

PFAS in Arizona

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PFAS Health Advisories

	PFOA	PFOS	PFBS	GenX
2009	400	200	--	--
2016*	70		--	--
2022	0.004	0.02	2000	10

Note: Health advisories are expressed in units of parts per trillion (ppt)

*The 2016 health advisory level of 70 ppt was issued for PFOA and PFOS individually and as a combined concentration

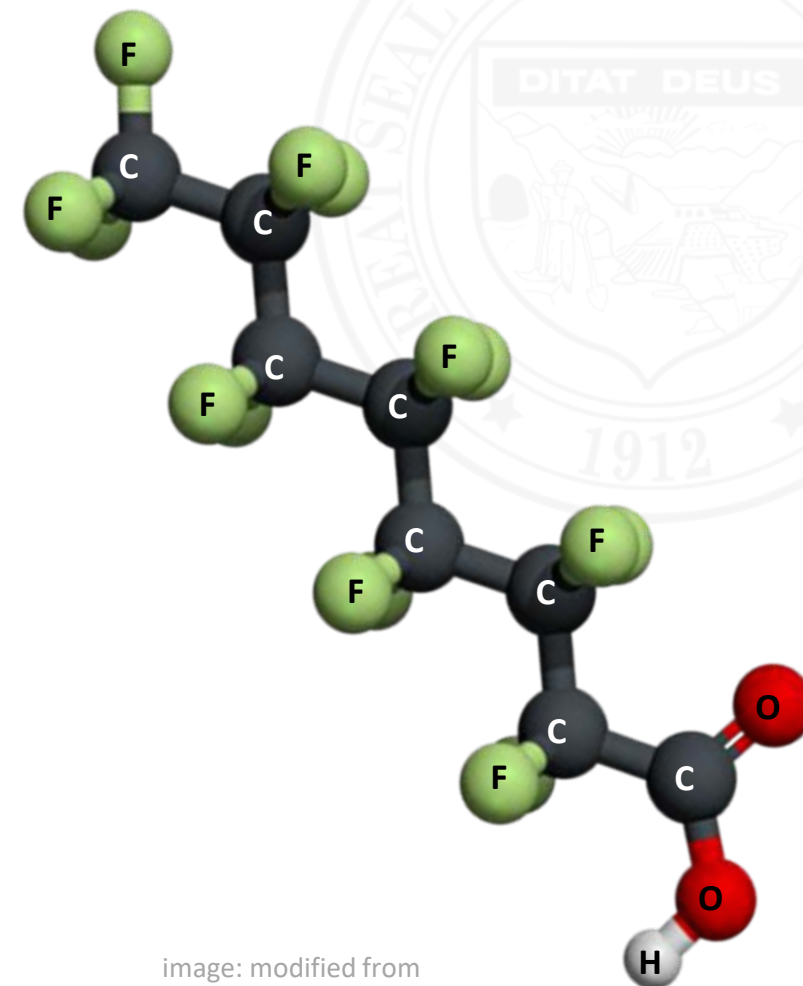


image: modified from
itrcweb.org

March 2023:

EPA Proposed Maximum Contaminant Levels (MCLs) for Drinking Water

- PFOA (4 ppt)
- PFOS (4 ppt)
- PFNA + PFHxS + PFBS + GenX Chemicals (Hazard Index)



Future EPA actions expected to include, at a minimum:

- Final drinking water regulation
- Full implementation of regulation - 3 years after final rule
- Hazardous substance designation
- Aquatic life standards





Healthy Drinking Water

- Gather and analyze data
- Advocate for additional resources
- Assist drinking water systems



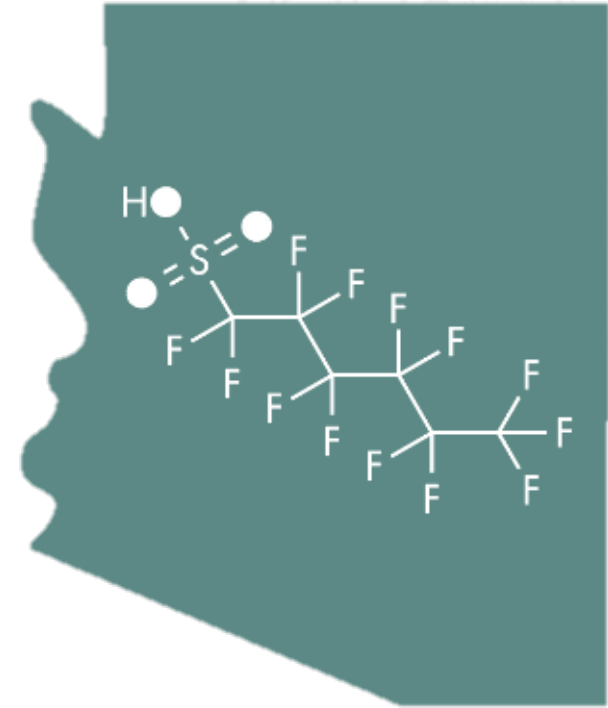
Balanced Resources

- Maximize the benefit of PFAS funding



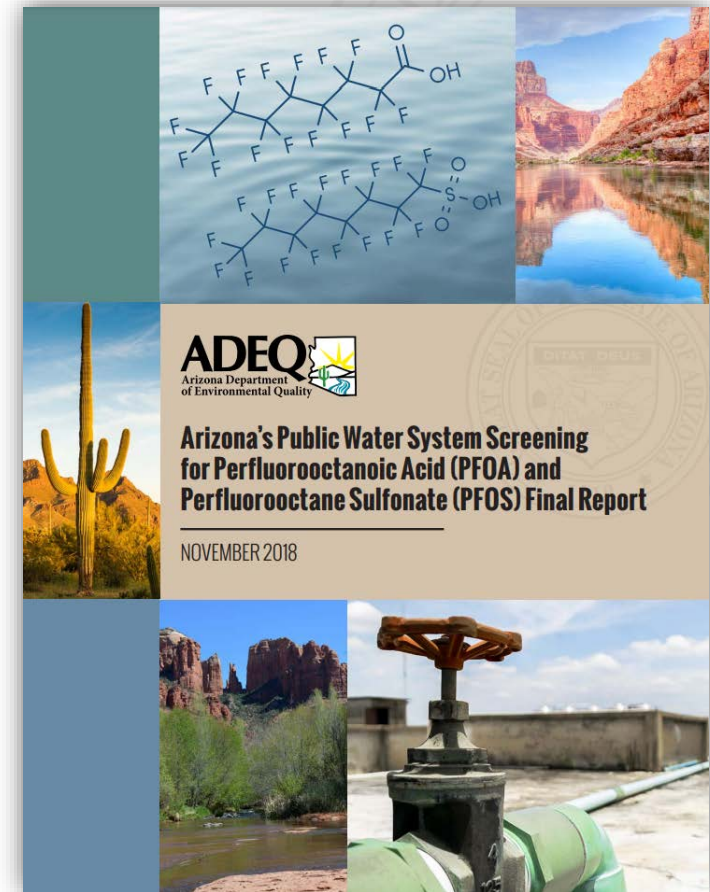
Community Engagement

- Community outreach
- Web resource development



ADEQ Statewide PFAS Actions

- Targeted statewide PFAS screening (2018-2022)
- Limited wastewater and biosolids screening (2022)
- AFFF take-back and replace pilot (2023)
- Expanded drinking water testing (2023-2024)



Drinking Water PFAS Testing Effort

- EPA's UCMR 5 requires PFAS sampling for systems serving 3,300 people or more
- ADEQ is sampling more than 700 smaller systems not included in UCMR 5
- Testing for 29 unique PFAS using two EPA methods



Assistance to small drinking water systems

- Free testing
- Early notification
- Head-start planning for:
 - Expanded testing
 - Potential solutions
 - Available Funding



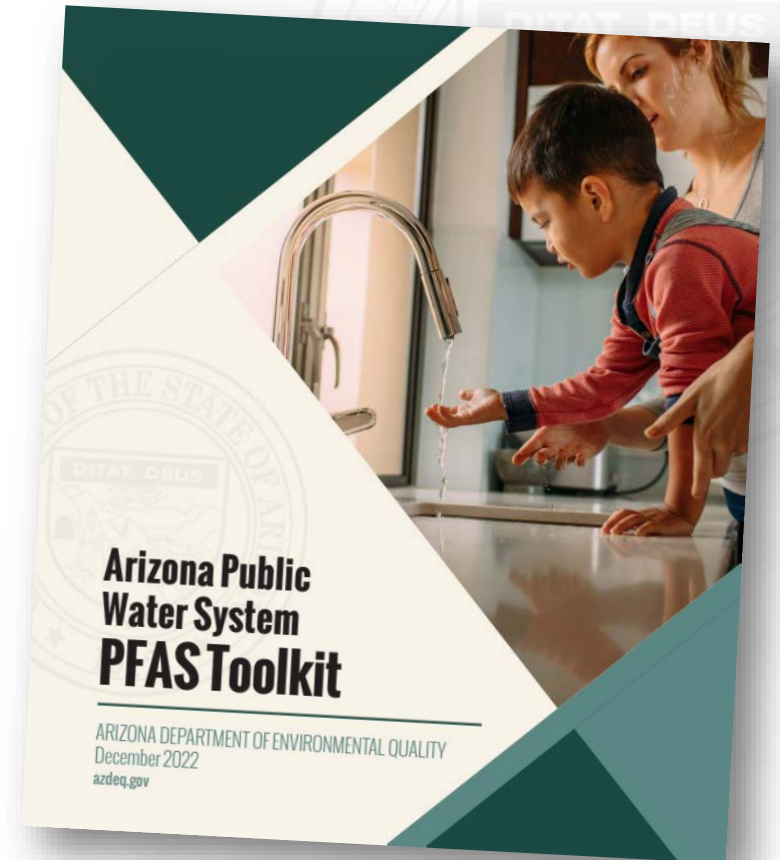
ADEQ Photo

All Results

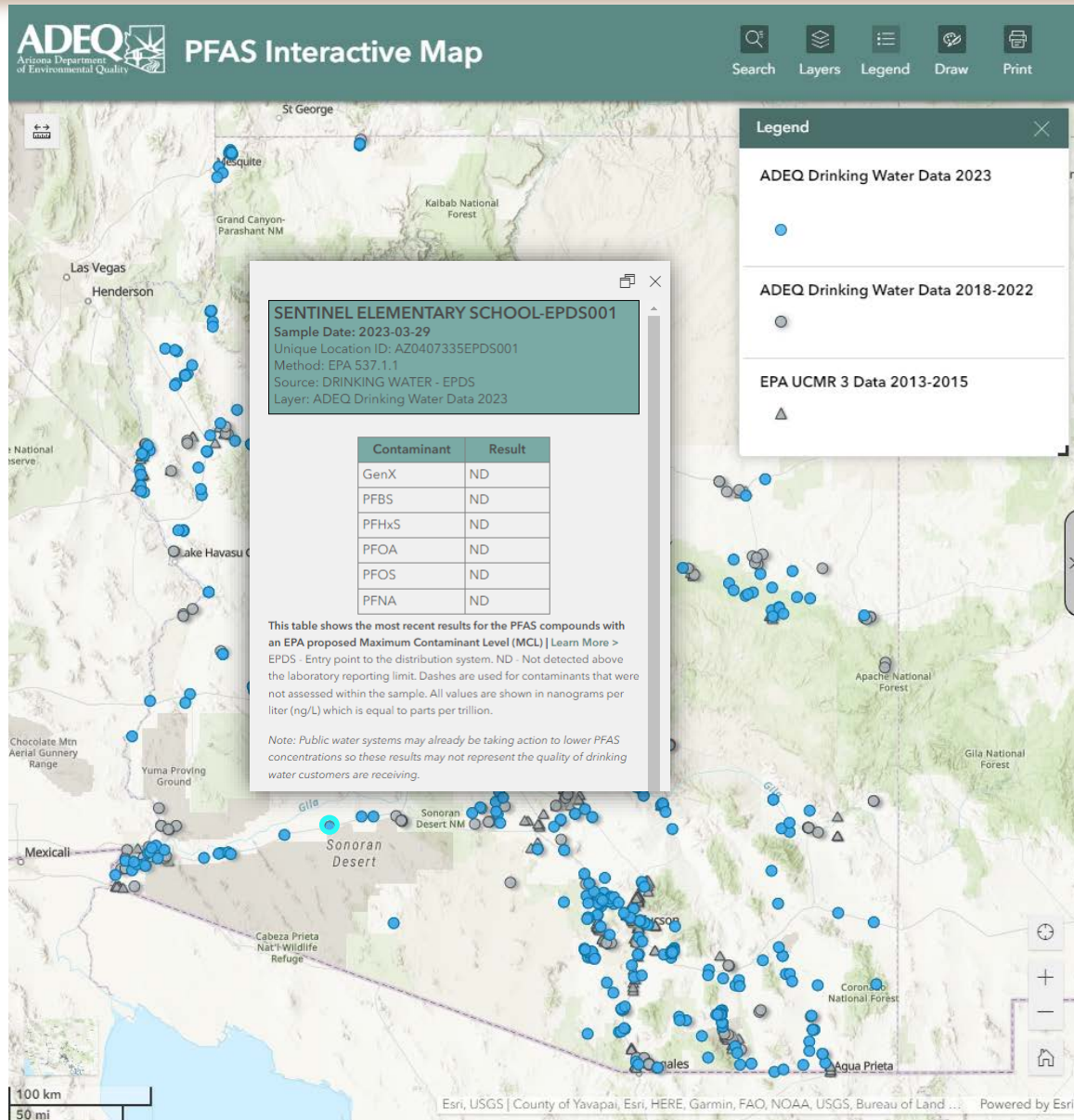
- Shared with the water system
- Posted on the ADEQ website

PFAS detections

- PFAS Toolkit is provided
- Systems asked to inform customers
- Funding and technical assistance discussed



PFAS Testing Results



Instructions >

What are PFAS?
 Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals with fire-retardant properties that have been manufactured and used by a variety of industries since 1940. PFAS have been used commercially in the United States to make products like stain and water resistant carpet and textiles, food packaging, firefighting foam, as well as in other industrial processes. | [EPA PFAS Webpage](#) > | [ATSDR PFAS Webpage](#) >

On March 14, 2023, the U.S. EPA proposed a National Primary Drinking Water Regulation (NPDWR) to establish legally enforceable levels, called Maximum Contaminant Levels (MCLs), for six PFAS in drinking water; PFOA and PFOS as individual contaminants, and PFHxS, PFNA, PFBS, and HFPO-DA (commonly referred to as GenX Chemicals) as a mixture. **ADEQ will be updating this map in light of the proposed NPDWR.** | [EPA Draft MCLs](#) >

Why are we mapping PFAS data?
 Regulation of PFAS is increasing at federal and state levels in the United States. New regulations are focusing on lowering the limits for acceptable levels of PFAS in groundwater and soil, as well as requiring remediation projects to address PFAS contamination. As developments continue to occur, it is increasingly important to understand the prevalence of PFAS in Arizona so that steps can be taken to reduce people's exposure to PFAS.

On March 14, 2023, the U.S. EPA proposed a National Primary Drinking Water Regulation (NPDWR) to establish legally enforceable levels, called Maximum Contaminant Levels (MCLs), for six PFAS in drinking water. **EPA has proposed MCLs for PFOA and PFOS to be 4 parts per trillion (ppt) each. PFHxS, PFNA, PFBS, and GenX Chemicals are proposed to be regulated using a Hazard Index (HI).** The HI is calculated using the concentration of each contaminant in ppt as follows:

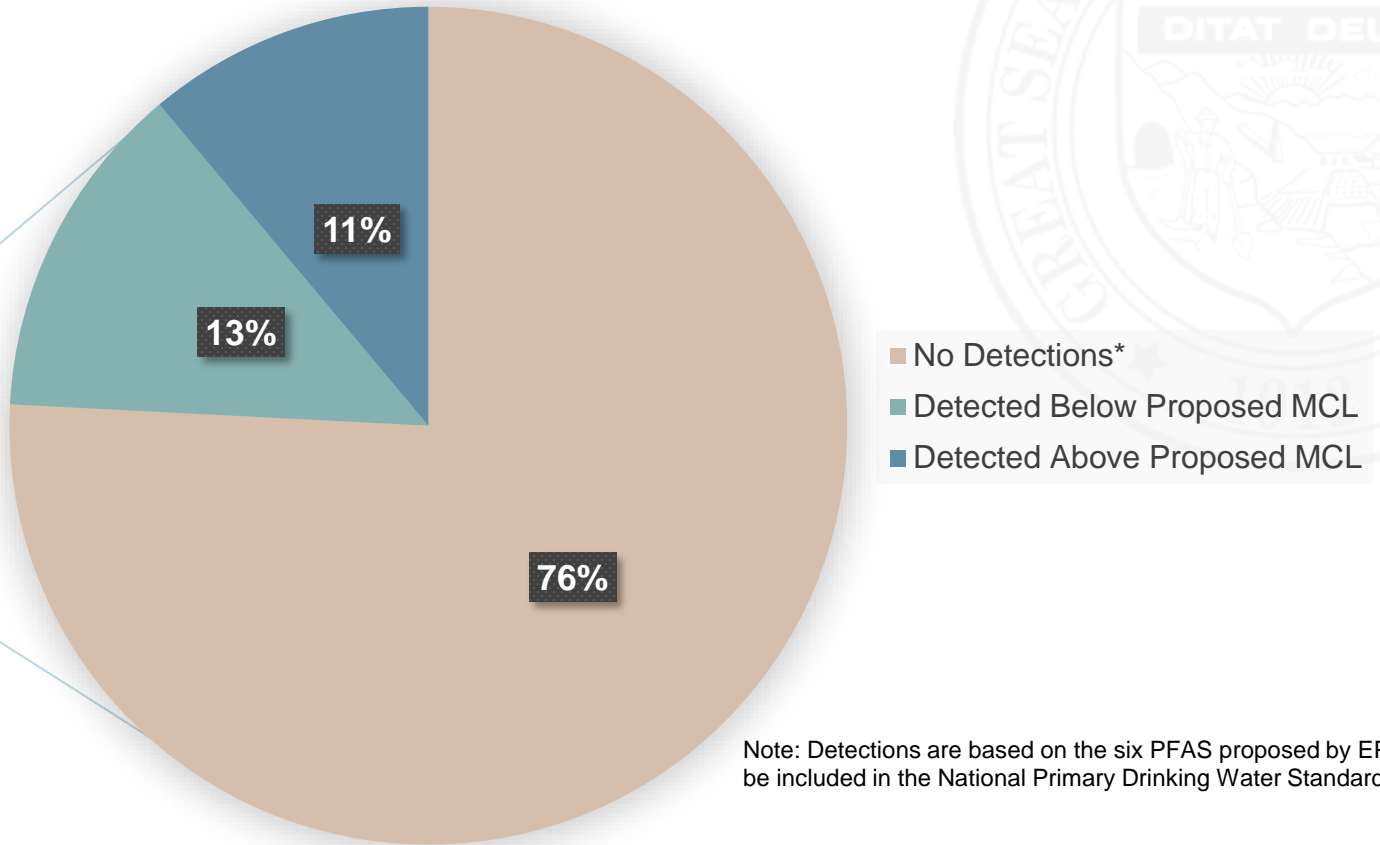
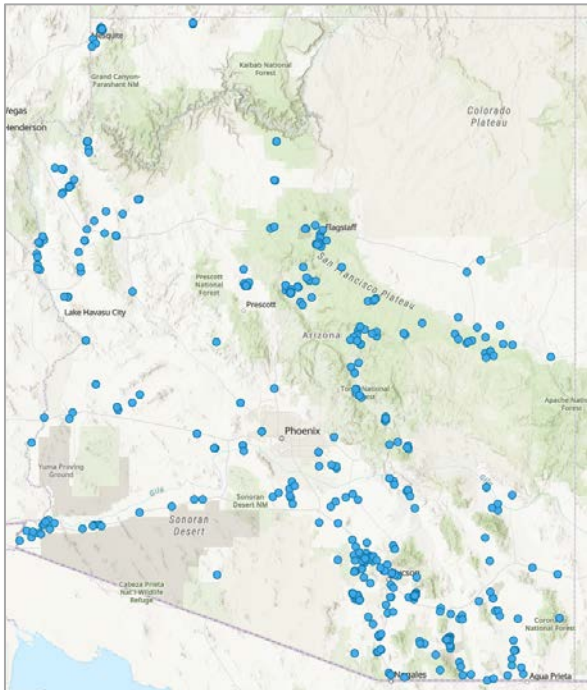
$$HI = (PFHxS/9) + (PFNA/10) + (PFBS/2000) + (GenX/10)$$

An HI greater than 1.0 would represent an exceedance of the MCL.

What is included on the map?
 The map displays the results of testing conducted by ADEQ



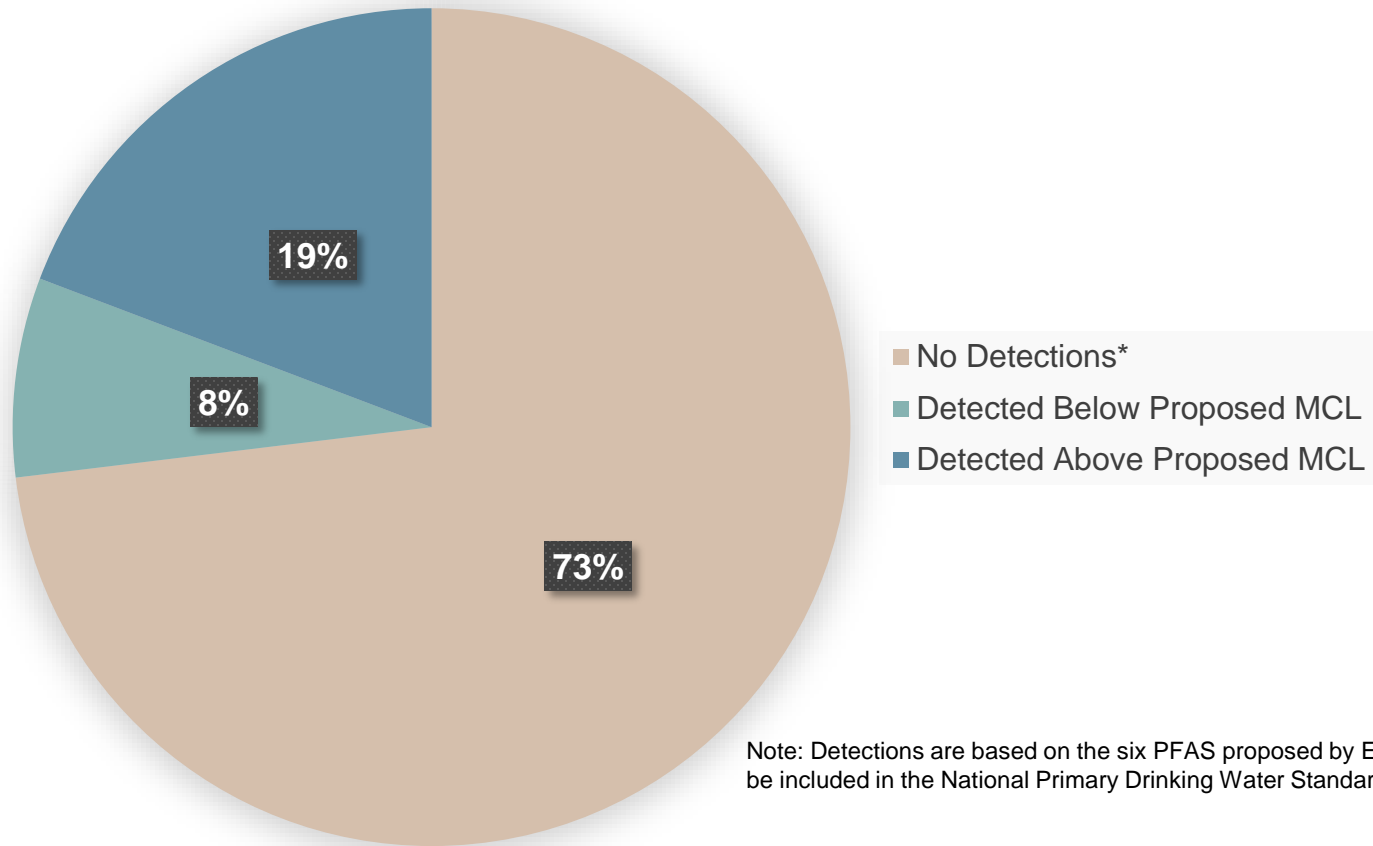
ADEQ Testing Results



Note: Detections are based on the six PFAS proposed by EPA to be included in the National Primary Drinking Water Standard

668 Systems Sampled to Date¹ (~87%)

UCMR 5 Testing Results



Note: Detections are based on the six PFAS proposed by EPA to be included in the National Primary Drinking Water Standard

53 System Results Reported to Date¹ (~36%)

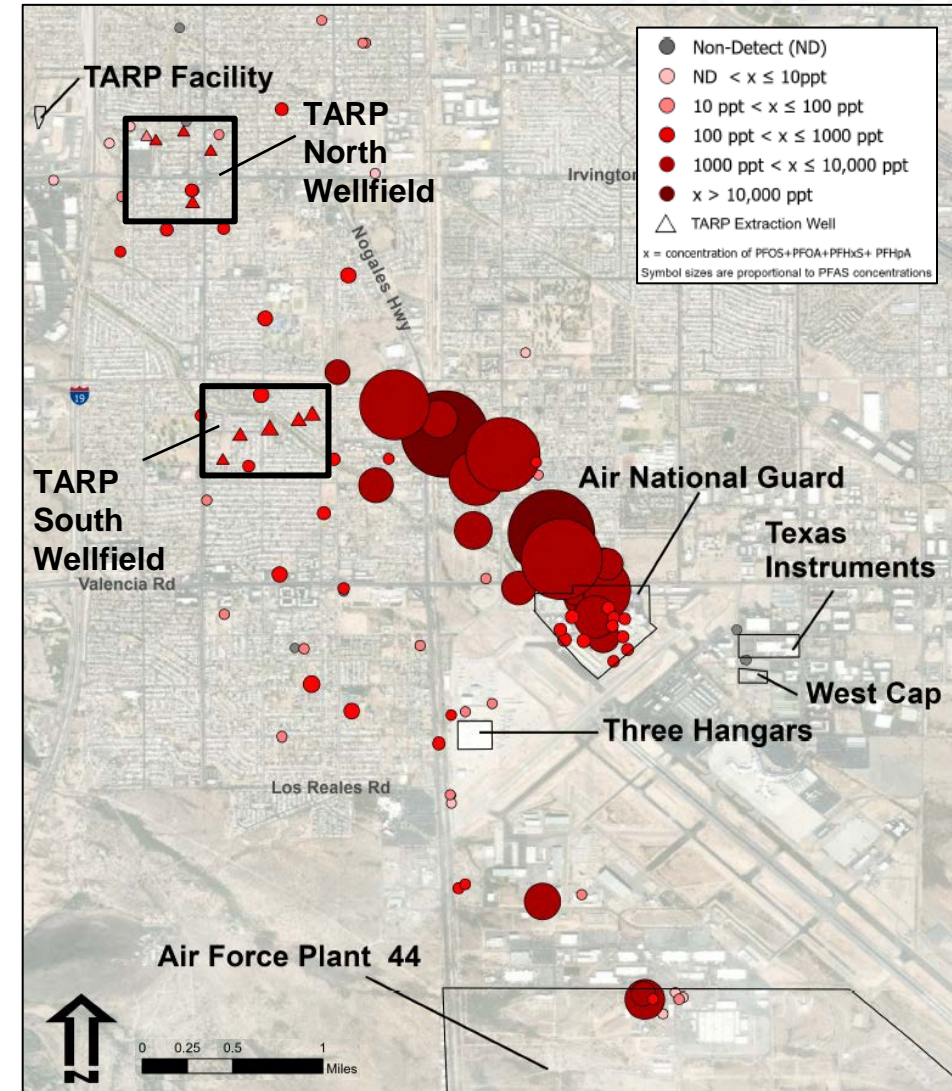
Assistance to Water Providers

- ADEQ is using available State and Federal Funding to assist PFAS-impacted water providers
- Funds to be allocated according to prioritization (magnitude of impact, disadvantaged population, co-contaminants, etc)
- Assistance may include:
 - Hydrogeologic/New Source Evaluations
 - Consolidation of Systems
 - Treatment



TIAA Superfund Site

- Arizona has allocated \$25M in ARPA funds to Tucson Water for PFAS treatment at TARP
- EPA and ADEQ are working with responsible parties to address PFAS



Central Tucson PFAS Project

- Demonstration treatment system operation began in December 2021
- The system has treated more than 175 million gallons since startup
- Anion exchange resin is successfully treating contaminants to non-detect; providing performance data to be used in the design of future treatment



Looking Forward...

- Continue to focus on healthy drinking water through outreach, technical assistance, and mitigation for water providers
- Plan for the incorporation of final federal regulations within existing ADEQ programs
- Re-evaluate the approach as new federal regulations are proposed/finalized



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www.azdeq.gov/pfas-resources

www.azdeq.gov/MyCommunity

