

Welcome

MPART PFAS Regional Informational Webinar Southeast Michigan Region

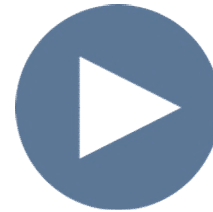
September 15, 2020

The Webinar will begin at 6:00 p.m.

Webinar Housekeeping



All lines are muted during the webinar.



We are recording this webinar

How to ask a question?



Submit your questions using the “**Q/A**” box in at the bottom of your screen.



Click the “hand” icon at the bottom of your screen.



Type *9 to raise your hand.

***9**

MPART PFAS Regional Informational Webinar

Southeast Michigan Region

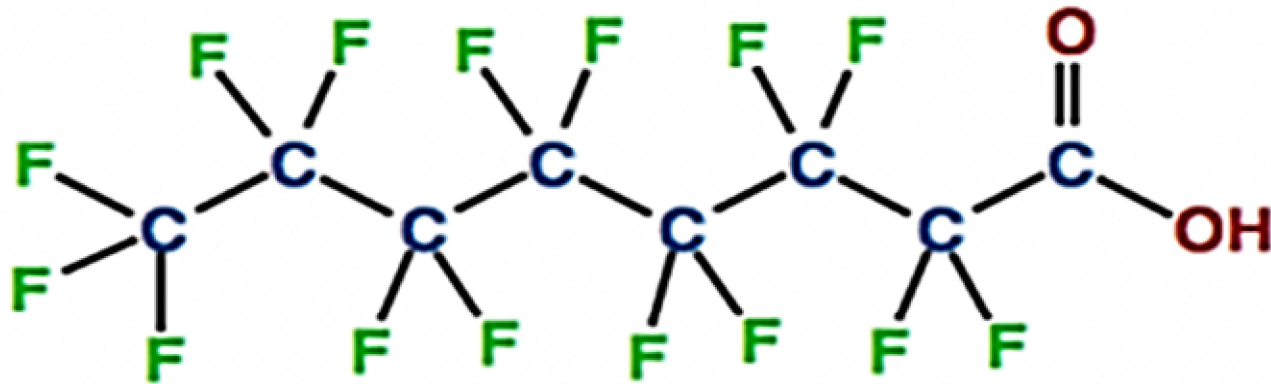
Steve Sliver, Executive Director
Michigan PFAS Action Response Team
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Michigan PFAS Action Response Team (MPART)



- 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)



PFOA - perfluorooctanoic acid

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

PFAS Uses



Aerospace



**Apparel and
Fabrics**



**Building and
Construction**



**Chemicals and
Pharmaceuticals**



Electronics



Oil, Gas, and Energy



Industrial



**Healthcare and
Hospitals**



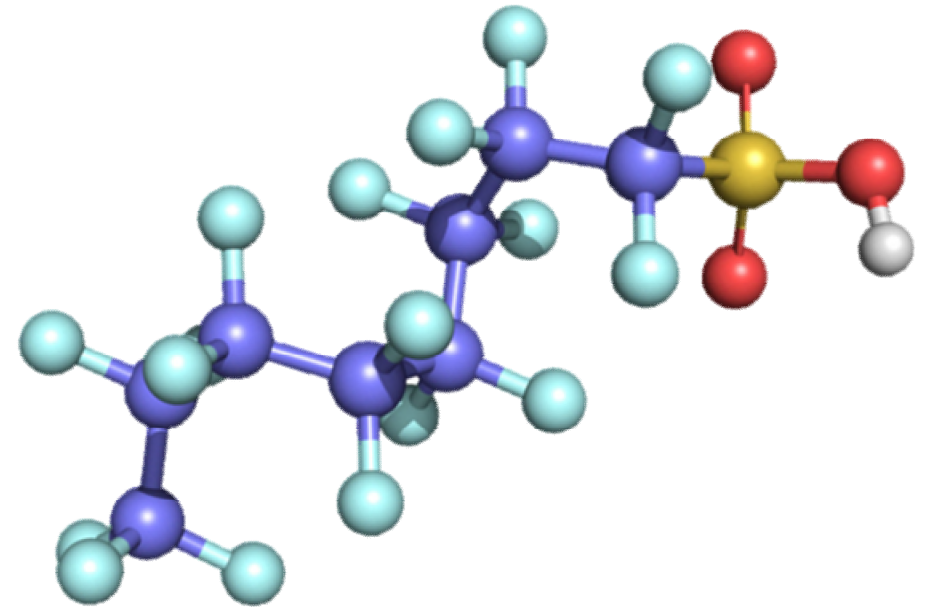
**Aqueous Film
Forming Foam**

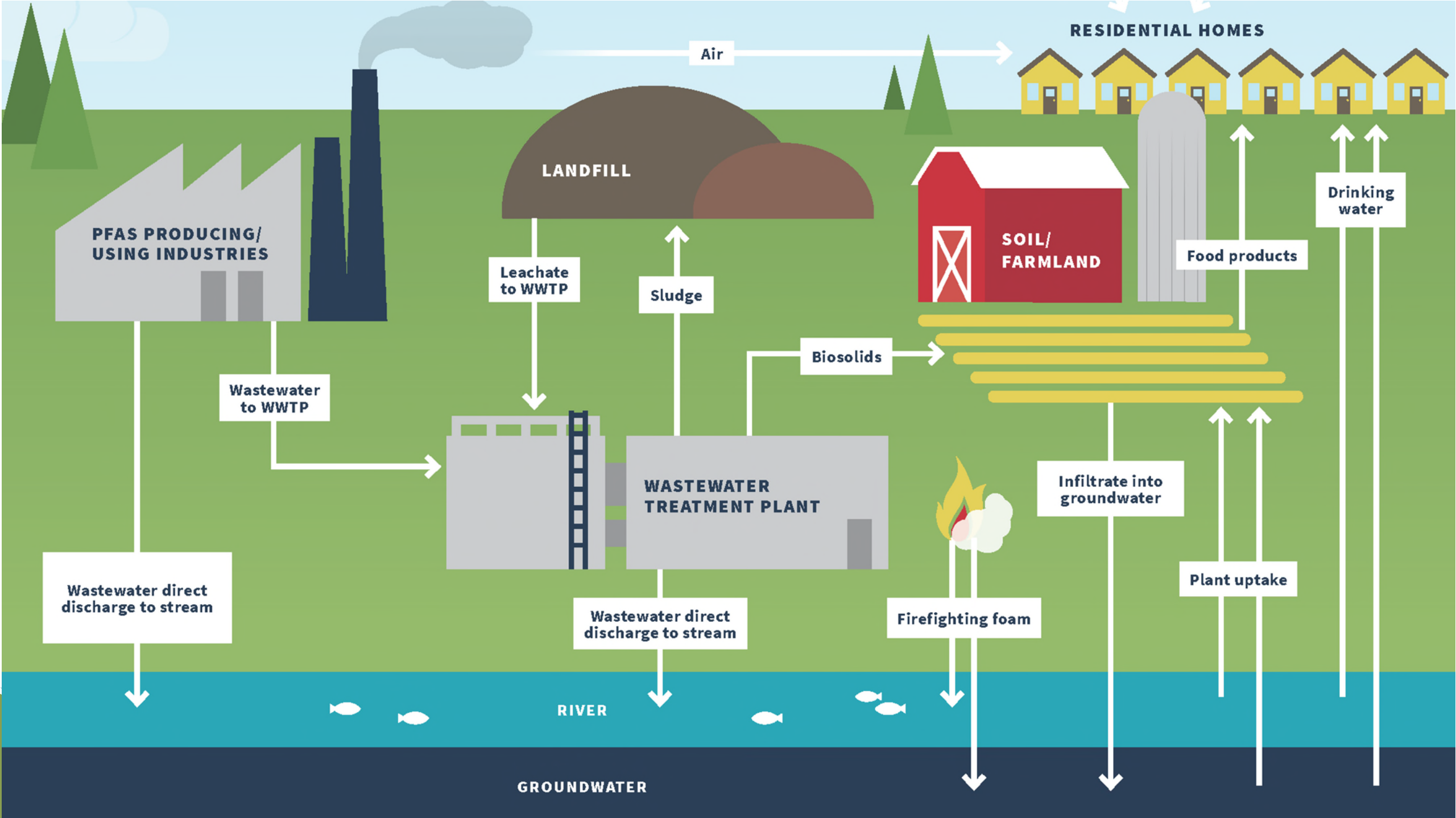


Food Packaging

Why the Concern?

- Widespread
- Don't Break Down Easily – Hard to Get Rid of
- Bioaccumulative – Build Up in Our Bodies
- Some PFAS May Affect Health
- Lack of Information
- Lack of National Regulations





RESIDENTIAL HOMES

Air

PFAS PRODUCING/
USING INDUSTRIES

LANDFILL

SOIL/
FARMLAND

Drinking
water

Leachate
to WWTP

Sludge

Food products

Wastewater
to WWTP

Biosolids

WASTEWATER
TREATMENT PLANT

Infiltrate into
groundwater

Wastewater direct
discharge to stream

Wastewater direct
discharge to stream

Firefighting foam

Plant uptake

RIVER

GROUNDWATER



Surface Water Investigations

- Survey of Surface Water and Fish
- Foam
- Wastewater



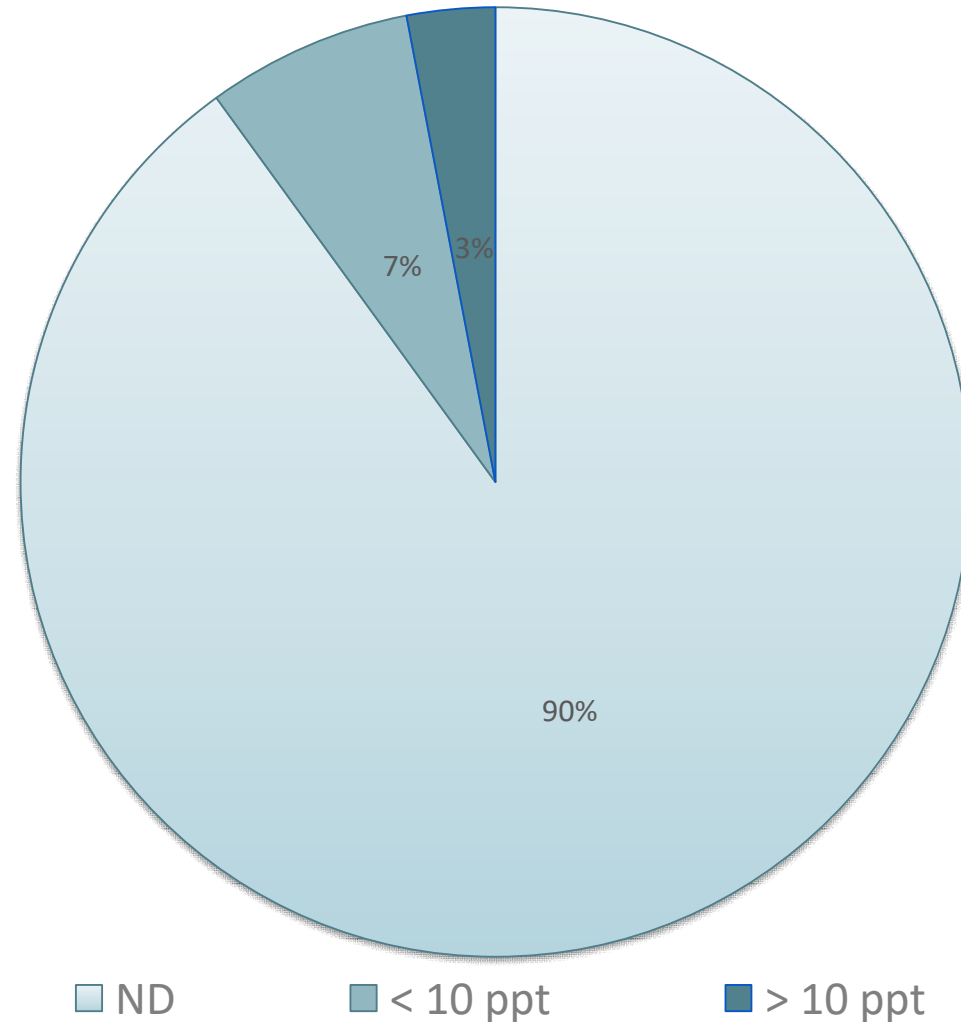
Public Water Supply Testing

- All Community Water Supplies (1,114)
- All Tribal Systems (17)
- Schools and Larger Day Cares (619)
- Additional Select Water Supplies
- Monitoring
 - All 65 Surface Water Systems
 - 61 Systems > 10 ppt Total PFAS

Total PFAS in MI Public Water Supplies

EPA Method 537 Rev 1.1

NEtFOSA	NMeFOSAA	PFBS
PFDA	PFDoA	PFHpA
PFHxS	PFHxA	PFNA
PFOS	PFOA	PFTA
PFTTrDA	PFUnA	





Drinking Water Standards

- No Federal Standards to Adopt
- Science Advisory Panel Report, December 2018
 - **70 ppt standard for PFOA/PFAS too high**
 - **Other PFAS should be considered**
- Michigan's Two-Step Approach
 - **Science Advisory Workgroup provided health-based values**
 - **EGLE promulgated standards in rule**

Michigan Drinking Water Standards

- Maximum Contaminant Levels (MCLs)
- August 3, 2020
- 2,700 water systems

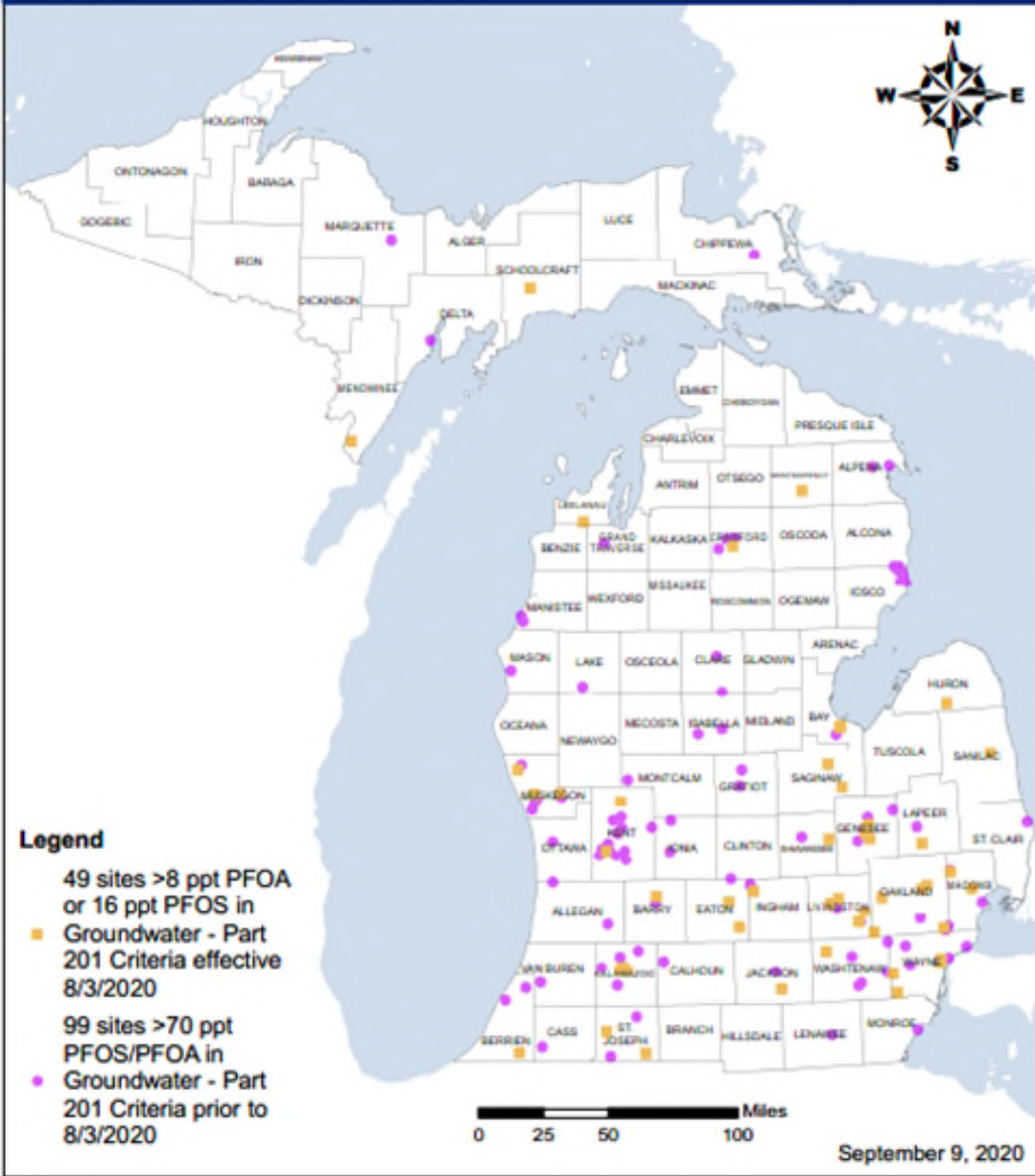
Compound	MCL	EPA Recommendation
PFNA	6 ppt	NA
PFOA	8 ppt	70 ppt combined
PFOS	16 ppt	
PFHxS	51 ppt	NA
GenX (HFPO-DA)	370 ppt	NA
PFBS	420 ppt	NA
PFHxA	400,000 ppt	NA

7 MCLs ≠ 7 Cleanup Criteria

- Groundwater cleanup criteria already in rule

Compound	Prior to 8/3/20	After 8/3/20
PFOA	70 ppt combined	8 ppt
PFOS		16 ppt

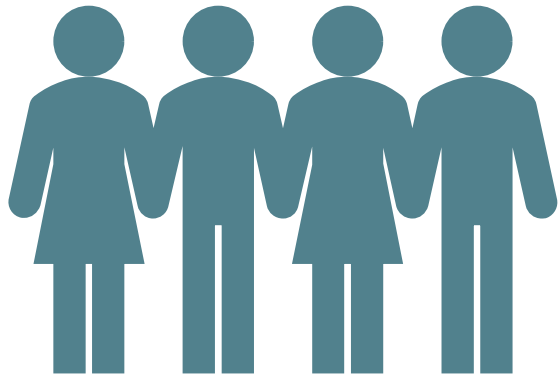
- Rulemaking necessary for other 5 MCLs to become groundwater cleanup criteria
- Important for how we define a PFAS site



PFAS Sites

- Exceed groundwater cleanup criteria
 - Expanded from 99 to 138 sites on August 3, 2020
- Prioritized Investigations Based on Known or Suspected Sources, Potential for Exposure
- Protect Drinking Water Pathway

Citizens Advisory Workgroup



- Residents From Impacted Communities
- Key Charges:
 - Recommend How to Engage and Empower Communities
 - Recommend How to Educate the General Public

PFAS and Health

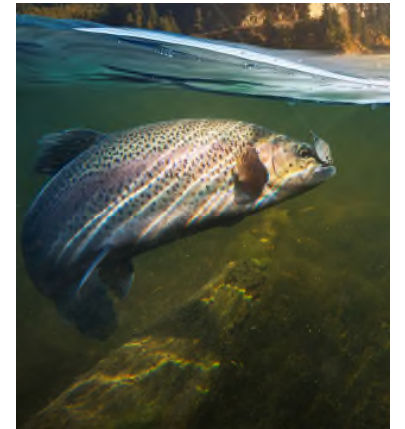
Lisa Fischer, Toxicologist
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The Role of MDHHS/Local Public Health

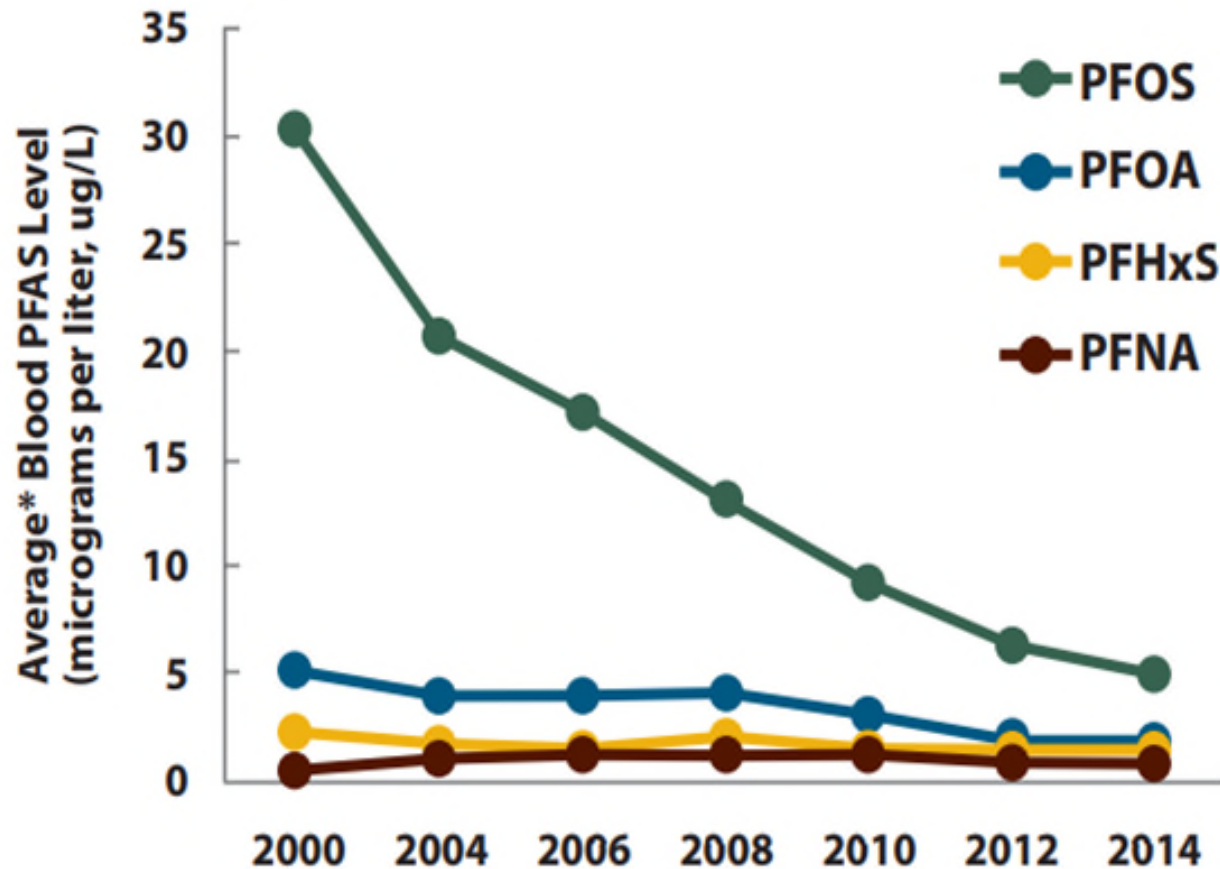
- Understand the health concerns facing your community
- Develop a plan to investigate and address health risks
 - EGLE leads the site investigation
 - MDHHS and the Local Health Department lead the public health planning and response
- Evaluate PFAS exposures to residents in the community
 - Recommend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

Exposure to PFAS Chemicals

- Drinking contaminated water
- Eating fish caught from water contaminated by PFAS
 - “Do Not Eat Fish” Advisories
- 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 2000-2014



* Average = geometric mean

Data Source: Centers for Disease Control and Prevention. Fourth Report on Human Exposure to Environmental Chemicals, Updated Tables, (January 2017).

Potential Associated Human Health Outcomes PFOA and/or PFOS

- Lowering a woman's chance of getting pregnant
- Increasing the chance of high blood pressure in pregnant women
- Increasing the chance of thyroid disease*
- Increasing cholesterol levels
- Changing immune response
- Increasing chance of cancer, especially kidney and testicular cancers

* PFOA only

Regional Site Investigations

Mary Carnegie

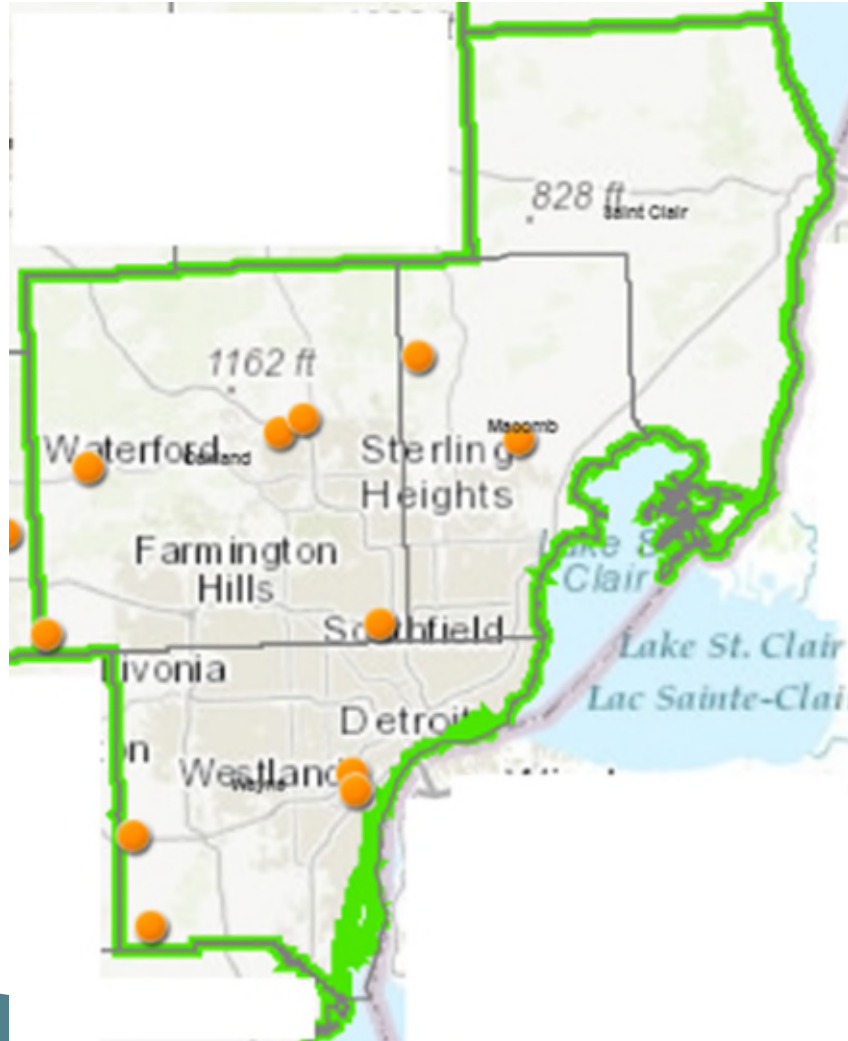
Warren District Office

Materials Management Division

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Regional PFAS Contact



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248-200-6469

Sites

- **Macomb County**

- South Macomb Disposal Authority Landfill #11
- South Macomb Disposal Authority Landfills 9/9A

- **Oakland County**

- Collier Road Landfill
- Hi-Mill Manufacturing Superfund Site
- Michigan Seamless Tube, LLC
- Oakland Heights Development Landfill
- Reichhold East Area

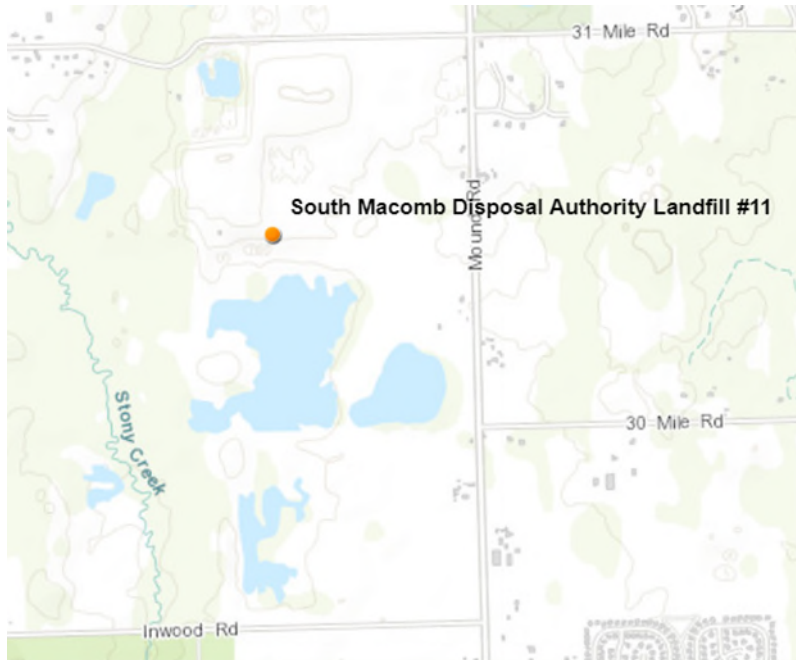
- **Wayne County**

- City Sand & Landfill Inc
- Marathon Refinery
- Rouge Manufacturing Complex
- Wayne Disposal Site 1 Landfill

What to Expect

- Location map
- Site address
- Why the site was sampled for PFAS
- Groundwater flow direction
- Residential wells and surface water where applicable
- Site lead contact information
- Local health department information
- Question and Answer

South Macomb Disposal Authority Landfill #11 Macomb County



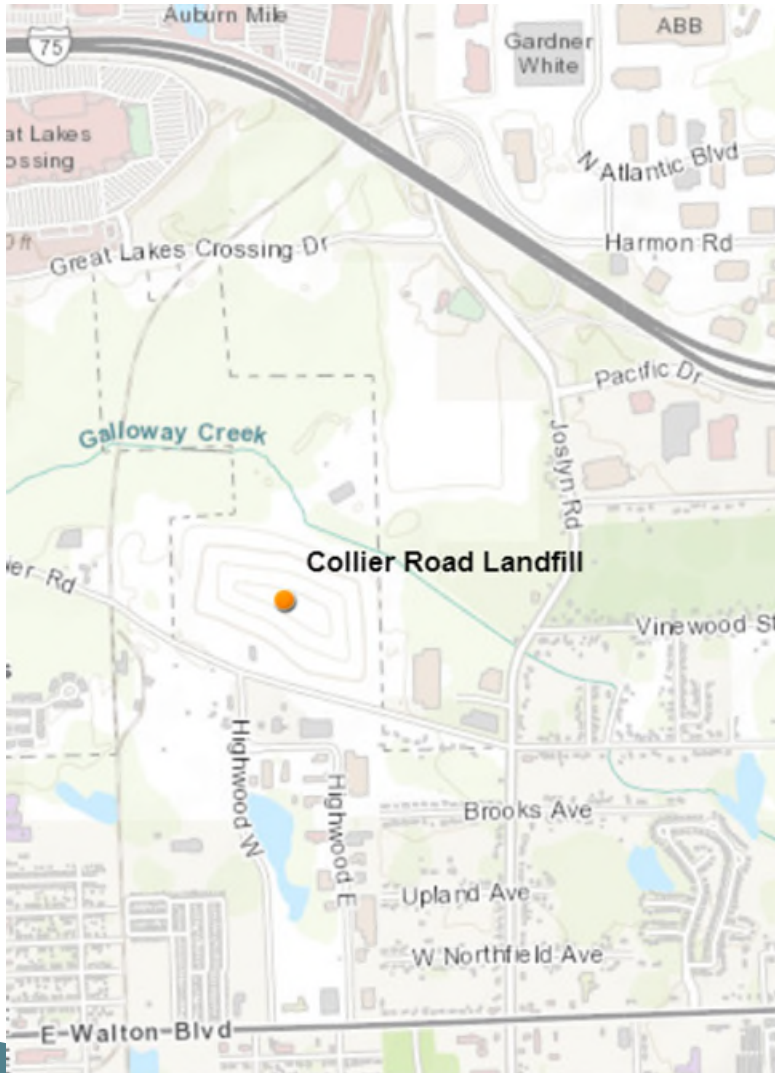
- 65921 Mound Rd, Washington Township
- Site has existing groundwater contamination; EGLE requested sampling for PFAS
- Groundwater flow direction: southwest-south
- EGLE is working with the local health department to determine a future residential well sampling plan

South Macomb Disposal Authority Landfills 9/9A Macomb County



- 21290 24 Mile Rd, Macomb Township
- Treatment system discharge was tested for PFAS (Great Lakes Water Authority - permit requirement)
- Groundwater flow direction: northeast & south-southwest (complicated geology)
- 9 residential drinking water wells are being evaluated for testing

Collier Road Landfill Oakland County



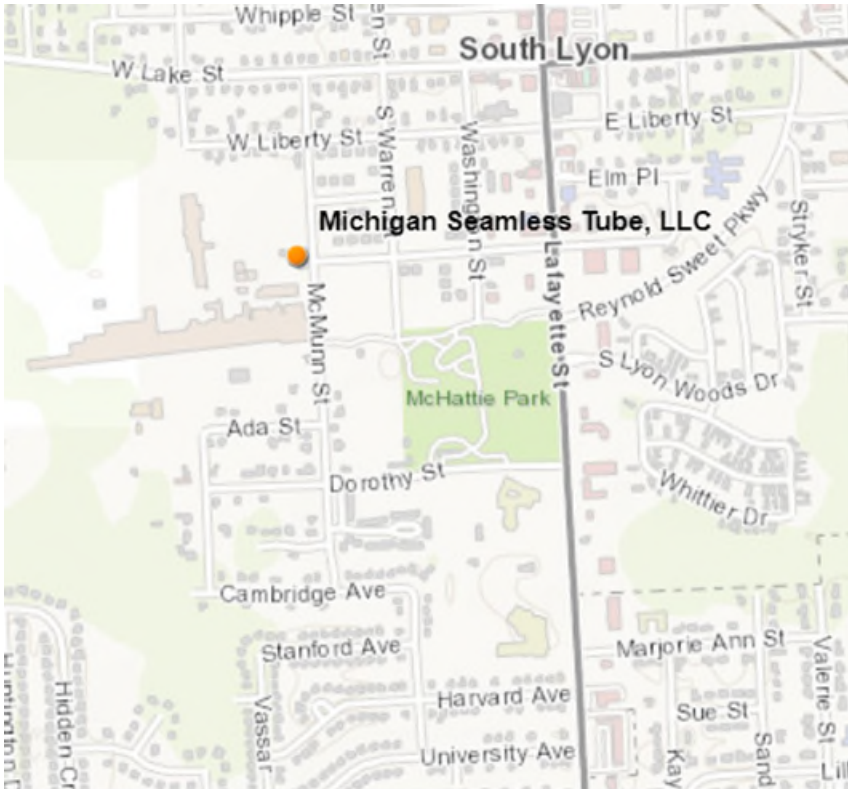
- 575 Collier Rd, Pontiac
- Sampled at EGLE's request
 - High priority landfill due to off-site impacts
 - Groundwater impacts of other parameters
- Groundwater flow direction:
 - Upper Aquifer: northeast
 - Lower Aquifer: southeast
- Currently working with the local health department to determine which residential wells require sampling
- The 2 storm water detention basins discharge to Galloway Creek; no known surface water sampling for PFAS.

Hi-Mill Manufacturing Superfund Site Oakland County



- 1704 E Highland Rd, Highland Township
- Groundwater samples collected in September 2019; two monitoring wells had exceedances for PFOA.
- Groundwater flow direction
 - Shallow aquifer: radial, predominantly west-southwest
 - Intermediate aquifer: west
- Highland Township municipal wells were sampled in 2018; results were non-detect. There are no residential wells nearby.

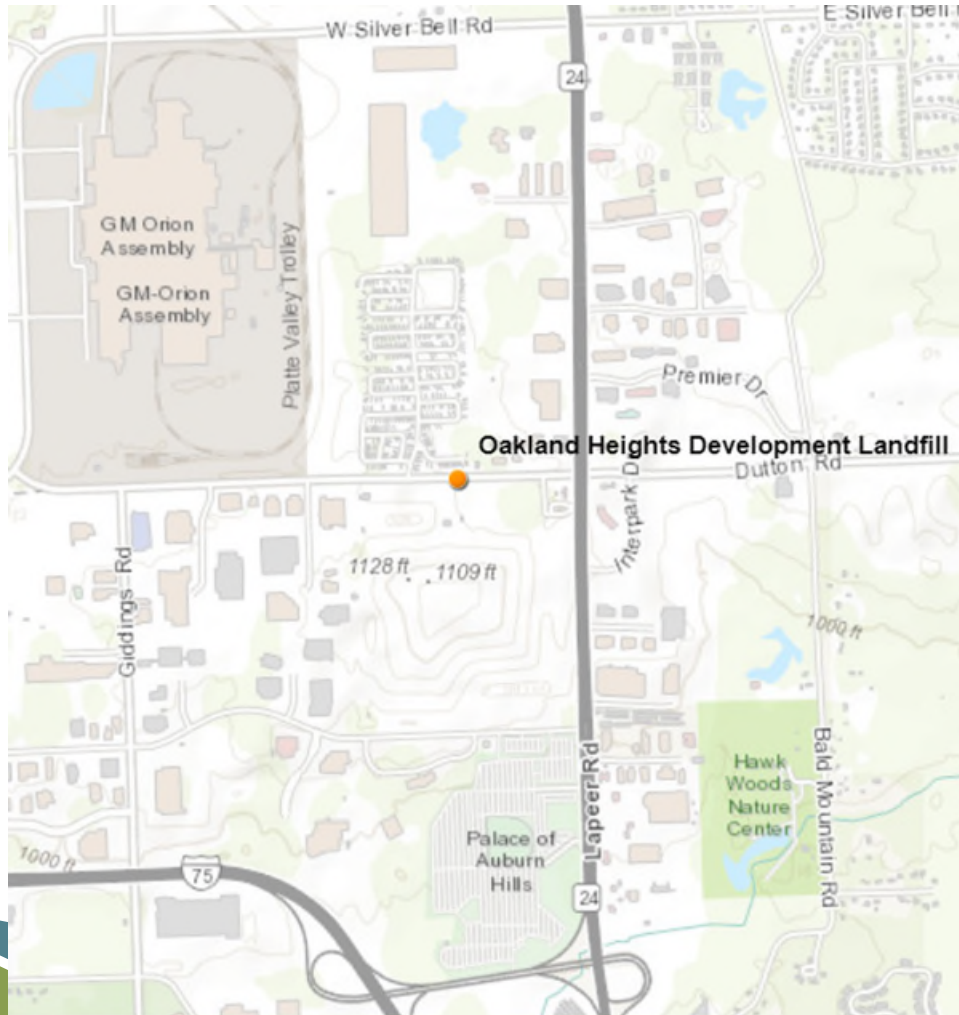
Michigan Seamless Tube, LLC Oakland County



- 400 McMunn St, South Lyon
- PFAS sampling completed in 2019 showed exceedances in two monitoring wells
- Groundwater flow direction: southwest; toward Yerkes Drain (ephemeral stream)
- No residential well sampling is scheduled at this time.

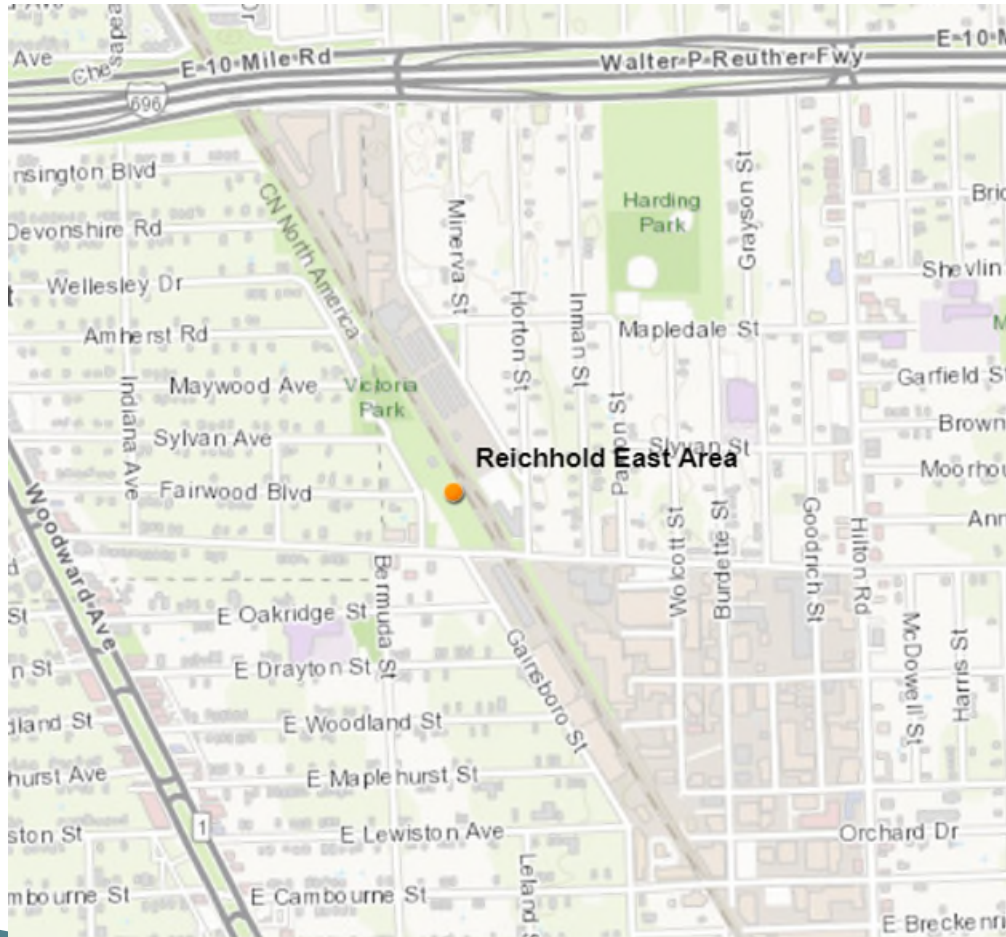
Oakland Heights Development Landfill

Oakland County



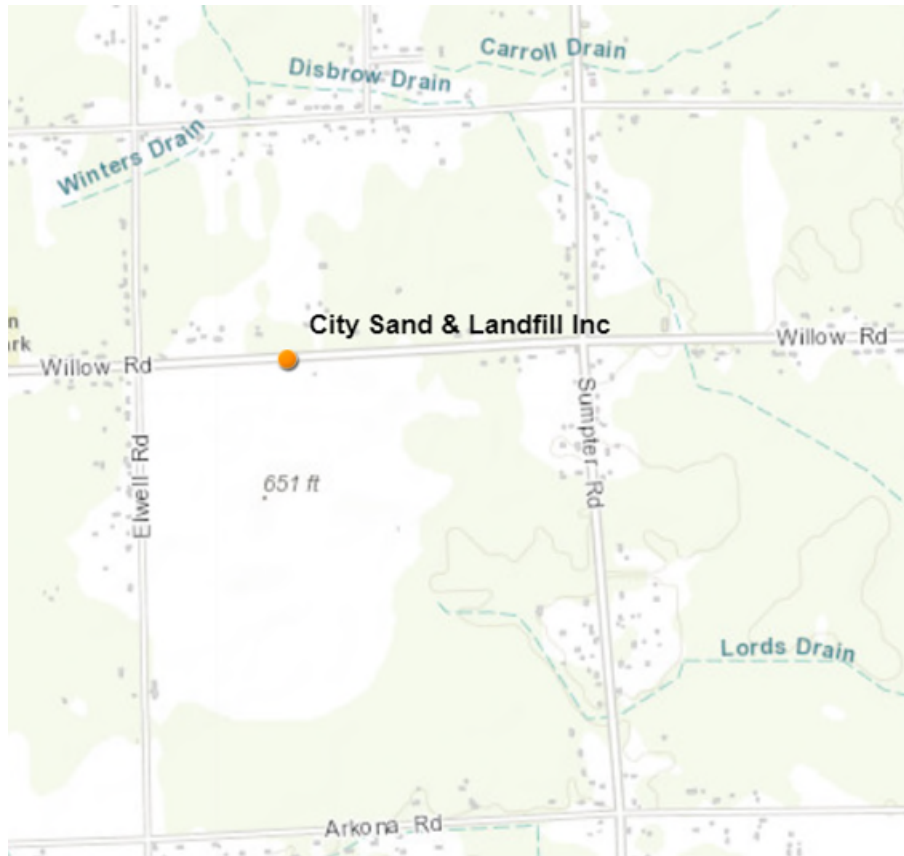
- 2350 Brown Rd, Auburn Hills
- Sampled at EGLE's request
 - High priority landfill
 - Other parameters of concern detected
- Groundwater flow direction: south-southeast; very flat gradient
- No known surface water connection at the site.
- EGLE is working with the local health department to determine a future residential well sampling plan

Reichhold East Area Oakland County



- 3101 Bermuda, Ferndale
- PFAS sampling completed in August 2019 showed an exceedance of PFOA in one monitoring well
- Groundwater flow direction: northeast; groundwater is contained on-site by containment wall along property perimeter
- Area served by municipal drinking water; there are no residential wells nearby.

City Sand & Landfill Inc Wayne County



- 46805 Willow Rd, Sumpter Township
- Sampled at EGLE's request
 - High priority landfill due to historic leachate releases
 - Groundwater impacts of other parameters
- Groundwater flow direction: southeast; flat gradient in bedrock aquifer
- Area is served by municipal drinking water; there are no residential drinking water wells nearby
- The on-site storm water detention basin discharges to Lords Drain; no known surface water sampling for PFAS.

Marathon Petroleum Company Wayne County



- 12800 Toronto St, Detroit
- Groundwater sampling identified Fire Training Area as source of PFAS
- Groundwater flow direction: northwest; towards drainage ditch along northern property boundary
- Area is served by municipal drinking water; there are no residential wells nearby.

Rouge Manufacturing Complex

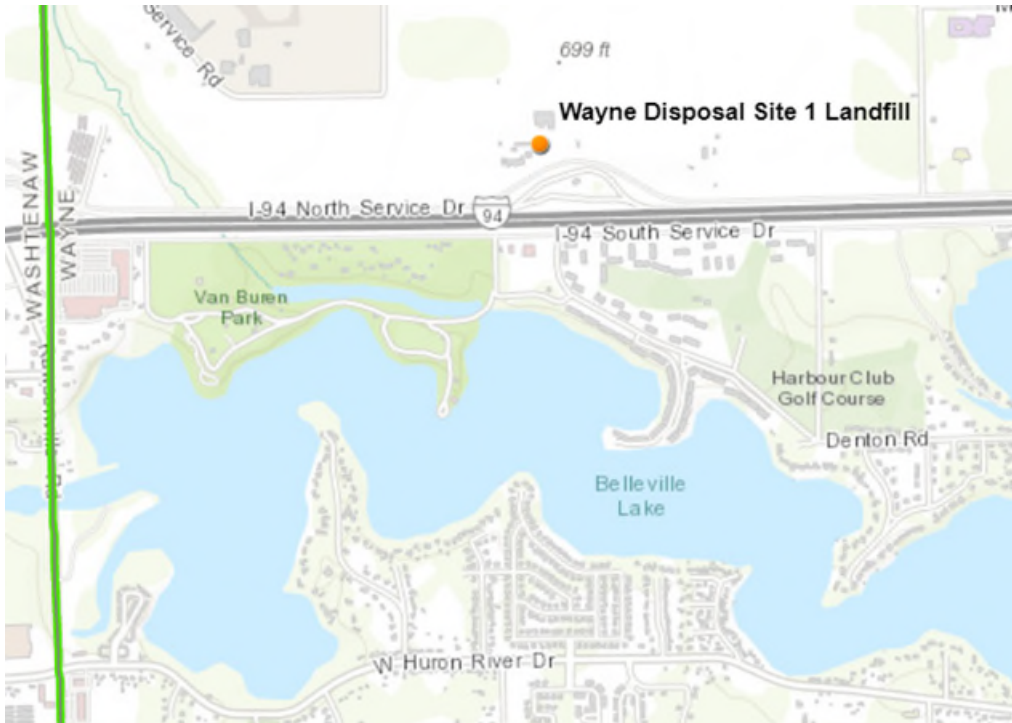
Wayne County



- 3001 Miller Rd, Dearborn
- PFAS Investigation Initiated in 2019
- Groundwater flow direction: south; towards Rouge River
- Area is served by municipal drinking water; no residential wells nearby.

Wayne Disposal Site 1 Landfill

Wayne County



- 49350 N I-94 Service Dr, Belleville
- Closed industrial waste landfill sampled at EGLE's request
- Groundwater flow direction: south
- Area is served by municipal drinking water; there are no residential wells nearby.

Site Lead Contact Information

**South Macomb Disposal Authority Landfill #11
Oakland Heights Development Landfill**

Jim Bakun
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BakunJ@Michigan.gov

South Macomb Disposal Authority Landfills 9/9A

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**Collier Road Landfill
City Sand & Landfill Inc**

Mary Carnagie
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Hi-Mill Manufacturing Superfund Site

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Kevin Lund
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Reichhold East Area

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Marathon Petroleum Company

Joseph DeGrazia
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Rouge Manufacturing Complex

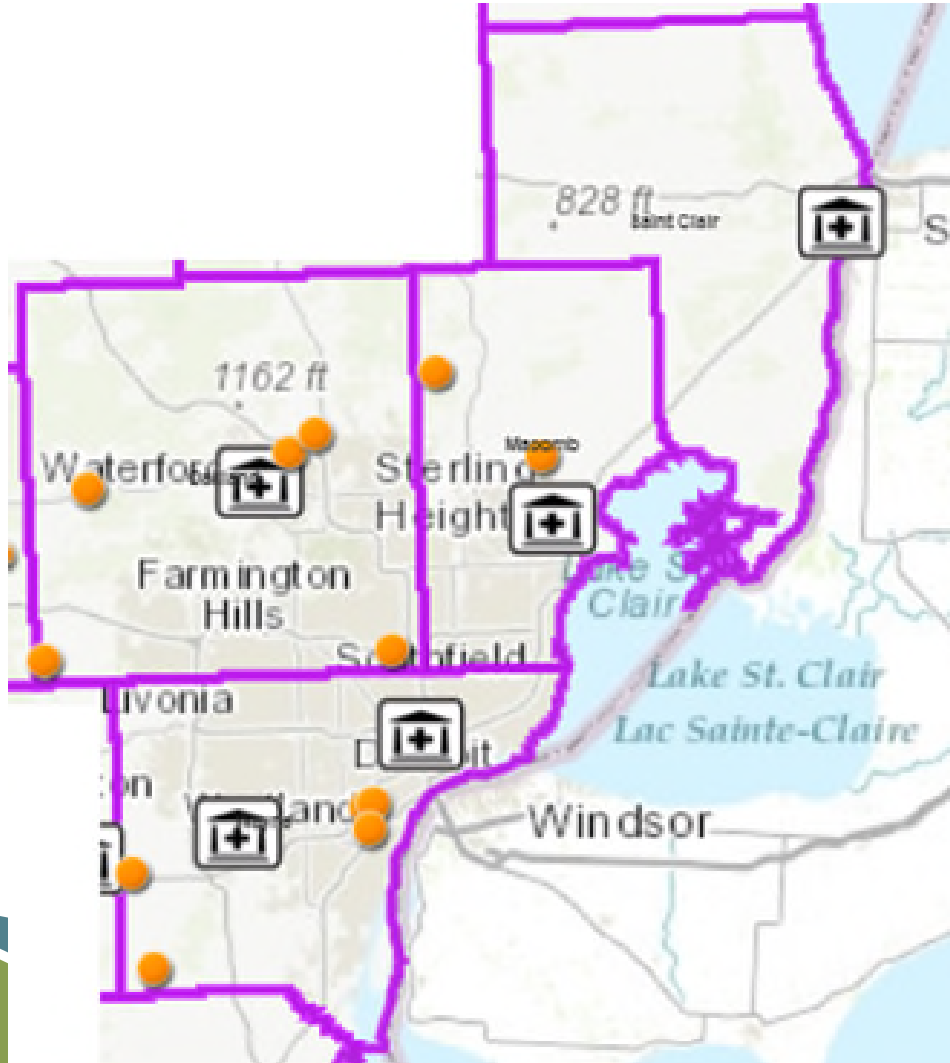
Joseph Rogers
517-599-5312
RogersJ5@Michigan.gov

Wayne Disposal Site 1 Landfill

Christine Matlock
517-290-4612
MatlockC2@Michigan.gov



Local Health Departments



- **Detroit Department of Health and Wellness Promotion**
313-876-4000
- **Macomb County Health Department**
586-469-5235
- **Oakland County Health Department**
248-858-1280
- **Saint Clair County Health Department**
810-987-5300
- **Wayne County Health Department**
734-727-7000

MICHIGAN PFAS ACTION RESPONSE TEAM (MPART)

www.Michigan.gov/PfasResponse



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY



THANK YOU!

We will share the slides and a recording and closed-captioned copy of today's conversation via email and on our website in the next few days.