# MPART PFAS Community Meeting Wexford Area of Interest Self-Sampling Investigation

May 29, 2025

# MPART PFAS Community Meeting Wexford Area of Interest Self-Sampling Investigation

Abigail Hendershott, MPART Executive Director Michigan PFAS Action Response Team (616) 888-0528

HendershottA@Michigan.gov



# Agenda

- Introductions Abigail Hendershott, MPART Executive Director
- Agenda:
  - MPART Overview Abby Hendershott
  - Health Joshua Lee, Michigan Department of Health and Human Services
  - Filters Robert Crane, District Health Department #10
  - Investigation Area Brandi Wheeler, Michigan Department of Environment, Great Lakes, and Energy
  - Public Water Supplies Scott Kendzierski, Michigan Department of Environment, Great Lakes, and Energy
- Q&A

# Per- and Polyfluoroalkyl Substances (PFAS)

#### What are they?

- Strong Carbon-Fluorine Bonds
- Surfactants
- Highly Stable
- Repel Water, Oil, Fat, and Grease
- Began Developing in 1940s
- Thousands of Compounds Today

#### Why the concern?

- Widespread through the ecosystem
- Don't Break Down Easily Hard to Get Rid of
- Bioaccumulate Build Up in Our Bodies
- Some PFAS May Affect Health
- Some emerging science/information
- Federal Standards

































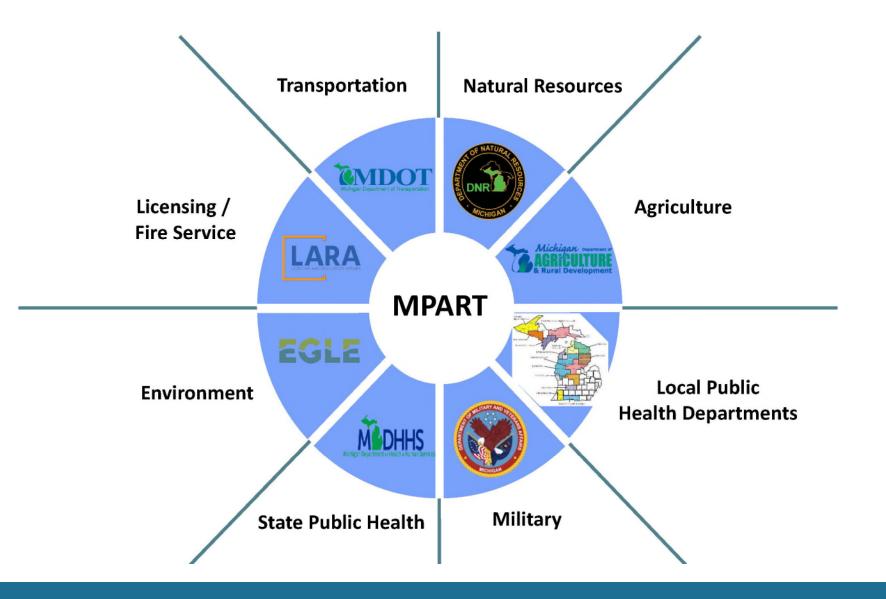








Michigan PFAS Action Response Team (MPART)



# **Project Team**

#### **EGLE, DHHS, Local Health**

(other MPART agencies as needed)

 Review groundwater flow, science/data available, residential wells, and determine drinking water sampling needs

# **EGLE Leads Investigation:**

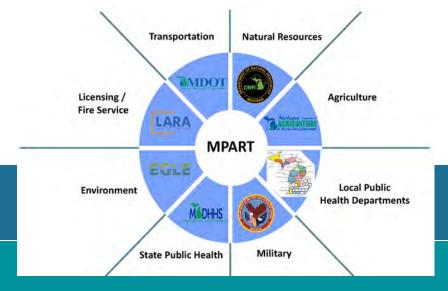
- Groundwater
- Residential Well Sampling
- Wastewater Discharge
- Surface Water
- Fish Collection
- Public Drinking Water
- Biosolids

#### DHHS:

- Toxicologist
- Geologist
- Epidemiologist
- Health Educator
- Community Engagement
- Fish Eating Guidelines

#### **Local Health:**

- Filter deployment (if recommended
- Community Outreach



# The Investigation Process

- Typical ways the process starts
  - When MPART becomes aware of a site where groundwater is over criteria
  - Elevated results from a private drinking water self-sample
  - When surface water sampling results indicate a potential source
  - Other routine monitoring data indicates a potential concern
- The project team forms to evaluate potential public health exposures (i.e., drinking water)
  - Investigations continue to delineate affected homes

# Michigan's Drinking Water and Groundwater Cleanup Standards

Compound	Standards		
PFNA	6 ppt		
PFOA	8 ppt		
PFOS	16 ppt		
PFHxS	51 ppt		
GenX (HFPO-DA)	370 ppt		
PFBS	420 ppt		
PFHxA	400,000 ppt		

# Michigan Surface Water Quality Values

Compound	Water Quality Value	
PFOA	170 ppt	
If Drinking Water Source	66 ppt	
PFOS	12 ppt	
If Drinking Water Source	11 ppt	
PFBS	670,000 ppt	
If Drinking Water Source	8,300 ppt	
PFHxS	210 ppt	
If Drinking Water Source	59 ppt	
PFNA	30 ppt	
If Drinking Water Source	19 ppt	

Michigan's Rule 57 Water Quality Values apply to NPDES discharges

### Self Testing for PFAS

- The easiest way to address the risk of repeated exposure to PFAS in your drinking water is by testing your private drinking water well
  - Contact a <u>Certified PFAS Laboratory</u> to order a test kit
  - Video Homeowner's Guide: Collecting Samples for PFAS Water Analysis
- Once you get your results, contact the MDHHS Drinking Water Hotline at 800-648-6942 to figure out what your results mean, and

if you should start filtering your water

#### PFAS and Health

Joshua Lee, Toxicologist

Michigan Department of Health and Human Services

Phone: 517-243-9522

Email: LeeK28@michigan.gov

## The Role of MDHHS/ Local Health Department (LHD)

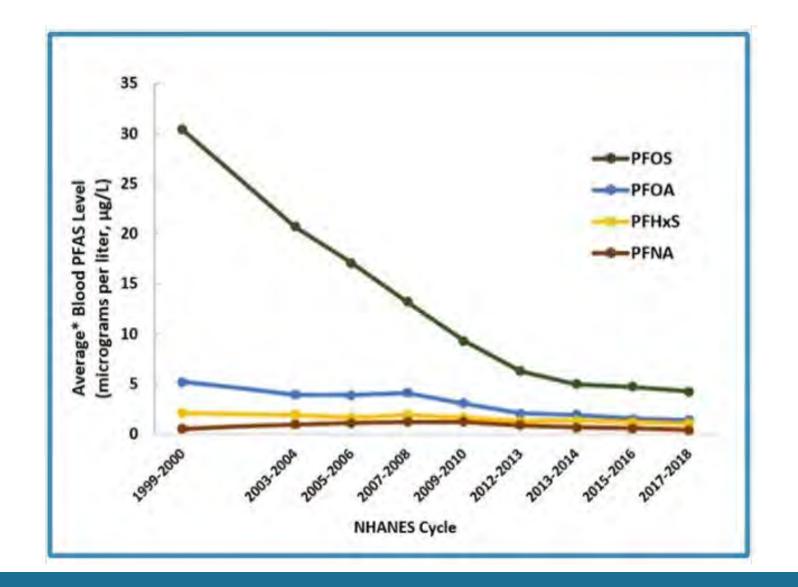
- Understand the health concerns facing your community
- Develop a plan to investigate and address health risks
  - EGLE leads the site investigation
  - MDHHS and the Local Health Department lead the public health planning and response
- Evaluate PFAS exposures to residents in the community
  - Recommend public health actions as needed

# **Exposure to PFAS Chemicals**

- Drinking contaminated water
- Eating fish caught from water contaminated by PFAS
  - "Eat Safe Fish" Guidelines
- Incidental swallowing of contaminated soil or dust
- Eating food packaged in materials containing PFAS
- Using some consumer products
- PFAS absorption through skin is typically not a concern







**Blood levels** of the most common PFAS in people in the **United States** 2000-2018

# Associated Human Health Outcomes PFOA and/or PFOS

- Reduced fertility
- High blood pressure or pre-eclampsia in pregnant women
- Small decreases in infant birth weight
- Higher cholesterol
  - Especially total cholesterol and LDL cholesterol

# Associated Human Health Outcomes PFOA and/or PFOS

- Thyroid disease
- Liver damage
- Decreased immune system response to vaccines
- Developing certain types of cancer
  - In particular, kidney and testicular cancers\*

\* PFOA only

# Multiple Lines of Consideration for Determining Public Health Response Actions

- MDHHS Comparison Values
- Residential Well Results (individually and collectively)
- Site—specific information (e.g., known source, geology, etc.)

## **MDHHS Comparison Values**

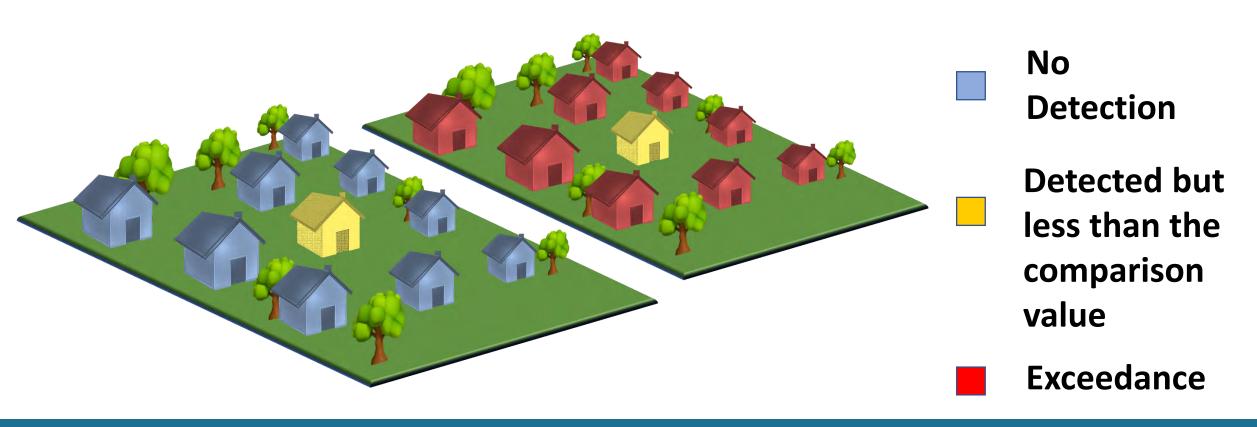
- MDHHS Comparison Values are the lowest of:
  - MDHHS Public Health Drinking Water Screening Level
  - MPART Health-Based Value or Maximum Contaminant Level (MCL)
- Both the MDHHS screening levels and the MCL were set to protect everyone
  - including those most at risk of harm to their health: fetuses and breastfed babies

# **MDHHS Comparison Values**

PFAS	Comparison Values	
PFOS	8 ppt <sup>A</sup>	
PFOA	8 ppt <sup>B</sup>	
PFNA	6 ppt <sup>B</sup>	
PFHxS	51 ppt <sup>B</sup>	
PFBS	420 ppt <sup>B</sup>	
PFHxA	400,000 ppt <sup>B</sup>	
GenX	370 ppt <sup>B</sup>	

- A. MDHHS Public Health Drinking Water Screening Level
- B. MPART Health-Based Value or Maximum Contaminant Level (MCL)

# Residential Well Results (individually and collectively)

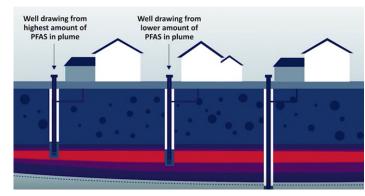


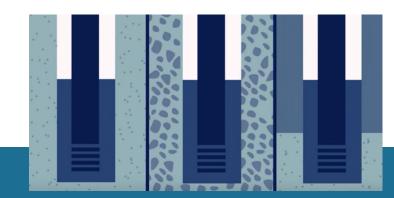
# Site-Specific Information

# **Known Source**



### Geology





#### Plume



# MDHHS/LHD Public Health Response Actions

- No public health actions necessary
- Recommend filter or use of alternate water
  - Need time to conduct investigation
  - Provides residents with protection from potential fluctuations in PFAS levels, if any, while investigation is ongoing
- Education
  - Provide information on PFAS in drinking water

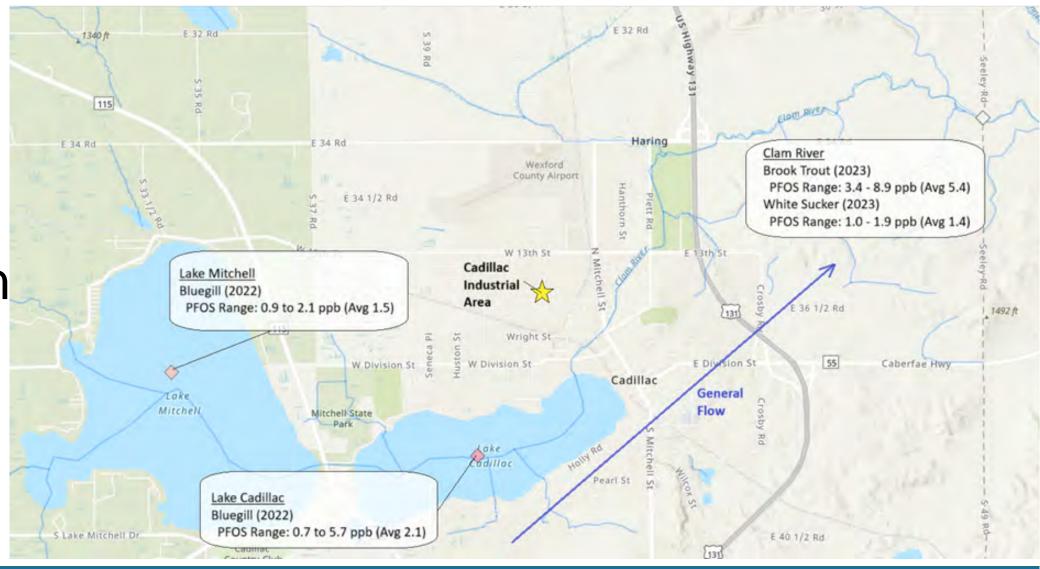
### What to Look for When Selecting a Filter



http://bit.ly/PFASHomeFilter

- Make sure the filter has a NSF/ANSI Standard 53 for PFOA and PFOS reduction.
- Follow all manufacturing instructions to make sure it is reducing the PFAS as expected.

### Fish Collection Data



# Eating Fish from Michigan's Lakes & Rivers

Michigan.gov/eatsafefish



#### Lake Cadillac

Type of Fish	Chemicals of Concern	Size of Fish (length in inches)	MI Servings per Month*
Largemouth Bass	Mercury	Under 18"	2
		Over 18"	1
Northern Pike	Mercury	Under 30"	4
		Over 30"	2
Smallmouth Bass	Mercury	Under 18"	2
		Over 18*	1

#### Lake Mitchell

Type of Fish	Chemicals of Concern	Size of Fish (length in inches)	MI Servings per Month*
Largemouth Bass	Mercury	Under 18"	2
		Over 18"	1
Smallmouth Bass	Mercury	Under 18"	2
		Over 18"	1
Walleye	Mercury	Any	1





# Point-of-Use Home Filters

DISTRICT HEALTH DEPARTMENT #10 (DHD#10)
MAY 29, 2025

# How do you know if you qualify for a free point-of-use filter?

1

You will receive communication from the Michigan Department of Health and Human Services (MDHHS) recommending use of a water filtration system.

2

You will receive a follow-up communication from DHD#10 encouraging you to pick up a free point-of-use filter from your local DHD#10 office.

Your local office is: 521 Cobb St A, Cadillac, MI 49601 3

If you have questions or concerns about receiving a filter, filter installation, or filter maintenance contact:

Robert Crane 231-519-7541 rcrane@dhd10.org

# What to expect when picking up your filtration system

#### What to bring:

Your MDHHS or DHD#10 letter as proof you are eligible to receive a filter

#### What you'll receive:

- A filter and one box of replacement cartridges, good for one year
- A phone number for you to call to have a plumber install your filter, free of charge
- Instructions on how to maintain your filter, replace cartridges, and what to do if a part breaks

# About your filter



Your filter is certified by both NSF and the American National Standard Institute (ASFI).



Each filter cartridge is set to last for about 6 months, or through 800 gallons of water. You will need to get a new set of cartridges from DHD#10 every 6 months.



It is to be installed under the kitchen sink and stay within the home where drinking water is found to contain PFAS.



You may dispose of used cartridges in your household trash as they are not considered hazardous material.

For Filter Questions or Concerns, sampling questions, Well Permitting and Abandonment



#### **CONTACT:**

Robert Crane 231-902-7541 rcrane@dhd10.org

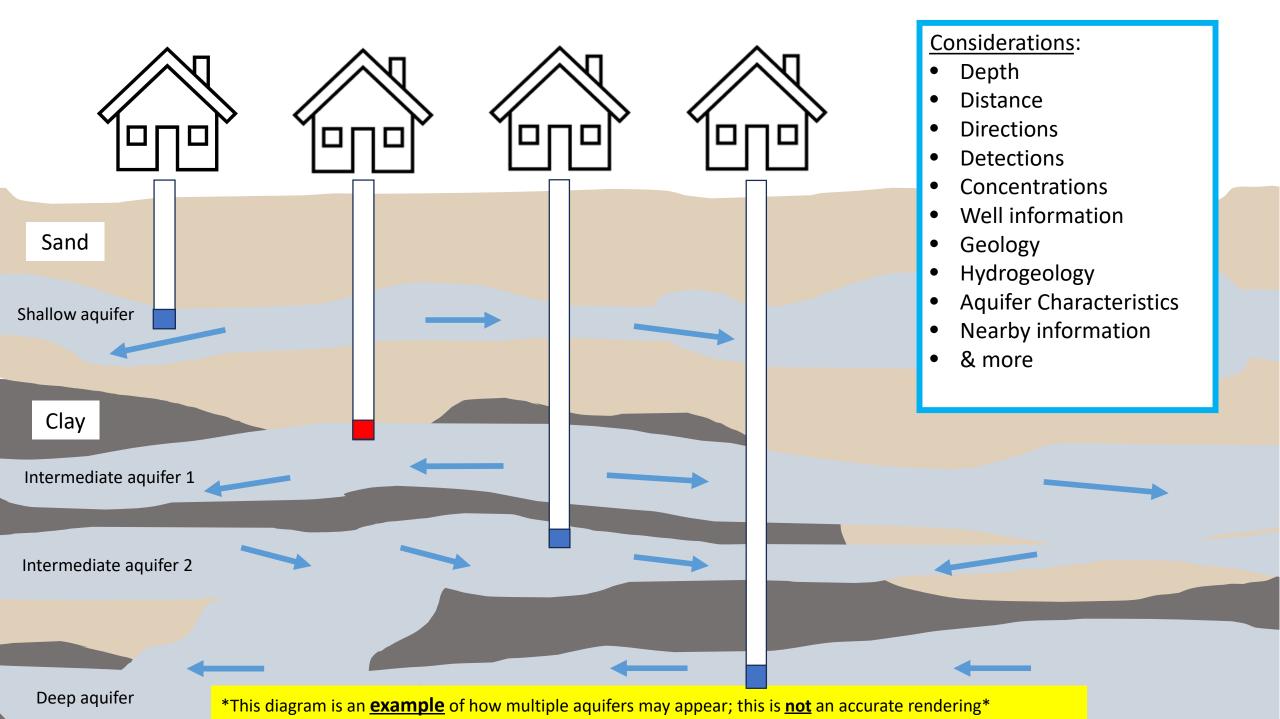
### **Investigations in Wexford County**

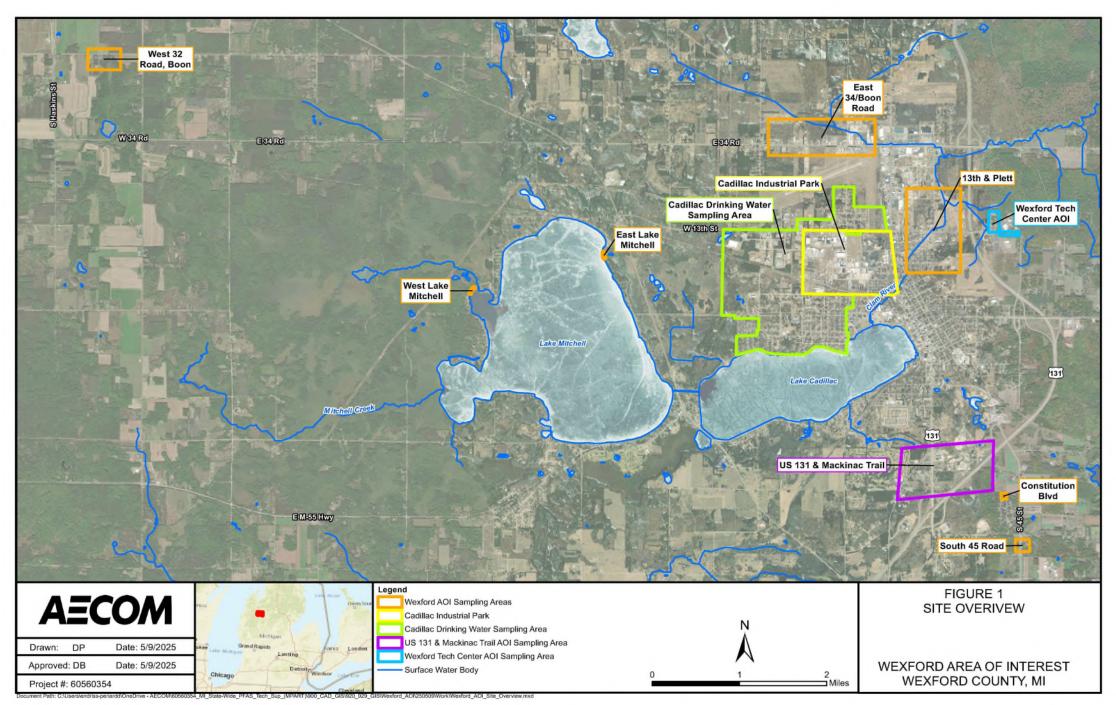
Brandi Wheeler, PFAS Site Lead & District Geologist

Michigan Department of Environment, Great Lakes, and Energy

231-878-8066

wheelerb5@michigan.gov

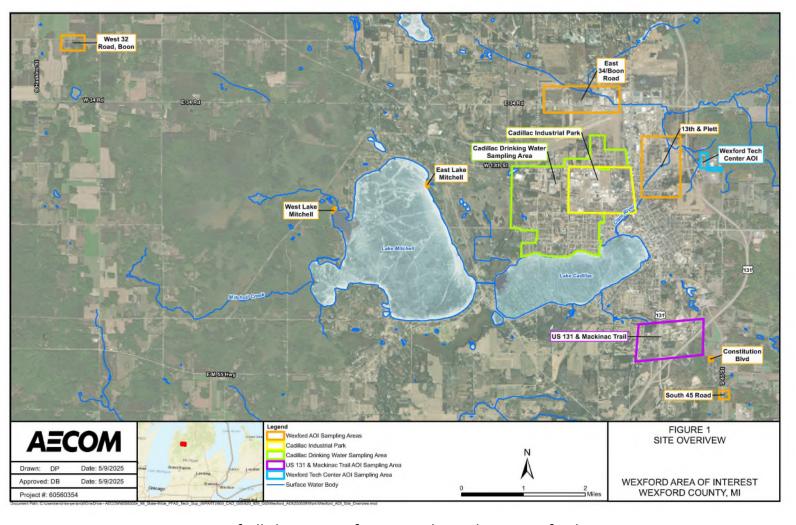




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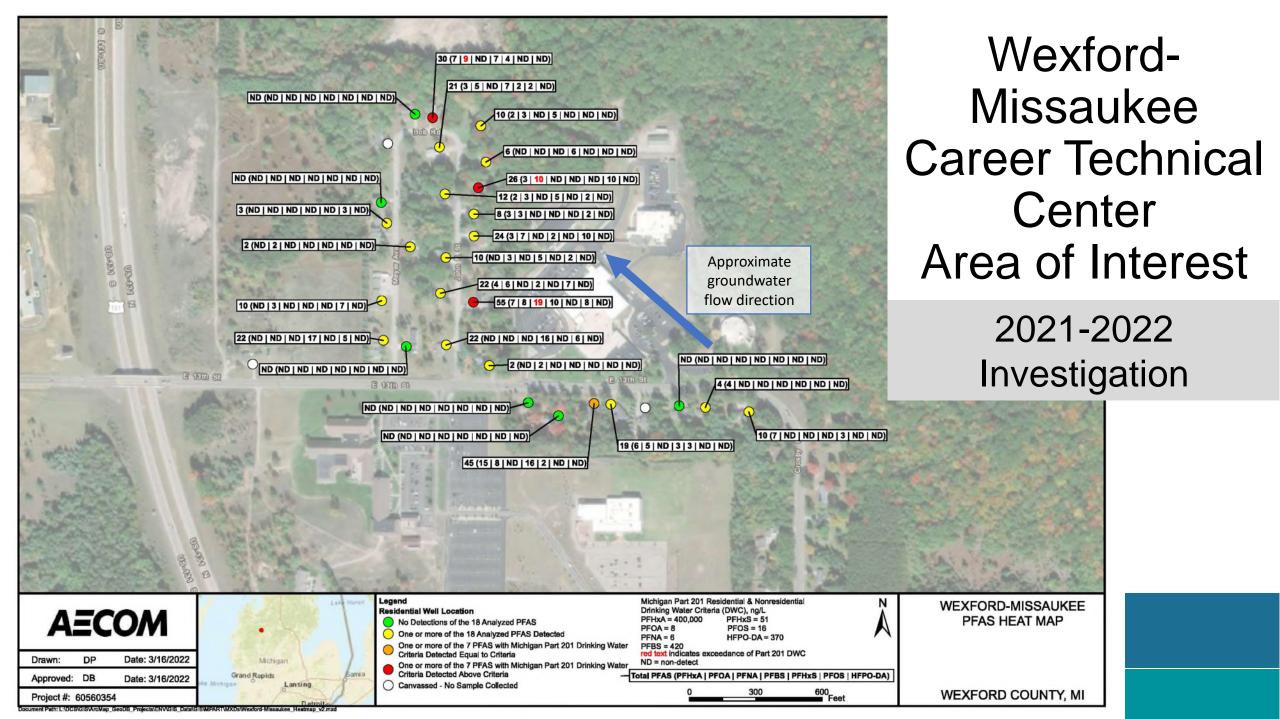
#### **Data-driven Approach**

- The MPART investigation is intended to mitigate <u>exposure</u> and human health risk
- MPART is investigating numerous <u>potential</u> PFAS sources based on community input and historic records
- MPART evaluates all scientific data / records received with project team
  - MPART
  - EGLE
  - DHHS
  - Local Health
- MPART holds routine update meetings with the city, township, and local health to discuss new developments and data and coordinate drinking water sampling
  - MPART is focused on <u>drinking</u> <u>water results</u> to help guide response



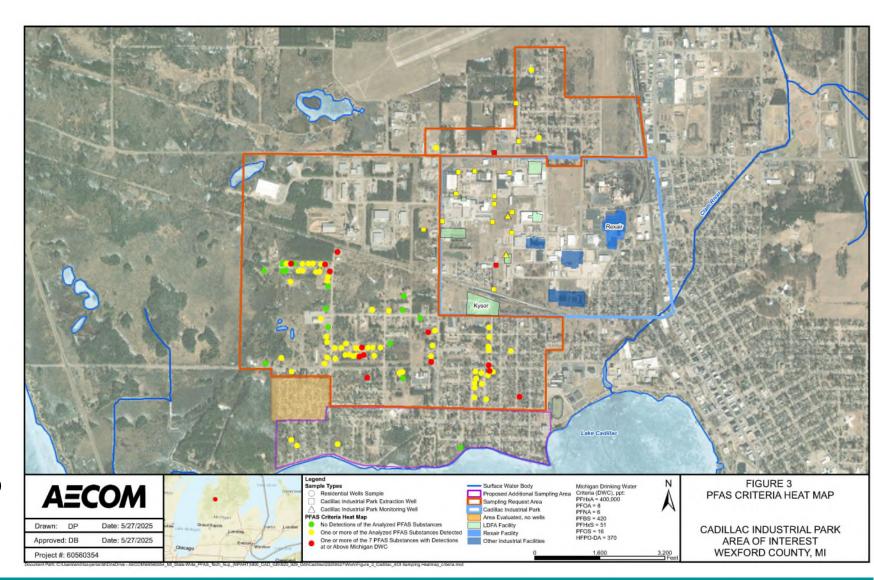
Overview of all the areas of interest throughout Wexford County

MPART
MICHIGAN PFAS ACTION RESPONSE TEAM



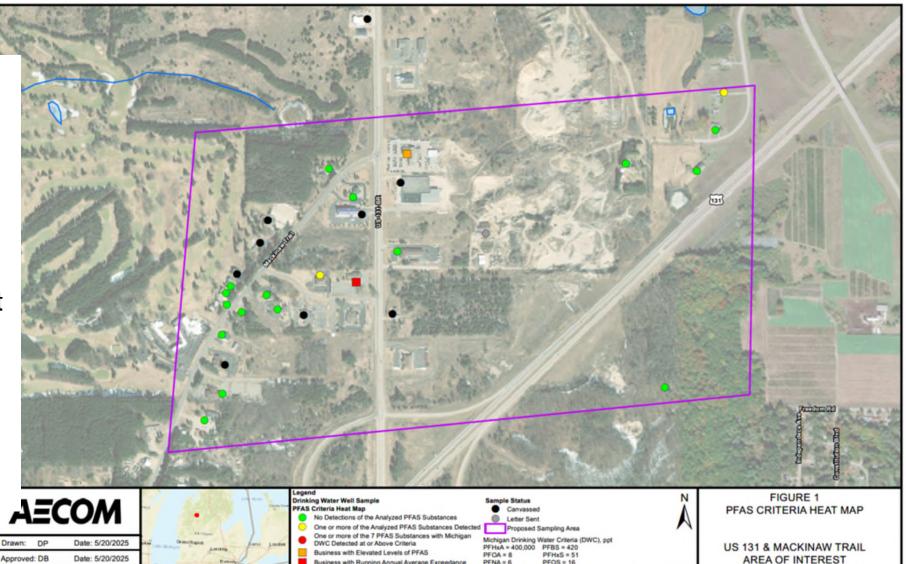
### Cadillac Industrial Park AOI

- MPART has sampled 90 drinking water wells in the Cadillac Industrial Park area as of 5/20/2025.
- Of these, 13 were above current criteria, 61 had detections below criteria, 15 were non-detect, 1 pending result.
- Data suggests there are multiple potential sources of PFAS in the area.
- Cadillac has a lot of sand; contaminants move down into groundwater quickly



#### **US 131 & Mackinaw Trail Area of Interest**

- Investigated because of a drinking water exceedance at a business
- 18 properties sampled as of 5/15/2025
  - 16 wells were non-detect
  - 1 well had 2 ppt PFOA (compared to 8 ppt)
  - 1 well had 4 ppt PFHxS (compared to 51 ppt)



WEXFORD COUNTY, MI

#### **MPART**

RT

#### Wexford Self-Sampling Area of Interest

Targeting drinking water wells <u>immediately</u> <u>adjacent</u> to self sample exceedances to evaluate exposure and risk.

Current Sampling Areas and number of samples collected as of 5/20/2025:

W. 32 Rd., Boon - 7

• E. Lake Mitchell - 4

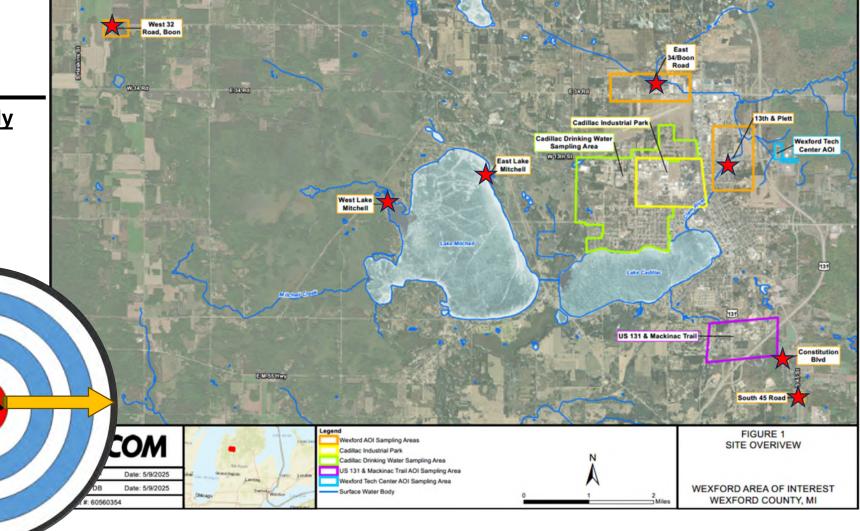
W. Lake Mitchell - 3

• Constitution Blvd - 4

• S. 45 Rd. -3

• 13th & Plett - 21

• E. 34/Boon Rd. − 3



#### **MPART**

#### Wexford Self-Sampling Area of Interest

45 samples collected as of 5/20/2025

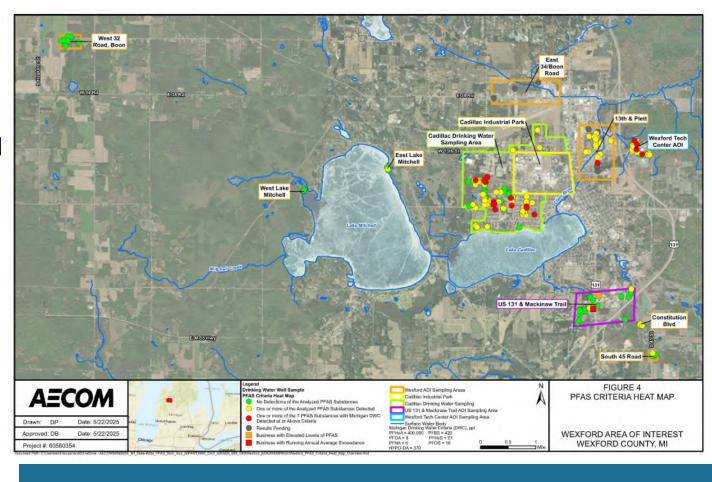
- W. 32 Rd., Boon 7 out of 8 canvassed
  - 7 ND
- E. Lake Mitchell 4 out of 5 homes canvassed
  - 3 ND, 1 detection below criteria\*
- W. Lake Mitchell 3 out of 5 homes canvassed
  - 2 ND, 1 pending result

**Constitution Blvd** – 4 out of 6 homes canvassed

- 1 ND, 3 detections below criteria
- S. 45 Rd. 3 out of 6 homes canvassed
  - 2 ND, 1 detection below criteria

13th & Plett – 21 out of 34 locations canvased

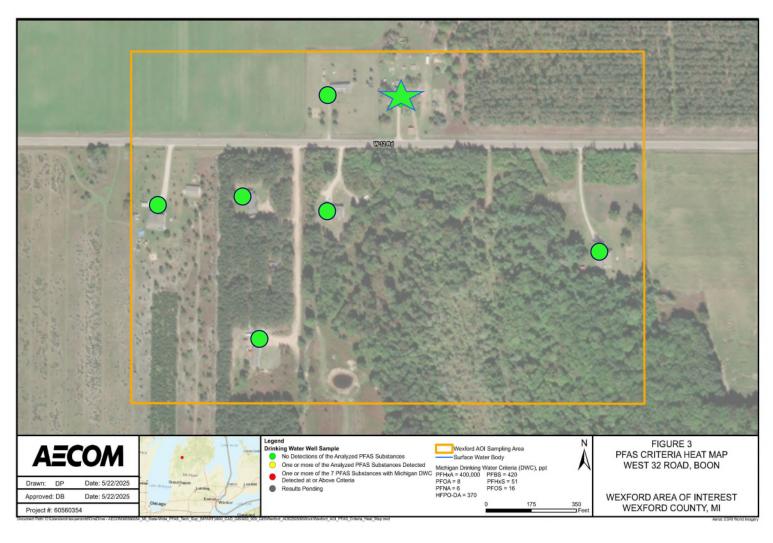
- 16 detections below criteria, 1 above criteria, 4 pending results
- E. 34/Boon Rd. 3 out of 9 locations canvassed
  - 3 pending results



#### W 32 Rd, Boon



Red star indicates the original property that self-sampled. Yellow stars indicate additional properties that EGLE offered sampling to.



### **East Lake Mitchell**



Red star indicates the original property that self-sampled. Yellow stars indicate additional properties that EGLE offered sampling to.

#### **MPART**



One or more of the Analyzed PFAS Substances Detected

One or more of the 7 PFAS Substances with Michigan DWC Detected at or Above Criteria

# West Lake Mitchell



Red star indicates the original property that self-sampled. Yellow stars indicate additional properties that EGLE offered sampling to.

#### **MPART**



- No Detections of the Analyzed PFAS Substances
- One or more of the Analyzed PFAS Substances Detected
- One or more of the 7 PFAS Substances with Michigan DWC Detected at or Above Criteria
- Results Pending

#### **Constitution Blvd**



Red star indicates the original property that self-sampled. Yellow stars indicate additional properties that EGLE offered sampling to.

# Freedom Rd

#### Legend

#### **Drinking Water Well Sample**

- No Detections of the Analyzed PFAS Substances
- One or more of the Analyzed PFAS Substances Detected
- One or more of the 7 PFAS Substances with Michigan DWC Detected at or Above Criteria

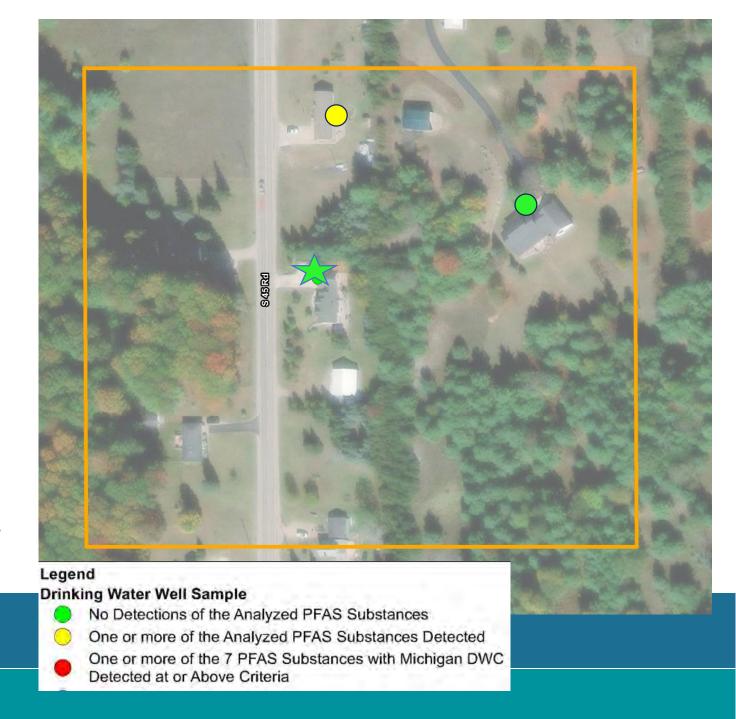
#### **MPART**

#### South 45 Rd



Red star indicates the original property that self-sampled. Yellow stars indicate additional properties that EGLE offered sampling to.

#### **MPART**

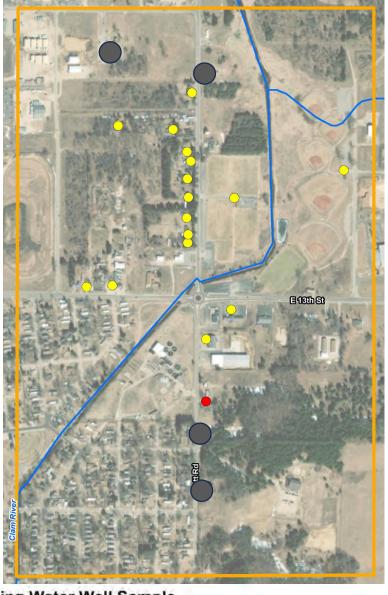


#### 13<sup>th</sup> and Plett



#### **MPART**

MICHIGAN PFAS ACTION RESPONSE TEAM



#### **Drinking Water Well Sample**

- No Detections of the Analyzed PFAS Substances
- One or more of the Analyzed PFAS Substances Detected
- One or more of the 7 PFAS Substances with Michigan DWC Detected at or Above Criteria
- Results Pending



Red star indicates the original property that self-sampled.

#### East 34 / Boon Rd

## **Results Pending**



#### **MPART**

**MICHIGAN PFAS ACTION RESP** 

## Cyclopure Self-Sample Test Kits

- The City of Cadillac has offered Cyclopure self test kits to residents that haven't sampled previously
- Haring Township is also coordinating Cyclopure self-sampling
- Results from self test kits are provided to MPART from local units of government
  - Private results are not being shared with the public because we do not have expressed permission from each resident
  - MPART maps the results internally to identify patterns and potential sources

#### Cyclopure and EGLE Lab

- Cyclopure uses a different collection method, but follows the similar lab methods used in the EPA methods
  - analysis of water samples is <u>validated</u> to the requirements of EPA Methods
- Because PFAS sampling is extremely sensitive and there is a potential for cross contamination, rigorous sampling and quality control procedures are necessary
- EGLE attempted to resample 6 locations w/exceedances to verify results but were only given permission to resample 4 locations
- EGLE results did not confirm the presence of PFAS at the four locations
  - EGLE's samples are collected using EPA quality control methods, by staff that have collected over 6,000 samples
  - EGLE Lab is an EPA-certified lab that performs EPA's approved drinking water methods

## Cyclopure/ EGLE Comparison Data

	Cyclopure Collected 3/8/2025	EGLE Lab Collected 4/29/2025
PFOA	11.6	ND
PFOS	22	ND
PFHxS	ND	ND
PFNA	ND	ND
GenX (HFPO- DA)	ND	ND
PFBS	ND	ND

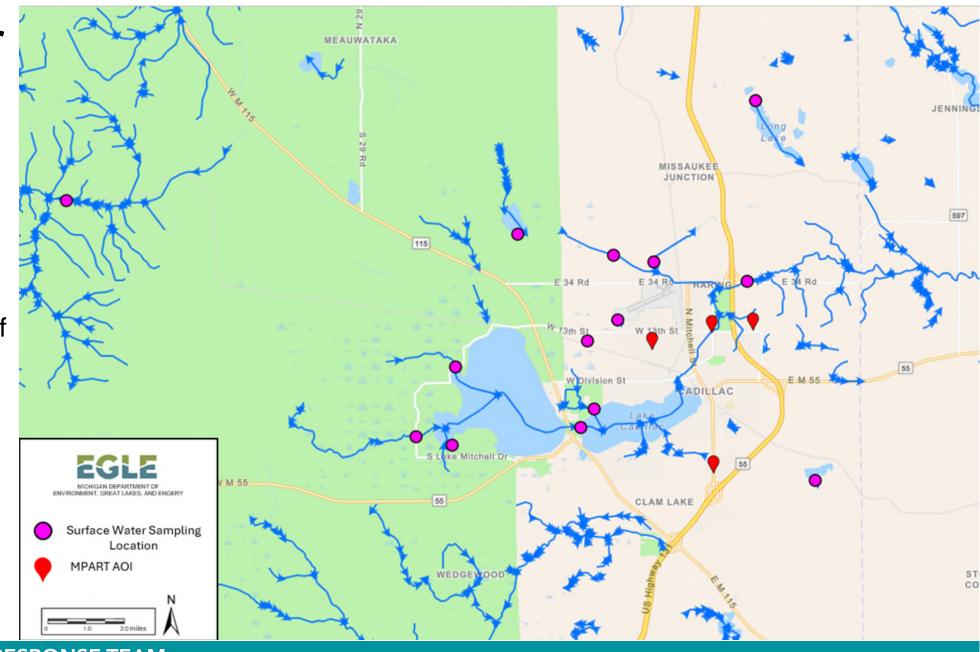
	Cyclopure Collected 3/9/2025	EGLE Lab Collected 4/30/2025
PFOA	24.7	ND
PFOS	24.2	ND
PFHxS	ND	ND
PFNA	ND	ND
GenX (HFPO- DA)	ND	ND
PFBS	ND	ND
PFHpS	1.2	ND

	Cyclopure Collected 3/6/2025	EGLE Lab Collected 4/29/2025
PFOA	19.4	ND
PFOS	24.1	ND
PFHxS	ND	ND
PFNA	ND	ND
GenX (HFPO- DA)	ND	ND
PFBS	ND	ND

	Cyclopure Collected Date N/A	EGLE Lab Collected 4/30/2025
PFOA	22.3	ND
PFOS	31.8	ND
PFHxS	ND	ND
PFNA	ND	ND
GenX (HFPO- DA)	ND	ND
PFBS	ND	ND

## Surface Water Sampling

- EGLE previously sampled surface water in Cadillac for PFAS in 2022
  - No exceedances were found
  - Concentrations of PFAS were predominately at or around background levels
- Map shows locations planned for sampling today (May 29<sup>th</sup>)



## Cadillac Area Public Water Supplies

Scott Kendzierski, Emerging Contaminants Unit Michigan Department of Environment, Great Lakes, and Energy 231-340-8376

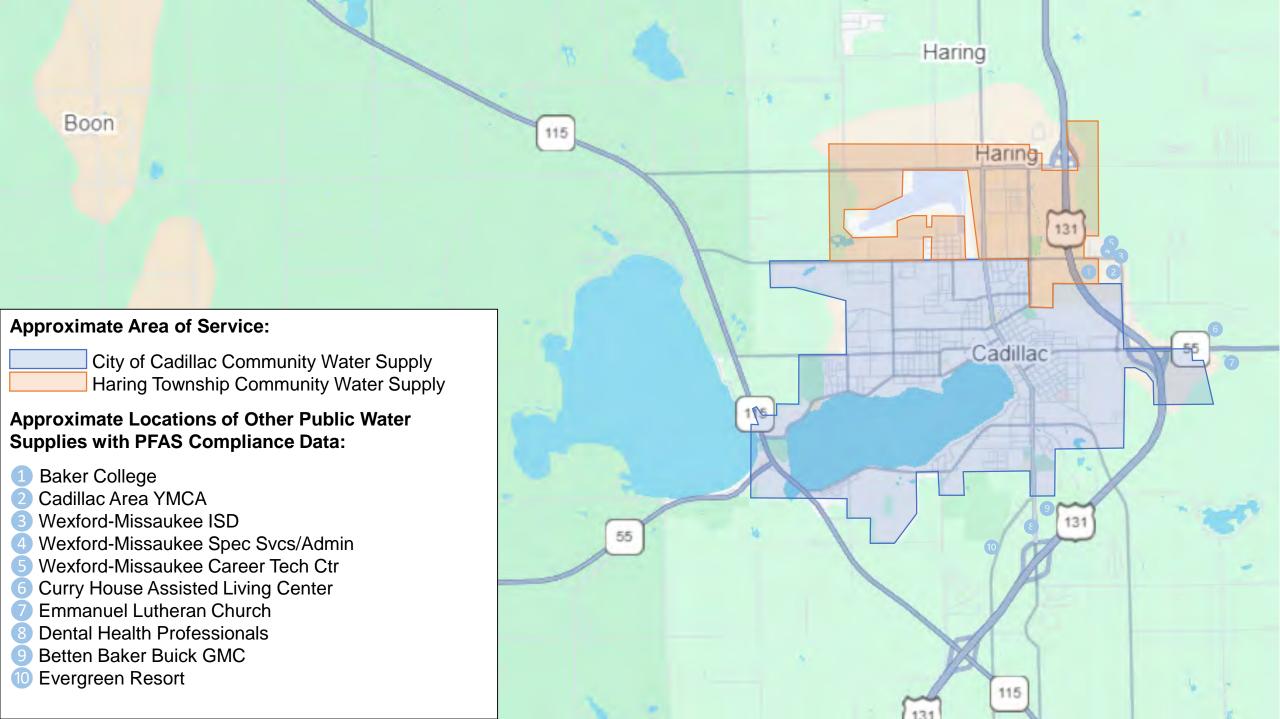
KendzierskiS@michigan.gov

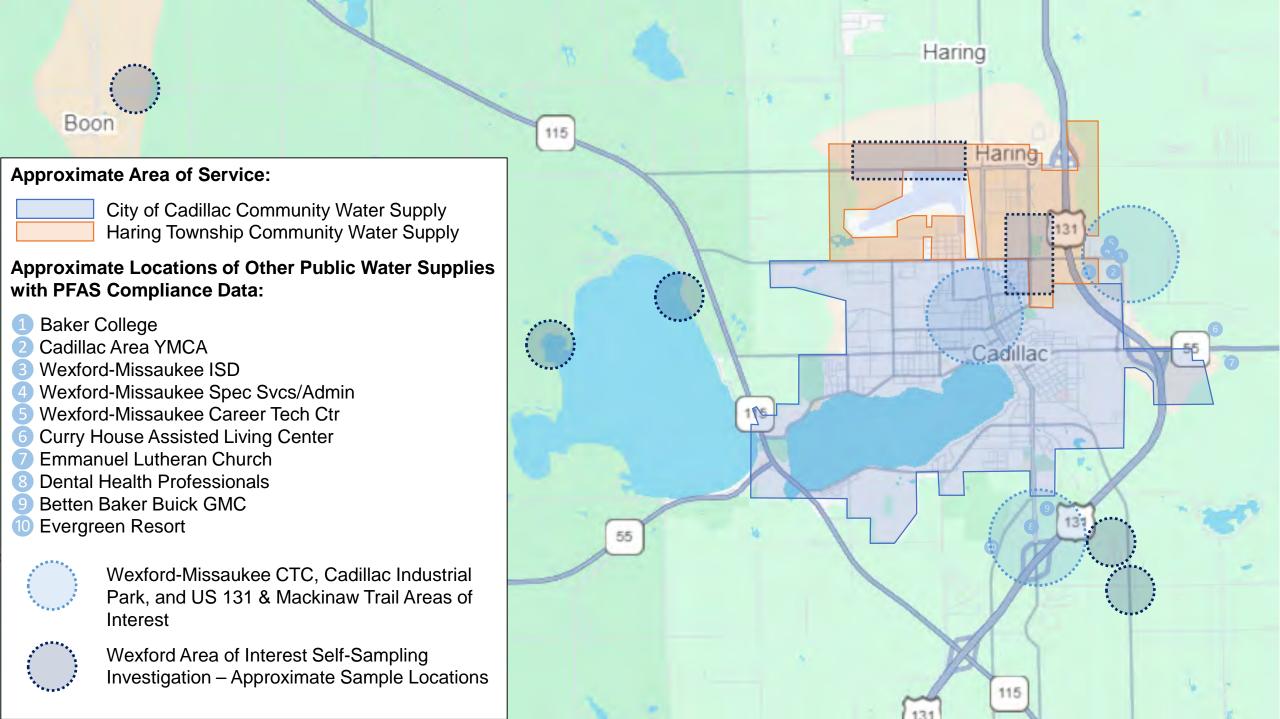
## Public Water Supplies

The region in and around the areas of interest includes two municipal community water supplies (CWS). These are the City of Cadillac CWS and the Haring Charter Township CWS.

- The City of Cadillac CWS is currently on an annual sampling schedule with all past compliance monitoring results non-detect for all tested PFAS.
- The Haring Charter Township CWS is currently on a quarterly sampling schedule with past compliance monitoring detections below corresponding MI MCLs or non-detect for all tested PFAS.

The remainder of the region primarily utilizes private residential wells for drinking water with several smaller community and noncommunity water supplies present as well.





#### Summary:

- The best thing a private well owner can do is sample their well and/or purchase a filter to protect your family
- There are 1 million residential wells in Michigan
- MPART will continue to review self-sample results provided to us
- The project team will continue to evaluate if additional investigation / sampling is needed
  - Science/data will drive these decisions

Questions?

# MICHIGAN PFAS ACTION RESPONSE TEAM (MPART)

www.Michigan.gov/PfasResponse













