



MPART PFAS Town Hall
Yankee Springs Township

September 28, 2023

MPART

MPART PFAS Town Hall Yankee Springs Township

Abigail Hendershott, MPART Executive Director
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Introductions, Logistics and Agenda

- Introductions – Abigail Hendershott, MPART Executive Director
- Agenda:
 - MPART Overview – Abigail Hendershott
 - Health – Lisa Fischer, Michigan Department of Health and Human Services
 - Investigation Area – Lynn Gosson, Michigan Department of Environment, Great Lakes, and Energy
 - MPART Website – Abigail Hendershott
 - Q&A

Michigan PFAS Action Response Team (MPART)



- Executive Order 2019-03
- Unique Multi-Agency Approach
- Leads Coordination and Cooperation Among All Levels of Government
- Directs Implementation of State's Action Strategy

Per- and Polyfluoroalkyl Substances (PFAS)



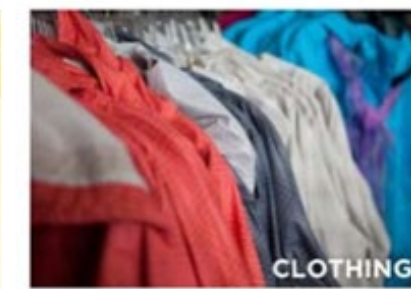
What are they?

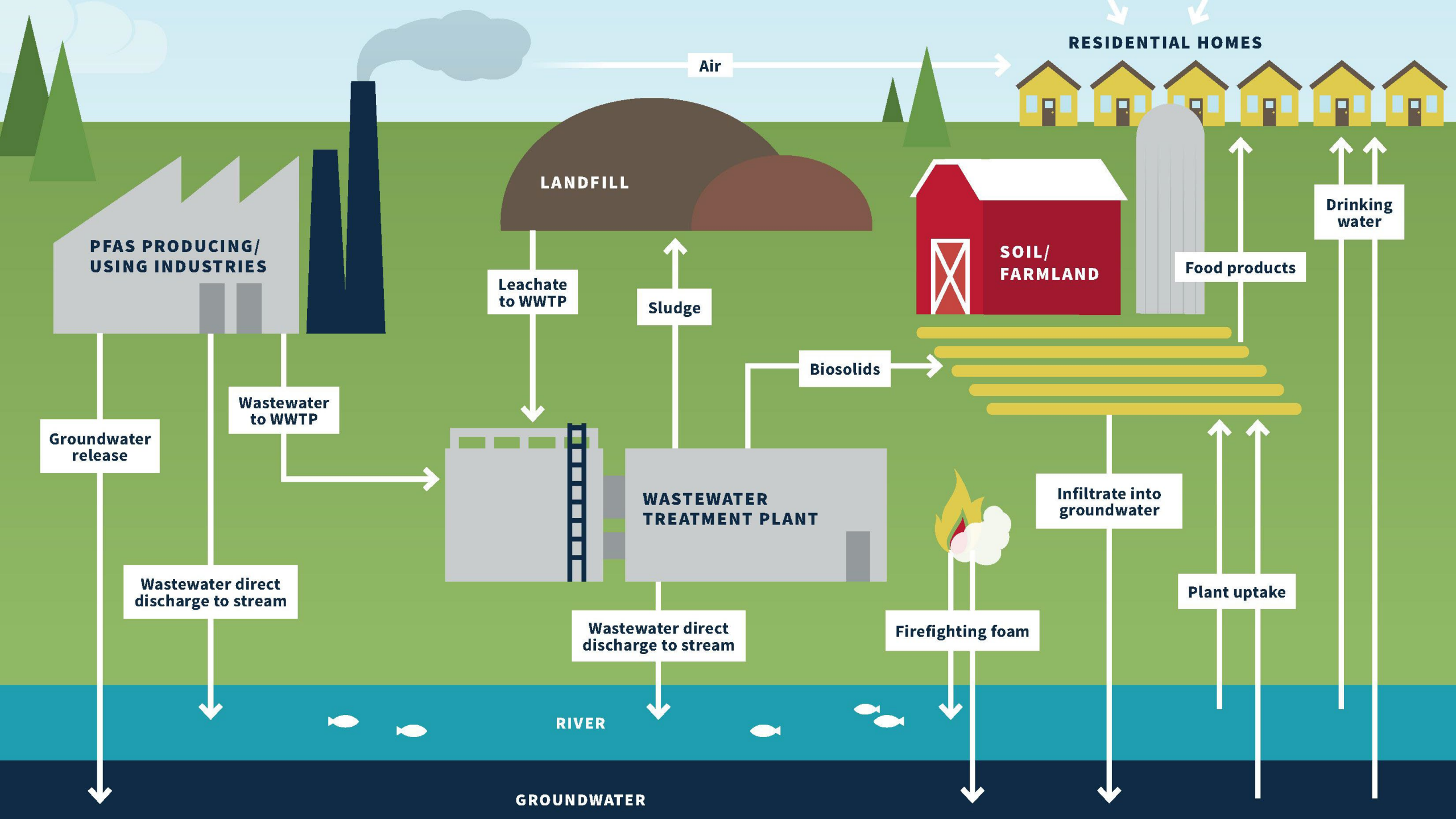
- Strong Carbon-Fluorine Bonds
- Surfactants
- Highly Stable
- Repel Water, Oil, Fat, and Grease
- Began Developing in 1940s
- 5,000+ Compounds Today

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
- Lack of Federal Standards

PFAS Uses





What is Michigan doing?

Protect Public Health

- Investigating where PFAS is in the environment
 - Drinking water, groundwater, water bodies
- Developed and enforcing, standards for PFAS in surface water, drinking water, and groundwater cleanup standards
 - Modifying standards as science evolves
- Educating the public to:
 - Prevent future contamination
 - Minimize future use of PFAS



Michigan PFAS Groundwater Clean-up and Drinking Water 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



Lakes and Streams Investigations

- Collecting water and fish samples

eat safe fish in Michigan

Learn about eating safe,
local, and healthful fish
from our
Great Lakes State.



www.michigan.gov/eatsafefish

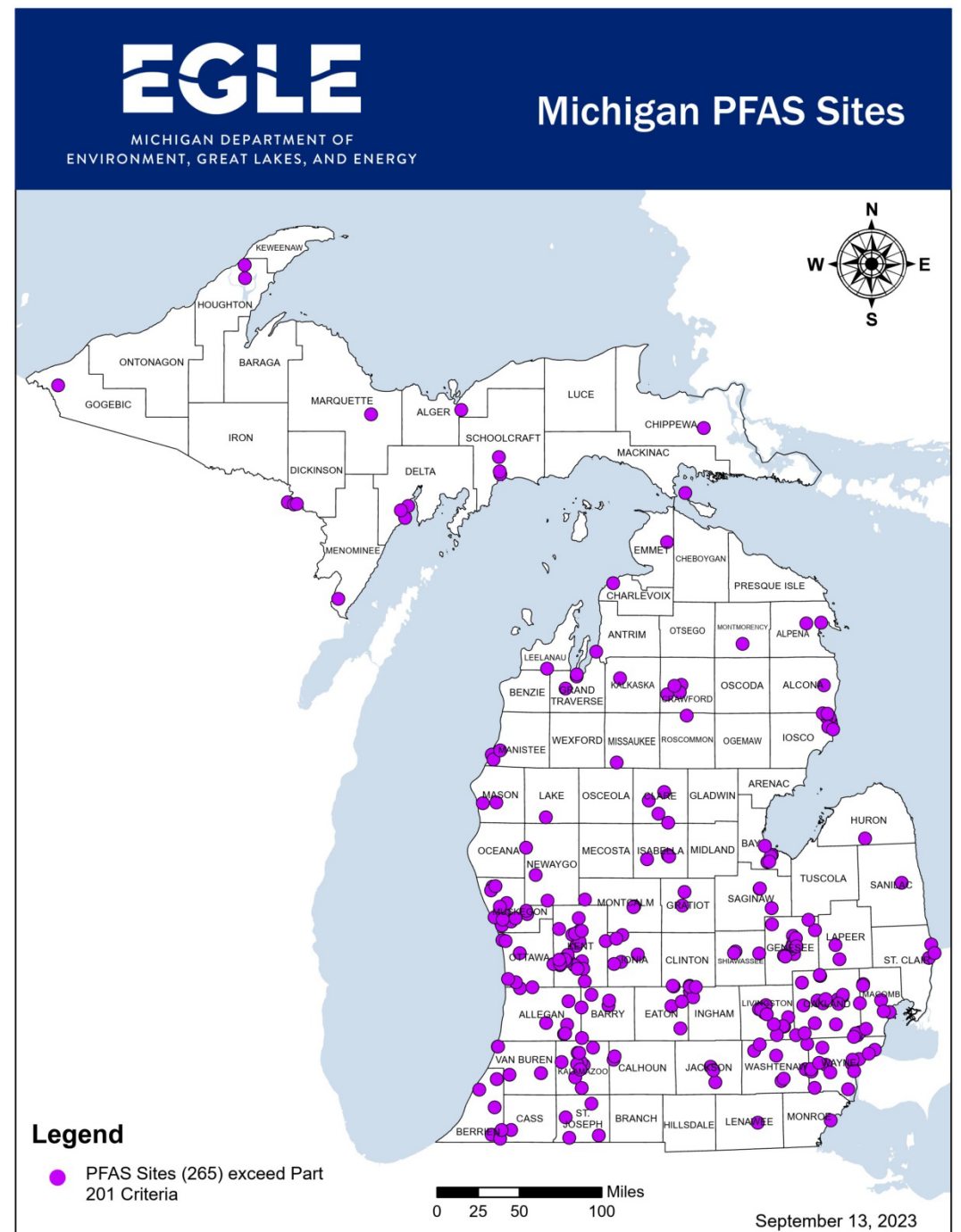
Fish Sampling

- 800-1000 fish filets sampled every year for PFAS around the state.



Michigan PFAS Sites

- Prioritized Investigations Based on Known or Suspected Sources, Potential for Exposure
- Protect Drinking Water Pathway
- [List of PFAS Sites and Areas of Interest](#)

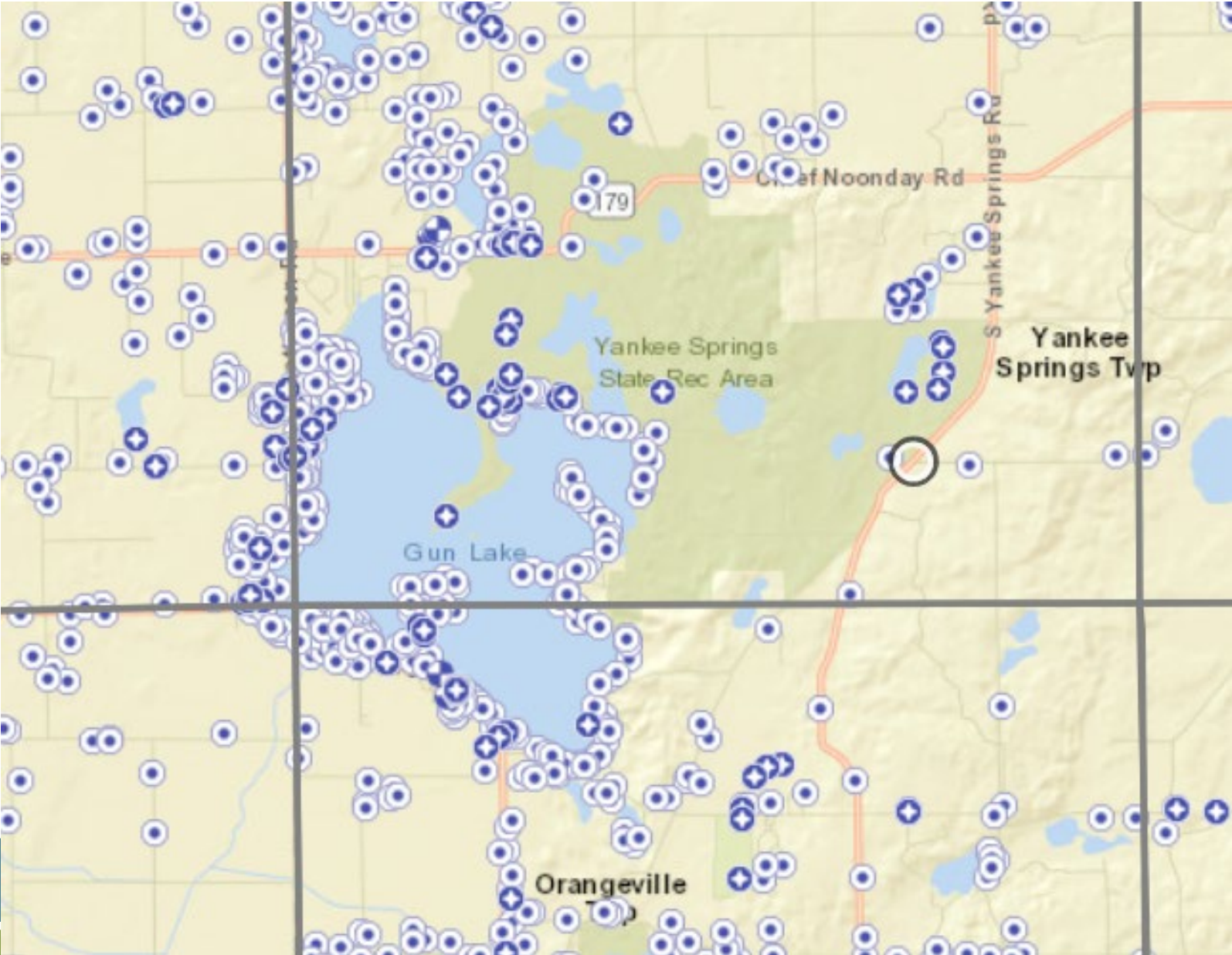


MPART PFAS Sites in the Area



A PFAS site is where a valid groundwater sample result exceeds one or more of Michigan's seven PFAS criteria, and based on data, EGLE has determined the property is the location of the source of PFAS contamination.

Drinking Water Wells



Questions for Homeowners

- Do you have a private drinking water well or are you connected to municipal water?
 - Municipal water is tested regularly
- How can I test my own drinking water well for PFAS?
- What else should I test my water tested for i.e., metals, arsenic, nitrates, general chemistry, etc.?
 - *Contact your Barry-Eaton County Health Department at 269-945-9516 for guidance or MDHHS Drinking Water Hotline at 800-648-6942. They can help you understand potential risks based on where you live.*

First Steps for Avoiding 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 [Certified PFAS Laboratory](#) 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



Next Steps to Avoid PFAS

- After drinking water, the food you eat is the next most common risk of being exposed to PFAS
- EGLE partners with MDHHS to sample fish throughout Michigan water bodies for PFAS, heavy metals, mercury, and PCBs
 - The recommendations based on these samples can be found in the Eat Safe Fish Guide <https://www.michigan.gov/mdhhs/safety-injury-prev/environmental-health/topics/eatsafefish/guides>



PFAS in Food

- Since 2019, the Food and Drug Administration (FDA) has been testing a variety of foods
 - Includes foods purchased at groceries stores nation-wide like bread, dairy, produce, meat, processed foods, etc.
 - Sampling is approximately a quarter of the way complete
 - *At this point, FDA cannot use data from testing for PFAS in the Total Dietary Supply samples to draw definitive conclusions about specific foods.*
 - Thus far, the FDA study has found very few samples of food containing detectable levels of PFAS
 - The highest concentrations of PFAS appeared mostly in seafood
 - For more information visit the FDA website: [Testing Food for PFAS and Assessing Dietary Exposure](#)



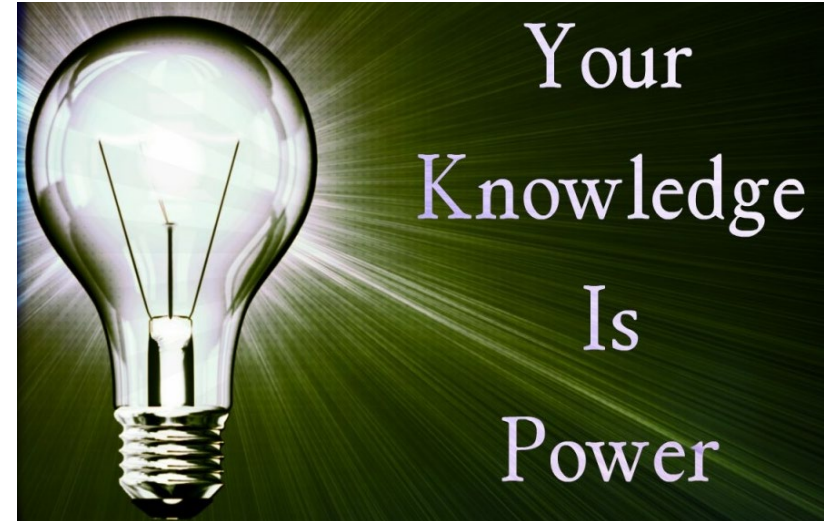
Info About PFAS-Free Products



	Website							
	PFAS Central	EWG	Mamavation	EWG Skin Deep	Clearya	EGLE Field Guide	Mass. OSD Guide	EPA Safer Choice List
Cosmetics and personal care products	✓	✓	✓	✓	✓	✓	✓	
Apparel and shoes	✓	✓	✓				✓	
Carpets and rugs	✓	✓					✓	
Furniture	✓	✓					✓	
Textiles and textile technologies	✓	✓					✓	
Water/ stain repellent	✓	✓						
Outdoor gear	✓	✓						
Baby/child products	✓		✓					
Food ware	✓	✓	✓				✓	
Home maintenance products	✓						✓	✓
Overall tips for avoiding PFAS in products							✓	✓

Note that MPART cannot endorse products and cannot verify claims made by manufacturers claiming to distribute PFAS-free products. MPART has not evaluated or verified conclusions on the websites listed on this chart.

Purchasing Products



- PFAS can be found in many types of packaging, not just food products
- Carpets and rugs have historically been treated with PFAS, meaning dust in your home can contain PFAS
 - See the previous slide for sites to explore when purchasing products

Cookware and Labeling

- FDA allows products meant for preparing food, like pots and pans, to be made with PFAS due to the non-stick qualities of the chemicals
- **Some products may claim** to be free of a specific type of PFAS, such as “PFOS and PFOA free”. This may not mean they don’t contain other types of PFAS



HEALTHY LIMESTONE NONSTICK

100% Free OF PFOA, PFOS, PFBS, GENX, APEO



SGS

FDA



**DISHWASHER SAFE. NO WARPING.
ULTRA NONSTICK. 100% PFOA FREE.**

Food Packaging


- FDA allows the use of certain types of PFAS in paper/paperboard food packaging to prevent grease from foods leaking out of the packaging
 - Includes fast-food wrappers, microwave popcorn bags, take-out paperboard containers, pet food bags, etc.
 - FDA: [Authorized Uses of PFAS in Food Contact Applications](#)
- There are currently no laws in Michigan requiring manufacturers to disclose on packaging if they use PFAS in their products





Citizens Advisory Workgroup

Michigan.gov/MPARTCAWG

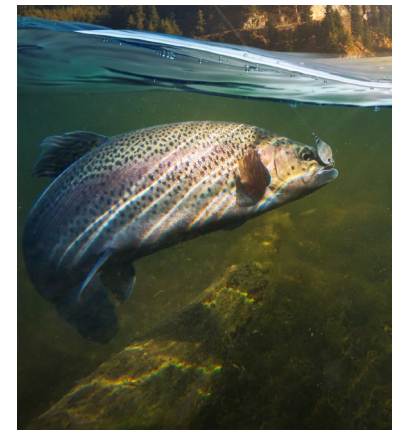
- Residents From Impacted Communities
 - Key Charges:
 - Recommend How to Engage and Empower Communities
 - Recommend How to Educate the General Public
 - Residents interested in becoming a CAWG Member:
 - Read the [CAWG Charter](#)
 - Submit a [Membership Registration Form](#)
- 

PFAS and Health

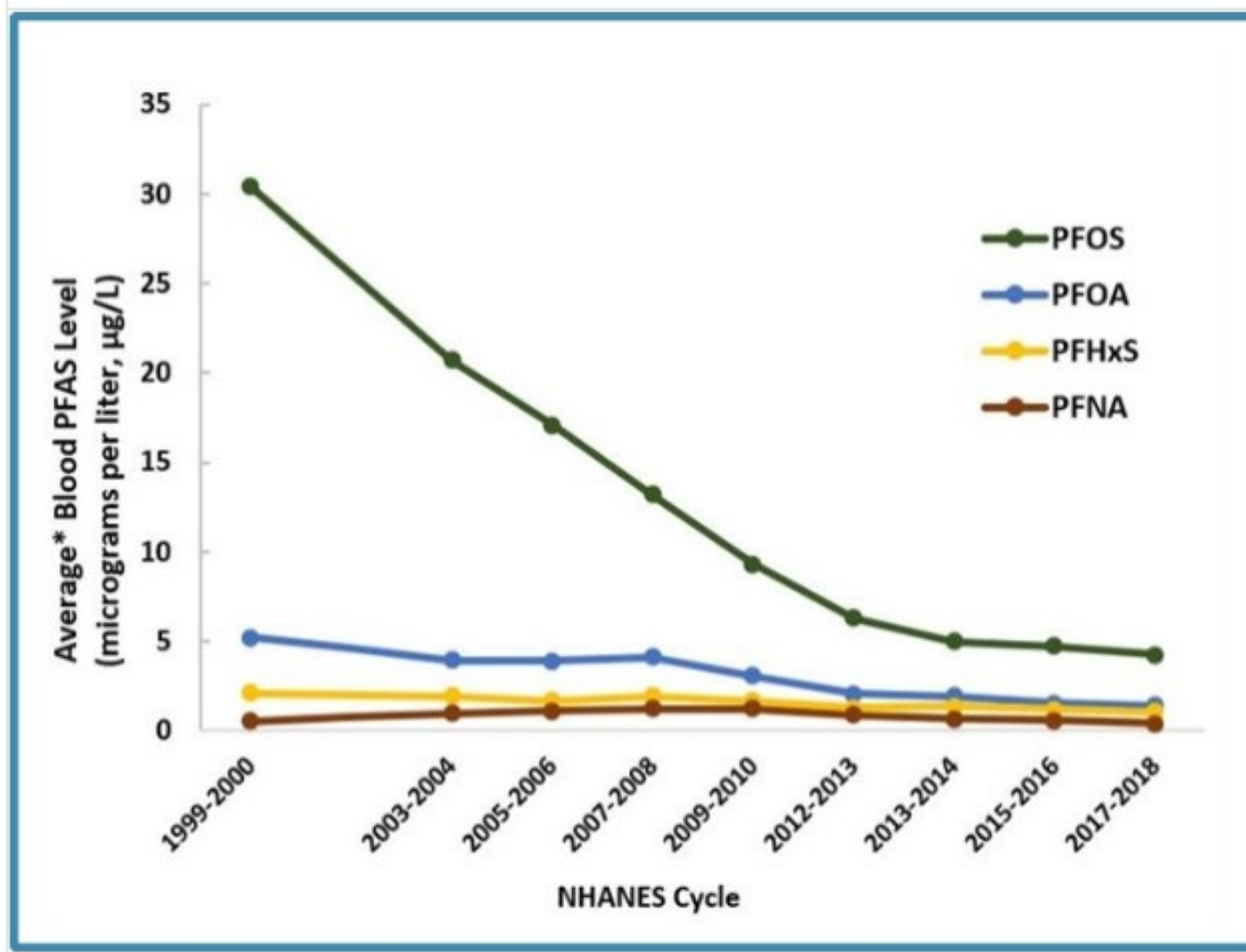
Lisa Fischer, Toxicologist
Michigan Department of Health and Human Services
517-331-2523
FischerL@Michigan.gov

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

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.

Eating Fish from Michigan's Lakes & Rivers

Michigan.gov/eatsafefish



Thornapple Lake

(same guidelines as the Thornapple River upstream of the Middleville Dam)

Type of Fish	Chemicals of Concern	Size of Fish (length in inches)	MI Servings per Month*
Bluegill	Mercury	Any	8
Largemouth Bass	Mercury	Under 18"	1
		Over 18"	6 Per Year
Rock Bass	PFOS	Any	2
Smallmouth Bass	Mercury	Under 18"	1
		Over 18"	6 Per Year
Suckers	Mercury	Any	4
Sunfish	Mercury	Any	8

PFOS can't be reduced by trimming and cooking. Do not double MI Servings.

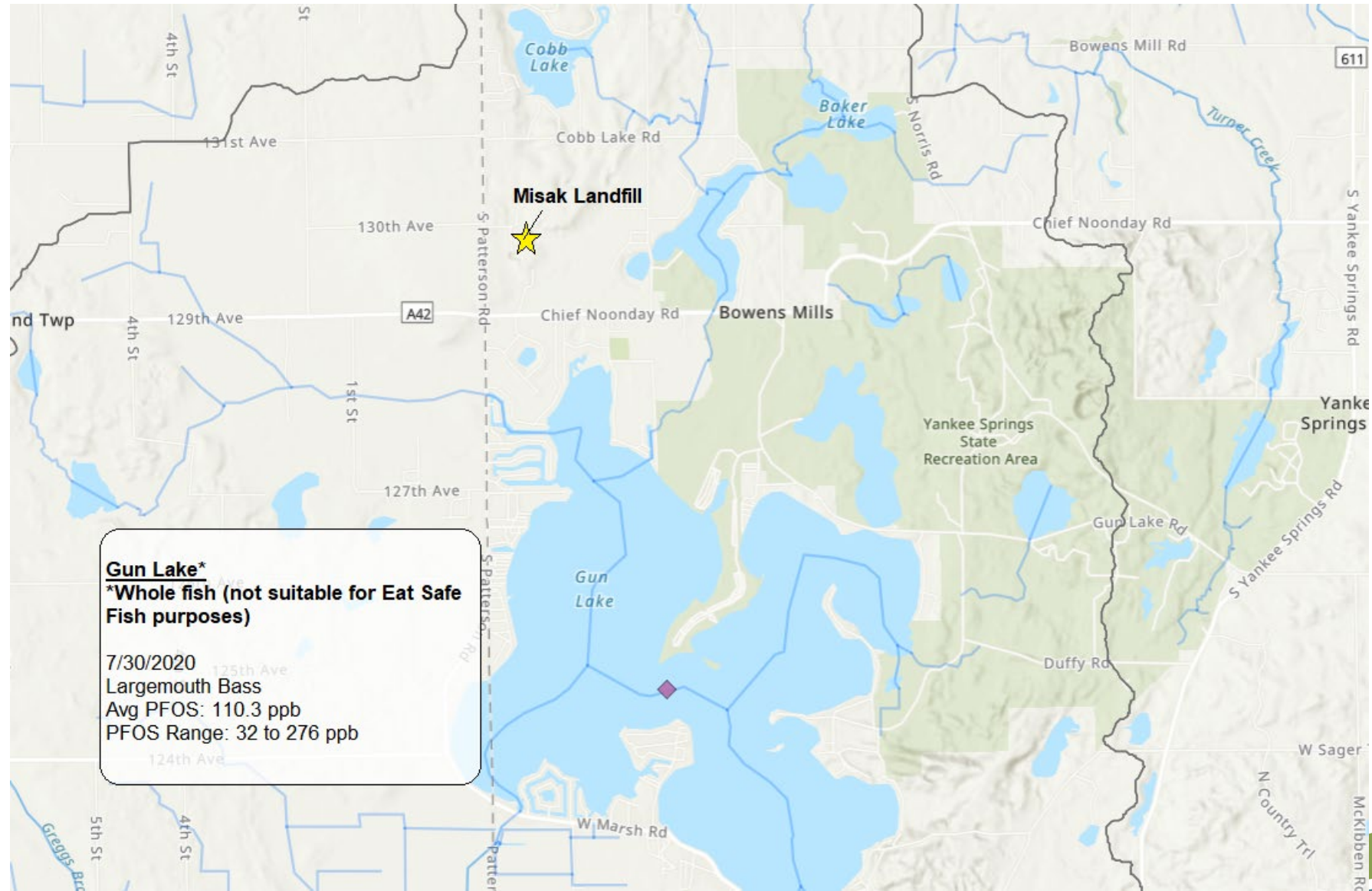
Gun Lake

Type of Fish	Chemicals of Concern	Size of Fish (length in inches)	MI Servings per Month*
Largemouth Bass	Mercury	Under 18"	1
		Over 18"	6 Per Year
Smallmouth Bass	Mercury	Under 18"	1
		Over 18"	6 Per Year

Payne Lake

Type of Fish	Chemicals of Concern	Size of Fish (length in inches)	MI Servings per Month*
Northern Pike	Mercury	Under 30"	1
		Over 30"	6 Per Year

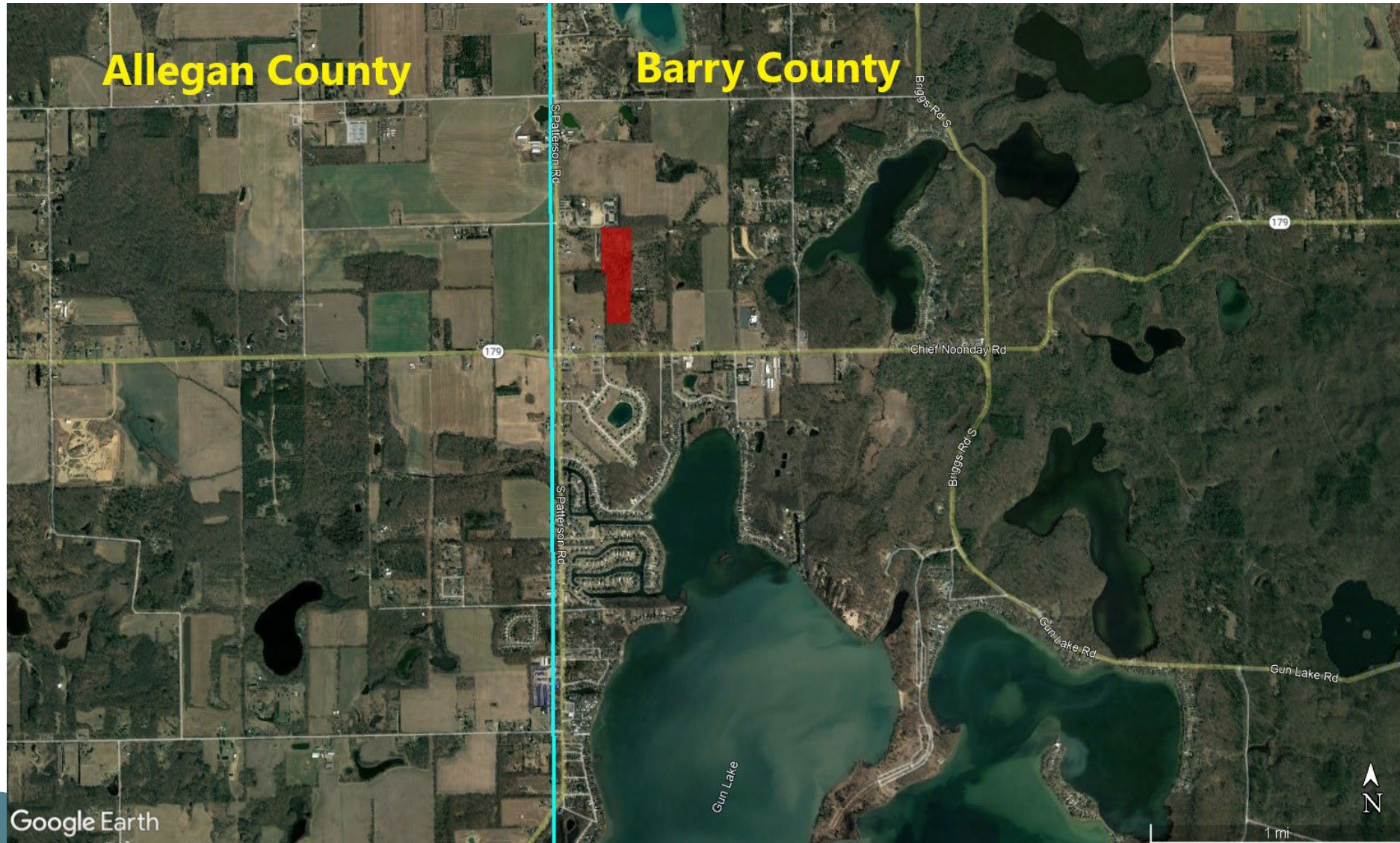
Fish Collection Data



PFAS Investigation Misak Landfill

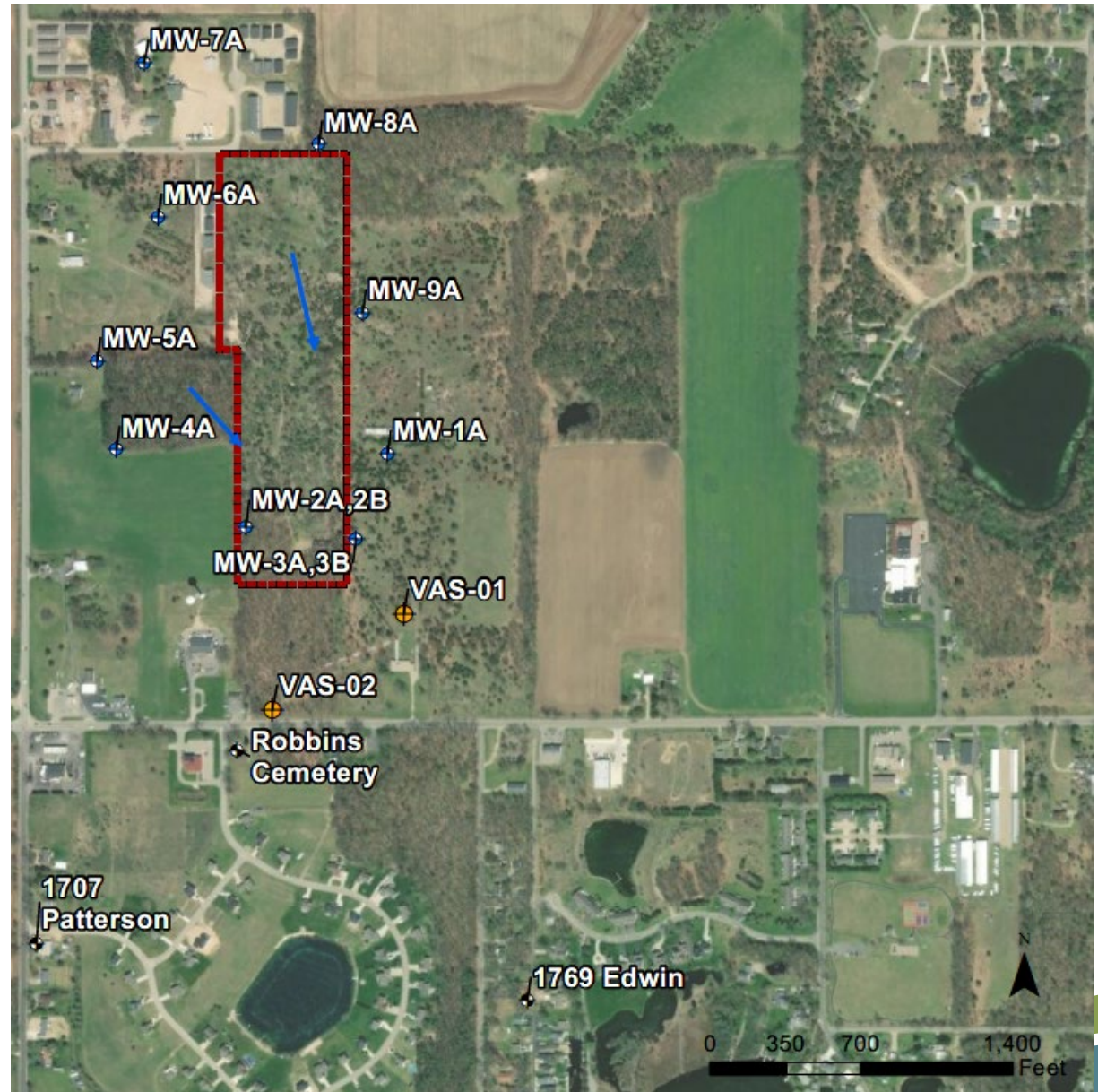
Lynn Gosson, PFAS Site Lead
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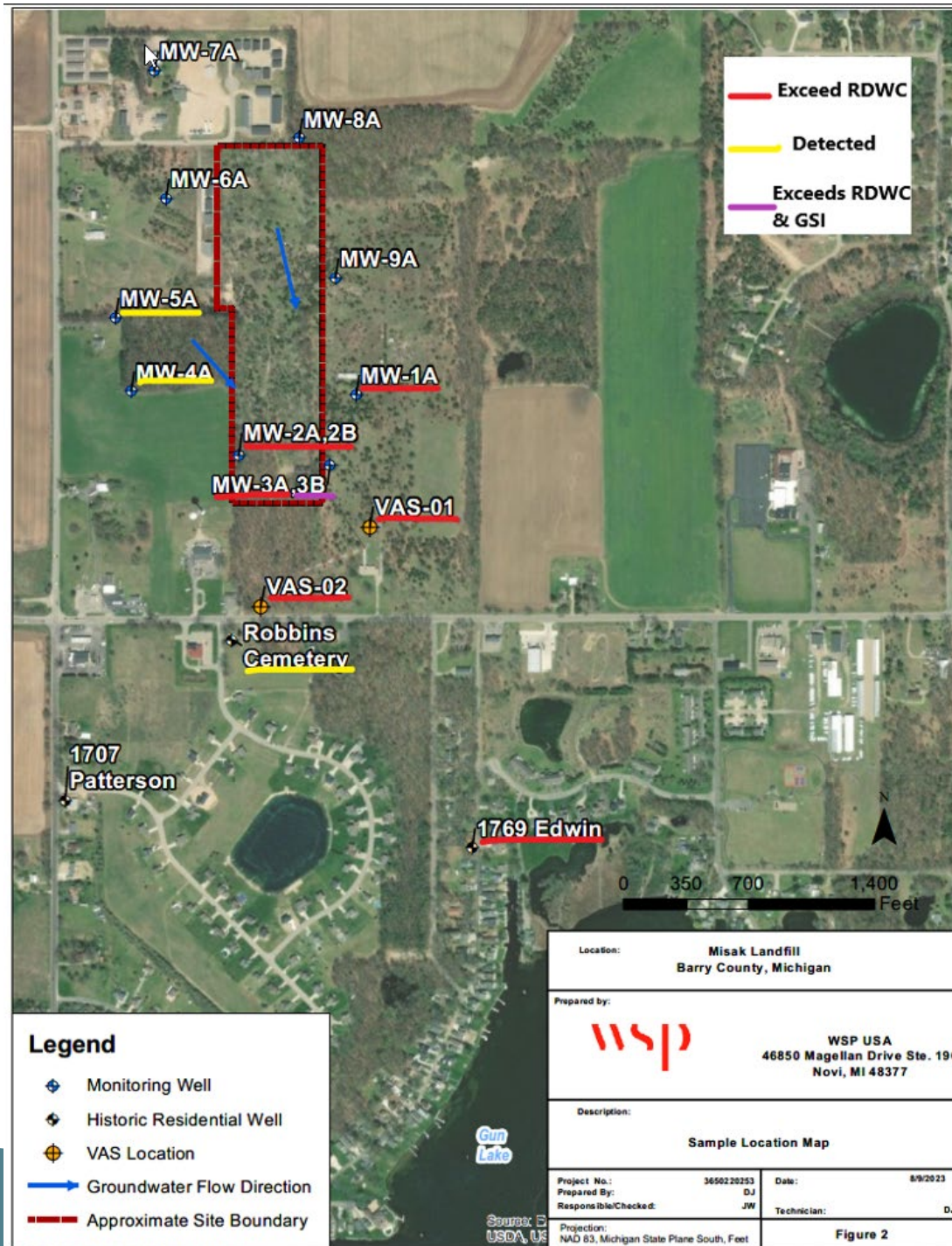
Misak Landfill



Sampling Results

- EGLE sampled existing monitoring wells for PFAS 2022
 - PFOA in several wells above criteria
 - Highest result was 160 ppt PFOA
 - One well exceeded groundwater-surface water interface criteria for PFOS
- In 2023, EGLE sampled at two locations to better define the vertical extent of PFAS contamination near the former landfill
 - PFOA exceeded criteria in both locations
 - Highest result was 84 ppt PFOA





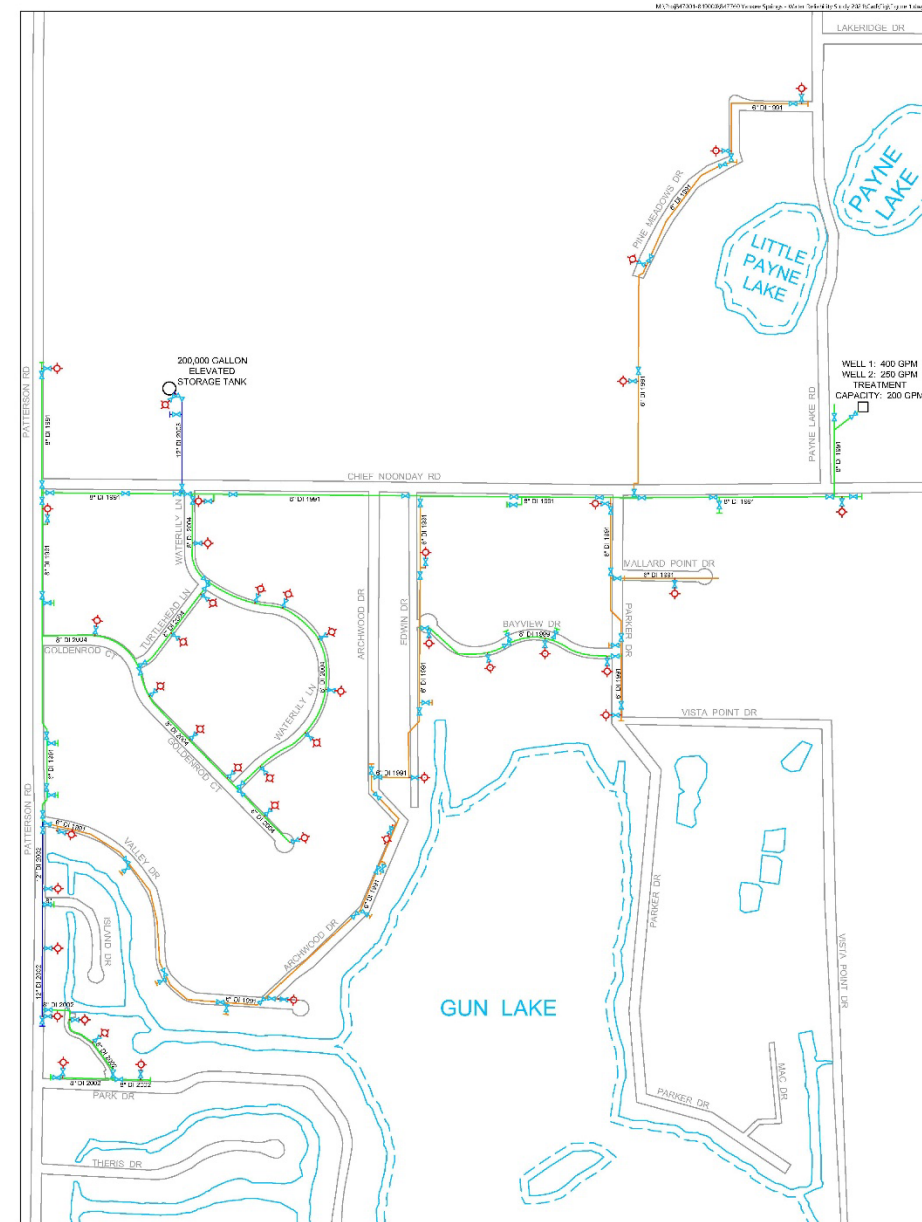
Next Steps

- Potentially additional residential well sampling
 - Notify property owners/occupants of well sample results
- Surface water sampling
- Fish collection
- Determine if further investigation is necessary

Public Water Supply

- The vicinity to the west of the 1075 South Patterson Road in Yankee Springs, Michigan is served by the Wayland community water supply (CWS), and by the Yankee Springs Township (CWS) to the east:
 - These supplies are on annual compliance monitoring
 - Results to date have been non-detect for all tested PFAS
- Additionally, three smaller public water supply subject to PFAS compliance monitoring are located nearby:
 - Indian Acres Mobile Home Park, Selkirk Lake Mobile Home Park, and Town and Country Supermarket
 - These are all on annual compliance monitoring
 - Results to date have been below MCLs or non-detect for all tested PFAS

Existing Water System



LEGEND

- 6" WATER MAIN
- 8" WATER MAIN
- 12" WATER MAIN
- ⬢ FIRE HYDRANT
- ⊕ WATER VALVE

YANKEE SPRINGS TOWNSHIP
BARRY COUNTY, MICHIGAN
WATER SYSTEM RELIABILITY STUDY

FIGURE 1:
EXISTING WATER SYSTEM

F&W
 ENGINEERS & ARCHITECTS

Reminders

- The easiest way to address the risk of repeated exposure to PFAS in your drinking water is by **testing your private drinking water well**
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- 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

Plugging Abandoned Wells

- Well owners are responsible to abandon the well
- Arrange for a registered well drilling contractor to plug the well
- [Plugging Abandoned Wells Fact Sheet](#)
- For more information contact:
 - Barry-Eaton County Health Department: 269-945-9516
 - EGLE: 517-599-6257

Resources to gain knowledge of contamination

- Sites of Environmental Contamination:
 - <https://www.mcgi.state.mi.us/environmentalmapper/>
- Residential Drinking Water Well Viewer
 - <https://www.mcgi.state.mi.us/waterwellviewer/>
- MPART Website tour:
 - <https://www.michigan.gov/pfasresponse/>
- Contact MDHHS Drinking Water Hotline at 800-648-6942.

MICHIGAN PFAS ACTION RESPONSE TEAM (MPART)

www.Michigan.gov/PfasResponse



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY



Questions?