from 7 a.m. to 4:30 p.m.
- Trail access and parking maintained
- Controlled Intersections
 - *Flagged, or*
 - *Temporary Trench*



MIRAMAR RESERVOIR PARKING



EXISTING PARKING:

Lower Lot:

Regular Stalls - 56
 Compact Stalls - 11
 ADA Stalls - 3
 Sub-total - 70

Upper Lot:

Regular Stalls - 153
 ADA Stalls - 7
 Trailer Stalls - 8
 Trailer & ADA Stalls - 2
 Sub-total - 170

Total Parking Stalls - 240

PARKING 90% DESIGN:

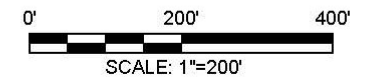
Permanent Additional Parking

Area 1 - 30±	53
Area 3 - 10±	0
Area 4 - 10±	7
Sub-total - 50±	60

Temporary Parking During
 Sub-aqueous Construction - 30 ±

NET TOTAL PARKING:

Existing - 240
 During Construction - 255+ 265
 Post-Construction - 300 Permanent
 30 Interim



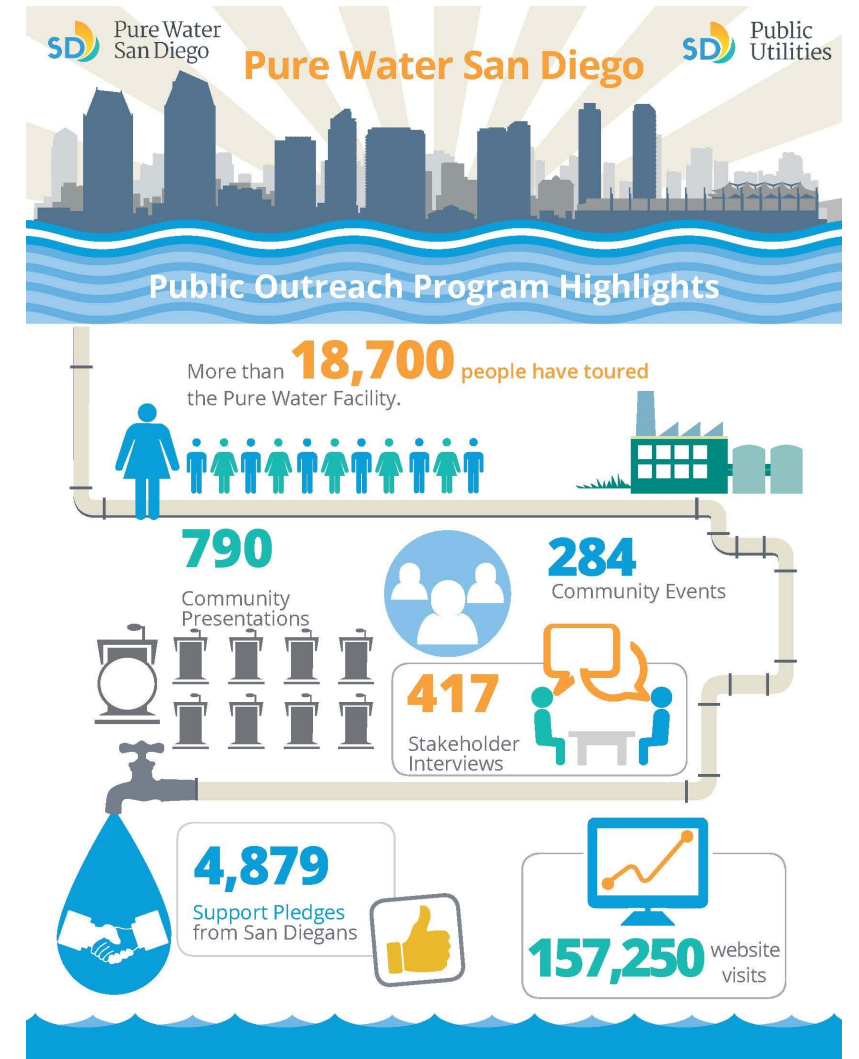
SD Project and Community Coordination

■ Robust regional outreach and education program

- *Commitment to keeping community informed*
- *Variety of communication methods (in person, virtual, web, print) and structured notification process (meetings, mailers, doorhangers, etc.)*
- *Multicultural and multilingual audience engagement*

■ Scripps Ranch outreach

- *Briefings to elected officials and community groups*
- *Scripps Ranch/Miramar Working Group (adopted 30+ recommendations)*
- *Community specific e-blasts, local media articles and project website content*
- *Informational kiosk at Miramar Reservoir*
- *Business and residential field outreach*
- *Community liaison specifically for Scripps Ranch/Miramar*





Phase 1 Construction

Project/Construction Package	Anticipated Contractor Notice to Proceed	Anticipated Project Completion
North City Pure Water Facility & Pump Station	March 2021	2024
North City Pure Water Pipeline, Dechlorination Facility & Subaqueous Pipeline, AC Water Group 1038	May 2021	2025

SD Who Supports Pure Water?



Want to take a guided tour of the Pure Water Demonstration Facility? Learn all about the five-step process from members of the Pure Water team by viewing the Pure Water Virtual Tour at one of the links below.

virtualltour.purewatersd.org
YouTube.com/PureWaterSD



City of San Diego Pure Water Demonstration Facility Virtual Tour

295 views • May 7, 2020

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purewatersd.org
phase1.purewatersd.org



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Sign up for **construction updates** and take the **virtual tour**