

PFAS TREATMENT AT TARP

TUCSON INTERNATIONAL AIRPORT AREA SUPERFUND SITE

TUCSON, ARIZONA



U.S. Environmental Protection Agency • Region 9 • Pacific Southwest • April 2026

TIAA Site History

EPA listed the 10-square mile Tucson International Airport Area (TIAA) as a federal Superfund site in 1983 to address volatile organic compounds, primarily trichloroethene (TCE), in the underlying aquifer. Superfund is the common name for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This federal law authorizes EPA to clean up contaminated sites. The Superfund program investigates and cleans up the most complex hazardous waste sites in the country and endeavors to return them to productive use. Find information on TIAA at www.epa.gov/superfund/tucsonairport.

TARP

In 1988, EPA published a Record of Decision requiring construction of the Tucson Airport Remediation Project (TARP) system. As part of the long-term TIAA remedy, TARP is designed to remove and treat TCE and 1,4-dioxane in Tucson's groundwater.

In recent years, per- and polyfluoroalkyls (PFAS) have been found in Tucson's groundwater and are entering the TARP system. Due to such high PFAS levels, wells in the system's South Wellfield have been non-operational since 2021.

Agreement for Removal Action

In March 2026, EPA and the City of Tucson signed an agreement requiring a PFAS Removal Action, and a notice regarding the agreement will be

published in the Federal Register. The agreement requires the City to construct an ion exchange (IX) PFAS treatment system at the TARP facility upstream of the existing advanced oxidation process (AOP) system.

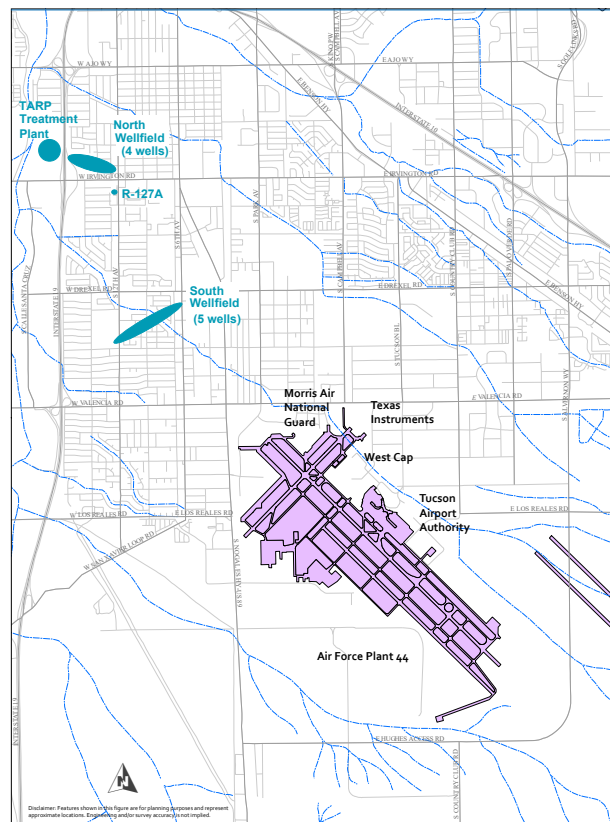


Figure 1: TIAA Site and TARP System

Why is a Removal Action Needed?

PFAS are impacting the TARP system and the ability for TARP to treat water effectively. EPA believes that modifications to the TARP remedy are necessary for several reasons:

- PFAS levels in the South Wellfield wells are too high to treat with the current system;
- TARP needs to be able to operate with all of its extraction wells working to treat all contaminants effectively;
- PFAS levels are projected to increase over time due to contamination around TARP; and
- Although the current system removes some PFAS, it is inefficient and TARP is not operating as designed.

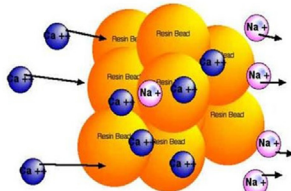
What Are PFAS?

Per- and polyfluoroalkyls, known as PFAS, are a group of manmade chemicals that are resistant to heat, water, and oil. They are found in fire-fighting foam and in many stain-resistant, water-resistant and nonstick items. PFAS do not break down easily and can build up in people, animals, and the environment. PFAS can cause serious health problems if you are exposed to them over a long period of time, or at certain critical life stages like pregnancy and early childhood.

The Centers for Disease Control and Prevention's Agency for Toxic Substances and Disease Registry PFAS summary is at www.atsdr.cdc.gov/toxfaqs.

What is Ion Exchange?

IX is a system that uses resins to remove contamination from water. IX resins are made of manufactured beads that have a positive or negative charge. The IX process is an ion swap where harmless ions are released to the treated water stream and contaminant ions are stuck to the charged resin bead. These beads are contained in large vessels where water flows through and contaminants are removed.



What Happens Next?

- Tucson Water is constructing a new PFAS IX pre-treatment system.
- EPA will issue a decision document to authorize the pre-treatment to be incorporated into the TARP remedy.
- The new IX step is designed to treat the combined flow of groundwater from the North and South Wellfield wells for PFAS before the water flows through the existing Advanced Oxidation Process.
- Adding PFAS treatment at TARP will enable Tucson Water to resume serving the treated water as drinking water.

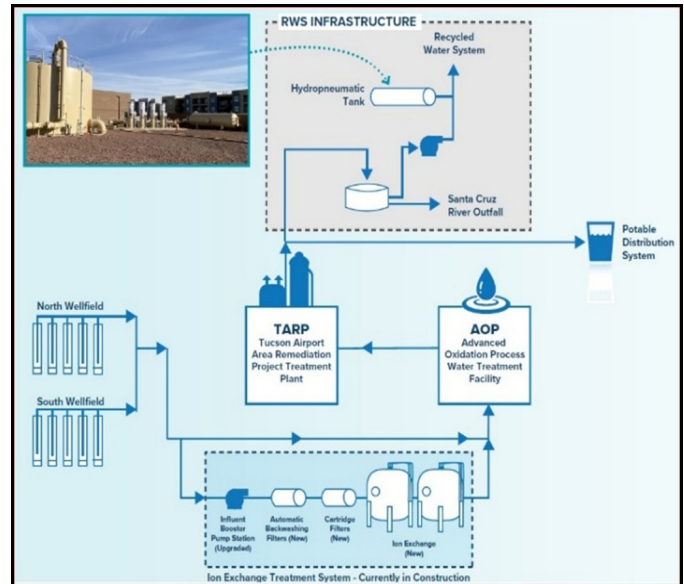


Figure 2: Existing TARP System with planned IX treatment step



Figure 3: IX System construction in progress

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