

| Pure Water San Diego Program

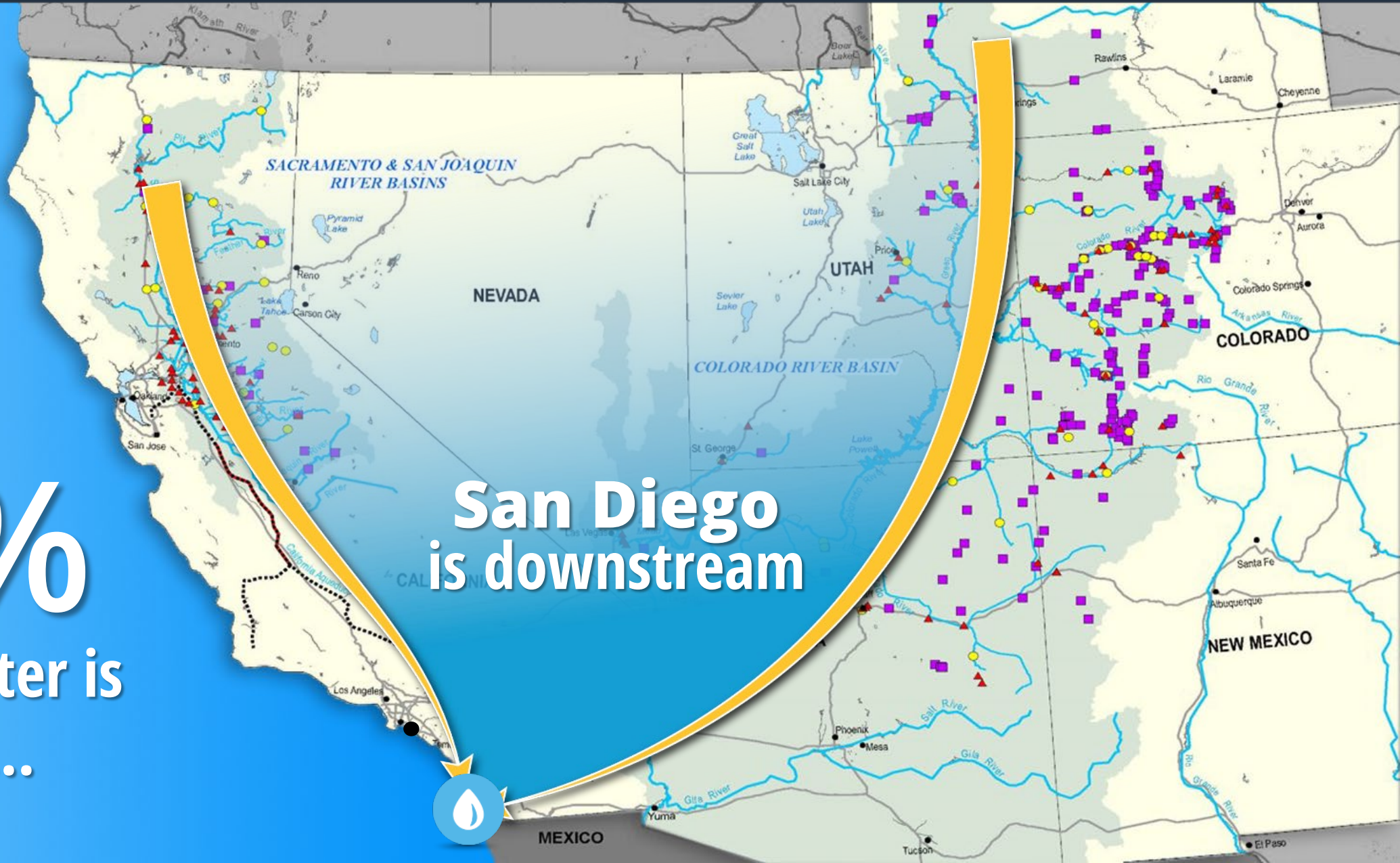
Public Utilities Department



San Diego's Water Supply

85%
of our water is
imported...

**San Diego
is downstream**



SD We Face Numerous Water Challenges

 Limited local & imported supplies

 Population growth

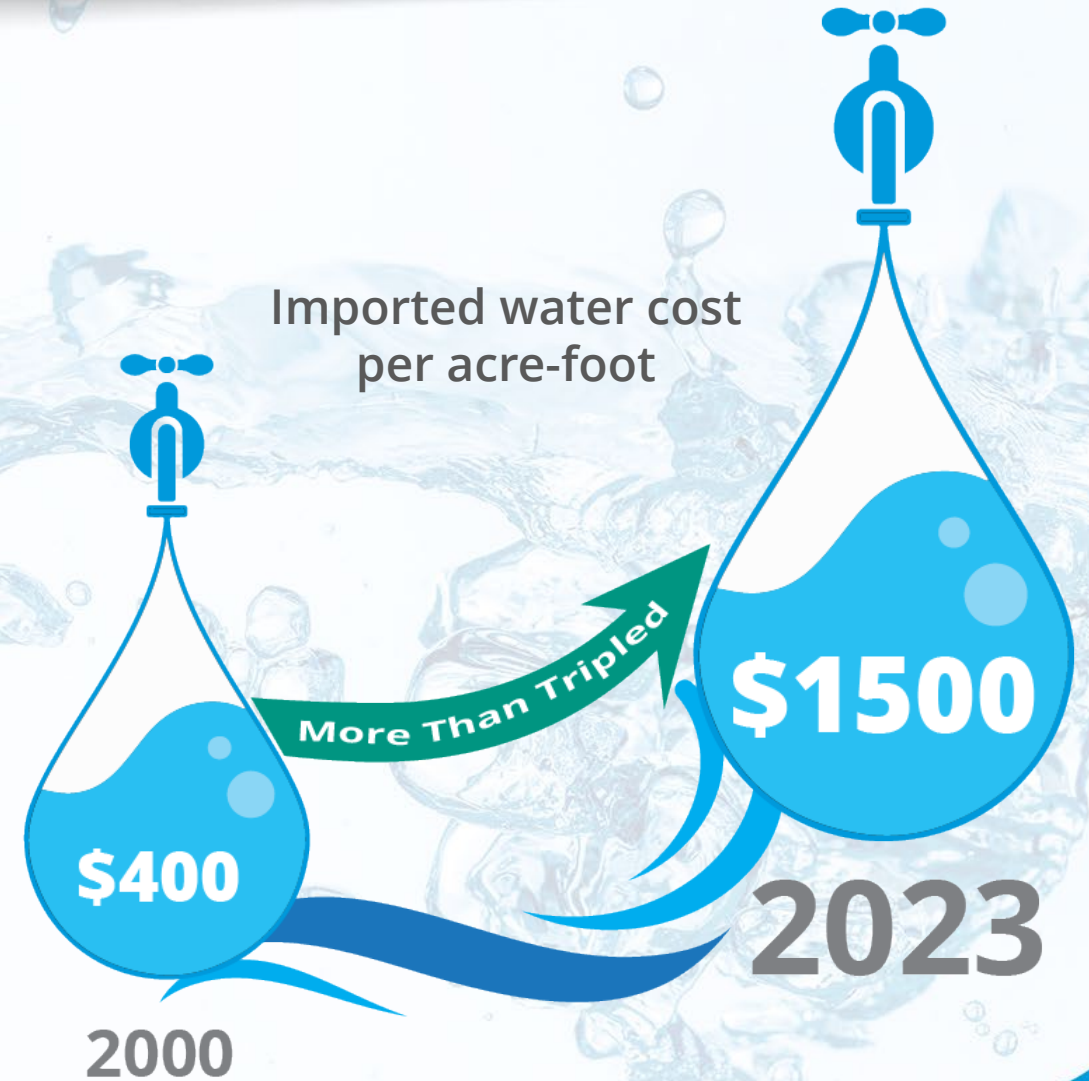
 Bay Delta constraints

 Natural disaster risk

 Rising imported water costs

 Recurring drought

 Climate Change



SD Multi-faceted Approach



- Conservation
- Desalination
- Groundwater Development
- Recycled Water
- Pure Water Program



What is Pure Water San Diego?

Pure Water will:

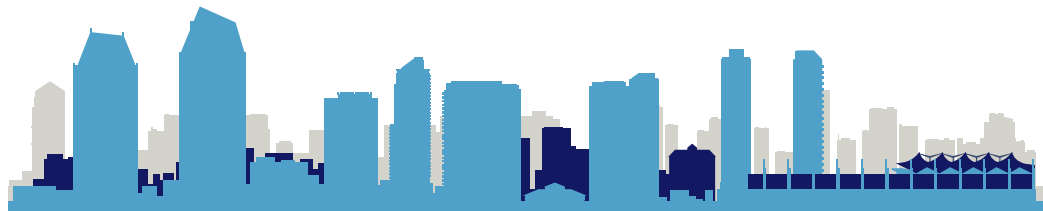
Provide nearly 1/2
of San Diego's water
supply by



Provide a reliable,
sustainable water
supply



Produce safe,
high-quality
drinking water

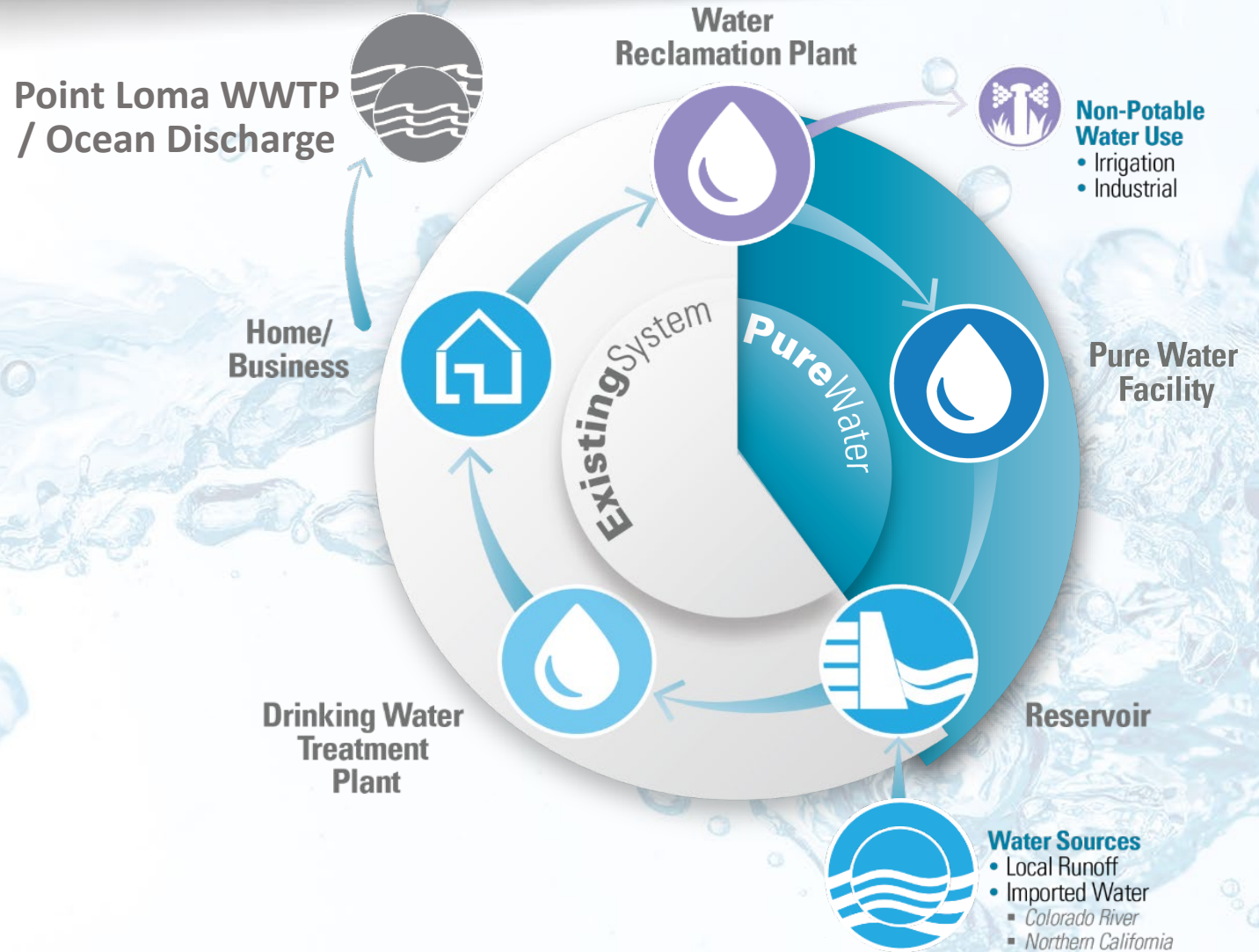


Offer a cost-effective investment
for San Diego's water needs

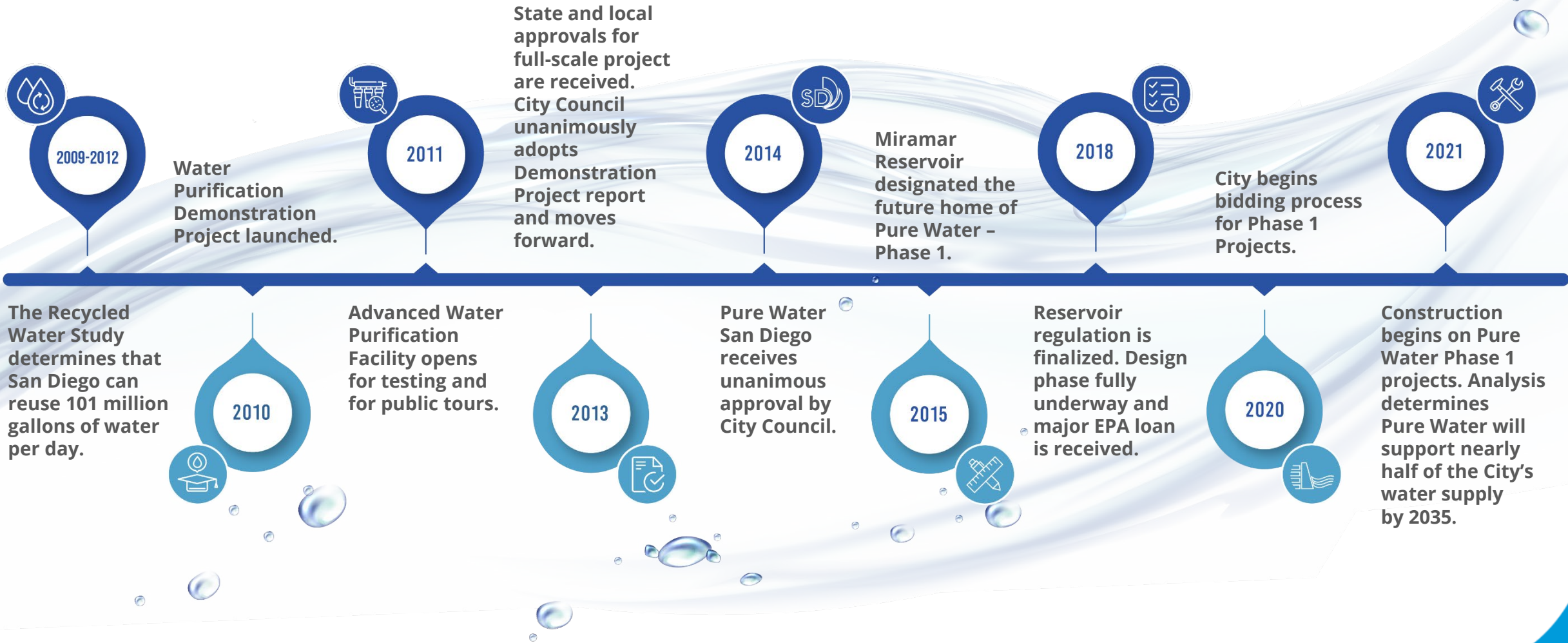
SD San Diego's Water Supply System

Existing System...
Primarily a
Single-Use System

Pure Water...
Completes Our
Water Cycle



SD Pure Water San Diego Potable Reuse Timeline



Pure Water
will produce nearly

1/2

of your water
locally

Phase 2

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



SD Pure Water Runs a Successful Demonstration Facility



More than 50,000 lab tests:
Met all standards



Water quality:
Exceptional

Demonstration Facility Virtual Tour

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

 LIKE  DISLIKE  SHARE  SAVE ...

SD Phase 1 Projects



- MBC** Metropolitan Biosolids Center
- NCWRP** North City Water Reclamation Plant & Flow Equalization Basin
- NCPWF** North City Pure Water Facility & Pump Station
- NCPWP** North City Pure Water Pipeline, Dechlorination Facility and Subaqueous Pipeline



PUMP STATION



WATER FACILITY



BIOSOLIDS

Morena Pump Station & Pipelines

SD Morena Pump Station



- Pump station will convey wastewater to the North City Water Reclamation Plant
- Supports Phase 1 recycled water and purified water production
- Includes work on Friars Road between Sea World Drive and Napa Street
- Construction is underway

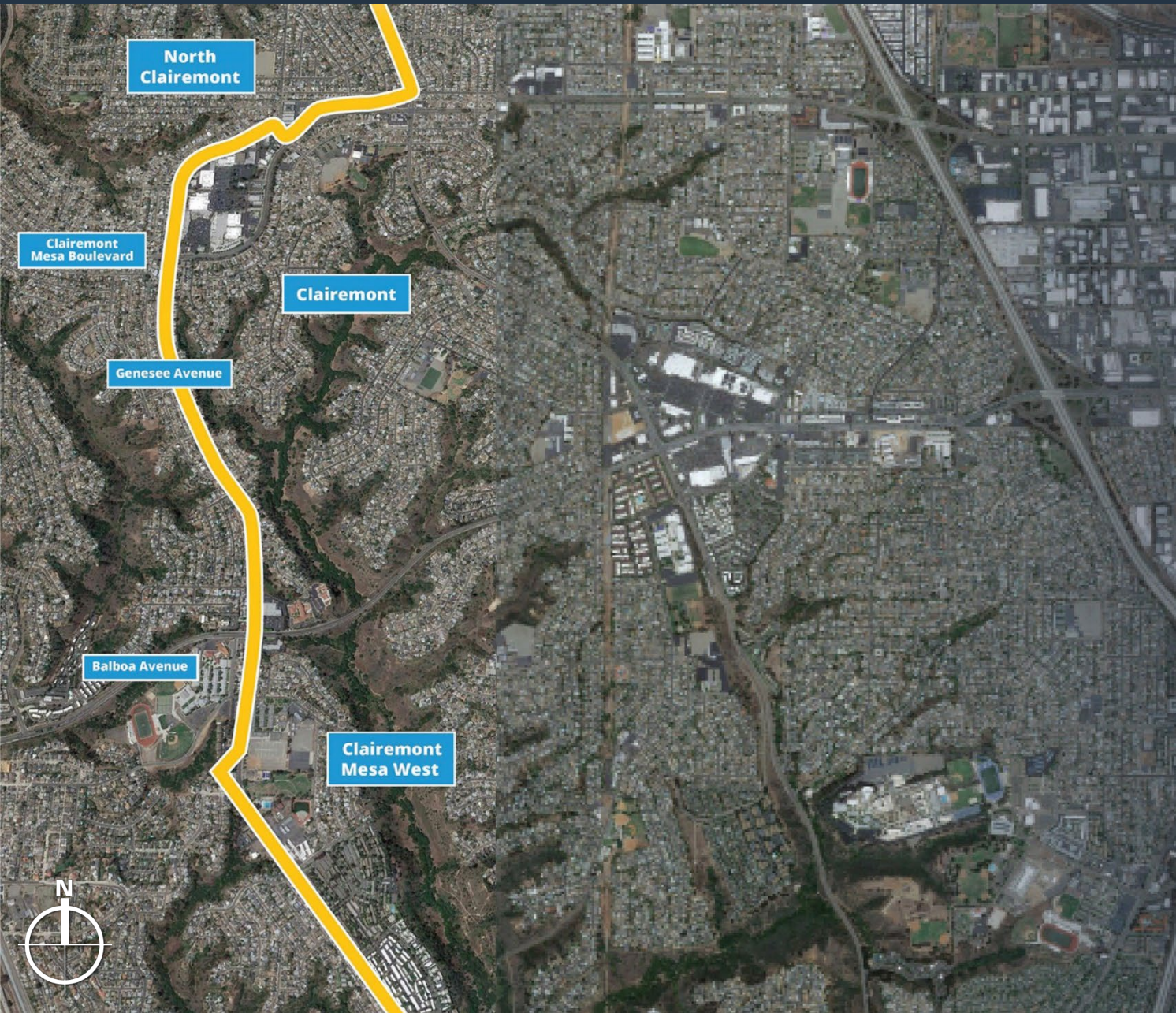
Morena Boulevard

SD Morena Southern/Middle Alignment



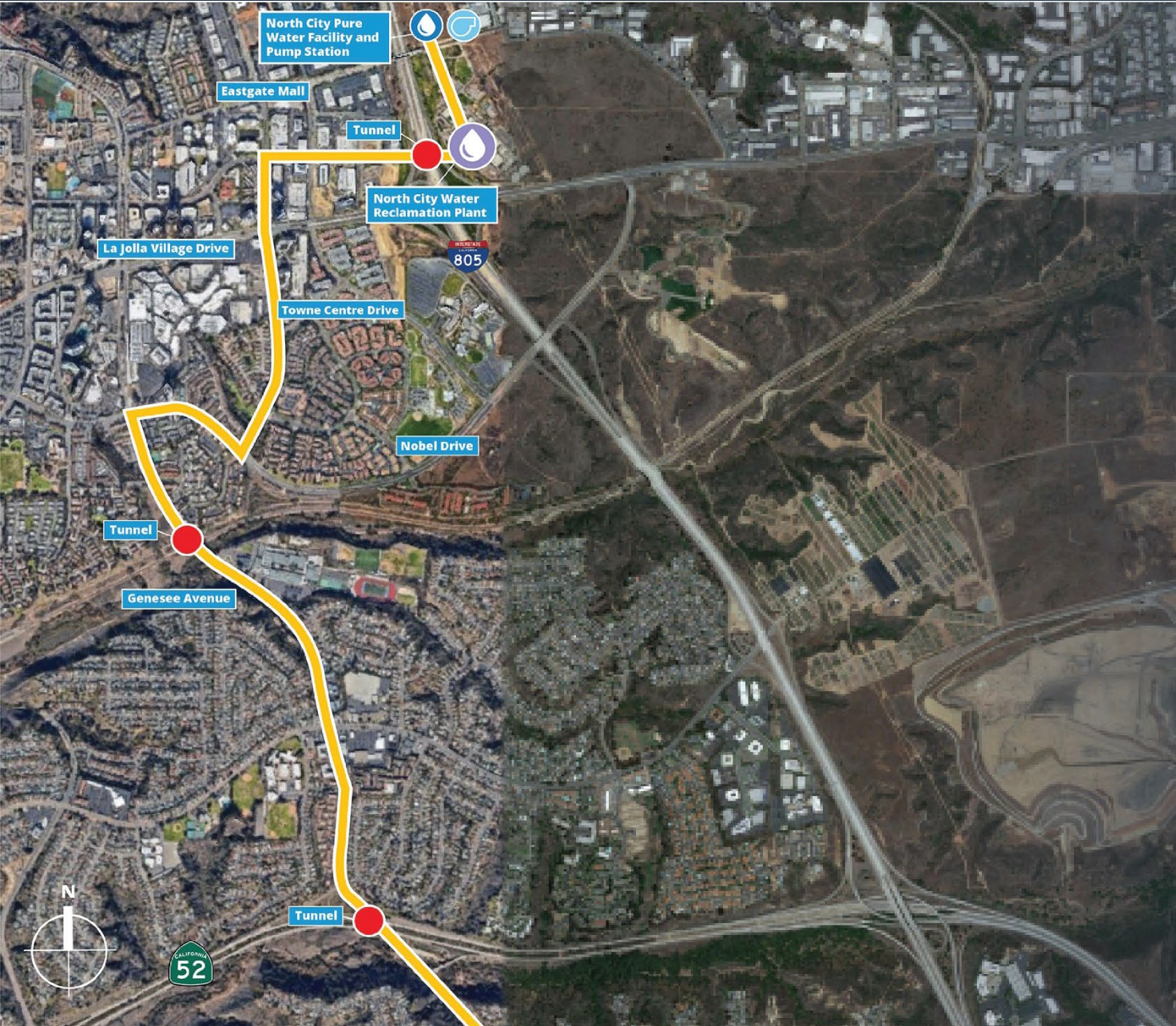
- Will connect the Morena Pump Station at Sherman and Custer Streets and the Morena Pipelines Middle Alignment at Clairemont Dr. and Iroquois Ave.
- Construction is underway

SD Morena Southern/Middle Alignment



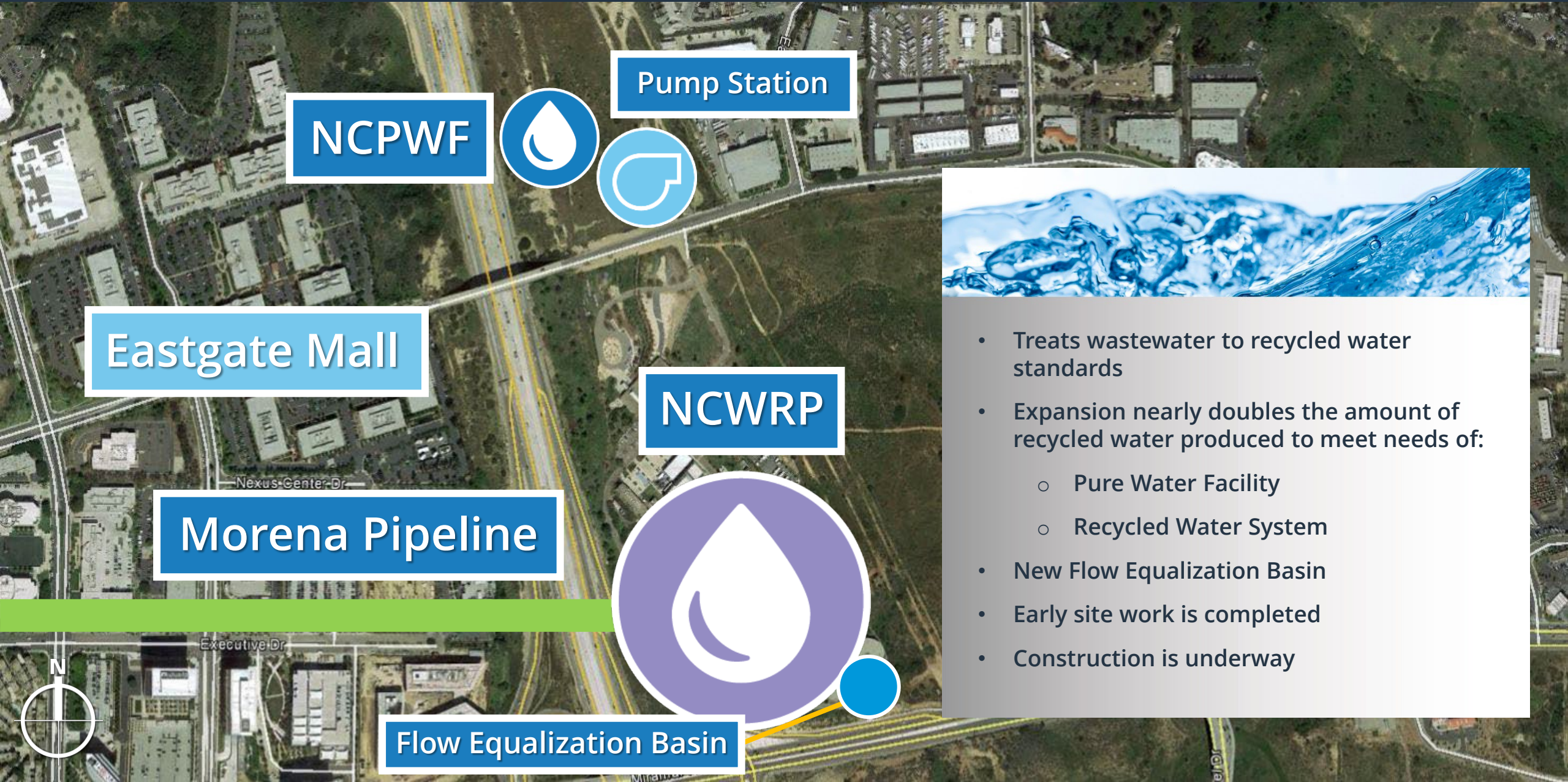
- Will connect the Morena Pipelines Southern Alignment in Bay Park to the Morena Pipelines Northern Alignment and Tunnels in University City
- Construction is underway

SD Morena Northern Alignment & Tunnels



- This project will connect to the Morena Pipelines Middle Alignment to the south and the North City Water Reclamation Plant to the north
- Begins on Genesee Ave. and Appleton St. and continues on Genesee Ave, Nobel Drive, Towne Centre Drive and Executive Drive
- Construction is underway

SD North City Water Reclamation Plant Expansion



NCPWF



Pump Station

Eastgate Mall

NCWRP

Morena Pipeline



Flow Equalization Basin



- Treats wastewater to recycled water standards
- Expansion nearly doubles the amount of recycled water produced to meet needs of:
 - Pure Water Facility
 - Recycled Water System
- New Flow Equalization Basin
- Early site work is completed
- Construction is underway



North City Pure Water Facility & Pump Station



NCPWF



Pump Station



NCWRP



- Treats recycled water to produce 30 mgd of purified water
- Includes a proven 5-step advanced water purification treatment process
- A new pipeline will be built and will connect the NCWRP to the NCWRP
- New operations building and Discovery Center
- Construction is underway





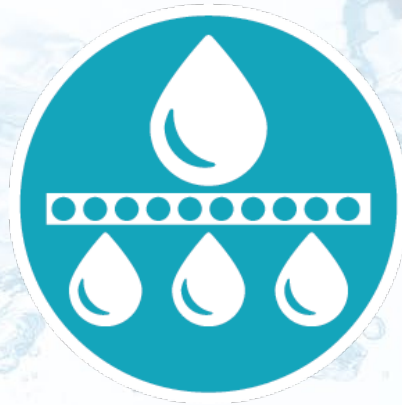
North City Pure Water Facility



Ozonation



**Biological
Activated
Carbon
Filters**



**Membrane
Filtration**



**Reverse
Osmosis**



**Ultraviolet
Disinfection
/Advanced
Oxidation**

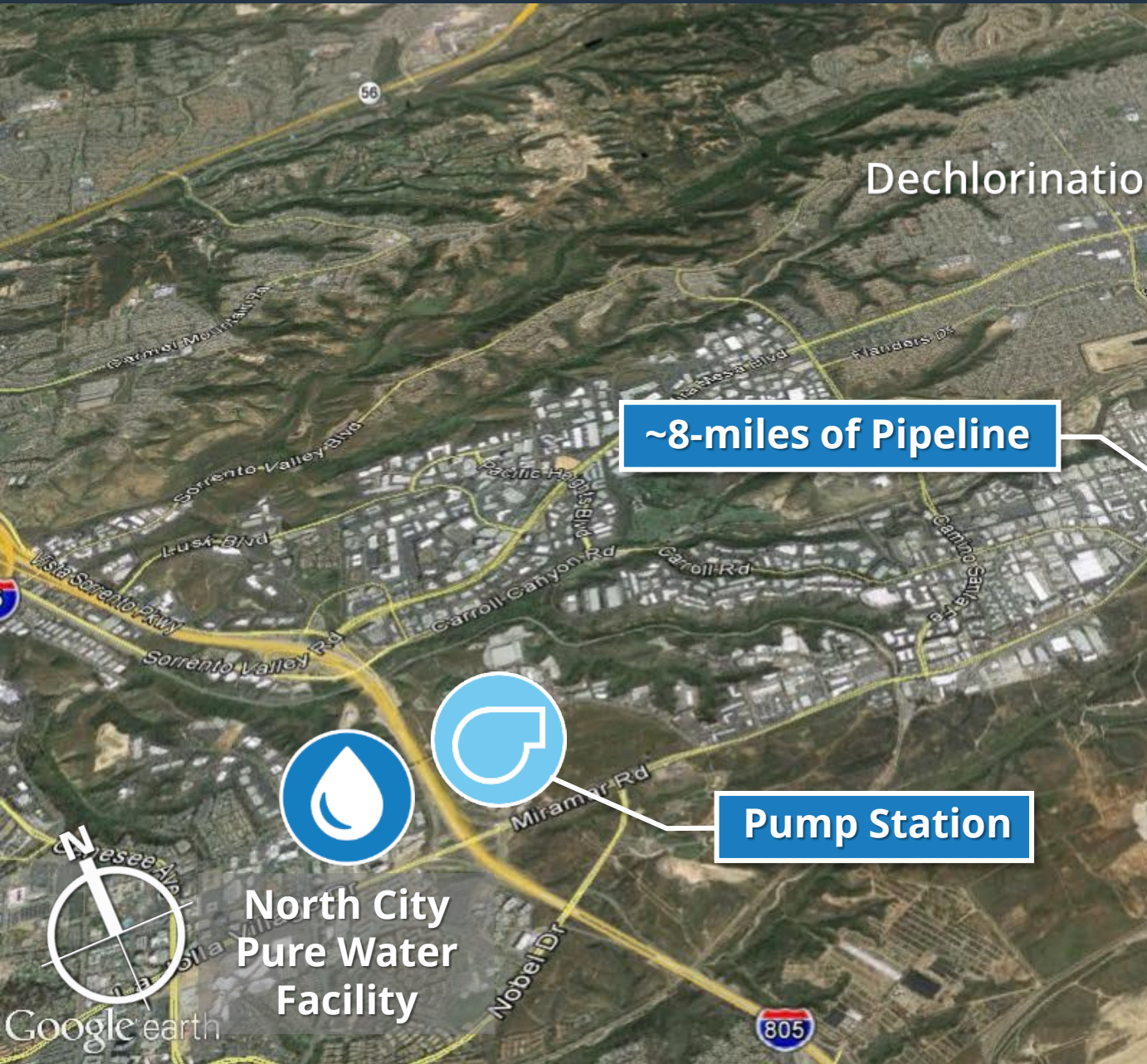
Metropolitan Biosolids Center

- Regional biosolids facility that receives and processes solids from both the North City Water Reclamation Plant (NCWRP) the Point Loma Wastewater Treatment Plant
- The NCWRP will undergo an expansion, upgrades and improvements, increasing biosolids flows and loadings to the Metropolitan Biosolids Center
- Construction is underway





North City Pure Water Pipeline



Miramar Reservoir



Dechlorination Facility

~8-miles of Pipeline

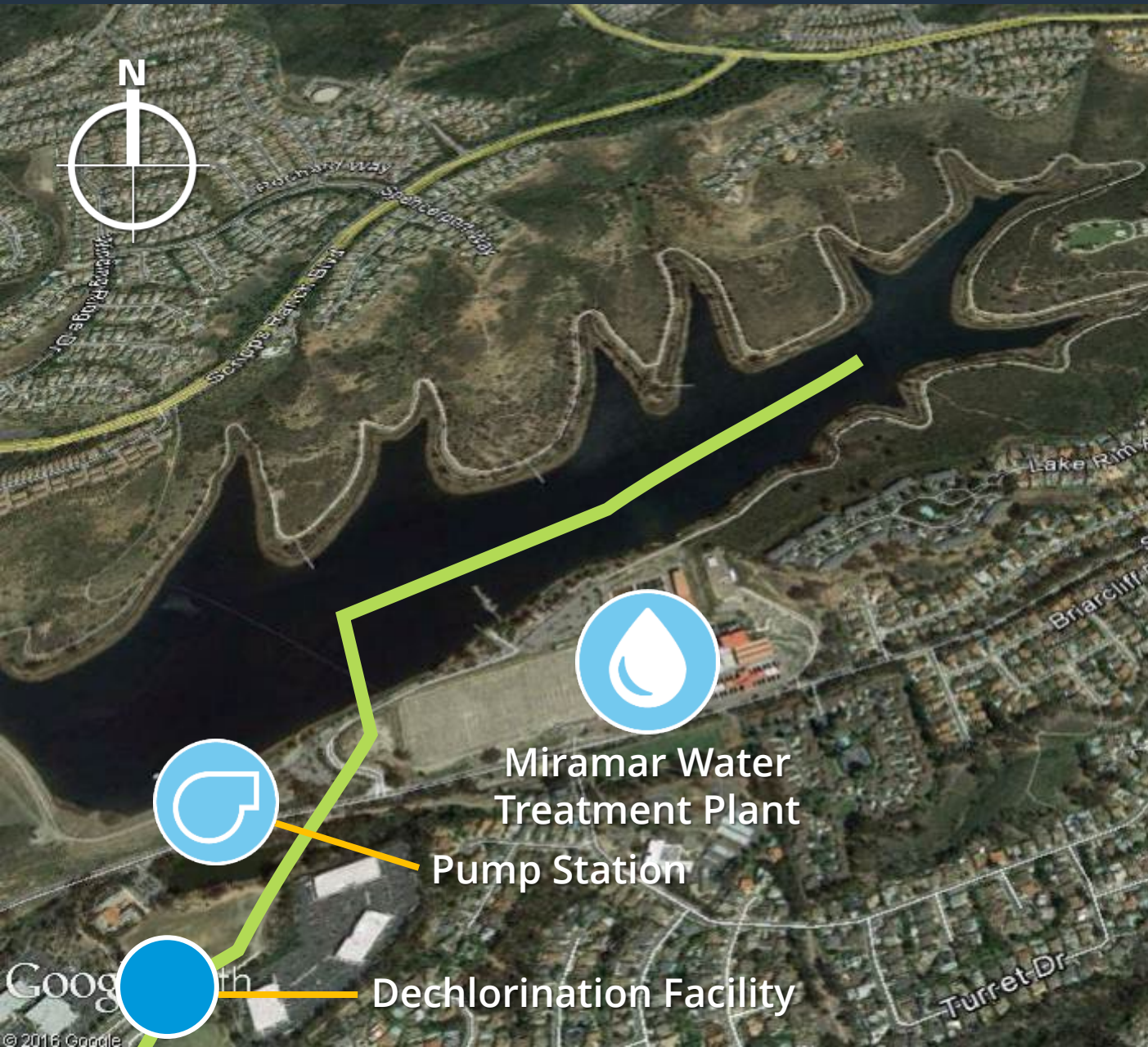
Pump Station

North City Pure Water Facility



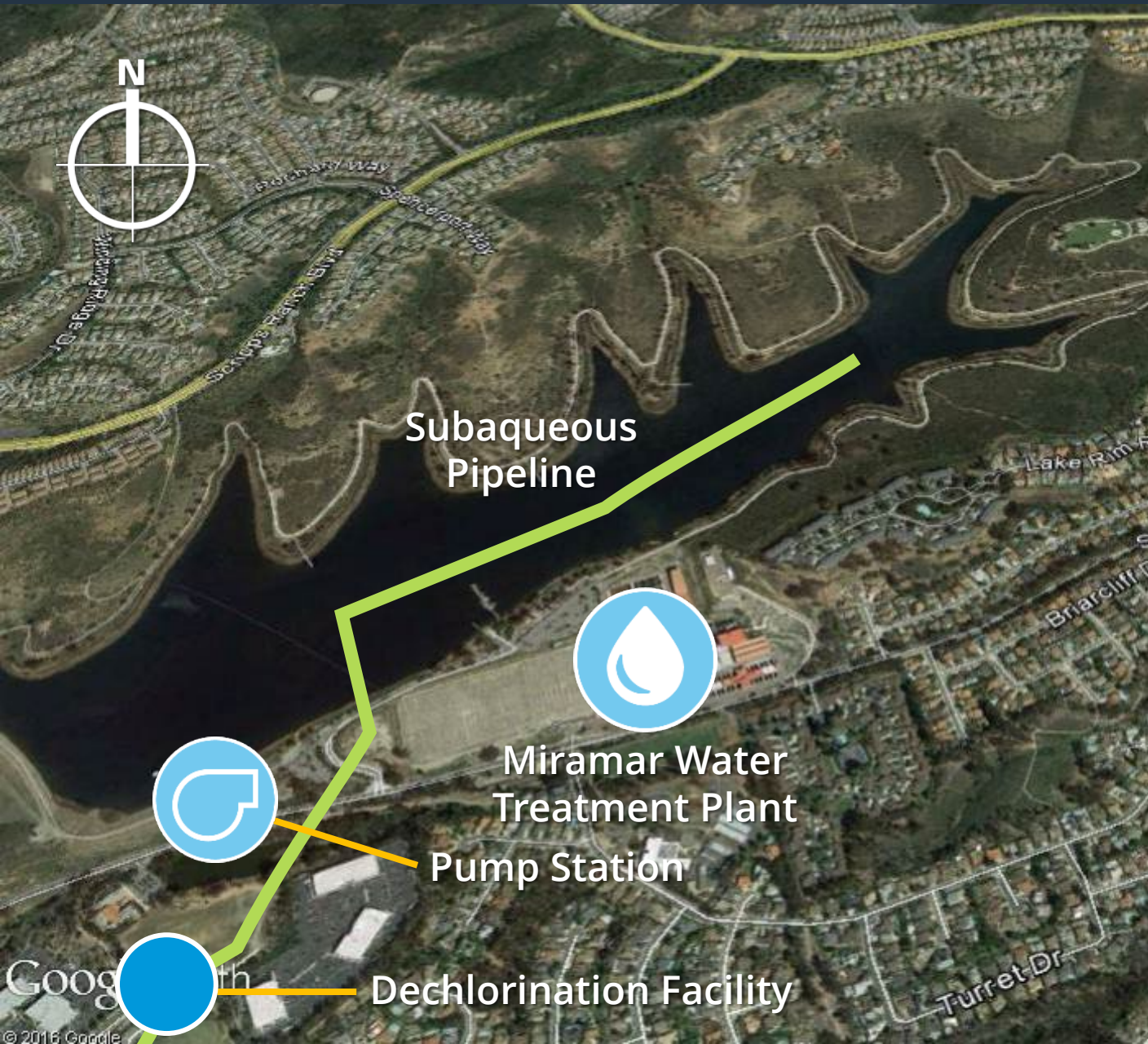
- The NCPWP will convey 30 mgd of purified water to the Miramar Reservoir for storage
- Pure Water to Miramar Reservoir via:
 - Pump Station
 - Pipeline
- Water will be dechlorinated before release to reservoir
- Construction is underway

SD Miramar Reservoir Pump Station Improvements



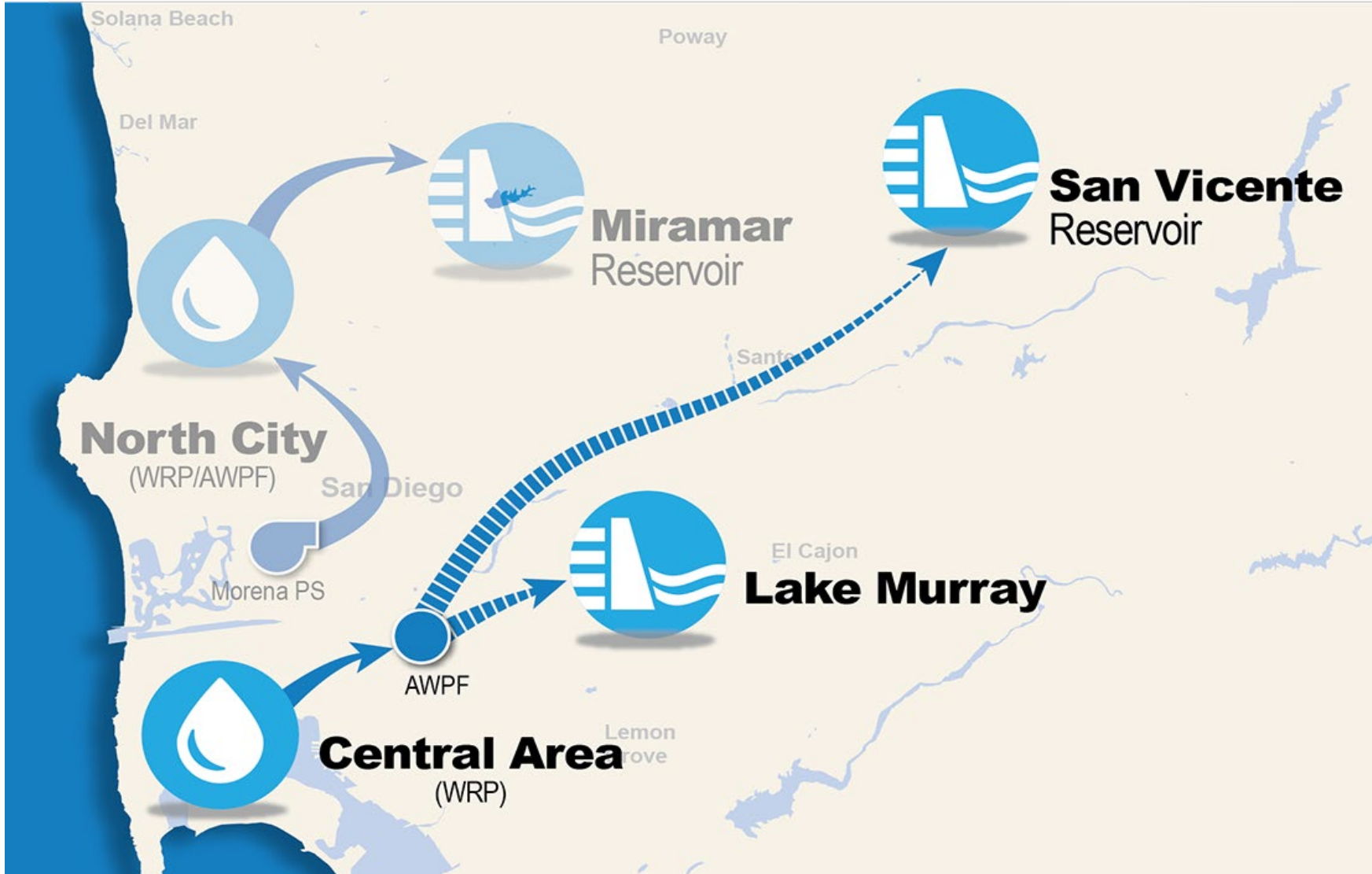
- The Miramar Reservoir Pump Station is being upgraded through the improvements project
- Upgrades include operational improvements associated with the treatment of purified water
- The purified water will be treated again at the Miramar Water Treatment Plant before distributed to the public

SD Subaqueous Pipeline



- The Miramar Reservoir Pump Station is being upgraded through the improvements project
- Upgrades include operational improvements associated with the treatment of purified water
- The purified water will be treated again at the Miramar Water Treatment Plant before distributed to the public

SD Phase 2 Central Area Planning Update



Sustainability is Key



Pure Water provides the City with a safe, local, reliable and sustainable water supply.

SD Who Supports Pure Water?



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



@PureWaterSD

Visit [purewatersd.org](https://www.purewatersd.org) to learn more about the Pure Water Program.