



# UCAB 2Q 2025 TARP AOP QUARTERLY PROGRESS UPDATE

July 16, 2025

Cynthia L. Leo, CIH
Tucson Water
Water Quality & Operations
cynthia.leo@tucsonaz.gov





#### **ACRONYMS**

ADEQ Arizona Department of Environmental Quality

AOP Advanced Oxidation Process

AZPDES Arizona Pollutant Discharge Elimination System

EPA U.S. Environmental Protection Agency

GAC Granular Activated Carbon

• gpm gallons per minute

Ibs pounds

MG Million Gallons

PFAS Per- and Polyfluoroalkyl Substances

TARP Tucson Airport Remediation Project

TCE Trichloroethene

TIAA Tucson International Airport Area

TWG Technical Working Group

UCAB Unified Community Advisory Board

WTP Water Treatment Plant

Website: <a href="https://www.tucsonaz.gov/Departments/Water/Water-">https://www.tucsonaz.gov/Departments/Water/Water-</a>

**Quality/TARP** 

# TARP AOP WTP MONTHLY PUMPAGE

Time Period	Total Monthly Production (MG)	Average Daily Production (MG)
April 2025	183.773	6.126
May 2025	209.469	6.757
June 2025	212.479	6.854
2 Quarter 2025	605.721	6.581





# TARP AOP WTP MONTHLY TREATED DELIVERY

Time Period	Santa Cruz River (MG)	Recycled Water System (MG)
April 2025	42.550	141.076
May 2025	44.568	166.043
June 2025	23.338	188.781
2 Quarter 2025	110.456	495.900





### **Santa Cruz River Outfall**







# TARP AOP WTP MONTHLY CONTAMINANT REMOVAL

Time Period	Total TCE Removed (lbs)	Total 1,4-dioxane Removed (lbs)
April 2025	13.17	1.95
May 2025	11.00	1.38
June 2025	11.10	1.54
2 Quarter 2025	35.27	4.87





#### **OPERATIONS AND MAINTENANCE UPDATE**

#### Well Field -

- Between 2 & 4 remediation wells in service (R-006A, R-007A, R-008B, R-009B, R-127A) ~5,000 gpm.
- April 2025 Drilling, constructing, & testing began at new well R-006B to replace R-006A. As part of improvements to TARP, intermittent work anticipated to continue at R-006B until approximately February 2026.
- Quarterly sampling of monitor wells.
- o Bi-weekly sampling of remediation wells.





#### **OPERATIONS AND MAINTENANCE UPDATE**

#### AOP -

- 2 to 3 UV trains in service.
- Preventative maintenance completed in May 2025. Another preventative maintenance to occur in August 2025.

#### GAC Vessels/Contactors -

- 5/8/2025 -GAC changeout completed for Contactors #11 & #12 with total virgin GAC 40,000 lbs (i.e., 20,000 lbs per contactor).
- Carbon changeout for 2 GAC Contactors scheduled for July 16th.
- Up to 8 GAC contactors in service.
- 2 GAC contactors ready for operation with virgin carbon.
- 2 GAC contactors exhausted and waiting for changeout.





## PFAS PRETREATMENT PROJECT UPDATE

- PFAS Pretreatment Project Notice to Proceed issued on November 26, 2024.
- Total project cost is anticipated to be ~\$27M & includes pilot study, design, construction, permitting, & construction services. ADEQ is providing funding up to \$25M & remaining portion is currently being covered by City of Tucson/Tucson Water.
- Construction is 15% complete as of June 30th, 2025.
- Construction cost to date: \$5.3 million.
- Project is on schedule for completion on 8/21/26.



# PFAS PRETREATMENT PROJECT UPDATE







# PFAS PRETREATMENT PROJECT UPDATE

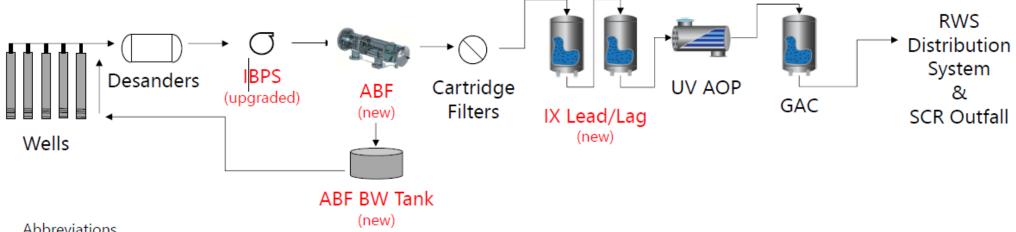






#### Treatment Process Flow Schematics

#### IX Treatment Upstream of AOP and GAC



#### Abbreviations

- · IBPS Influent Booster Pump Station
- ABF Automatic Backwashing Filter
- BW Backwash
- IX Ion Exchange
- UV AOP Ultraviolet-Advanced Oxidation Process
- GAC Granular Activated Carbon
- RWS Recycled Water System
- SCR Santa Cruz River





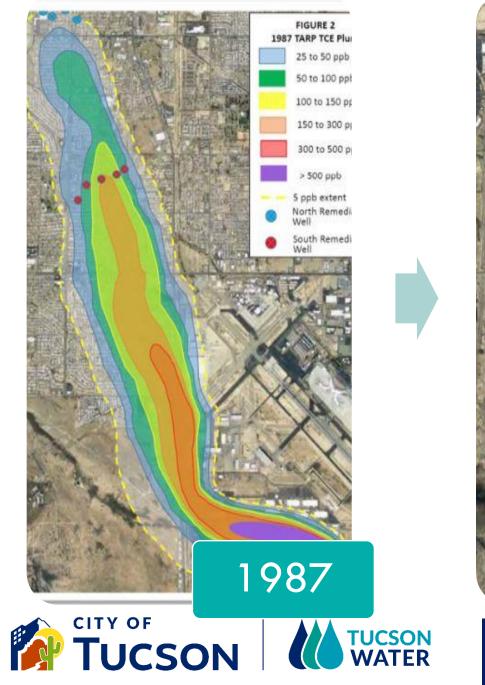


## PUBLIC ENGAGEMENT QUARTERLY UPDATE

Tucson Airport Remediation Project (TARP) Advanced Oxidation Process (AOP) Water Treatment Plant (WTP) Tours

- May 21, 2025 20 attendees from ADEQ (Phoenix & Tucson SRO).
- June 3, 2025 5 attendees from Region 9 EPA Meet & Greet
  - Josh F.W. Cook, Regional Administrator
  - Cheree Peterson, Deputy Regional Administrator
  - Kevin Gong, Chief of Staff
  - Sharon Lin, Assistant Director, Superfund & Emergency Mgmt Division
  - Michelle Rogow, Arizona Section Manager, Superfund & Emergency Mgmt Division

\*Tour availability is currently limited due to PFAS Pretreatment construction activities.



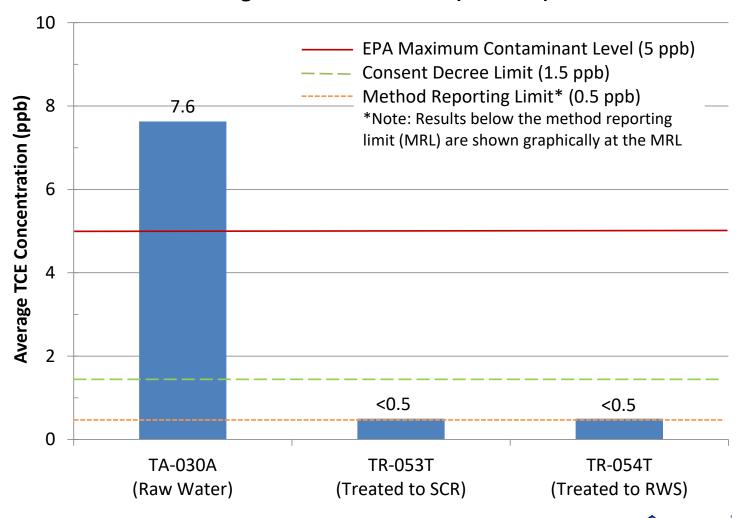






### WATER QUALITY REPORT TCE

#### **Average TCE Concentration (Q2 2025)**

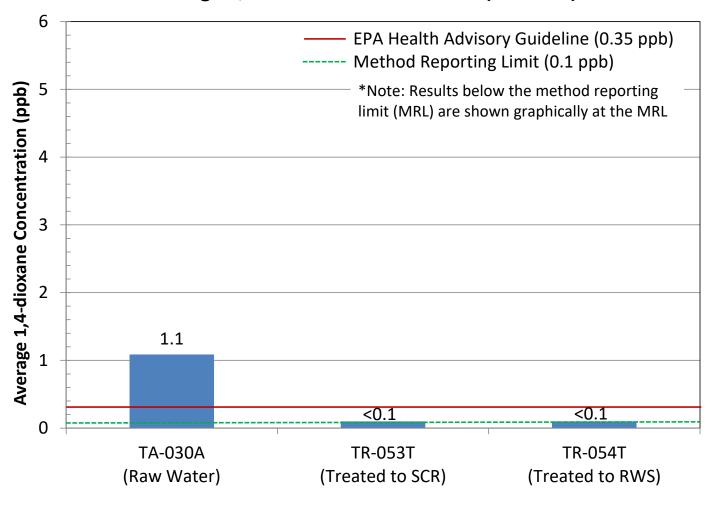






# WATER QUALITY REPORT 1,4-dioxane

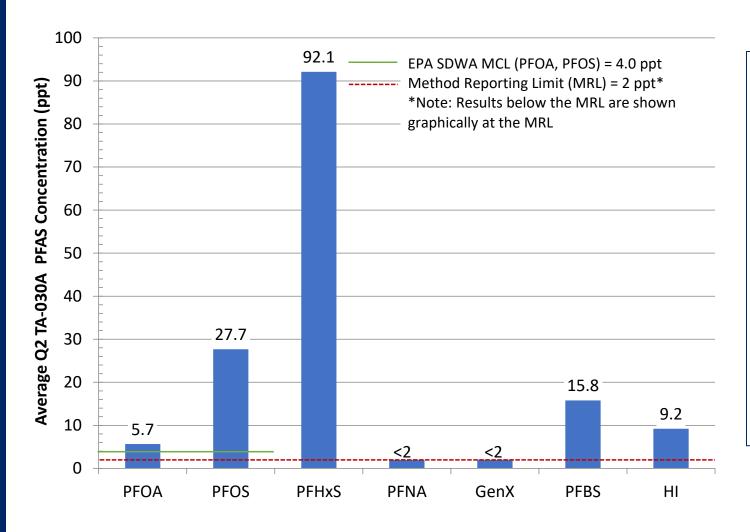
#### **Average 1,4-dioxane Concentration (Q2 2025)**







### WATER QUALITY REPORT PFAS Raw Water (Untreated) Influent TA-030A



#### **Tucson Water Internal**

#### **Operational PFAS Guidelines:**

PFOS: ND PFOA: ND

PFHxS: 7 ppt PFHpA: 7 ppt

PFBS: 420 ppt

PFHxA: 200,000 ppt

Gen-X: 10 ppt

#### **Federal MCL for PFAS:**

PFOA: 4 ppt

PFOS: 4 ppt

PFHxS: 10 ppt

PFNA: 10 ppt

Gen-X: 10 ppt

Hazard Index: 1 (unitless)

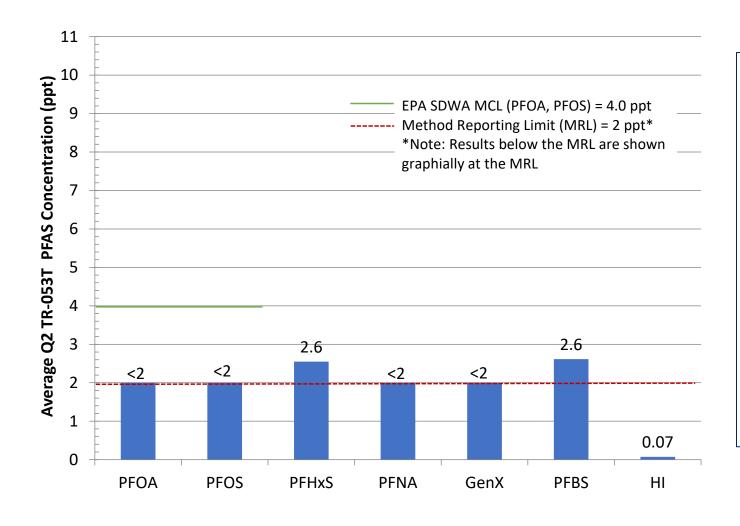






### WATER QUALITY REPORT PFAS **Treated** Water Discharge to Santa Cruz River Effluent TR-053T





#### **Tucson Water Internal**

#### **Operational PFAS Guidelines:**

PFOS: ND PFOA: ND

PFHxS: 7 ppt PFHpA: 7 ppt

PFBS: 420 ppt

PFHxA: 200,000 ppt

Gen-X: 10 ppt

#### **Federal MCL for PFAS:**

PFOA: 4 ppt

PFOS: 4 ppt

PFHxS: 10 ppt

PFNA: 10 ppt

Gen-X: 10 ppt

Hazard Index: 1 (unitless)

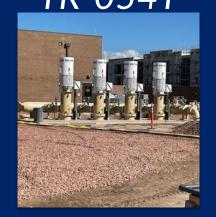


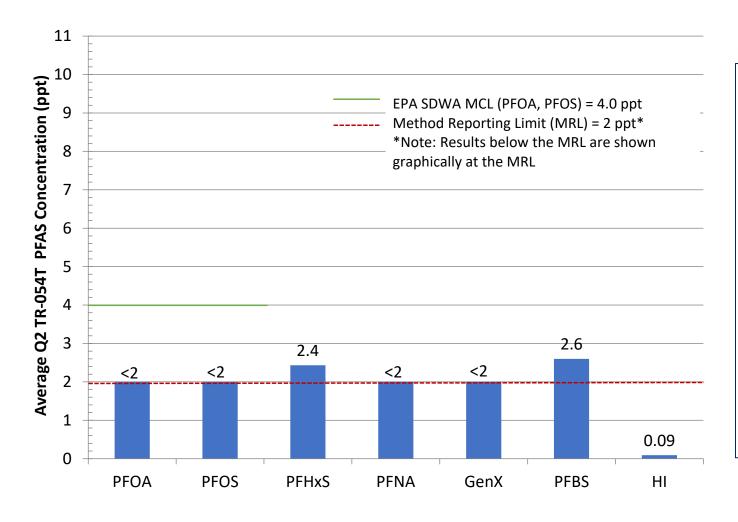




## WATER **QUALITY REPORT PFAS** Treated Water Discharge to Recycled Water System

Effluent TR-054T





#### **Tucson Water Internal**

#### **Operational PFAS Guidelines:**

PFOS: ND PFOA: ND

PFHxS: 7 ppt PFHpA: 7 ppt

PFBS: 420 ppt

PFHxA: 200,000 ppt

Gen-X: 10 ppt

#### **Federal MCL for PFAS:**

PFOA: 4 ppt

PFOS: 4 ppt

PFHxS: 10 ppt

PFNA: 10 ppt

Gen-X: 10 ppt

Hazard Index: 1 (unitless)







### **2Q 2025 SUMMARY**

- Water quality data continues to demonstrate successful treatment of impacted groundwater (TCE, 1,4-dioxane, & PFAS).
- High-quality treated water discharged to Santa Cruz River in accordance with AZPDES permit & supplied to Recycled Water System.
- TCE plume capture effectively being maintained.
- Regulatory compliance continues & routine operations continue to run smoothly.
- TW will continue to provide TIAA Technical Working Group with PFAS Data.
- Construction of PFAS Pretreatment IX Resin System on target with anticipated completion end of August 2026.

