

ADVANCED WATER PURIFICATION

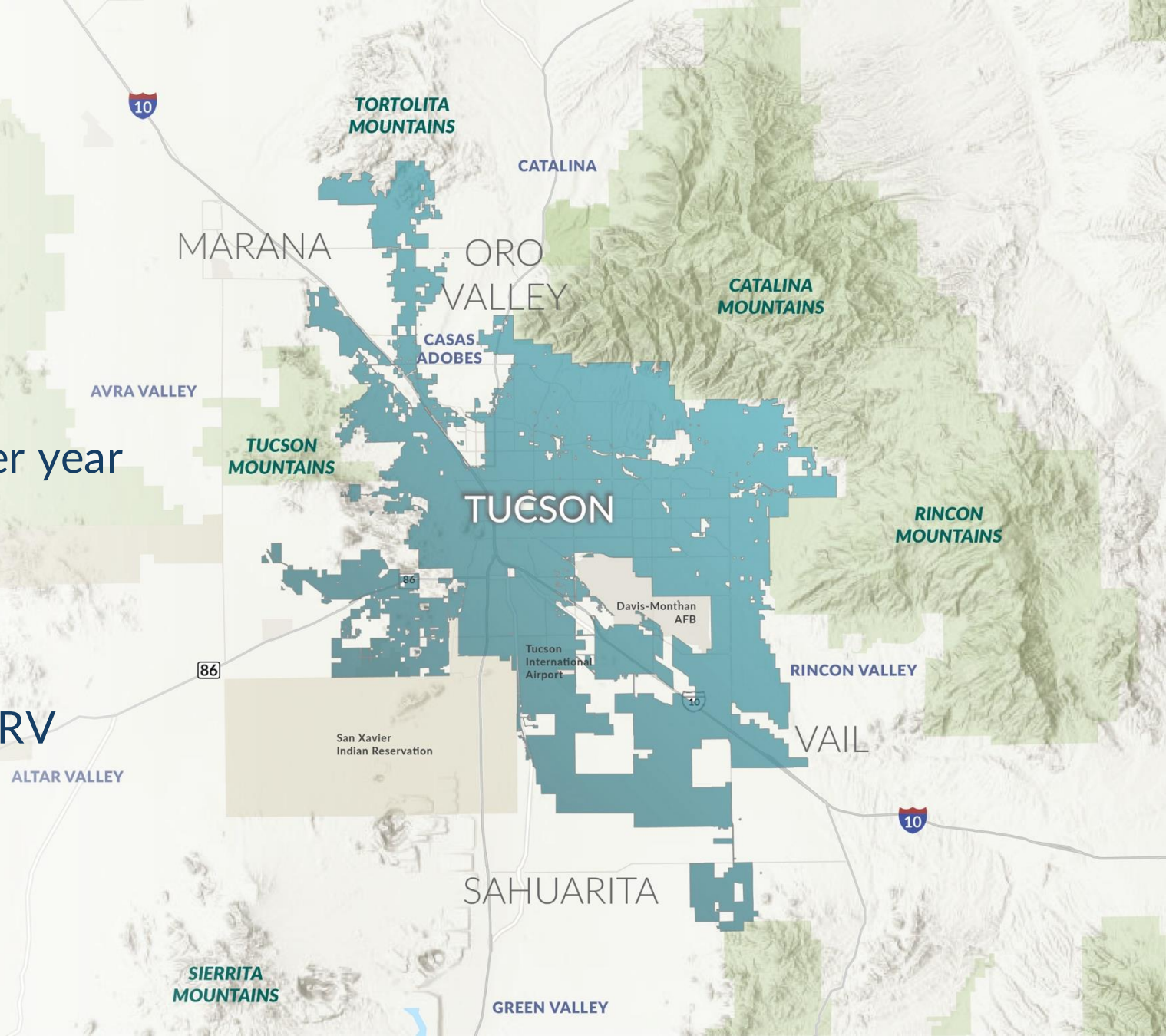
Scott Schladweiler, P.E.
Deputy Director
Tucson Water

SAWUA 2025 Water Forum
October 10, 2025

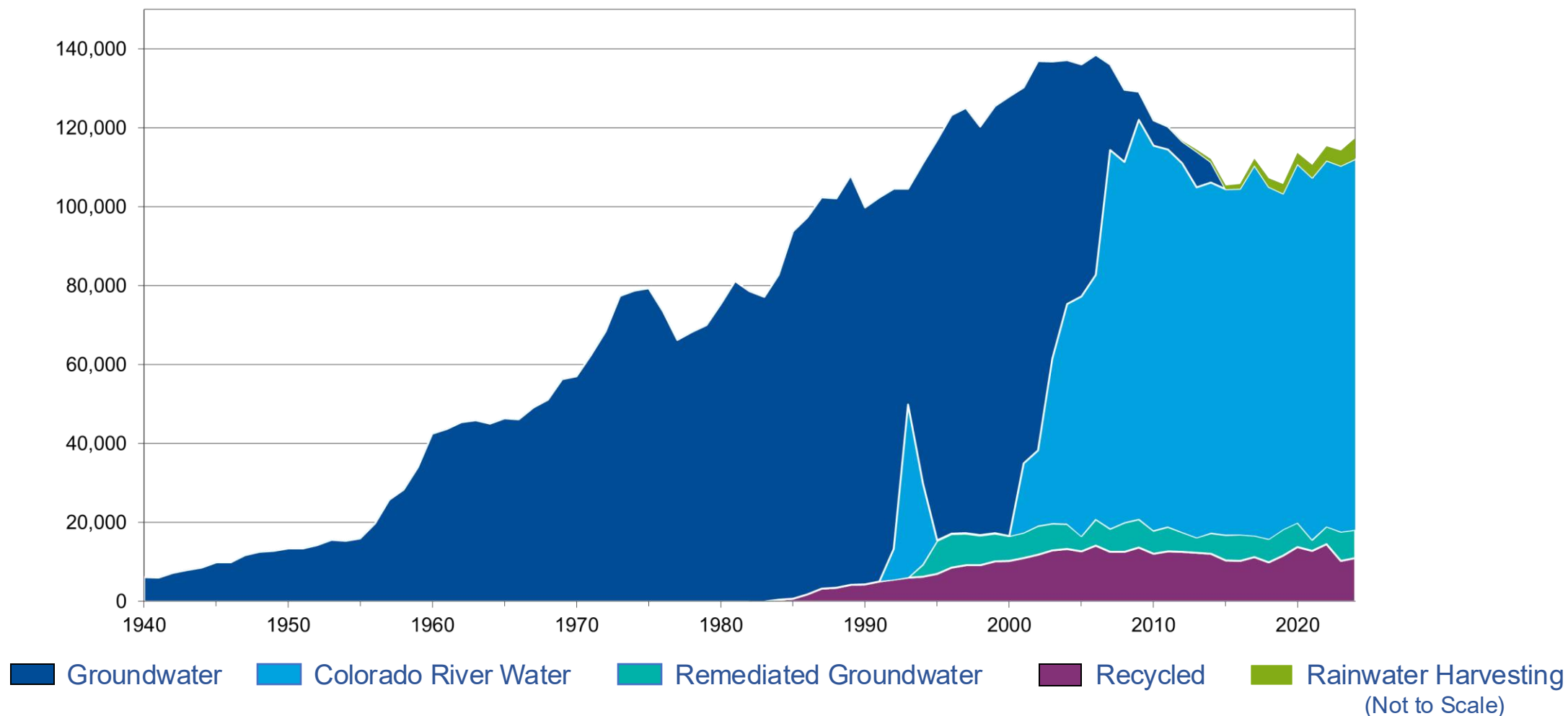


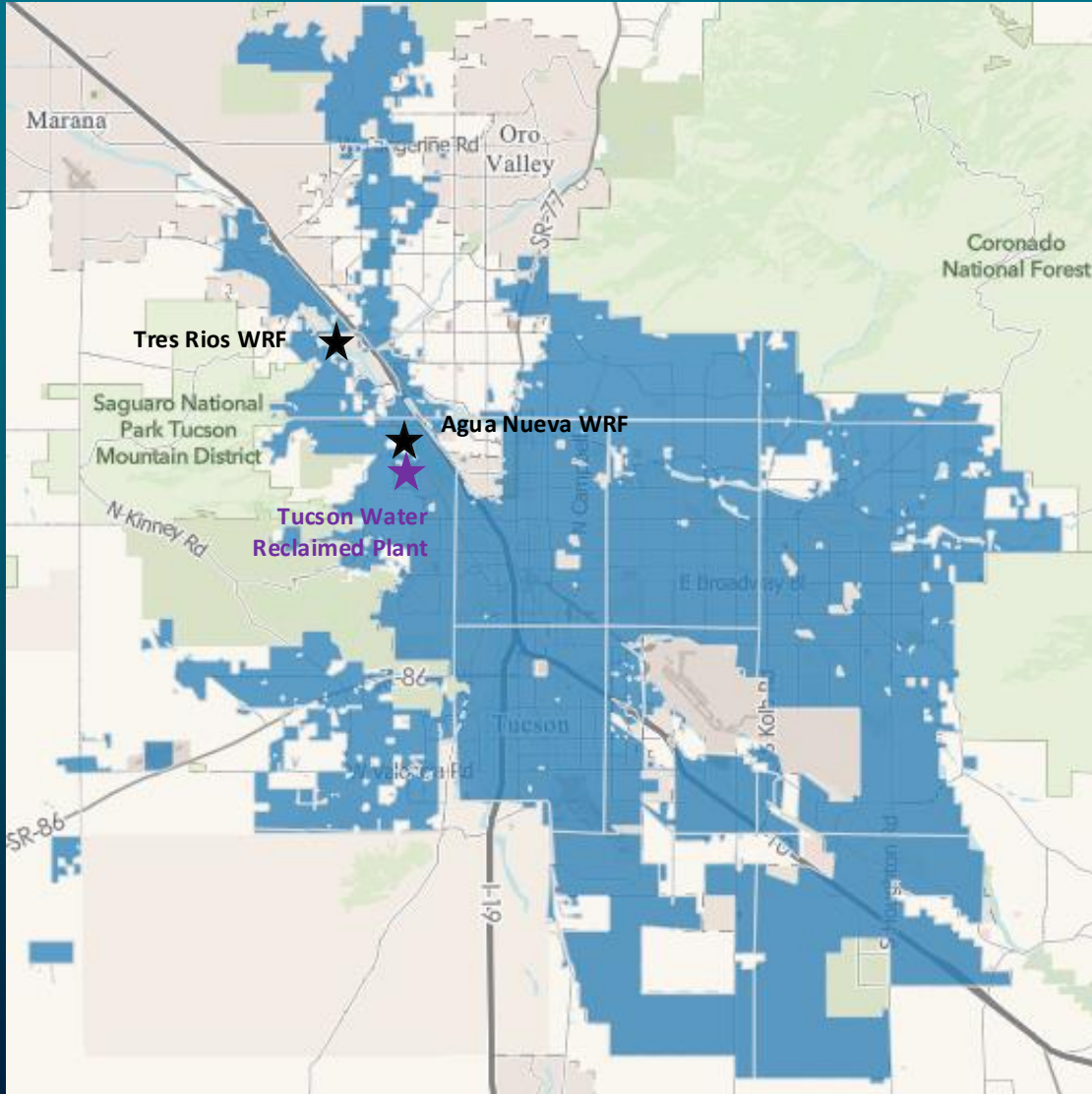
TUCSON WATER

- Serve 750,000 people
- ~250,000 connections
- 390 square mile service area
- Nearly 30 billion gallons of water per year to customers
- +200 groundwater wells
- 300MG storage
- Over 4,600 miles of pipe
- Hundreds of booster stations and PRV stations



WATER PRODUCTION & RAINWATER OFFSET FOR TUCSON WATER SERVICE AREA (1940-2024)





SYSTEM CONSERVATION

“Bucket 1” System Conservation

- 2023 through 2025
- Total of 110,000 acre-feet left in Lake Mead
- \$44M used to enhance long term water supply resiliency projects
- Water supply and quality projects

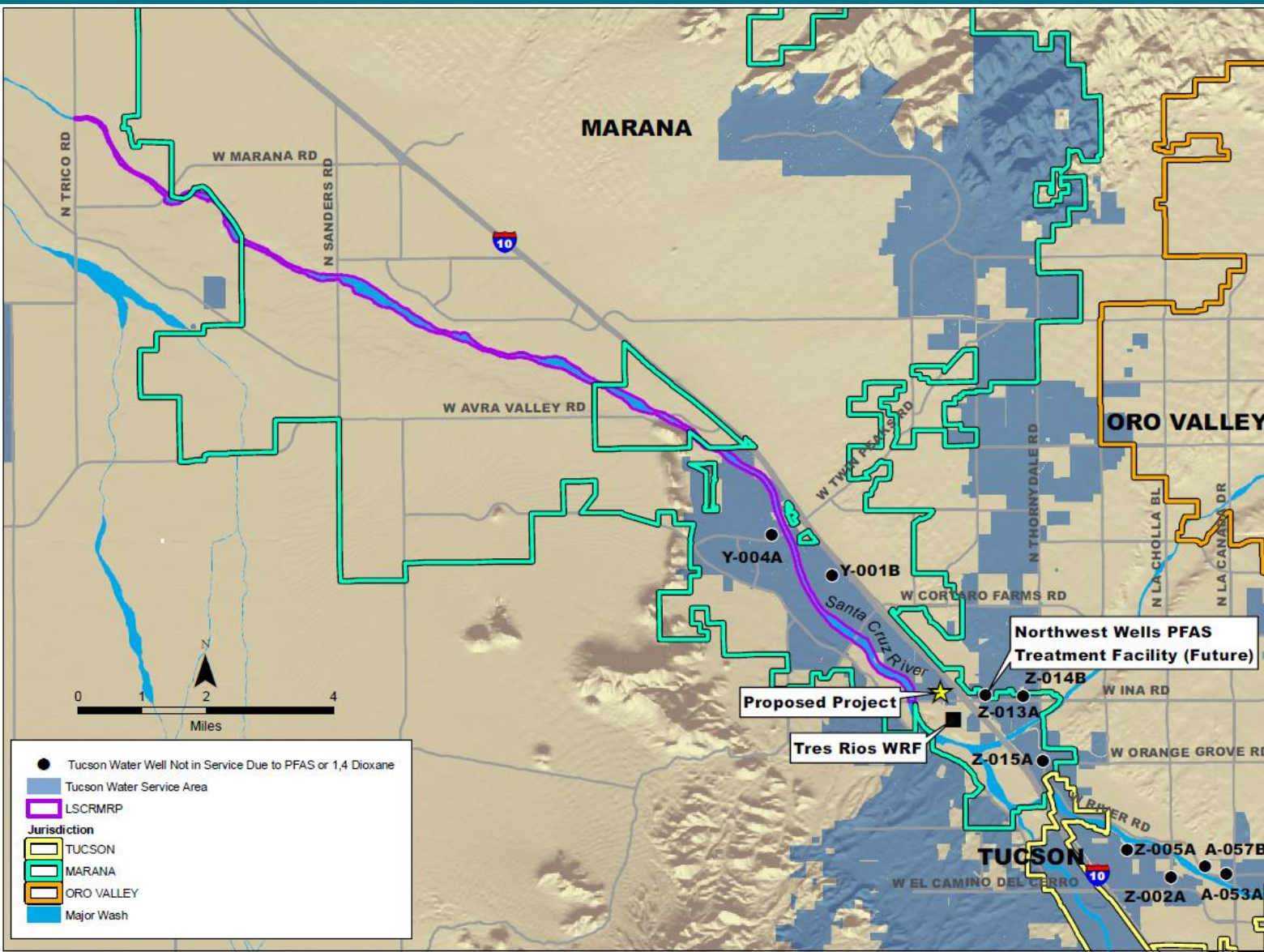
“Bucket 2” System Conservation

- Proposed a 2.5 MGD Advanced Water Purification Facility (AWPF)
- Located at/near the Tres Rios Water Reclamation Facility
- Tucson will forgo 56,000 AF of Colorado River water over a 10-year period
- Estimated cost: \$86.7M



WATER RESOURCES AND WATER QUALITY

- Lost well capacity due to PFAS and 1-4 dioxane contamination
- Currently designing a treatment facility to recover up to 3.7 MGD
- Multiple stakeholders have rights to treated effluent produced by the Tres Rios WRF, including USDO



Lower Santa Cruz River Managed Recharge Project



HISTORICAL FLOW PAST TRICO GAGE



REGIONAL IMPACTS

- Water lost to the AMA and all stakeholders
- Largest loss is to USDOJ
- + Maintains local control of water resources
- + Potential to expand and wheel resources



PROJECT BENEFITS



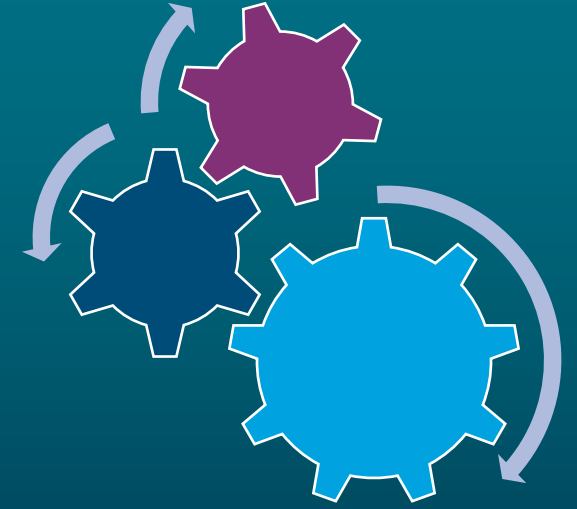
**PORTFOLIO
DIVERSIFICATION**



**ECONOMIC
DEVELOPMENT**



**REDUCED
SYSTEM LOSS**



**REDUCED
DEPENDENCY**

ONE WATER 2100 PLAN

- Approved by Tucson Mayor and Council in October 2023
- Comprehensive, long range water resource management plan
- Right water for the right purpose
- Identified key strategies with community and stakeholder input

Strategy #	Strategy	Survey Response	Priority Level
RW-1	Adopt new policies for water reuse in buildings <i>Example: Using rainwater, recycled water, and air conditioning condensate for toilet flushing.</i>	39%	High
RW-2	Begin purifying recycled water to drinking water standards <i>Example: San Diego has begun using purified recycled water to augment their drinking water supply.</i>	31%	High
RW-3	Further treat recycled water for custom uses <i>Example: Recycled water could be used in cooling towers for large buildings.</i>	23%	Medium



TucsonOneWater.com



To Date...

AUGUST 2023

Bucket 2 proposal submitted to BOR

JANUARY 7, 2025

Tucson M&C approve SCIA

JANUARY 9, 2025

CAP Board of Directors approve SCIA

JANUARY 15, 2025

BOR Signing Event



Next Steps



Site Evaluations



Source Water Characterization



Branding Campaign



Issue RFQ for Project Delivery (October 2025)



Anticipated Commissioning

2031





**PURE
WATER
TUCSON**

AWP DEMONSTRATION FACILITY



Filter Room
Tucson Water's Reclaimed Water Treatment Plant

AWP DEMONSTRATION FACILITY

*Located at
Tucson Water's Reclaimed Water Treatment Plant*



**Draft artist rendering*

Thank you!

