

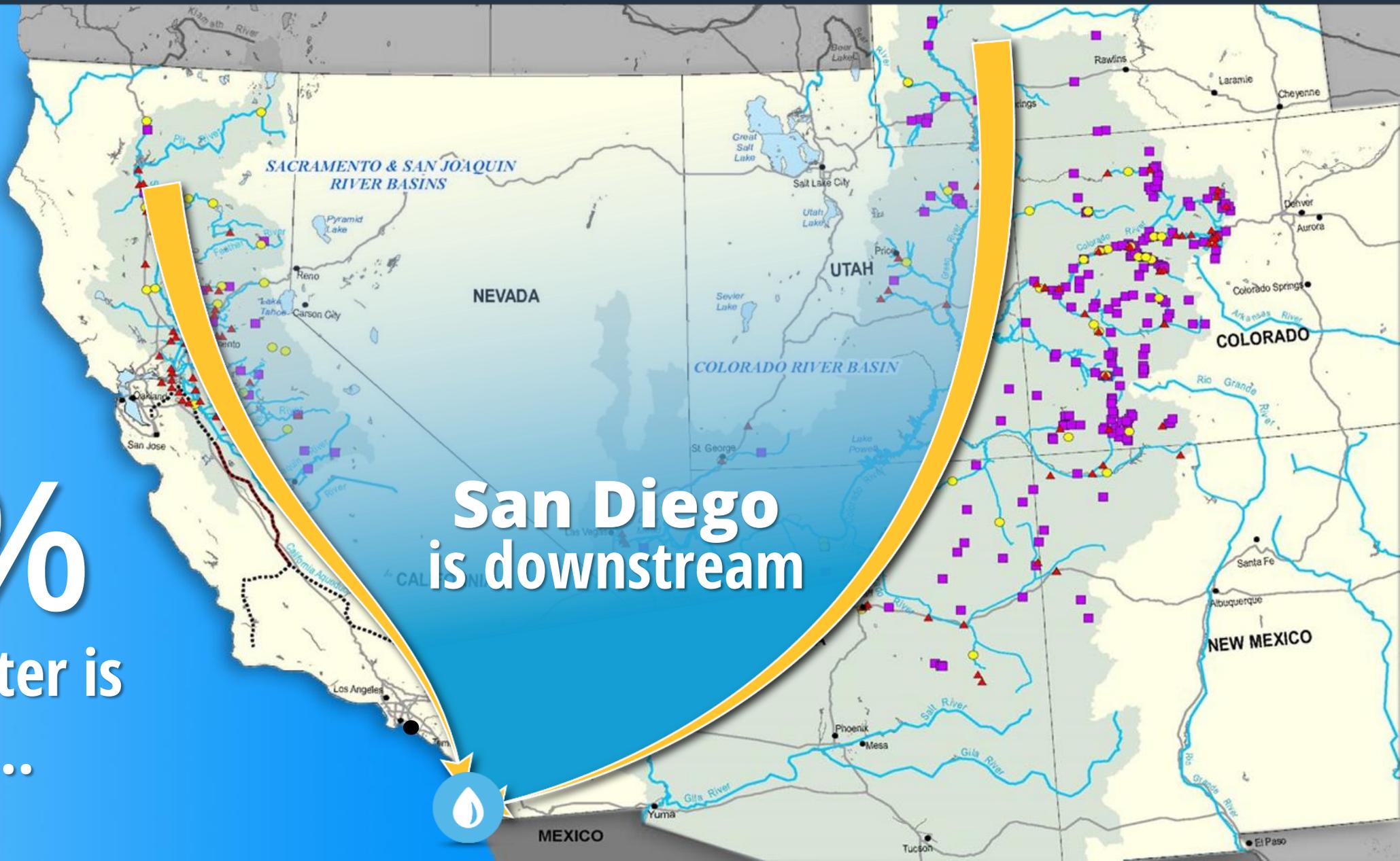
Pure Water San Diego Program

Public Utilities Department

SD San Diego's Water Supply

85%
of our water is
imported...

San Diego
is downstream



SD We Face Numerous Water Challenges

Imported water cost per acre-foot



- Limited local & imported supplies
- Population growth
- Bay Delta constraints

- Natural disaster risk
- Rising imported water costs
- Recurring drought

SD Multi-faceted Approach

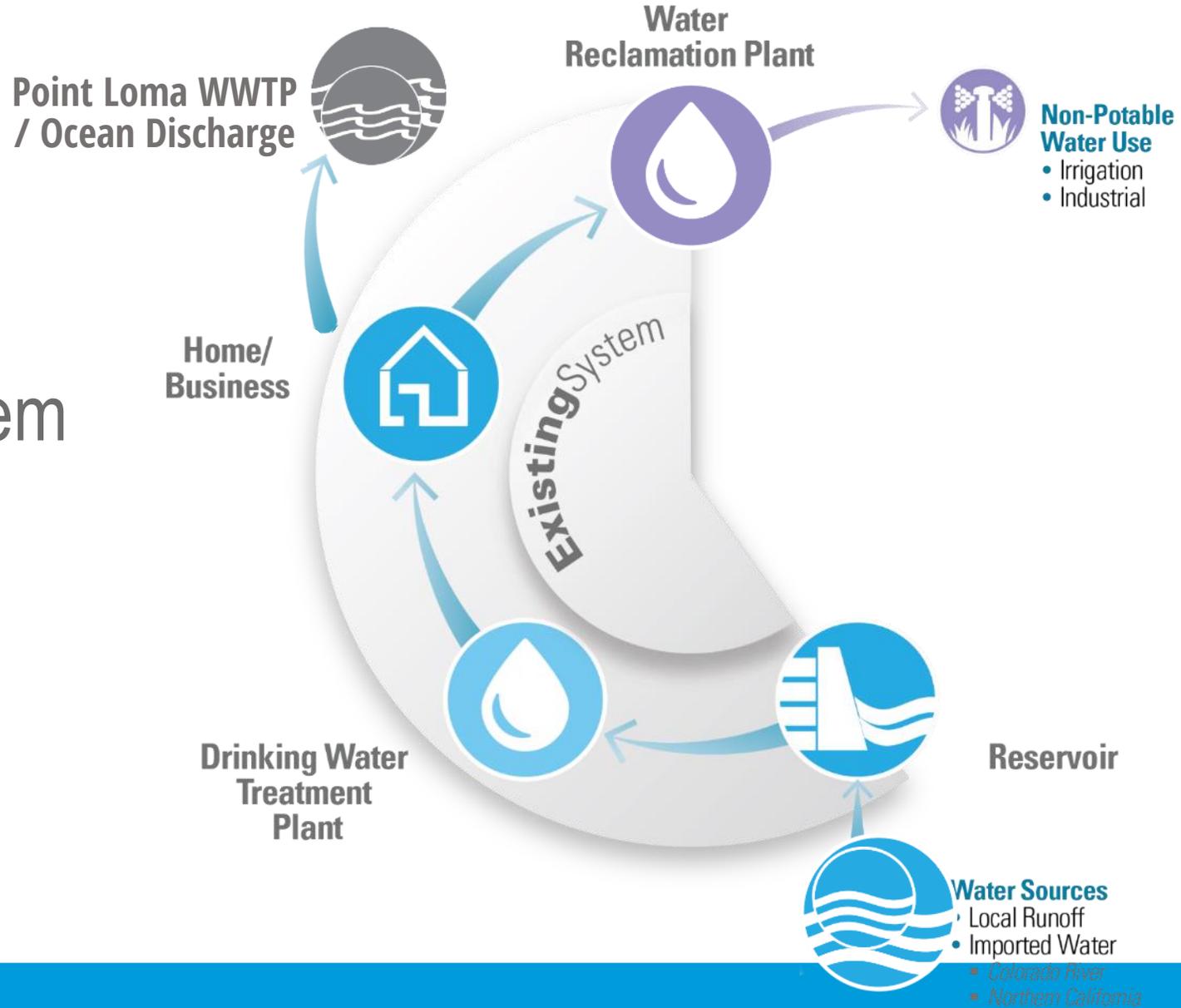


- Conservation
- Desalination
- Groundwater Development
- Recycled Water
- Pure Water Program

SD San Diego's Water Supply System

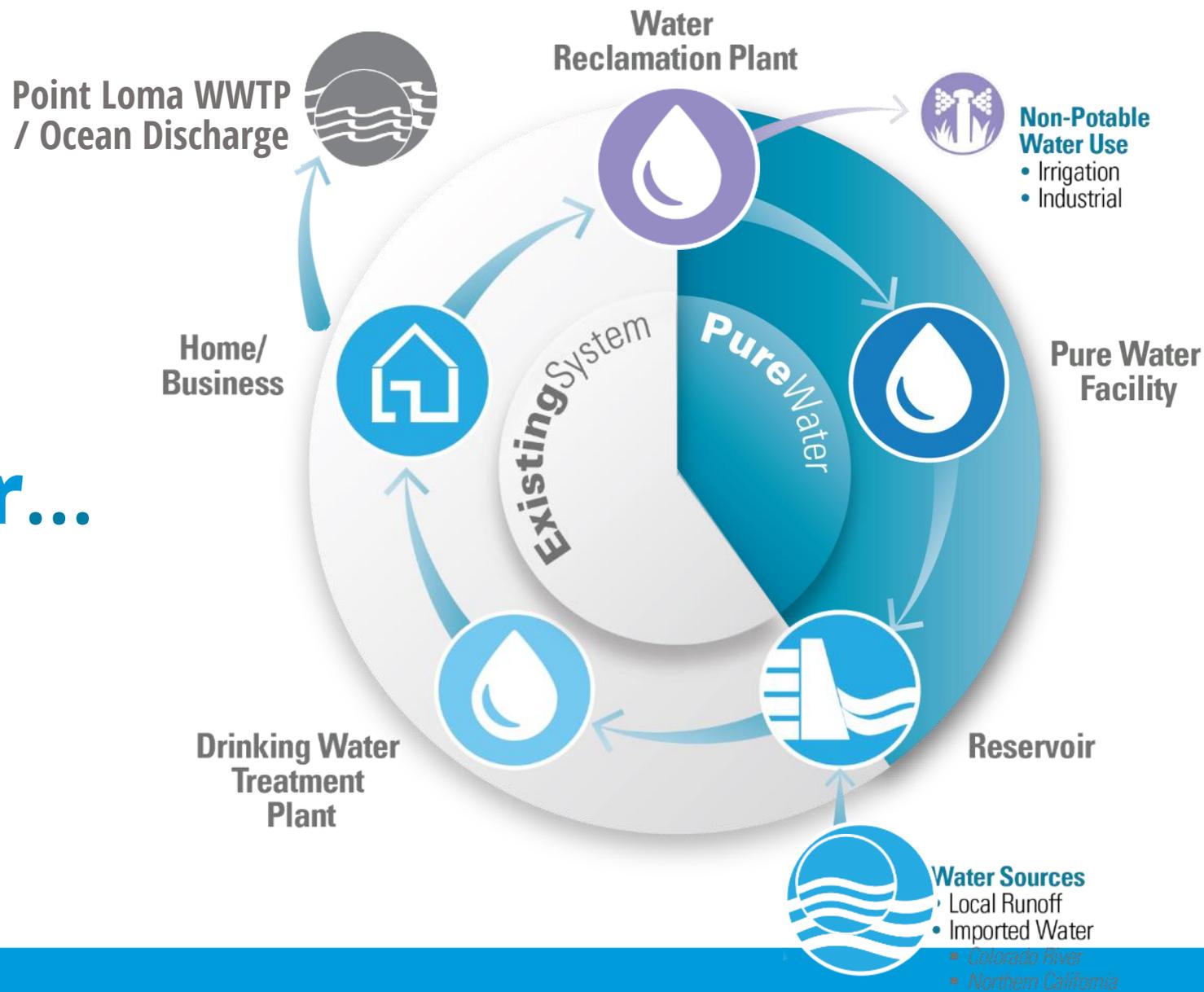
Existing System...

Primarily a Single-Use System



SD San Diego's Water Supply System

Pure Water...
Completes Our
Water Cycle



SD Pure Water Runs a Successful Demonstration Facility



- 50,000 lab tests: **Met all standards**
- Water quality: **Exceptional**
- Energy use: **Renewable**

Pure Water
will produce
1/3
of your water
locally

Phase 1

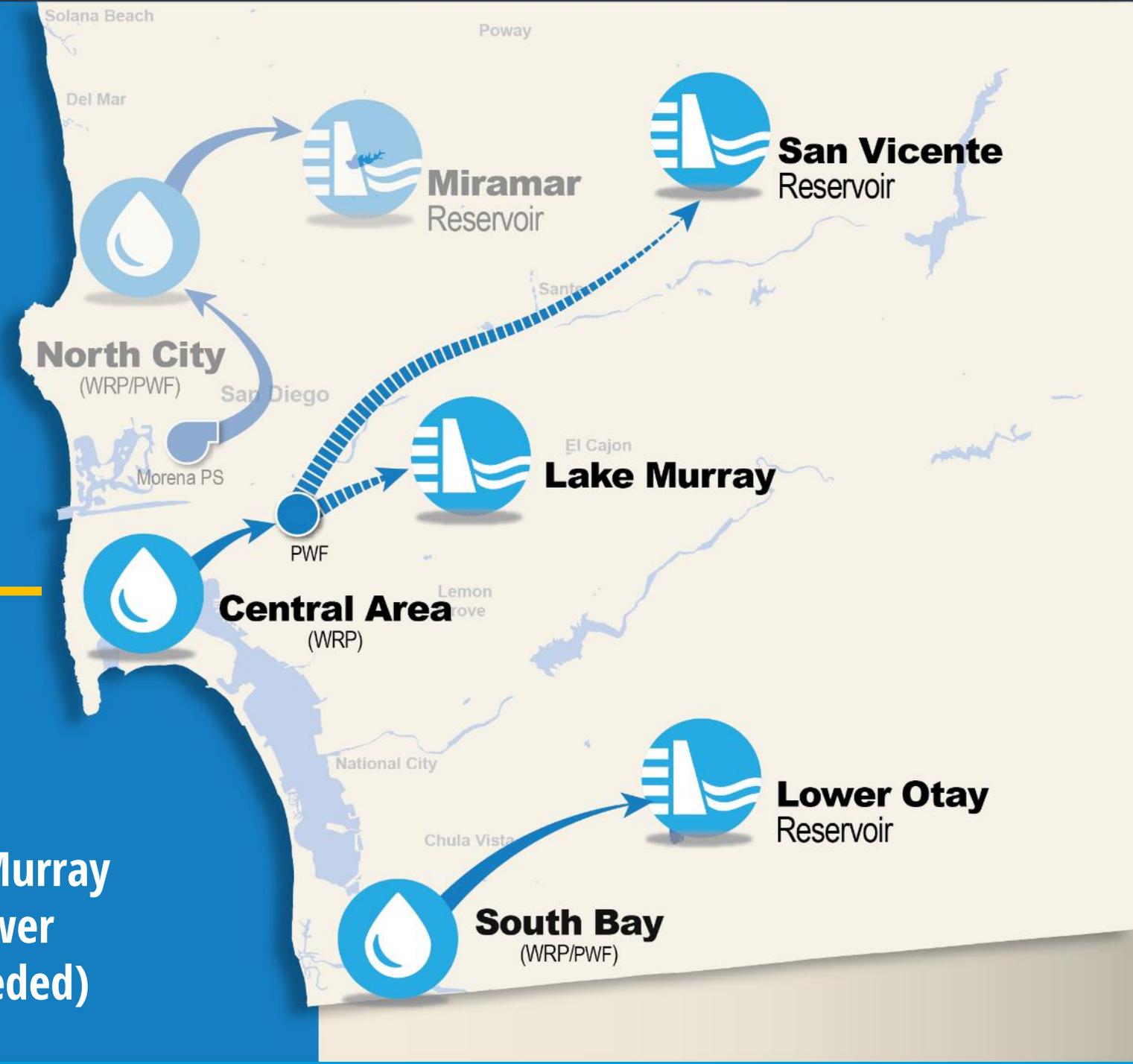
- 2023 Completion
- 30 mgd
- North City PWF to Miramar



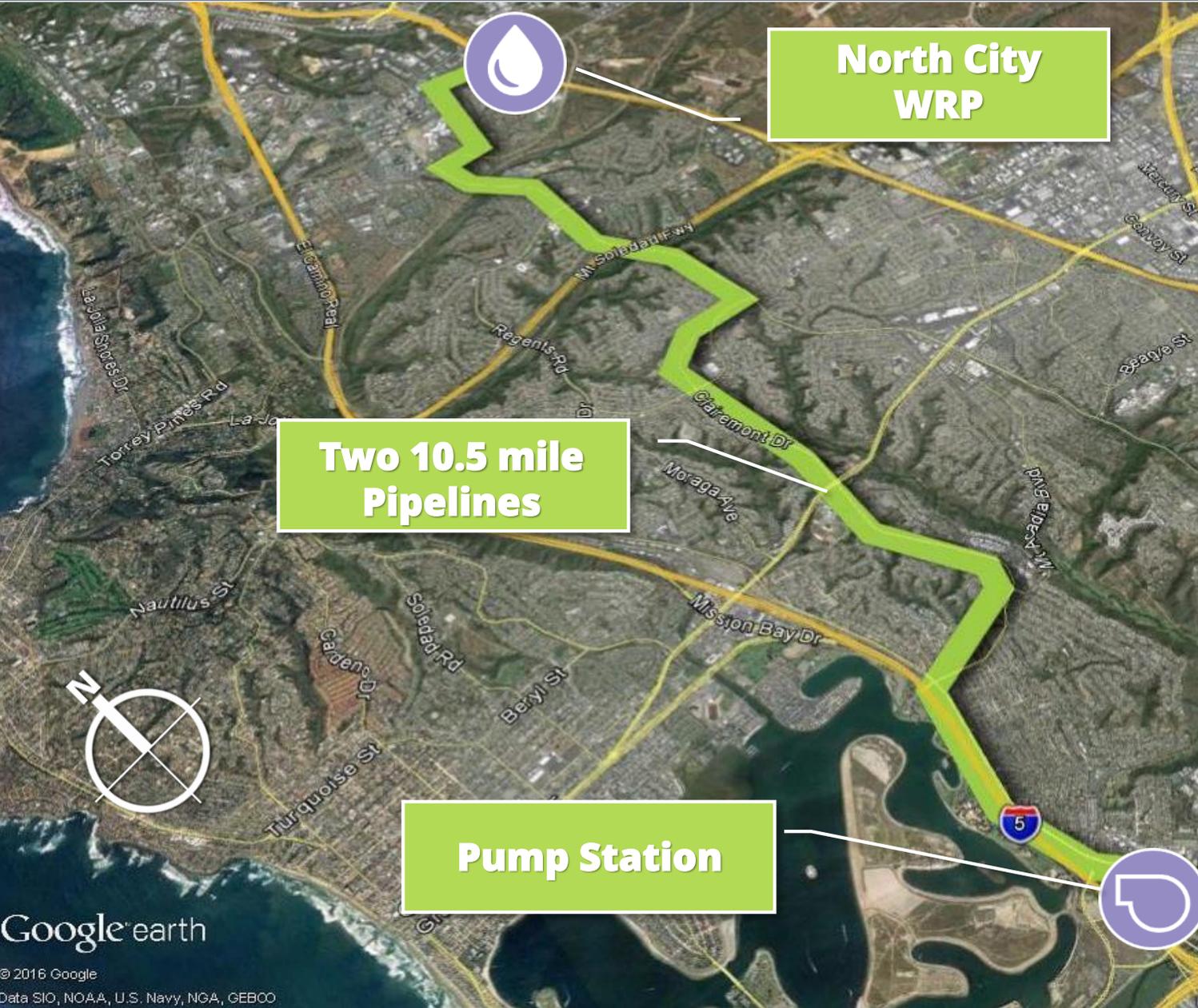
Pure Water
will produce
1/3
of your water
locally

Phases 2 & 3

- 2035 Completion
- 53 mgd
- Central Area PWF to San Vicente or Lake Murray
- South Bay PWF to Lower Otay Reservoir (if needed)



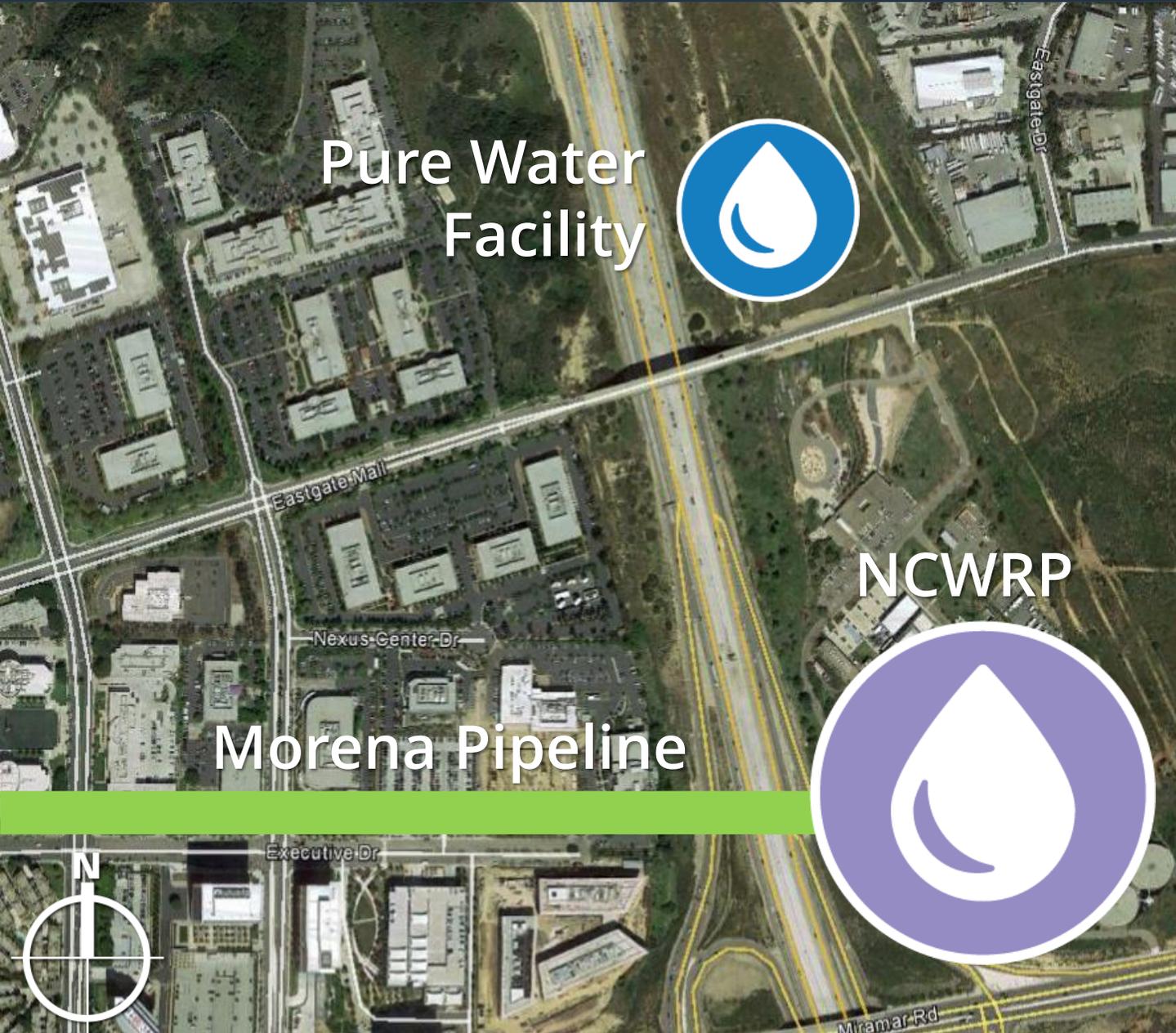
SD Morena Pump Station and Pipelines



- Conveys wastewater to North City Water Reclamation Plant (WRP)
- Supports Phase I Pure Water and recycled water production
- Trenchless construction will be used to avoid:
 - *environmentally sensitive areas*
 - *freeway crossings*
- Design completion: Early 2019
- Construction: 2019 – 2023



North City WRP Expansion



- 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*
- Design Completion: Early 2019
- Construction: 2019 - 2023



North City Pure Water Facility



Pure Water
Facility

NCWRP

- Treats recycled water to produce 30 mgd of purified water
- Includes a proven 5-step advanced water purification treatment process
- Design Completion: Late 2018
- Construction: 2019 – 2023





North City Pure Water Facility



Ozonation



Biological
Activated
Carbon
Filters



Membrane
Filtration



Reverse
Osmosis



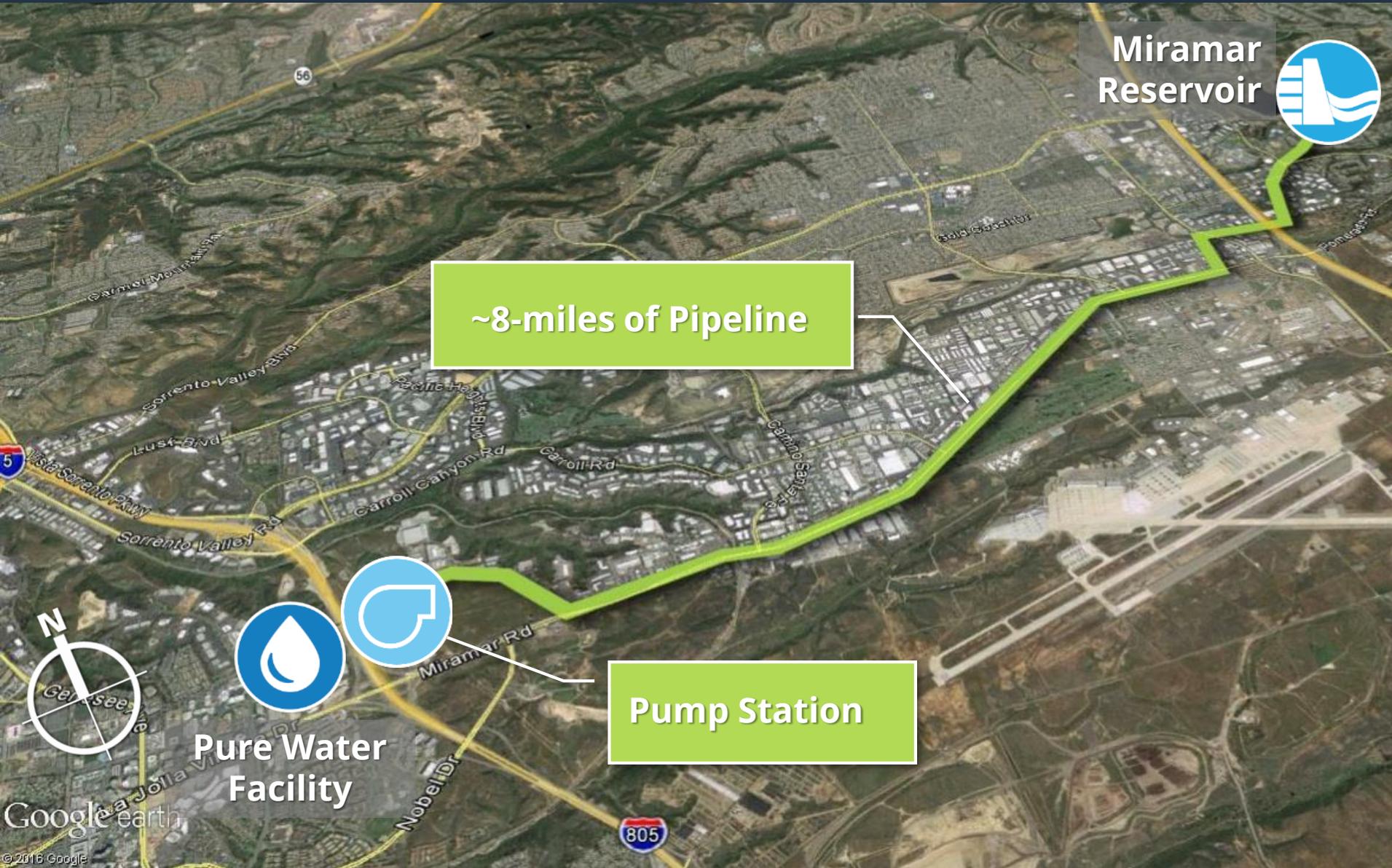
Ultraviolet
Disinfection
/Advanced
Oxidation

Construction completed in 2023





North City Pure Water Pump Station and Pipeline



Pure Water to Miramar Reservoir via:

- Pump Station
- Pipeline



Pure Water Facility

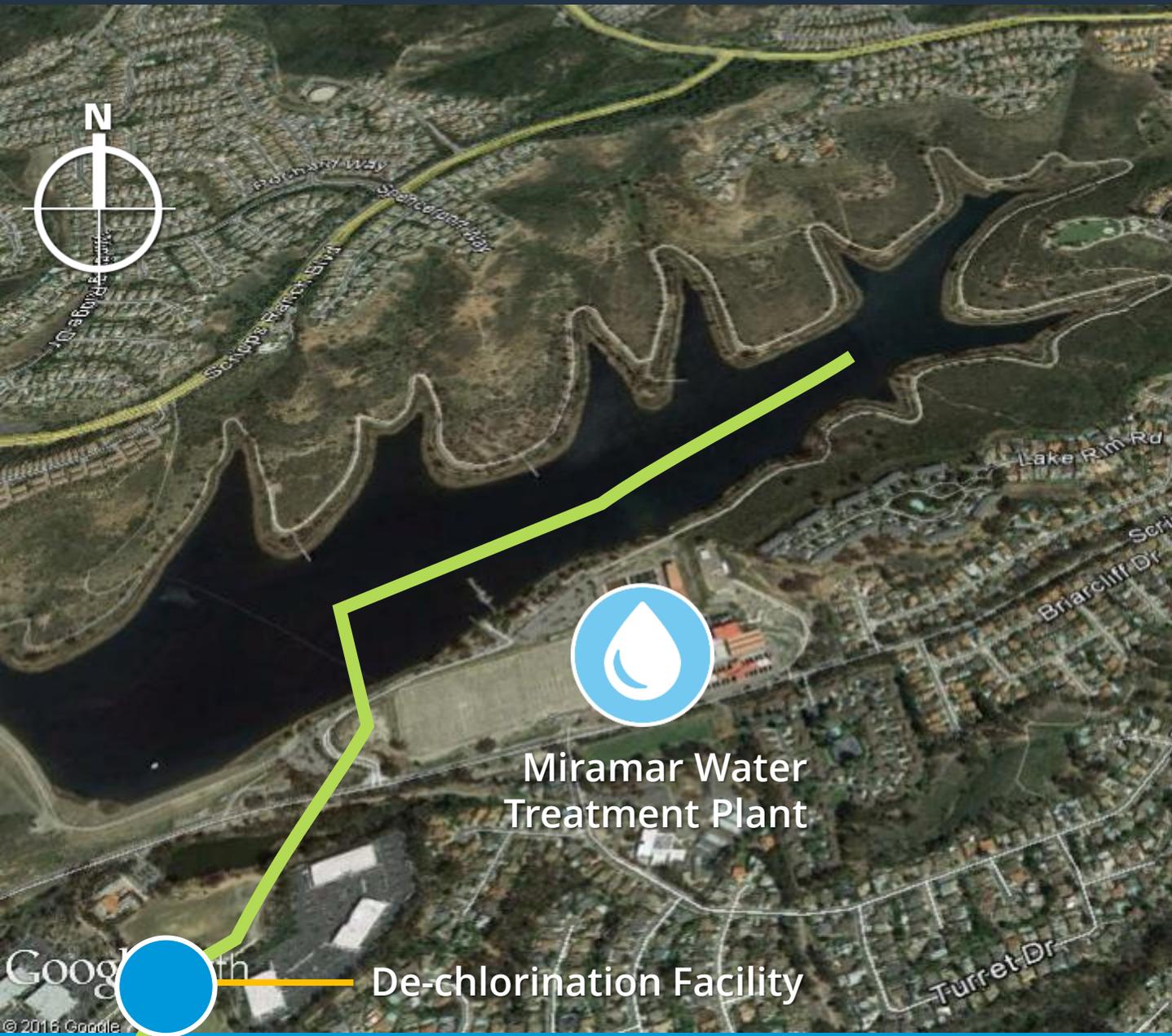
Pump Station

Miramar Reservoir



~8-miles of Pipeline

SD Miramar Reservoir



The purified water:

- Is released via underwater pipeline in the reservoir
- Will blend with imported and local water supplies
- Design Completion: Early 2019
- Construction: 2019 - 2023

SD North City Renewable Energy



Pure Water



Renewable Energy



Miramar Landfill



Metro Biosolids Center

Produces Renewable Energy

- Supports GHG reduction
- ~16 MW





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

SD Who Supports Pure Water?



SAN DIEGO COUNTY CHAPTER



SAN DIEGO PORT TENANTS ASSOCIATION



www.purewatersd.org

Sign up for a tour of the demonstration Pure Water Facility!



PureWaterSD



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PureWaterSD

Join our **mailing list** and **sign a support card**