An Introduction to PFAS Analytic Tools

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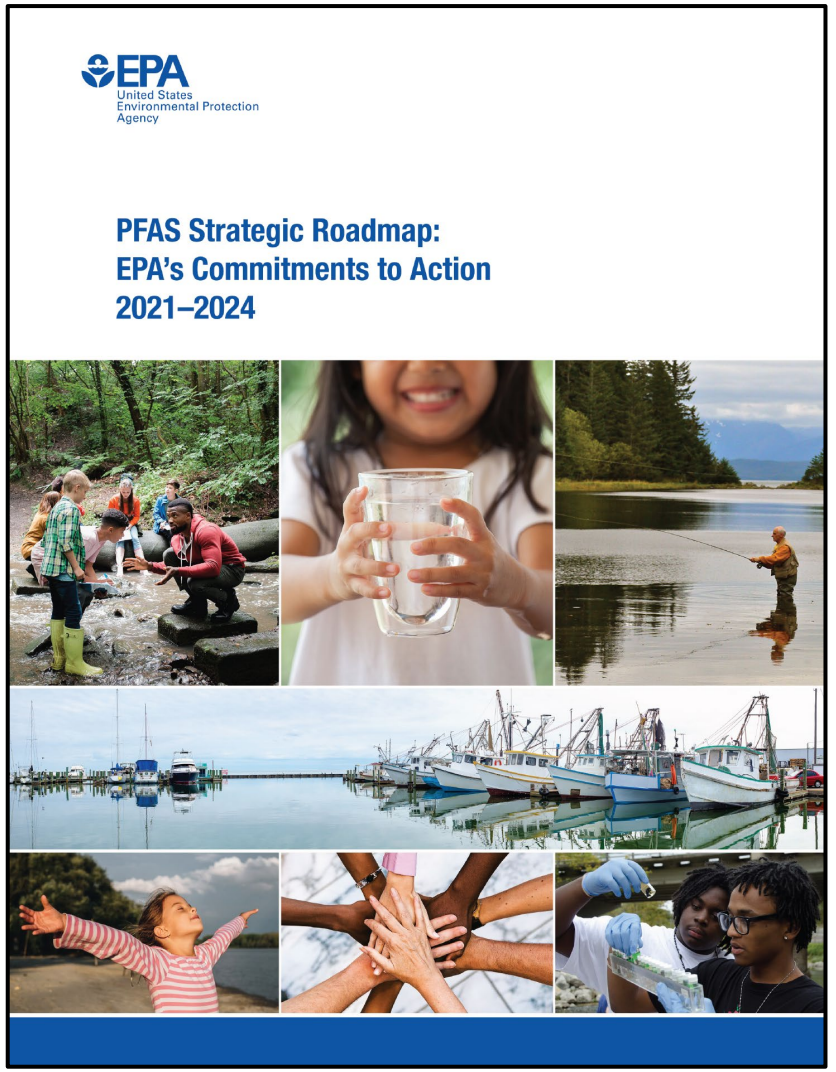
EPA's PFAS Strategic Roadmap

- In October 2021, EPA released the PFAS Strategic Roadmap, highlighting concrete actions the Agency will take across a range of environmental media and EPA program offices to protect people and the environment from PFAS contamination.
- The Roadmap is guided by three primary goals:
  - **Research:** Investing in research, development, and innovation to incorporate the best-available science into EPA's work.
  - **Restrict**: Working to proactively prevent PFAS from entering air, land, and water at levels that can adversely impact human health and the environment.
  - **Remediate**: Broadening and accelerating the cleanup of PFAS contamination to protect human health and ecological systems.



Goals of the PFAS Analytic Tools

- Develop an integrated resource to understand where PFAS detections are being identified across a wide set of databases.
- Compile as much nationally available data on PFAS as possible into an easy-to-use, automatically refreshed tool.
- Develop standard methods to extract PFAS chemical data from national data systems and develop best practices for regulatory partners that would like to contribute information.
- Support EPA investigations into PFAS contamination and further the collaboration with federal/state/local/tribal partners as noted in the EPA PFAS Strategic Roadmap (Link to 2022 Progress Report – see p.8).

Development History

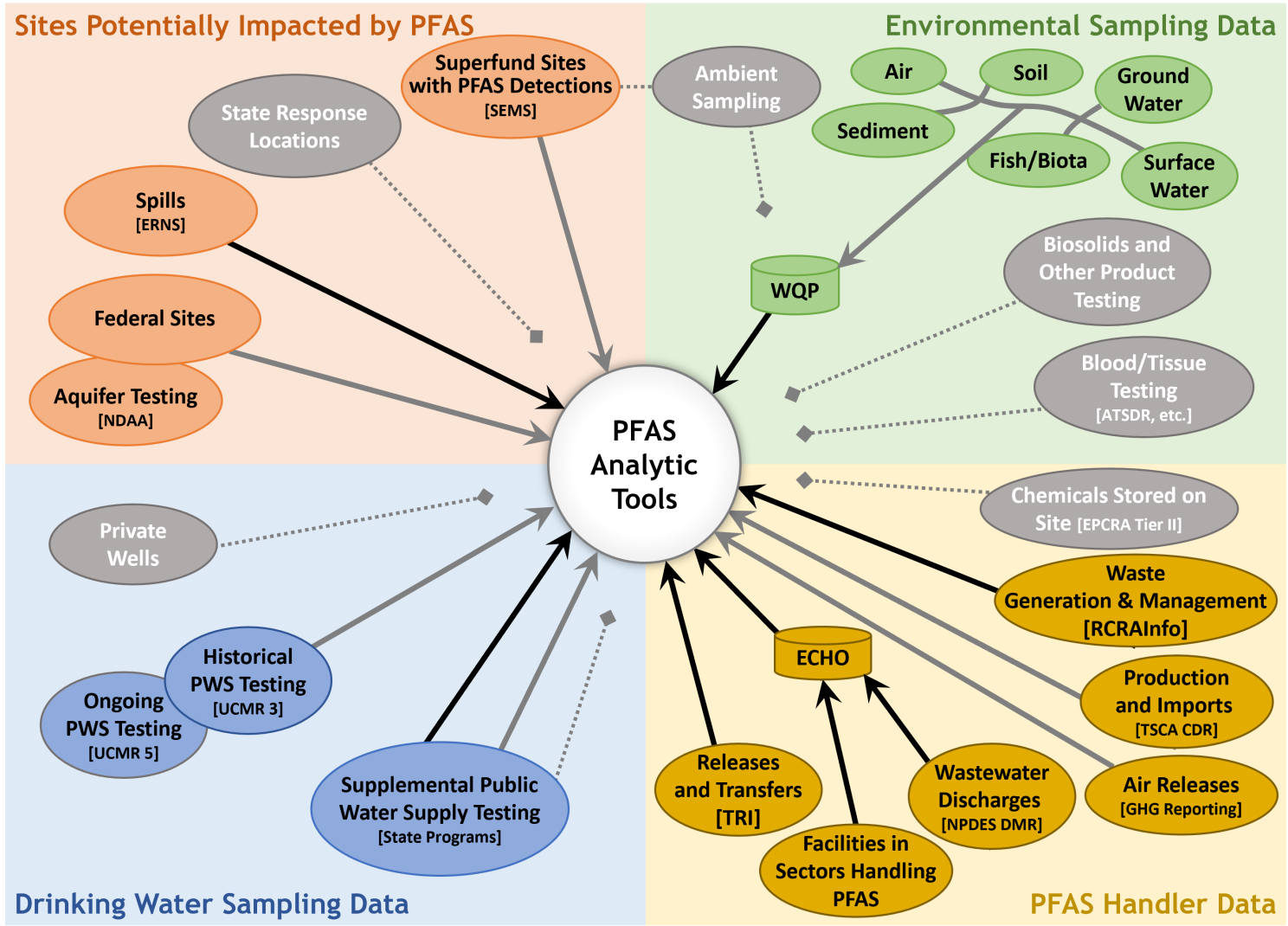
2019 - Version 1.0 released for government-wide use after EPA collaborated with the Environmental Council of the States and 14 participating states. WA, PA, MI, AL, NJ, NH, MN, AZ, CA, ME, OR, VT, AK, MA

2020 – Version 2.0 was released for all federal / state / tribal / local government use.

Presentation to additional State Organizations including Association of other State Organizations (ACWA, ASTSWMO, NACAA, ASDWA)

2022 – EPA released the PFAS Analytic Tools Data Sets (Excel Downloads) within the public-facing ECHO website.

2023 - EPA released the PFAS Analytic Tools to the public.


Sites Potentially Impacted by PFAS
Superfund Sites with PFAS Detections [SEMS]
State Response Locations
Spills [ERNS]
Federal Sites
Aquifer Testing [NDAA]
Environmental Sampling Data
Ambient Sampling
Air
Soil
Ground Water
Sediment
Fish/Biota
Surface Water
WQP
Biosolids and Other Product Testing
Blood/Tissue Testing [ATSDR, etc.]
PFAS Analytic Tools
Private Wells
Historical PWS Testing [UCMR 3]
Ongoing PWS Testing [UCMR 5]
Supplemental Public Water Supply Testing [State Programs]
Drinking Water Sampling Data
Chemicals Stored on Site [EPCRA Tier II]
Waste Generation & Management [RCRAInfo]
ECHO
Production and Imports [TSCA CDR]
Releases and Transfers [TRI]
Wastewater Discharges [NPDES DMR]
Air Releases [GHG Reporting]
Facilities in Sectors Handling PFAS
PFAS Handler Data
Existing data flow
Data flow in process
Data flow not available
Existing automated PFAS data flow
Existing manual PFAS data flow
Needed PFAS data flow

PFAS Datasets

Dataset	Dataset Component	Date Range of Data in PFAS Analytic Tools	Date Data was Extracted for PFAS Analytic	Next Anticipated Extract Date	Source
Drinking Water (UCMR)	UCMR 3	2013 - 2016	4/1/2020	N/A	External Link
Drinking Water (UCMR)	UCMR 5	1/2/2013 - 12/13/2016	-	2023	External Link
Environmental Media	Water Quality Portal	1/1/1901 - 3/22/2023	5/29/2023	6/5/2023	External Link
Federal Sites	DoD Notifications to Agricultural Operations	3/1/2021 - 3/31/2022	3/31/2022	Upcoming September	External Link
Federal Sites	DOE	Current	4/24/2023	Unknown	External Link
Federal Sites	DOT FAA	Current	10/4/2022	Upcoming April / October	External Link
Federal Sites	NASA	Current	10/4/2022	Upcoming April / October	External Link
Federal Sites	US Department of Defense PFAS Spotlight	12/31/2022	12/31/2022	Upcoming March / September	External Link
Federal Sites	USCG	Current	10/4/2022	Upcoming April / October	External Link
Federal Sites	USDA	Current	10/4/2022	Upcoming April / October	External Link
Industry Sectors	ECHO	Current	5/29/2023	6/5/2023	External Link
Industry Sectors	Federal Aviation Adminstration	10/13/2022	10/13/2022	Unknown	External Link
Production	Chemical Data Reporting (CDR) under the Toxic Substance Control Act (TSCA)	2011	3/20/2019	N/A	External Link

Downloads:

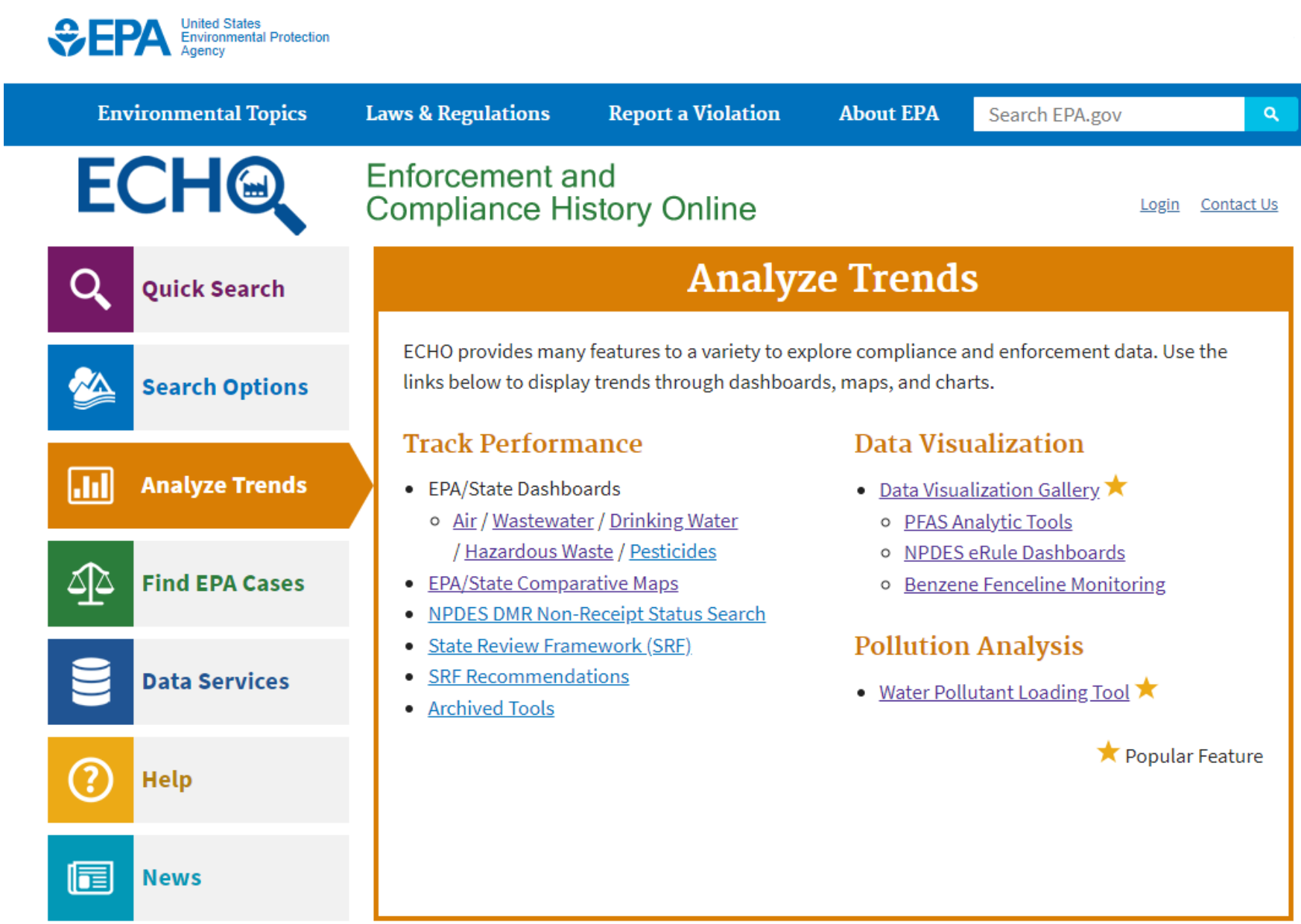
- Discharge Monitoring Data
- Drinking Water (State) Data
- Drinking Water (UCMR) Data
- Environmental Media Data
- Federal Sites Data
- Industry Sectors Data
- Production Data
- Spills Data
- Superfund Sites Data
- TRI Data - On-Site
- TRI Data - Off-Site
- TRI Data - Waste Managed
- Transfers Data

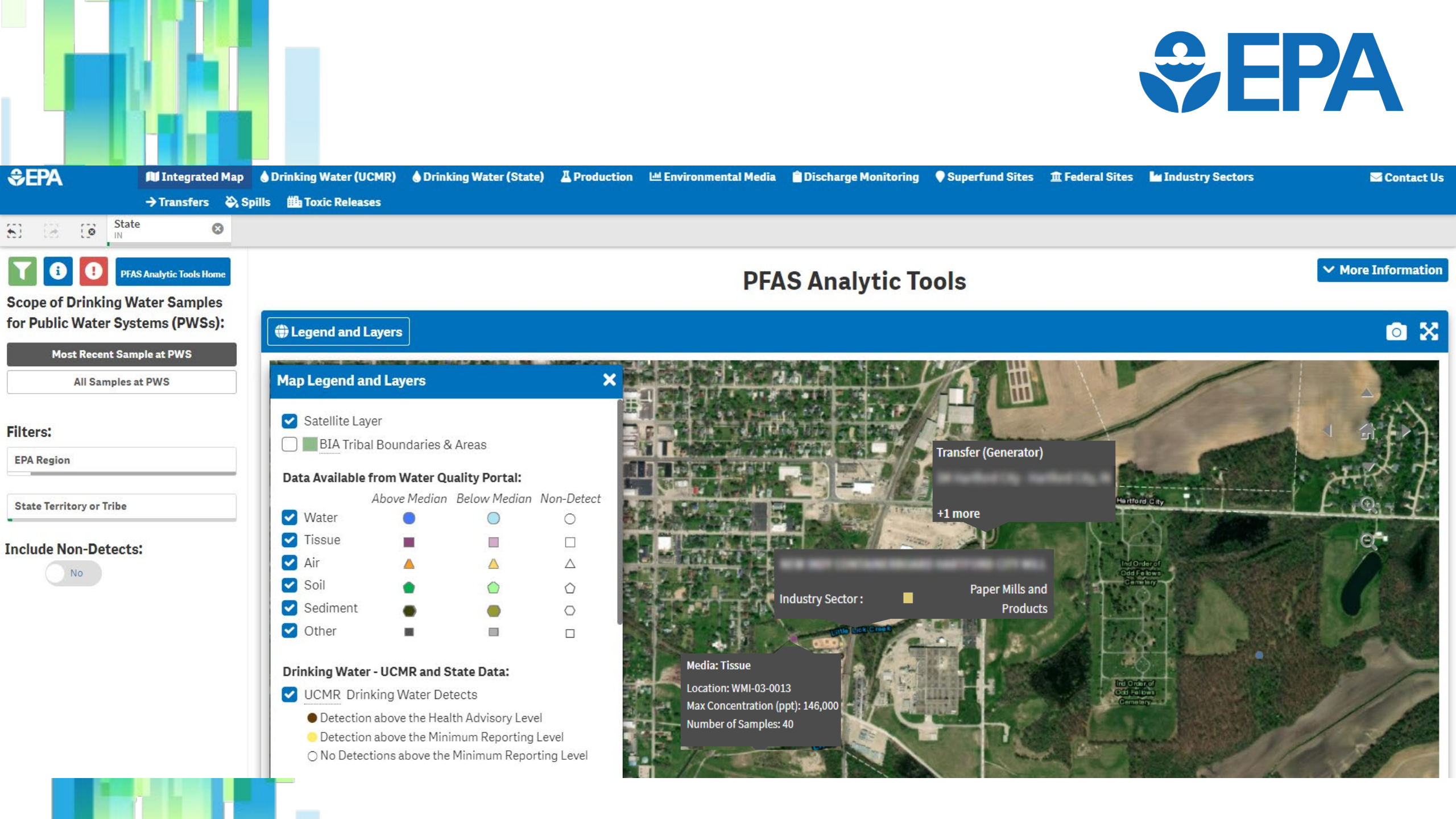
Data Currency Table is available on the PFAS Analytic Tools Homepage. Quick downloads of the data sets are available, next anticipated extraction dates, range of dates for data from each data source are all presented in this table.

Access

Analyze Trends Tab on ECHO home page (echo.epa.gov) under Data Visualization

Direct Link
https://echo.epa.gov/trends/pfas-tools




EPA
Integrated Map
Drinking Water (UCMR)
Drinking Water (State)
Production
Environmental Media
Discharge Monitoring
Superfund Sites
Federal Sites
Industry Sectors
Contact Us
Transfers
Spills
Toxic Releases
State
IN
PFAS Analytic Tools Home
Scope of Drinking Water Samples for Public Water Systems (PWSs):
Most Recent Sample at PWS
All Samples at PWS
Filters:
EPA Region
State Territory or Tribe
Include Non-Detects:
No
PFAS Analytic Tools
More Information
Legend and Layers
Map Legend and Layers
Satellite Layer
BIA Tribal Boundaries & Areas
Data Available from Water Quality Portal:
Above Median
Below Median
Non-Detect
Water
Tissue
Air
Soil
Sediment
Other
Drinking Water - UCMR and State Data:
UCMR Drinking Water Detects
Detection above the Health Advisory Level
Detection above the Minimum Reporting Level
No Detections above the Minimum Reporting Level
Transfer (Generator)
+1 more
Industry Sector :
Paper Mills and Products
Media: Tissue
Location: WMI-03-0013
Max Concentration (ppt): 146,000
Number of Samples: 40
Hartford City

Questions regarding PFAS Analytic Tools?

Where to Find Online Help

1) The PFAS Analytic Tools Home Page

2) FAQs Page

3) Technical Documentation

Other General Questions can be sent here.

For more information on EPA's overall PFAS efforts, visit www.epa.gov/pfas

Data Set Specific Documentation

Data Set	Contact for More Information
Ambient Environmental Sampling for PFAS (Water Quality Portal)	https://www.waterqualitydata.us/contact_us/
Drinking Water Testing Unregulated Contaminant Monitoring Reporting (UCMR)	https://www.epa.gov/dwucmr/forms/dwucmr
Drinking Water Testing (State)	https://echo.epa.gov/resources/general-info/contact-us
PFAS Manufacture and Imports Toxics Substances Control Act – Chemical Data Reporting (TSCA CDR)	https://www.epa.gov/chemical-data-reporting/forms/contact-us-chemical-data-reporting-under-tsca
Superfund Sites with PFAS Detections (SEMS)	https://www.epa.gov/superfund/forms/contact-us-about-superfund
Clean Water Act Discharge Monitoring (ICIS-NPDES)	https://echo.epa.gov/resources/general-info/contact-us
Federal Sites	https://echo.epa.gov/resources/general-info/contact-us
Facilities in Industries that May be Handling PFAS Enforcement and Compliance History Online (ECHO)	https://echo.epa.gov/resources/general-info/contact-us
Waste Transfers – Resource Conservation and Recovery Act (RCRA e-Manifest)	https://www.epa.gov/e-manifest/forms/contact-us-about-hazardous-waste-electronic-manifest-system
Spills – Emergency Response Notification System (ERNS)	https://nrc.uscg.mil/ContactUs.aspx
Toxics Release Inventory (TRI)	https://www.epa.gov/toxics-release-inventory-tri-program/forms/tri-program-contacts

Tool Demonstration