



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Irene Avenue Area of Interest PFAS Community Meeting

Brent Ritchie

EGLE-Remediation and Redevelopment
Division

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Agenda

- Introductions – Brent Ritchie, EGLE – RRD Project Manager
- Agenda:
 - MPART Overview – Heidi Hollenbach, Grand Rapids District Supervisor, EGLE Air Quality Division and PFAS Regional Team Lead
 - Investigation Area – Brent Ritchie, EGLE – Remediation and Redevelopment Division
 - Municipal Water Expansion – Tom Bulten, City of Grand Rapids Water System
 - Watermain Grant – Matt Remus, EGLE – Drinking Water and Environmental Health Division
- 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

MPART

MICHIGAN PFAS ACTION RESPONSE TEAM

MICHIGAN PFAS ACTION RESPONSE TEAM (MPART)

www.Michigan.gov/PfasResponse



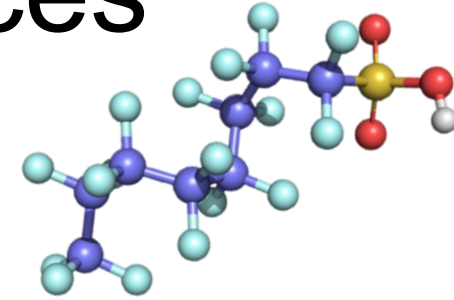
MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY



MPART

MICHIGAN PFAS ACTION RESPONSE TEAM

Per- and Polyfluoroalkyl Substances (PFAS)



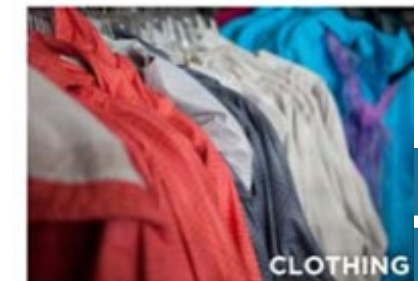
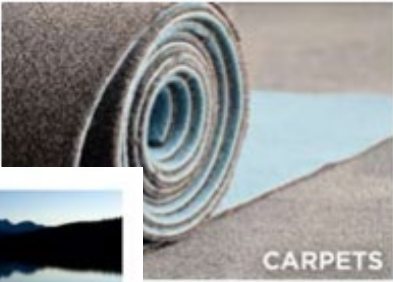
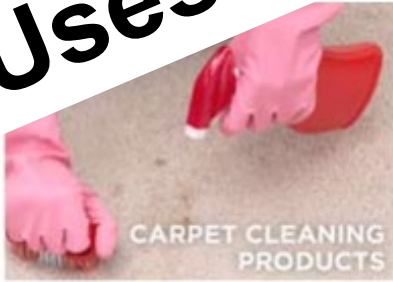
What are they?

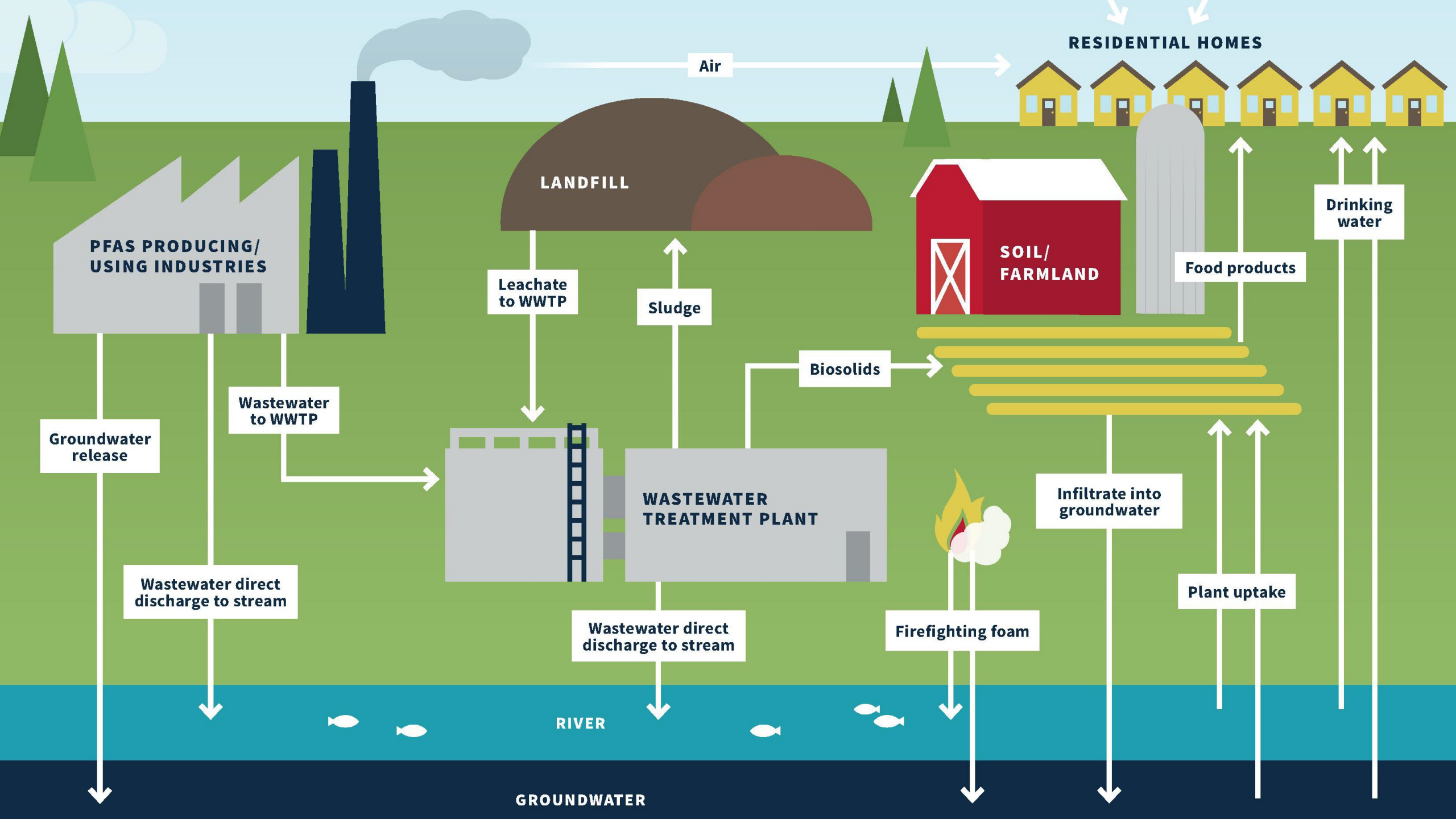
- Strong Carbon-Fluorine Bonds
- Surfactants
- Highly Stable
- Repel Water, Oil, Fat, and Grease
- Began Developing in 1940s
- Thousands of Compounds Today

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
- Need for additional Federal Standards

PFAS Uses





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

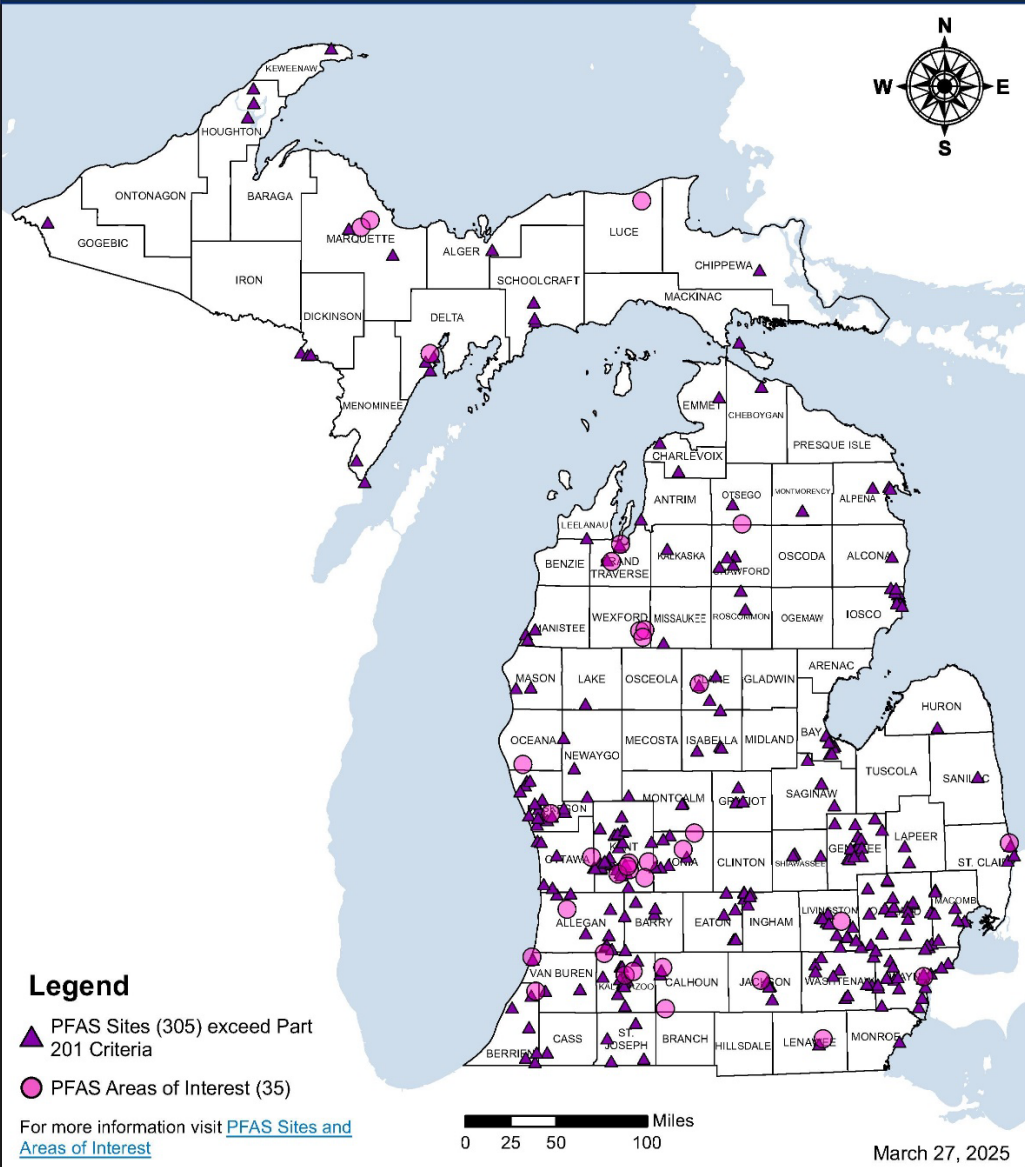
Compound	Water Quality Value
PFNA	30 ppt
<i>If Drinking Water Source</i>	<i>19 ppt</i>
PFOA	170 ppt
<i>If Drinking Water Source</i>	<i>66 ppt</i>
PFOS	12 ppt
<i>If Drinking Water Source</i>	<i>11 ppt</i>
PFHxS	210 ppt
<i>If Drinking Water Source</i>	<i>59 ppt</i>
PFBS	670,000 ppt
<i>If Drinking Water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

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

Importance of Sampling Drinking Water



- Can't feel PFAS
- Can't smell PFAS
- Can't see PFAS
- Can't taste PFAS



Sites Being Investigated

- Prioritized Investigations Based on Known or Suspected Sources, Potential for Exposure
- Protect Drinking Water Pathway
- Multiple Other Investigations Underway

QR Code for:
MPART Sites and Investigation



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](#)

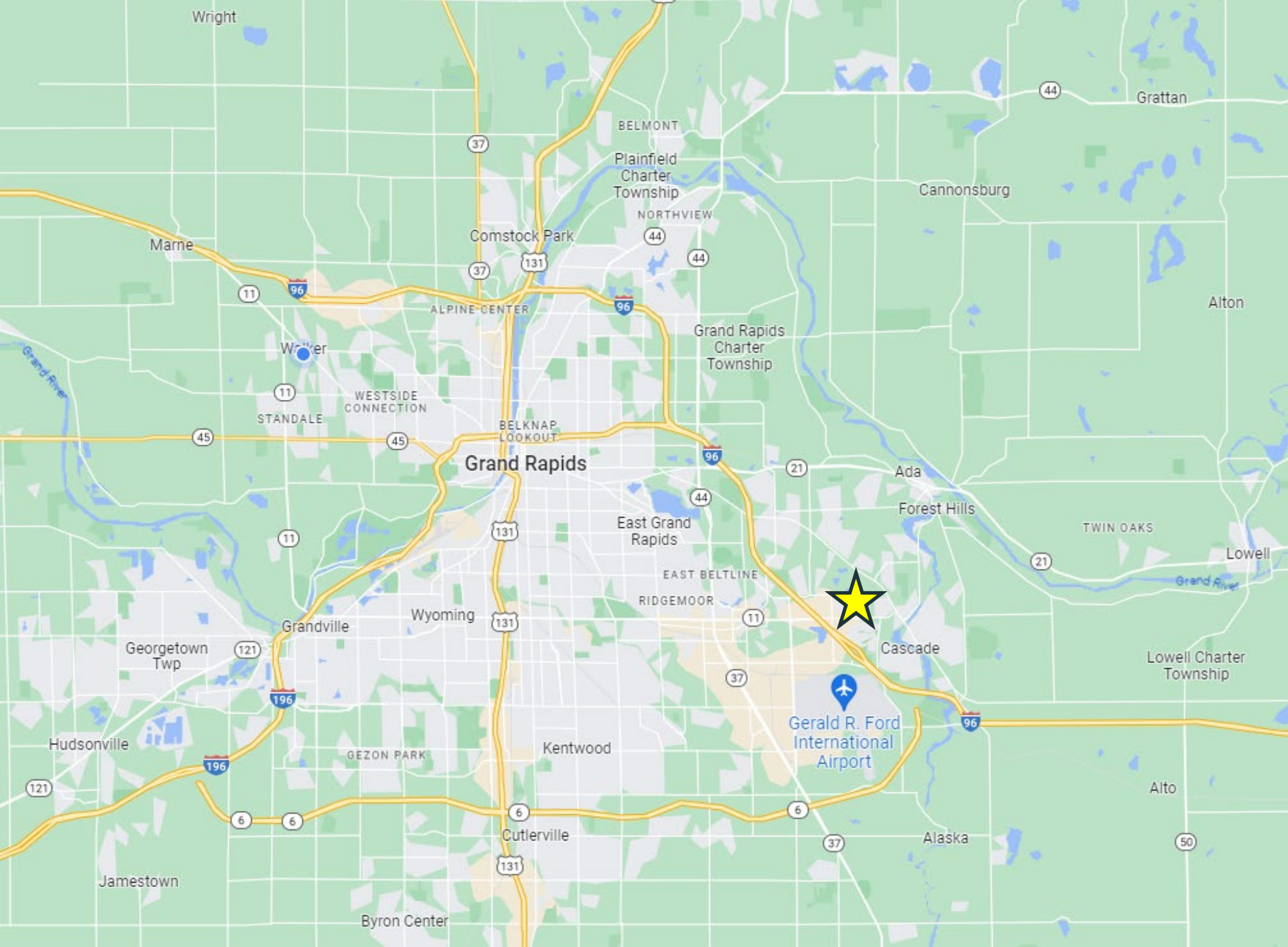


MPART

MICHIGAN PFAS ACTION RESPONSE TEAM

QR Code for:
MPART Citizen Advisory Workgroup





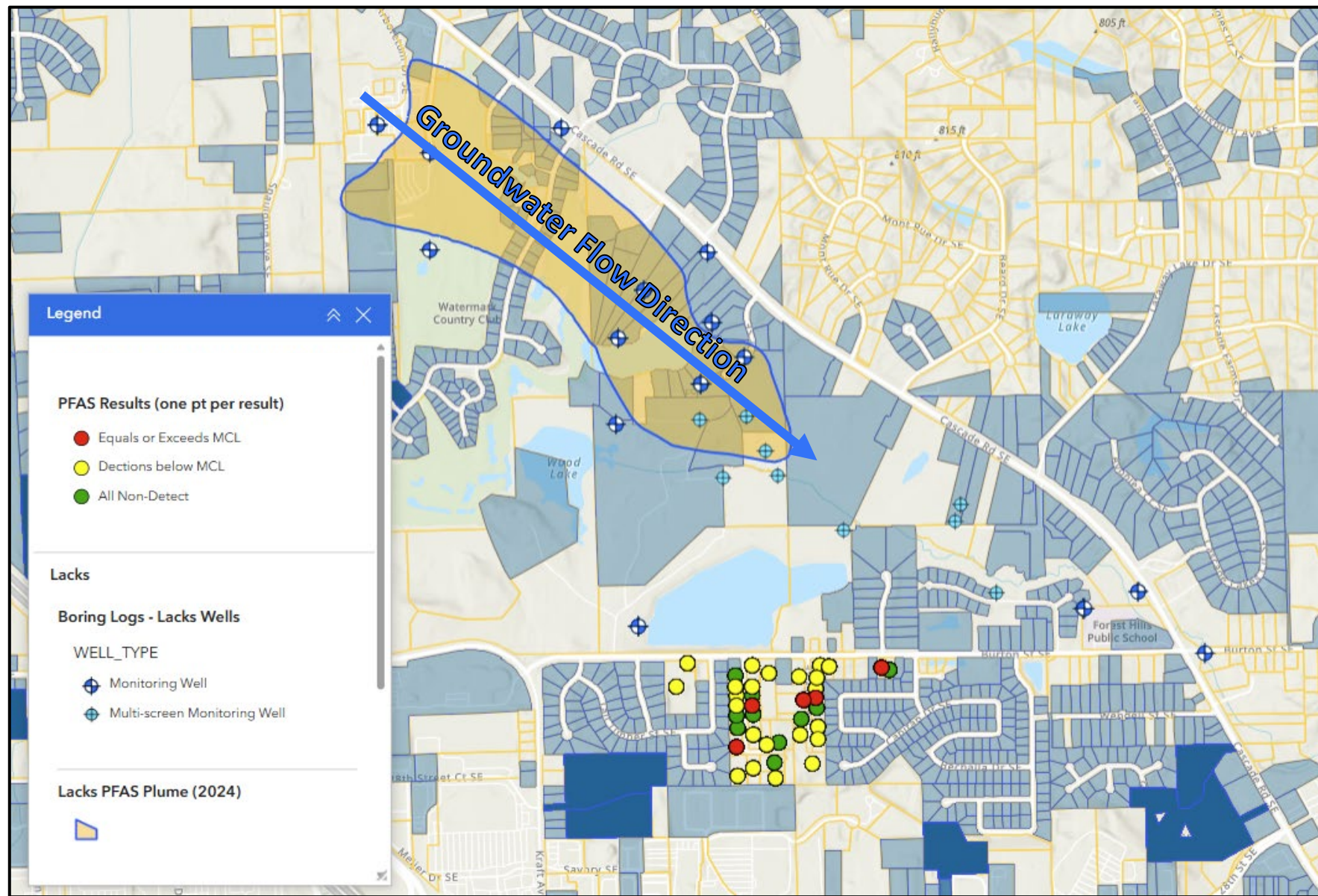
Irene Avenue Area of Interest PFAS Investigation

Background & Investigation

- **October 2023** – PFHxS was detected above the Maximum Contaminant Level (MCL) in a drinking water well on Irene Ave.
- **January 2024** – EGLE sampled 37 total homes in the area.
 - PFHxS and PFOA exceeded the MCLs.
 - 5 locations with exceedances
 - 22 locations with detections of PFAS compounds below the MCLs
 - 10 locations did not detect PFAS compounds
- Any location where PFAS compounds were detected were offered point-of-use filters by MDHHS and KCHD.

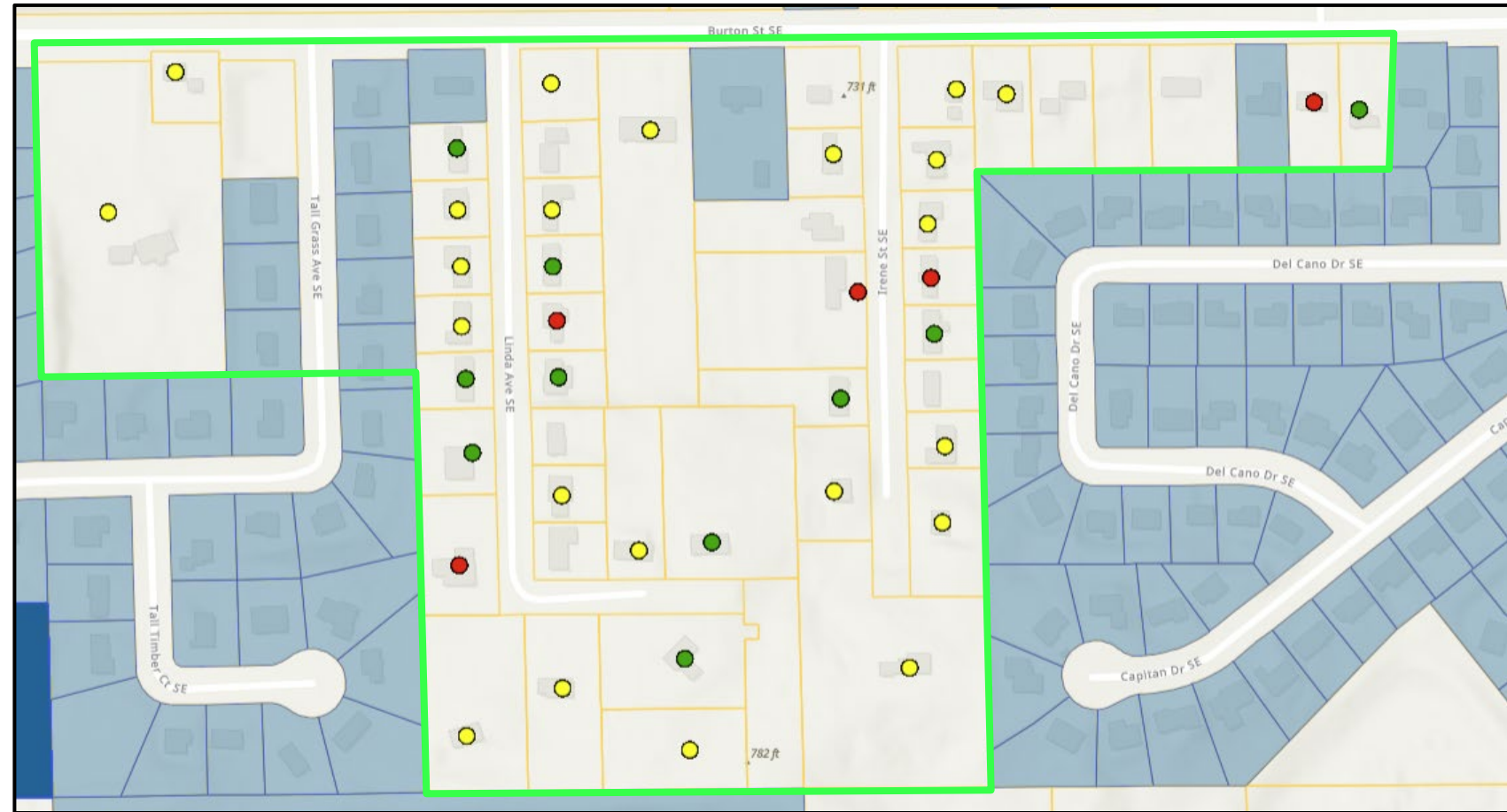


- The source of the contamination in this area is uncertain.
- PFAS contamination is present in the area, however it is unlikely to be directly connected based on:
 - Groundwater flow direction
 - Delineation of the known PFAS plume
 - Discrepancies in PFAS compound signatures



- Watermain extension and free connection and abandonment of wells offered to 48 properties, based on:
 - Widespread and varied PFAS concentrations
 - Unknown and poorly understood source
 - Lack of other contamination-free aquifer in this area
- Connection to the watermain will provide a safe and reliable water supply.

Watermain Extension Area

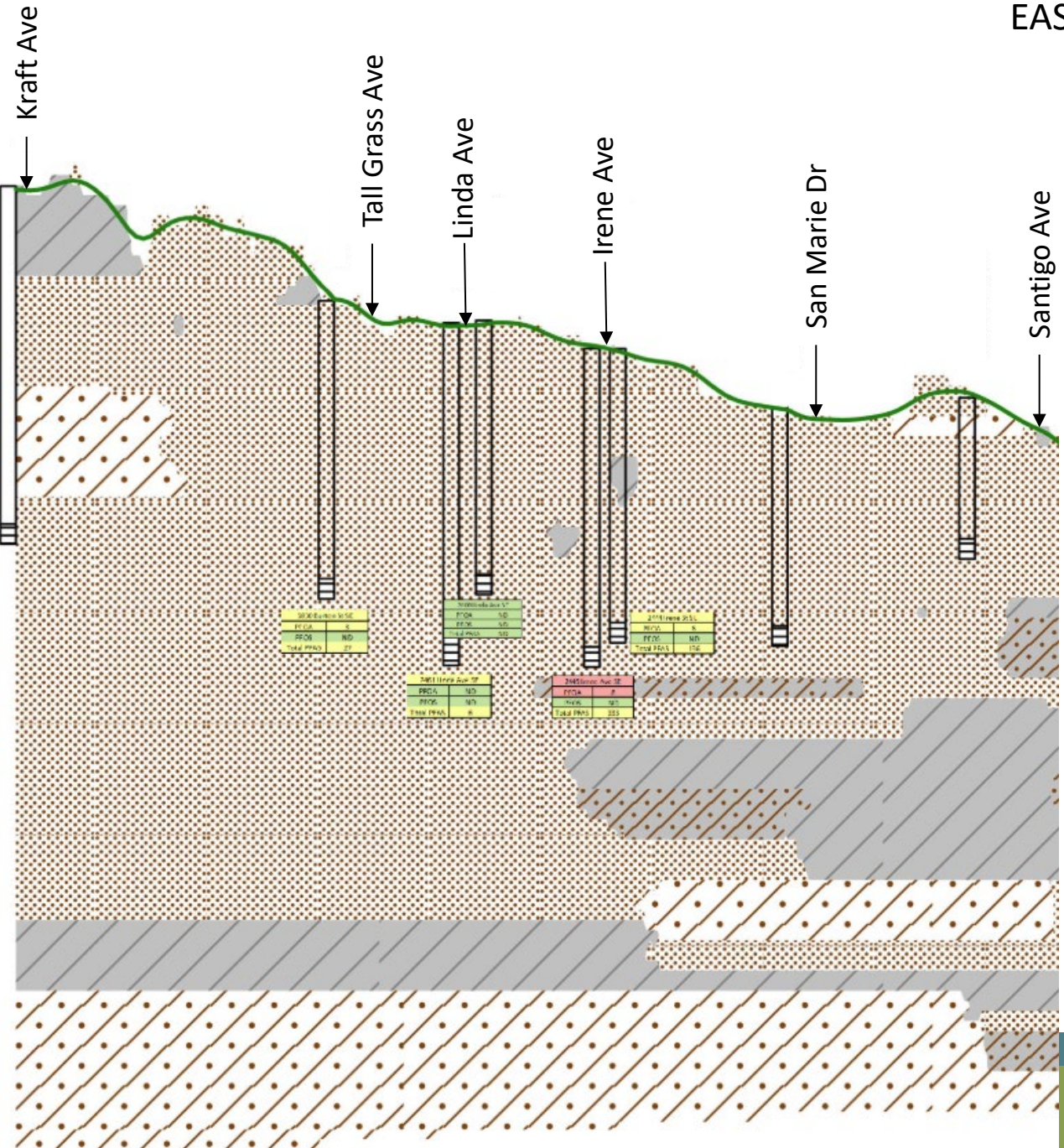


WEST

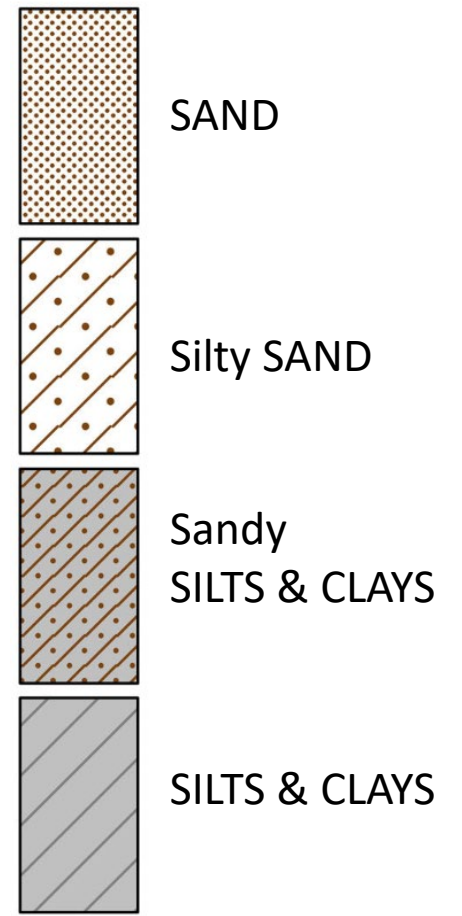
EAST

Elevation (Feet above MSL)

800.0
600.0



Lithology



From Source to Tap



GRAND RAPIDS
WATER SYSTEM

From Source to Tap

Benefits of Lake Michigan Water

- Very stable
- Ease to treat
- Low turbidity and low organics
- Very low and often non-detectable contaminants like PFAS



From Source to Tap

City of Grand Rapids
Lake Michigan Filtration Plant



From Source to Tap

City of Grand Rapids Lake Michigan Filtration Plant

SCAN ME FOR A
VIRTUAL TOUR!



- Second largest water treatment plant in Michigan
- Located in West Olive
- Built in 1962
- Expanded in 1990
- Maximum capacity of 135 Million Gallons of Water per Day (MGD)
- Treats an average 37 MGD
- 24/7 operation

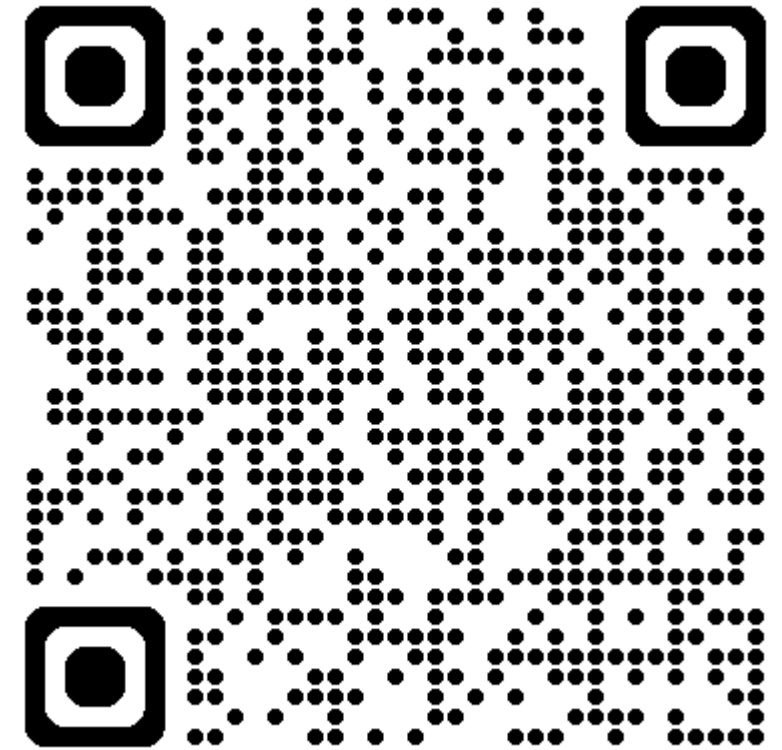
Little Pigeon Creek

Grand Rapids
Water Filtration

Filtration Plant

From Source to Tap

Water Quality



grcity.us/water

From Source to Tap

Water Cost



GR Water: \$.0057 / gallon

Bottled Water: \$1.16 / gallon

grcity.us/water



From Source to Tap

Water Cost

CITY OF GRAND RAPIDS
Utility Services

grandrapidsmi.gov/payments
Pay your bill online - go green!
Questions?
Call us at 616.456.3000

2 Account Number	3 Bill Date	4 Due Date
WS1234567	06/11/20	07/02/20
5 Service Address		
1234 SAMPLE CT NE		
6 Service Type		
Residential Quarterly - WATER, SEWER		
7 Government Unit	8 Days Billed	9 Units Used
GRPDS	84	11.52

10 Water Usage History
Shown in Units 1 Unit = 100 Cubic Feet = 748 gallons

MAY 19	JUN 19	JUL 19	AUG 19	SEP 19	OCT 19	NOV 19	DEC 19	JAN 20	FEB 20	MAR 20	APR 20	MAY 20
8			10			11			9			12

1 Total Amount Due by 07/02/20
\$144.02

Summary of Charges

11 Previous Balance		
12 Payment Received - Thank You		
13 Balance Before Current Charges		\$0.00
Current Charges		
14 Water Commodity Chg Grand Rapids		\$149.10
15 Water Quarterly Readiness to Serve Grand Rapids		-\$149.10
16 Sewer Qtr Winter Avg Grand Rapids	11.52 UNITS @ \$2.04	\$23.50
17 Sewer Quarterly Readiness to Serve Grand Rapids	11 UNITS @ \$3.58	\$31.40
18 Total Current Charges		\$39.38
		\$49.74
1 Total Amount Due:		\$144.02

Average household
32 units / quarter
23,900 gallons / quarter
\$136 / quarter

grcity.us/water

From Source to Tap

Design

- Early 2025: Design Consultant Selected
- Late 2025: Design
 - This project will only include construction of watermain, not sanitary sewer, sidewalks, or storm sewer.
- Early 2026: Contractor Selected
- Mid 2026: Construction

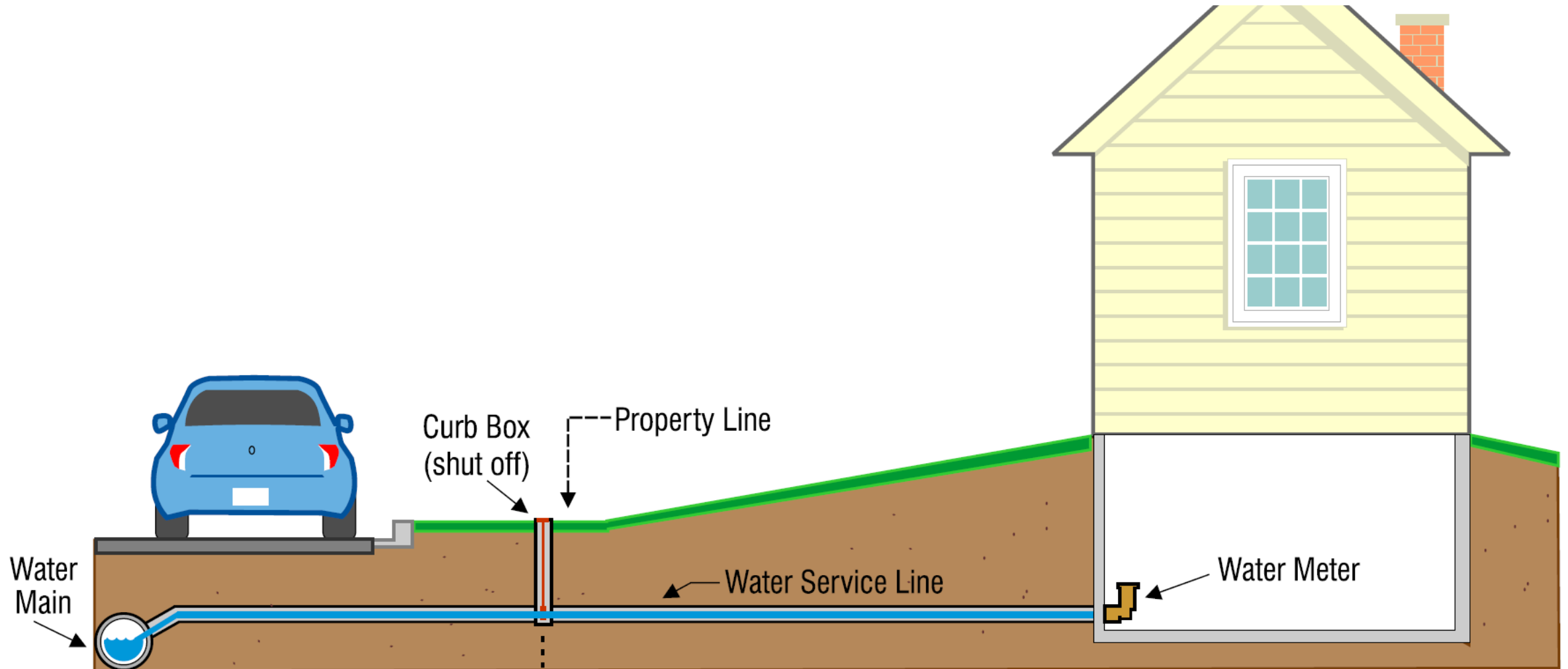
From Source to Tap

Construction

- Early 2026: Contractor Selected
- Spring 2026: Pre-Construction Meeting
- Mid 2026: Construction ~8 weeks
 - 7 am to 7 pm
 - Vehicle access
 - Driveways
 - Restoration

From Source to Tap

Water Service Line



Lindsay Sagorski Munsell P.E.

Assistant Water System Manager
GR Water System

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Tom Bulten

Hydraulic Engineer
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MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Watermain Grant

Matt Remus

EGLE-Drinking Water & Environmental Health
Division

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Why Connect?

- Connection to municipal is the safest option.
- During the grant period, connection and well plugging will come at no cost.
- Additional benefits include avoiding costly repairs or replacement of drinking water wells.
- The addition of fire hydrants to your neighborhood should lower the cost of home insurance premiums.

How to Accept the Connection

- Please sign and return the CONNECTION TO COMMUNITY WATER SUPPLY AGREEMENT /WAIVER that was mailed to you.
- Plugging your existing well is a condition to receive a state-funded service connection.
- Copies are available today if you misplaced it.
- This can be a difficult decision, so please feel free to ask questions after the presentation.