



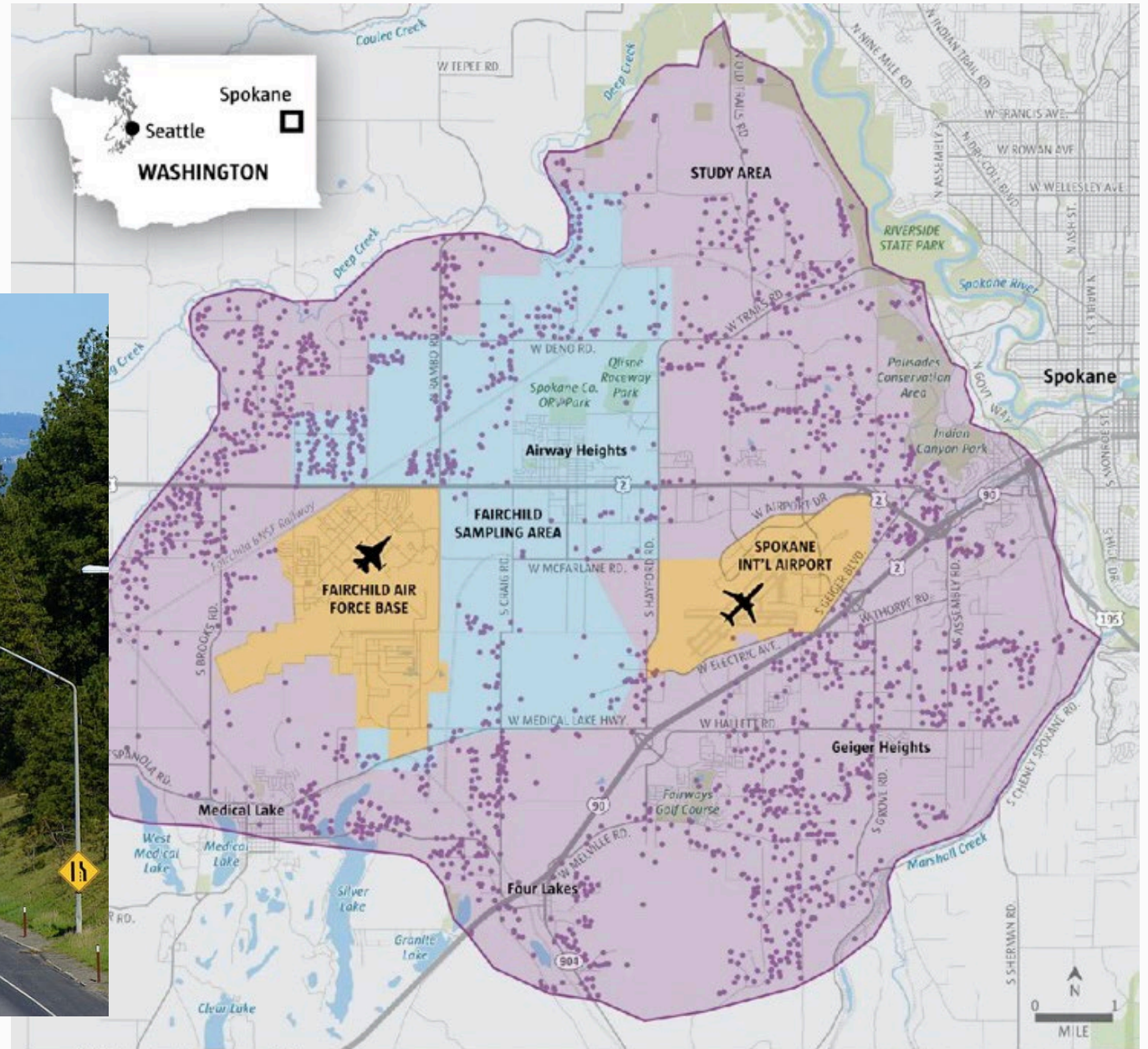
DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# Spokane Airport PFAS Site Overview

Jeremy Schmidt, Bri Brinkman, & Erika Beresovoy



# Location Overview



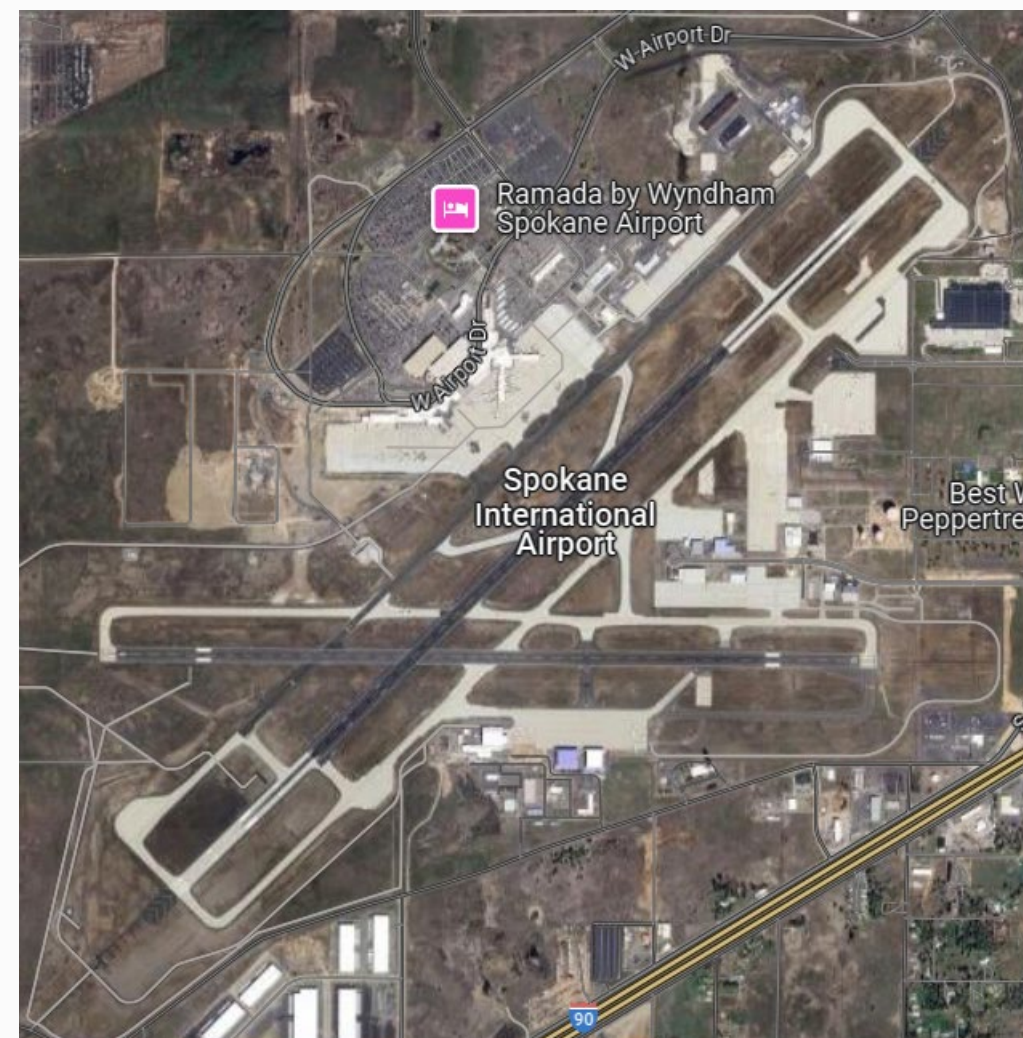
Source: Washington State Department of Ecology

FIONA MARTIN / THE SEATTLE TIMES



# Spokane International Airport (SIA)

- Jointly owned by Spokane County & City of Spokane
  - Airport Board
- 14 CFR Part 139 Certification **required** AFFF testing
- Formerly Geiger Field (GEG)
- Formerly Used Defense Site
- Nike missile batteries



# Timeline: 2017

- Fairchild finds PFAS
- Airway Heights drinking water wells contaminated



## THE SPOKESMAN-REVIEW

Spokane, Washington Est. May 19, 1883

NEWS > SPOKANE

### Firefighting foam may have contaminated groundwater near Fairchild, officials say

April 3, 2017 | Updated Mon., April 3, 2017 at 9:55 p.m.



A KC-135 Stratotanker undergoes maintenance at Fairchild Air Force Base, Feb. 14, 2017. (Dan Pelle / The Spokesman-Review) [Buy this photo](#)

#### Related Stories

■ Decades of warnings behind chemical contaminating water in Airway Heights

**By Chad Sokol**   
[chadso@spokesman.com](mailto:chadso@spokesman.com)  
(509) 459-5047

Fairchild Air Force Base says groundwater that supplies nearby homes may have been contaminated by a fire-extinguishing foam that the Air Force stopped using last year after a recommendation by the U.

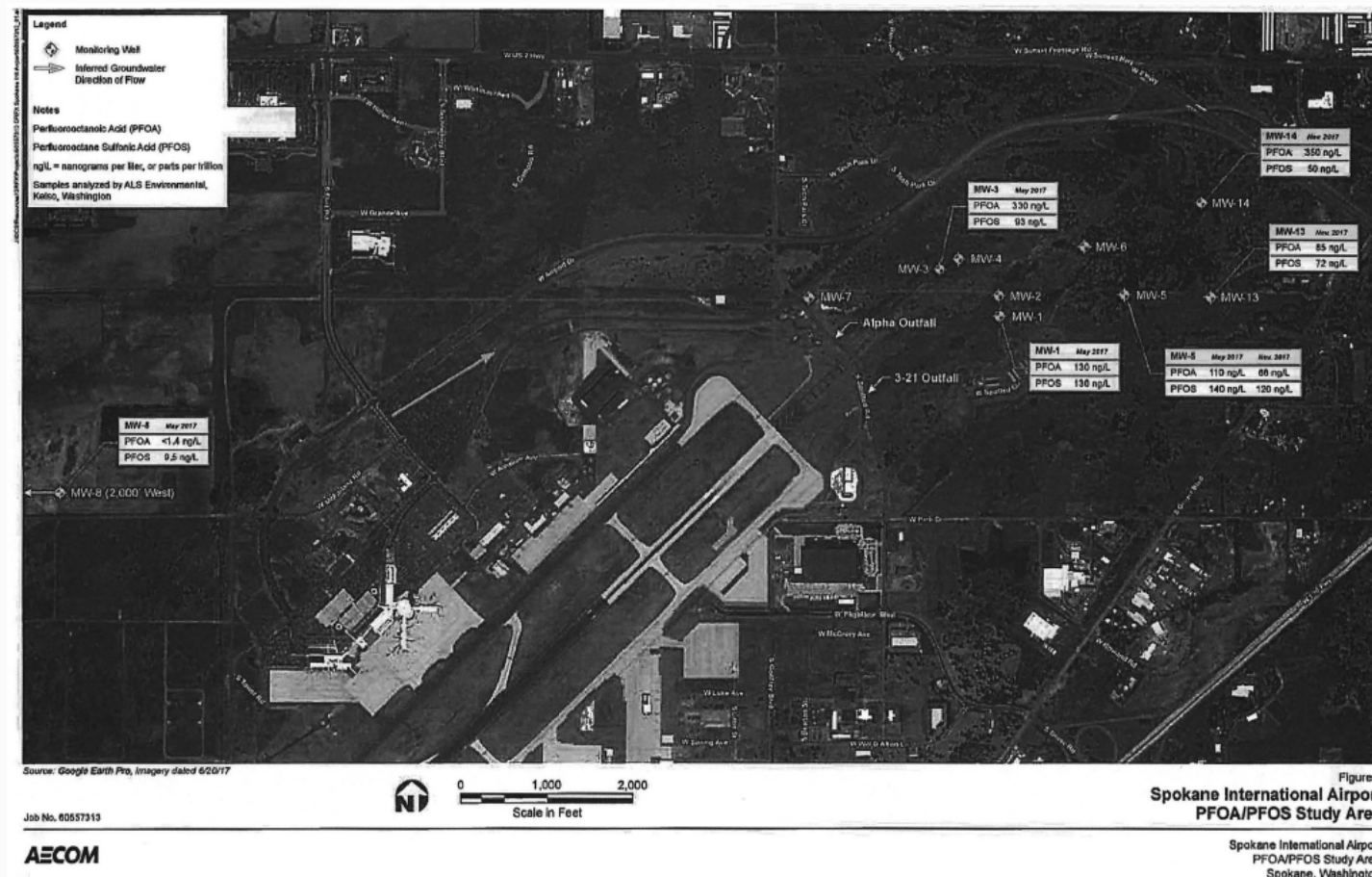


# Timeline: 2017 (continued)

SIA samples existing groundwater monitoring wells

**Table 1**  
**Summary of Groundwater Analytical Results**  
**Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS)**  
**Spokane International Airport**

Well ID	Sample Date	Depth to Water	PFOA (ng/L)	PFOS (ng/L)
Groundwater Screening Level (ng/L) <sup>1</sup>			70	70
MW-5	11/8/2017	6.90	66	120
MW-13	11/8/2017	9.90	85	72
MW-14	11/8/2017	10.00	350	50



# Timeline: 2019

SIA samples existing groundwater monitoring wells



Well ID	Sample Date	Depth to Water	EPA-PFC/537M	
			PFOA (ng/L)	PFOS (ng/L)
MW-13A	3/27/2019	17.00	60	480
MW-13B	3/27/2019	13.90	5200	1100
MW-14B	3/27/2019	16.25	860	230
Groundwater Screening Level (ng/L) <sup>1</sup>			70	70

# Timeline: 2021–2024

- October 2021: Ecology concludes PFAS compounds are hazardous substances regulated under MTCA
- March 2023: Ecology notified of PFAS contamination at SIA
- April – August 2023: II, Site listed, PLP identified
- October 2023 – March 2024: Negotiate Agreed Order for RI/FS
- March 29, 2024: Ecology issues EO



## Per- and Polyfluoroalkyl Substances Chemical Action Plan

**Hazardous Waste and Toxics Reduction Program**  
Washington State Department of Ecology  
Olympia, Washington

Publication 21-04-048  
Revised September 2022

# Enforcement order: What's in it?

- Identifies SIA responsible for cleanup
- Lists reasons Ecology named SIA and created the site
- Defines scope of work and schedule for completing it

State of Washington  
Department of Ecology  
In the Matter of Remedial Action by:  
Airport Board City of Spokane/Spokane County  
Enforcement Order  
No. DE 22584

To:

Chief Executive Officer  
Spokane International Airport  
9000 W. Airport Drive, Suite 204  
Spokane, WA 99224

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# What does the Scope of Work require?

- Remedial Investigation (RI) Work Plan
- Remedial Investigation
- RI and Feasibility Study (FS) Reports
- Interim actions (if required)
- Groundwater monitoring
- Reporting

## Exhibit B | Scope of work and schedule

Task 1.A Site Assessment Report for PFAS

Task 1.B Initial Investigation for PFAS

Task 1.C Remedial Investigation and Feasibility Study (RI/FS) Work Plan

Task 2. Remedial Investigation

Task 3.A Remedial Investigation (RI) Report

Task 3.B Feasibility Study (FS) Report

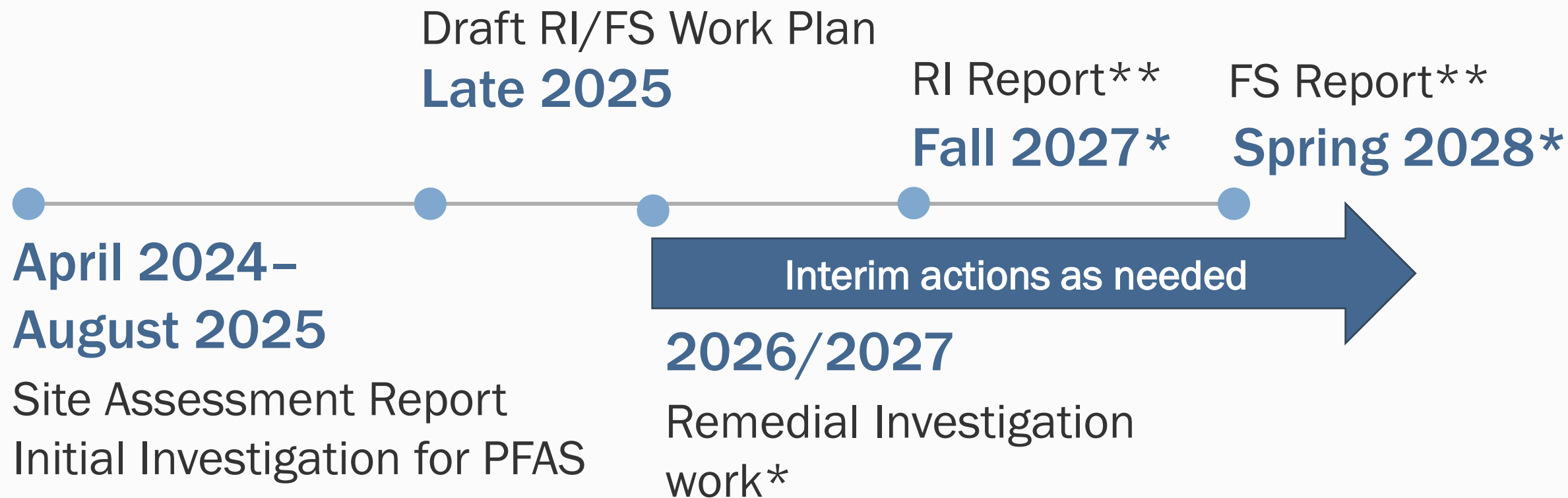
Task 4. Ecology Required Emergency Interim Action(s) (if required)

Task 5. Additional Interim Action(s) (if required)

Task 6. Quarterly Groundwater Monitoring and Reporting

Task 7. Progress Reports

# Investigation timeline



\*May take longer depending on investigation iterations

\*\*RI and FS reports available for public comment





## INVESTIGATION WORK

AL AIRPORT

leanup Site ID: 16774

ional Airport

PORT

# West Plains Overview

2017

PFAS discovered in West Plains GW  
FAFB investigation begins

2019

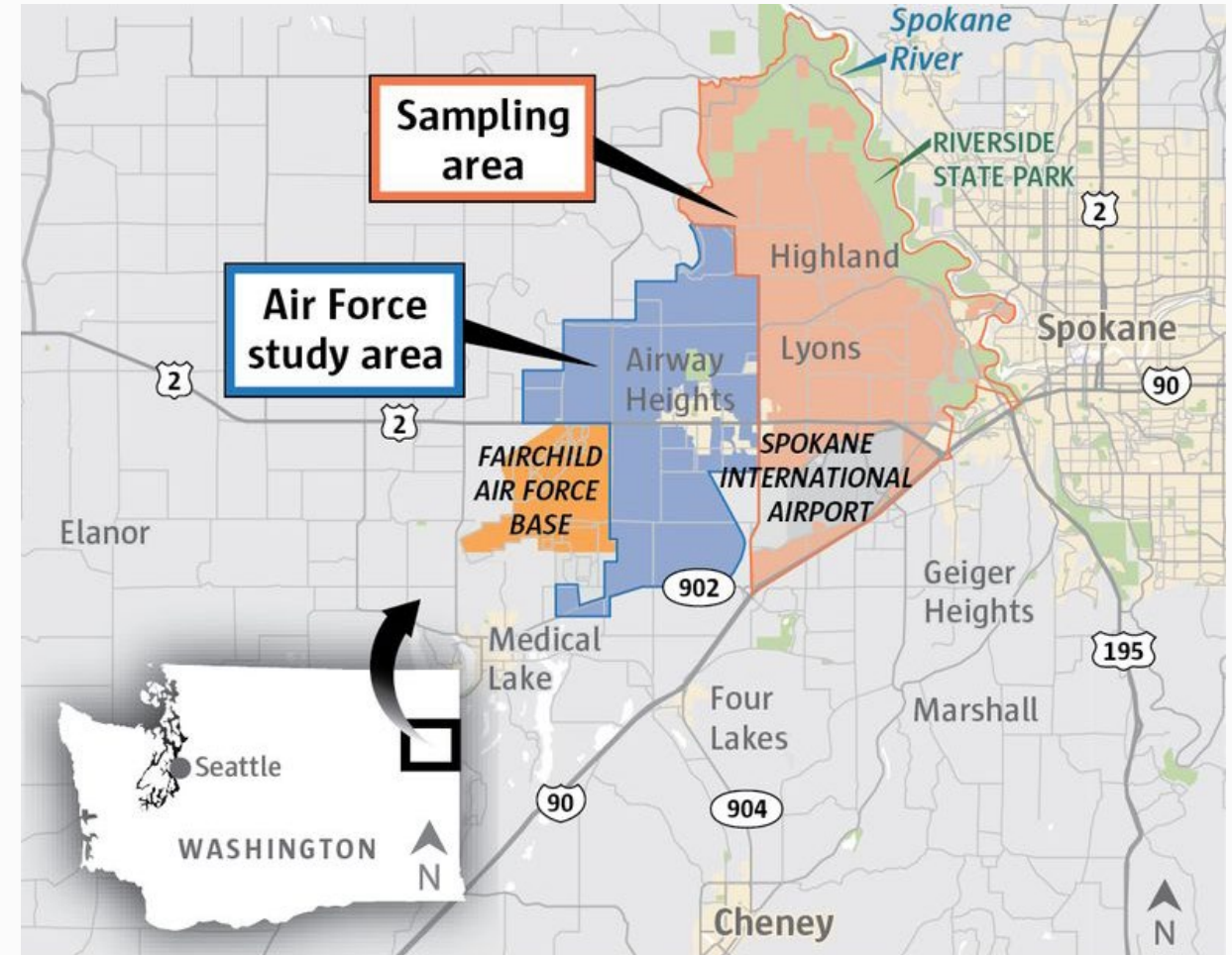
ATSDR Exposure Assessment

2023

Area-Wide Groundwater Grant

2024

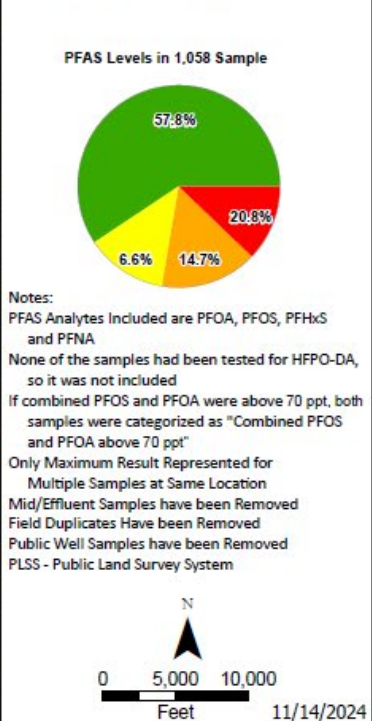
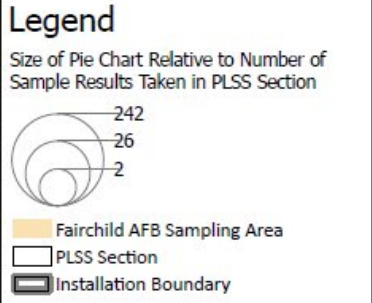
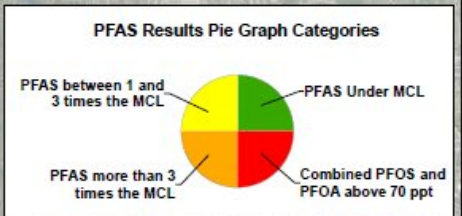
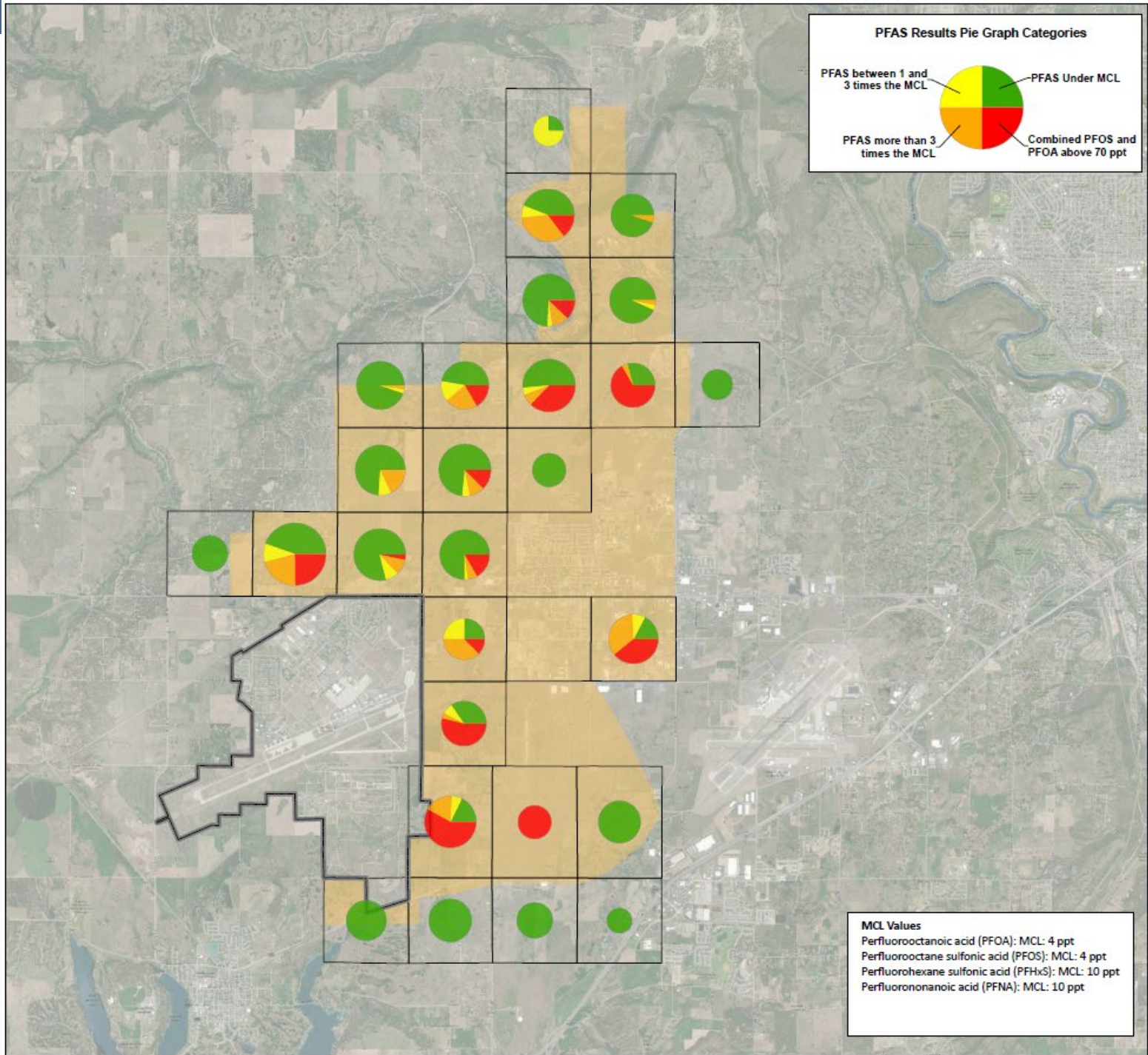
SIA investigation begins  
EPA/Ecology private well sampling event  
DOH filter program



Sources: Esri, Washington State Department of Ecology

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**MCL Values**

Perfluorooctanoic acid (PFOA): MCL: 4 ppt

Perfluorooctane sulfonic acid (PFOS): MCL: 4 ppt

Perfluorohexane sulfonic acid (PFHxS): MCL: 10 ppt

Perfluorononanoic acid (PFNA): MCL: 10 ppt

United States Air Force  
Fairchild Air Force Base, WA

**Fairchild AFB PFAS Sampling Summary by Section**

**Air Force Civil Engineer Center**

2261 Hughes Avenue  
Building 171, Suite 155  
JBSA Lackland, Texas 78236

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State of Washington

**Fairchild AFB PFAS Sampling Summary by Section**

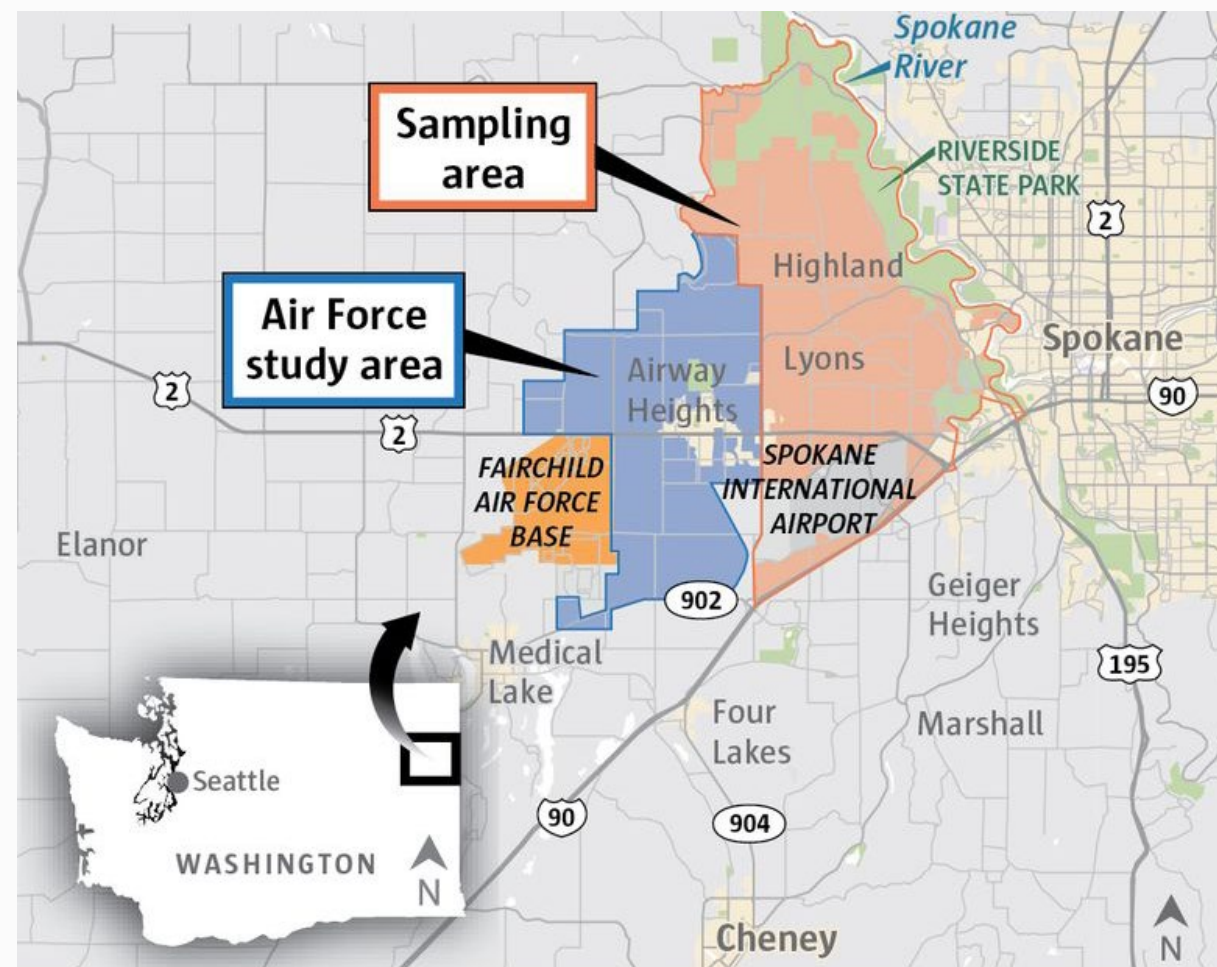




# West Plains Sampling

March and June 2024

- 411 wells sampled
- No cost to well owners
- 268 results submitted to Ecology → 65%



Sources: Esri, Washington State Department of Ecology

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# 2024 NE West Plains Results

- No PFAS compounds detected
- Compounds detected below SSAL
- At least one exceedance between 1x and 5x the SSAL
- At least one exceedance between 5x and 10x the SSAL
- At least one exceedance between 10x and 20x the SSAL
- At least one exceedance greater than 20x the SSAL

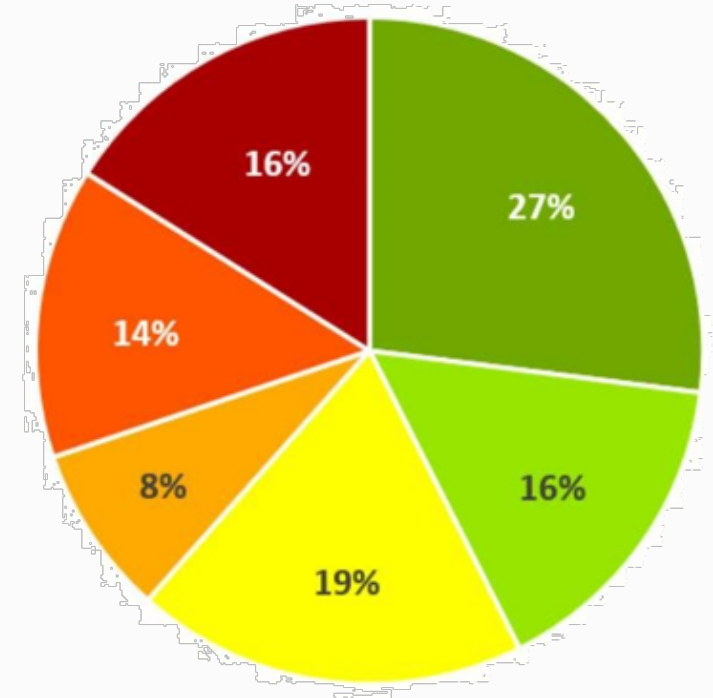
Non-Detect	111
Below	64
Above	236

Max: PFOS = 530 ppt, PFOA = 120 ppt, PFHxS = 530 ppt

Long-chained PFAS were predominant

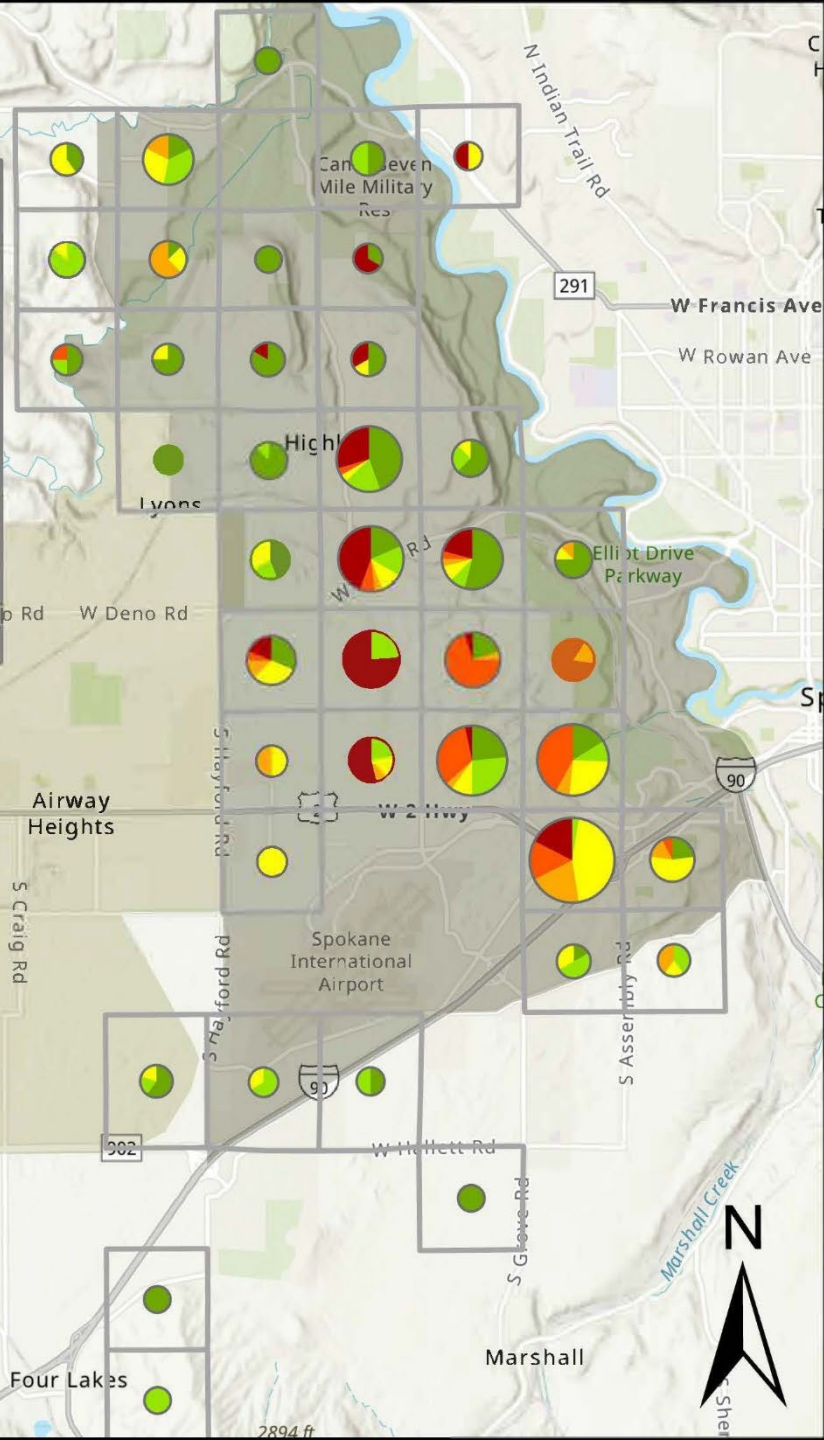
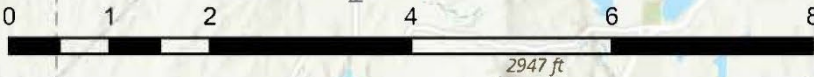
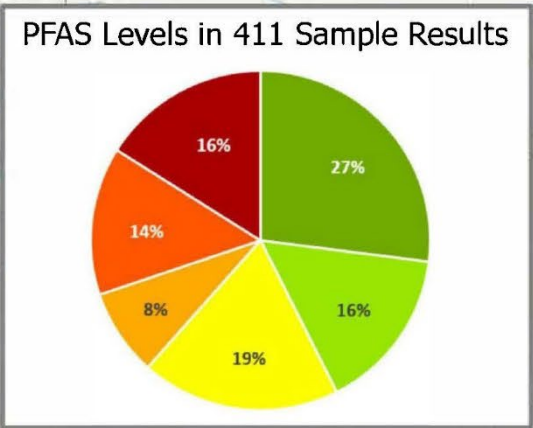
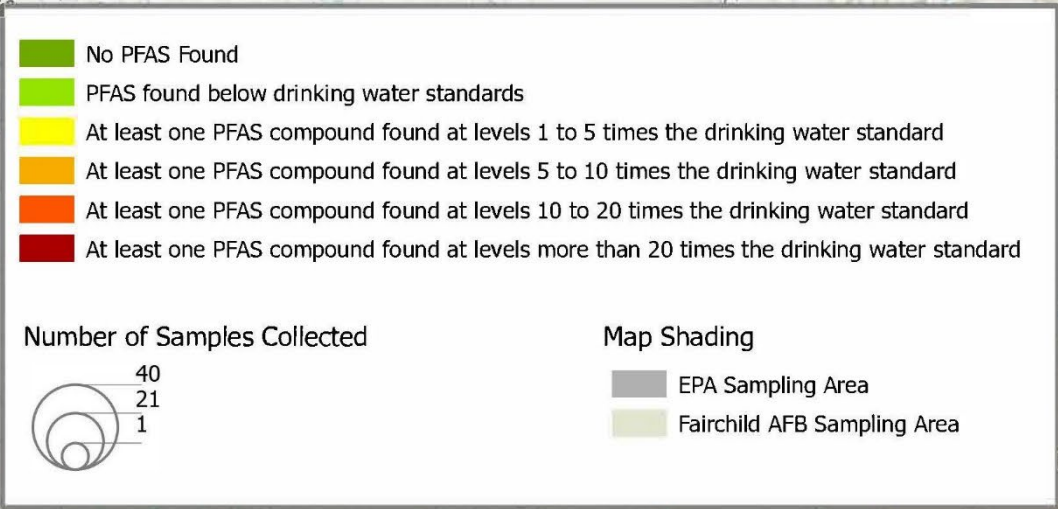
PFHxS most detected at high concentrations

- PFBS also common but at low concentrations



# Summary of PFAS Levels by Section

Results from March & June 2024 West Plains Sampling Events







# Area-Wide Groundwater Grant

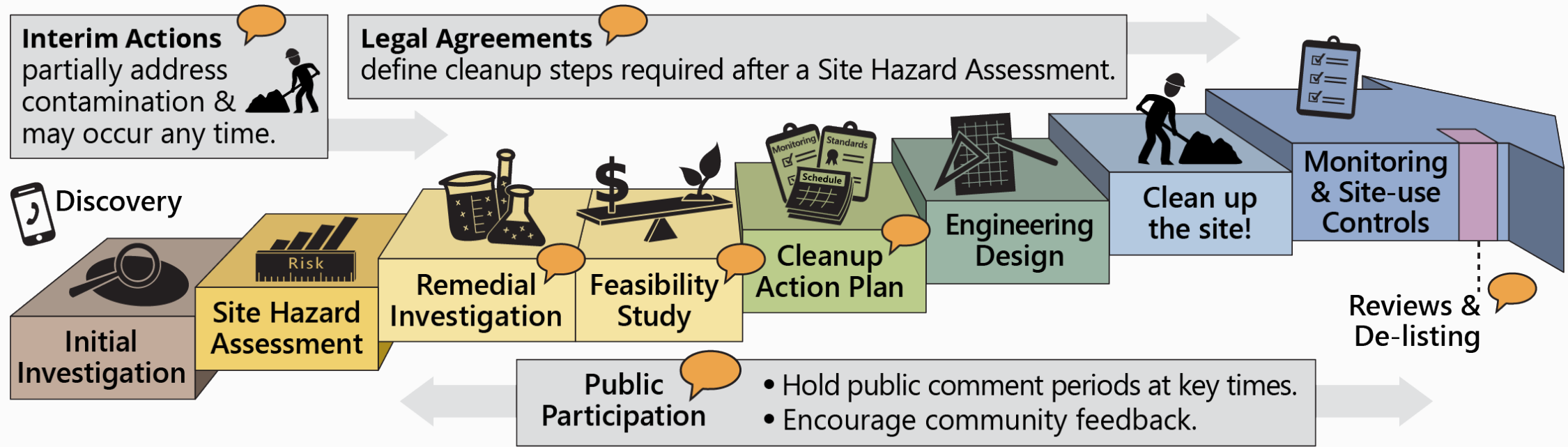
Fall 2023 – Summer 2025

## West Plains PFAS Groundwater Transport & Fate Study

Goal | Geochemical fingerprinting of PFAS:

- Groundwater fate and transport modeling
- PFAS groundwater sampling and analysis
- PFAS source identification analysis
- Public outreach





# Thank you! Questions?

[bit.ly/EcologySIA-PFAS](https://bit.ly/EcologySIA-PFAS)