



MPART Citizens

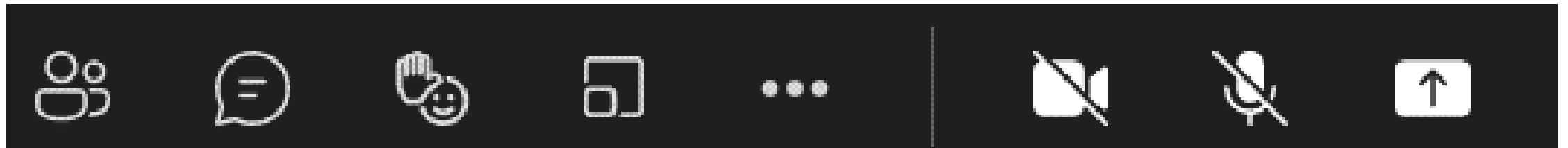
Advisory Workgroup

March 14, 2023

MPART

# Housekeeping

- Please keep your mic/phone muted unless speaking
- Only use the “raise hand” and/or “chat” function for questions or to request to speak
- Cameras are optional
- This meeting is being recorded





# Agenda

- Roll Call – Community Updates
- Leadership Team Vote
- Fish Study
- Subcommittee Updates
- MPART Updates
- Future Topics



# Roll Call and local updates/events/ sharing from communities





Leadership  
Team Vote



# Presentation on PFAS in Fish Study of the Huron and Rouge Rivers

Presentation given by: Daniel Brown (CAWG Member)

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# Community-Based Study on PFAS in Fish in the Huron and Rouge Rivers

A partnership of local fisherpersons, Ecology Center of Michigan, Friends of the Rouge, and Huron River Watershed Council



Presentation by: Gillian Miller, Senior Scientist, and Erica Bloom, Toxics Campaign Director

# Do Not Eat Fish Advisories

Huron River - from Wixom Rd.  
to 1-275

Rouge River - bluegill and  
sunfish caught in lower branch  
and some of the main branch

Lake Huron, Lake Michigan,  
several inland lakes - rainbow  
smelt & carp (new consumption  
guidance as of 1/23)

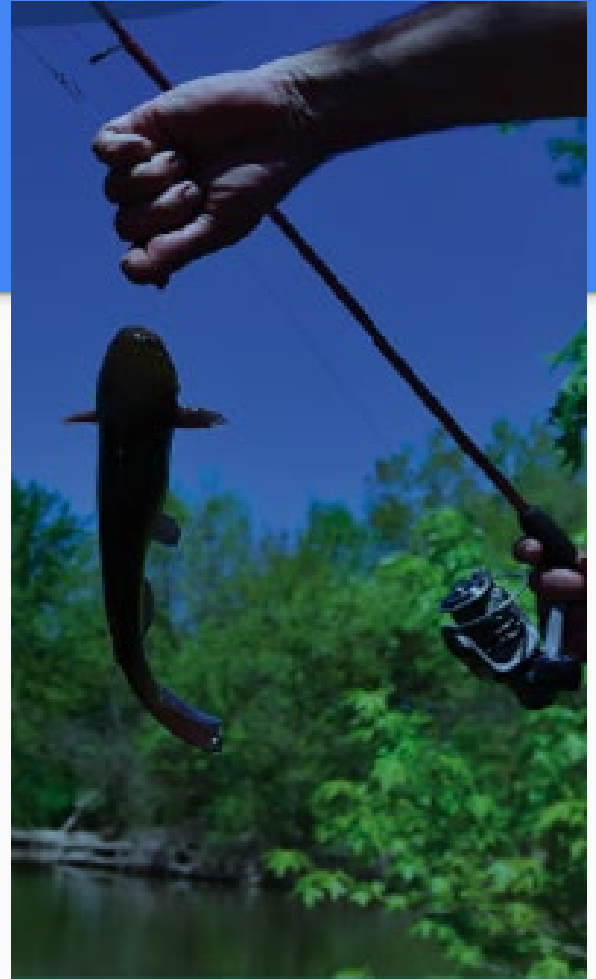




# Our Research

Understand the broader ecological impact of PFAS in the watersheds, analyzed whole fish for 40 PFAS chemicals.

Previous EGLE studies have largely focused on fishfilets because that is the part of the fish most commonly consumed by people.



# Community-based research

Values people's lived experience and expertise

Six local anglers participated

- Advised on study questions, training, education materials. Suggested preferred fish species & fishing spots
- Caught, stored and helped dissect fish

Partners financially compensated

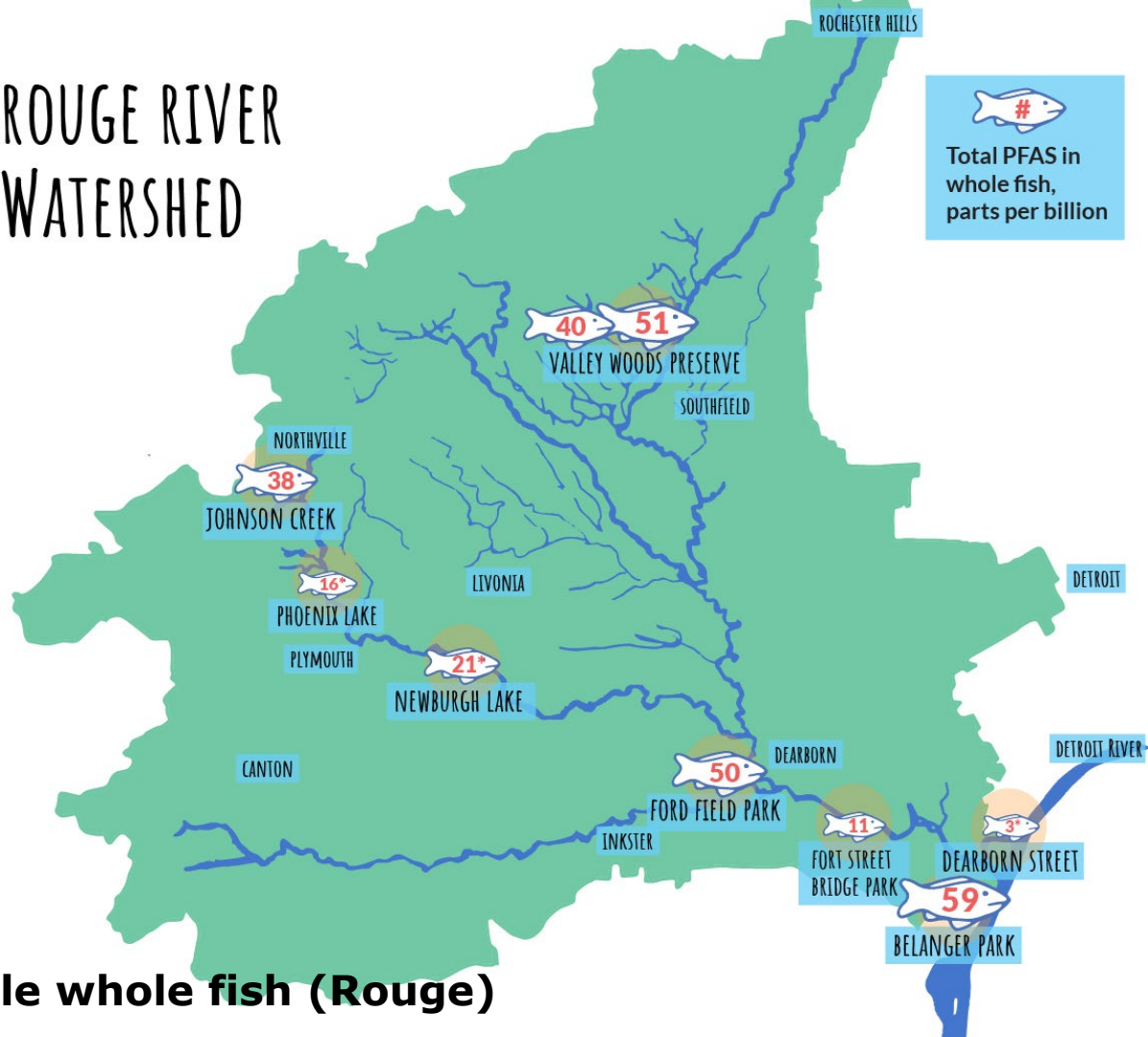


“I’m an angler, and I have a relationship and kinship with other anglers. There’s a real independence in being able to get your own food.”



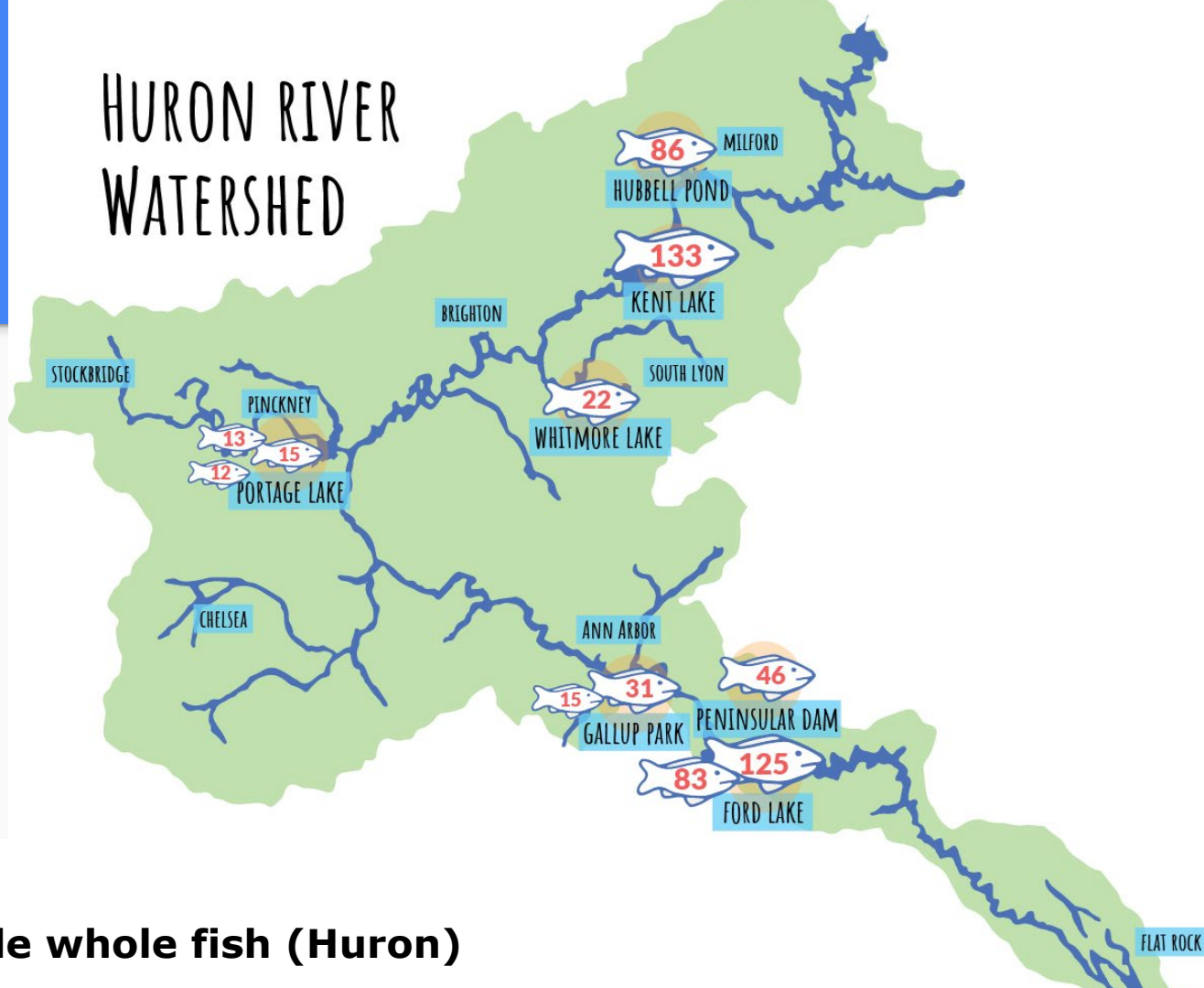
“One of my favorite parts about fishing is sharing what I’ve caught...But, with fish consumption advisories like PFAS, it makes me worried about what I have caught and shared with my family, who I know look forward to these fishing events.”

# ROUGE RIVER WATERSHED



Set 1: Single whole fish (Rouge)

# HURON RIVER WATERSHED



**Set 1: Single whole fish (Huron)**

# Getting fish ready for the lab

We caught about 100 fish and processed 60 to send to three different labs for analysis

- Homogenized
- Freeze dried





**100% of the fish tested  
contained PFAS**

**PFAS in Fish:  
A Community-  
Based Study**

PFAS are still in every fish we tested in both rivers

14 different PFAS chemicals were detected in the study.

Each fish tested had at least one of the 14 chemicals in its body.

PFOS was found in every fish tested.

Species and locations  
with highest levels on Huron

Kent Lake

Ford Lake

Hubbell Pond

## PFAS IN FISH: A COMMUNITY-BASED STUDY



Bluegill  
Kent Lake

Total PFAS in parts  
per billion (ppb) in  
the Huron River  
Watershed



Small Mouth Bass  
Ford Lake

See more results  
in the report:

[ecocenter.org/pfas-fish](https://ecocenter.org/pfas-fish)



Bluegill  
Hubbell Pond

Walleye  
Ford Lake





# Recommendations for Anglers



Follow Michigan Department of Health and Human Services' (MDHHS) guidance

If possible, explore alternative Michigan rivers and lake; explore alternative sources of protein and omega 3s

For anglers continuing to consume fish that contain PFAS, try to limit exposure to PFAS commonly found in consumer products

# Are MDHHS meals per month guidelines sufficiently protective?

- EPA lowered drinking water PFOS threshold by **1000x** last year
- No update for MI fish & game (Do Not Eat at 300 ppb)
- Only PFOS considered

## Recs for state of Michigan

- Stop the flow: prohibit products
  - e.g. firefighting foam, plating mist suppressants, fabric/paper treatments
- Science-based MCLs for more PFAS
- More signage in heavy fishing areas
- Lower consumption advisories

# Media Attention



**New study shows all fish tested from Huron and Rouge Rivers have PFAS**



**All fish tested from Michigan rivers contain 'forever chemicals', study finds**

Researchers found PFAS chemicals - used to make products resistant to heat and water - in all samples of 12 species of fish



The sun sets as fishermen try their luck along the St Joseph River on 6 July 2022, in St Joseph, Michigan. Photograph: Don Campbell/AP

 Detroit News

**PFAS pervasive in Detroit area fish, groups find, prompting ...**

PFAS pervasive in Detroit area fish, groups find, prompting exposure fears. Carol Thompson. The Detroit News. Hear this story. A coalition of...

1 week ago




**Fish in two southeast Michigan rivers are loaded with PFAS**

Published: Mar. 06, 2023, 7:30 a.m.



**Michigan Researchers Find Every River Fish They Test Contains 'Forever Chemicals'**

"It just demonstrates how ubiquitous these chemicals are in the environment," one researcher said.



# Lessons Learned



## Community-based research

- Interest & excitement from community participants
- Anglers identified popular yet undersampled fishing locations and species
- With training, anglers successfully used hook & line to collect
- Anglers' fileting skills helped with removing organs

## Analytical data

- Before engaging partners, running pilot samples from contaminated site was critical
- Creative solutions to sample preparation: clean location (rented local commercial kitchen); freeze drying (worked with farmer), homogenizing (lab grinder)

Thank you



Huron  
River  
Watershed  
Council



Community Foundation for Southeast Michigan  
Indiana University, Dr. Venier Lab -- watch for upcoming in-depth publication  
Envirolab

Antonio Cosme  
Bill Eisenman  
Purple Love  
Bill Bialkowski  
Erma Leaphart  
Jerrad Jankowski  
Phil Walling

[ecocenter.org](http://ecocenter.org)

[therouge.org](http://therouge.org)

[hrwc.org](http://hrwc.org)

# CAWG Subcommittee's



Membership Subcommittee



Website Review Subcommittee



Preventative Measures Subcommittee



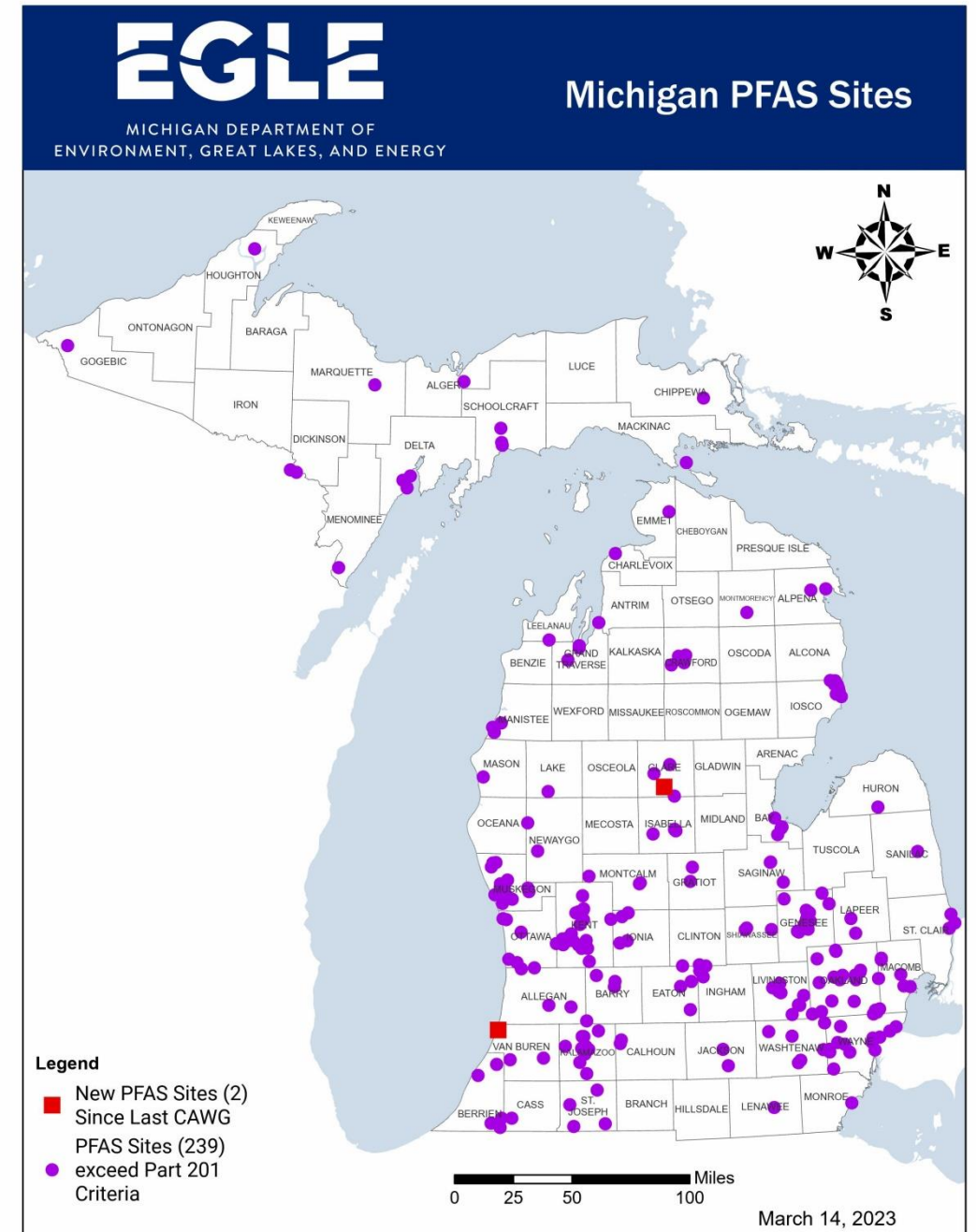
Engaging the Public Subcommittee

# MPART Update

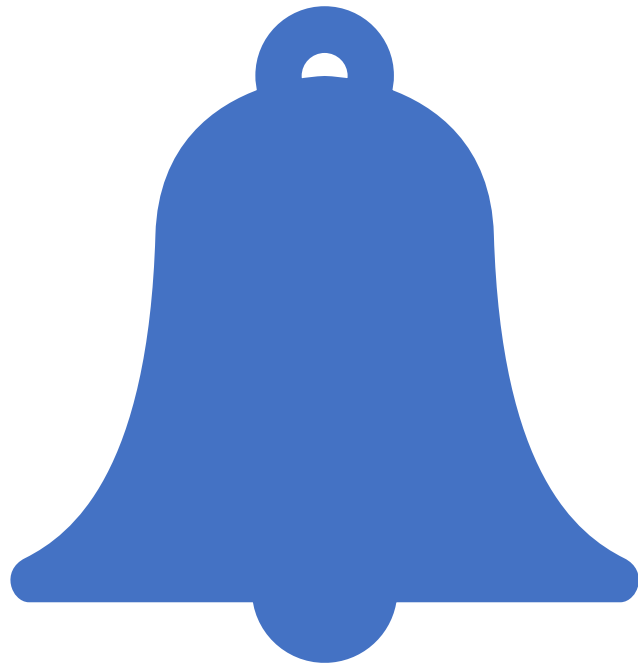
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# New Sites

- 1421 Kalamazoo Street  
South Haven, Van Buren County
- Surrey Township Landfill  
Farwell, Clare County







# **MPART Response to Public Notification Recommendation**

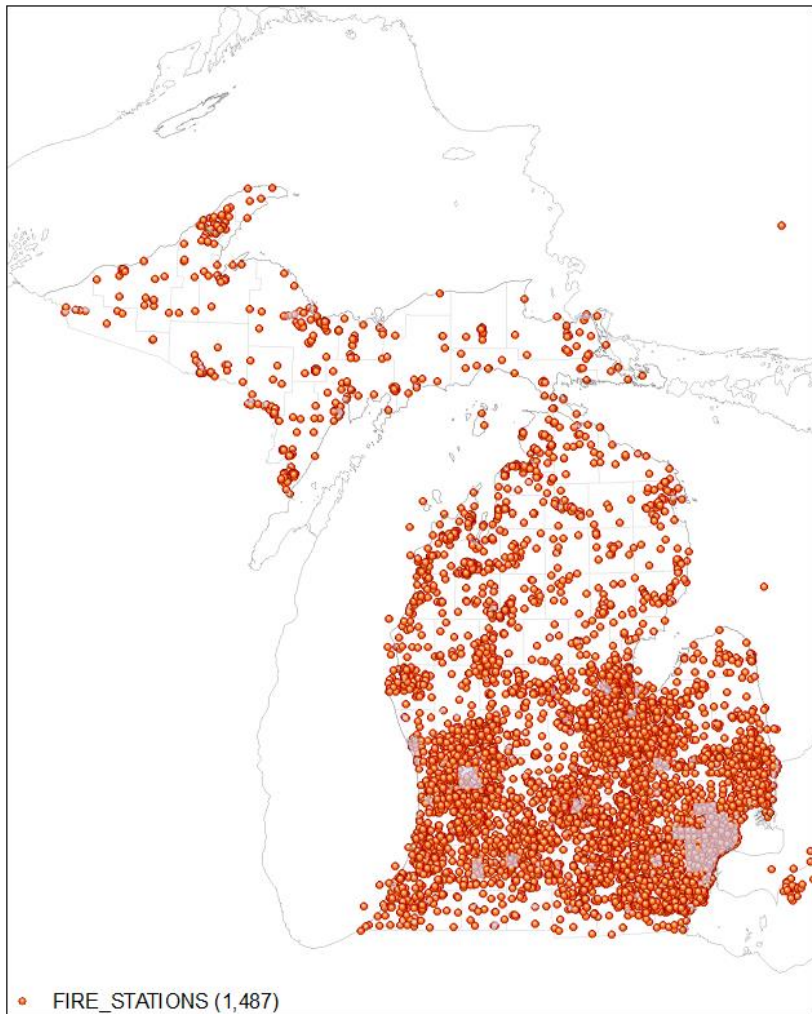
**March 14, 2023**

# Applying the Notification Process: How Many People Will We Reach?

	One-mile notification	Number of homes EGLE sampled
#63 - Isabella County Landfill	32	0 (monitor wells in place)
#75 - City of Portage FF training center	130+	20
#147 - Rickett Road	400+	22
#208- MI Army NG Lansing Hangar	13, in circle	10
#6 - Grayling Army Airfield	239	700+ (includes resamples)

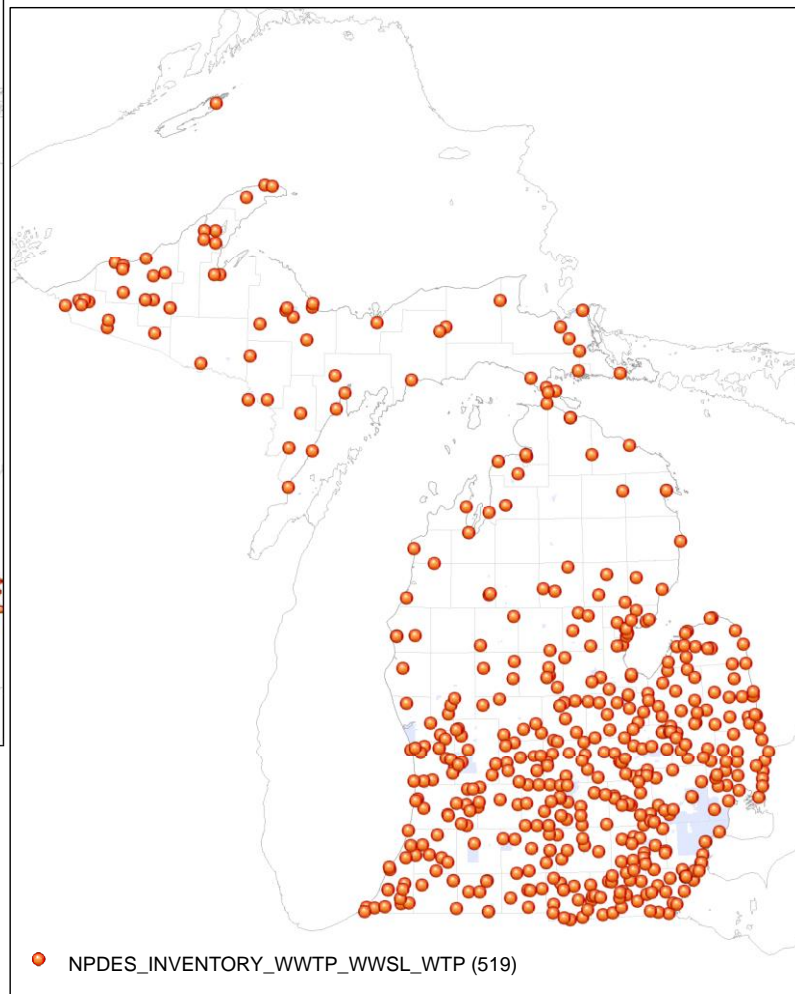
*The average number of homes in a one-mile notification based on these randomly selected sites is  $163 \times 42 \text{ sites/year} = 6,846 \text{ notifications}$ .*

FIRE STATIONS

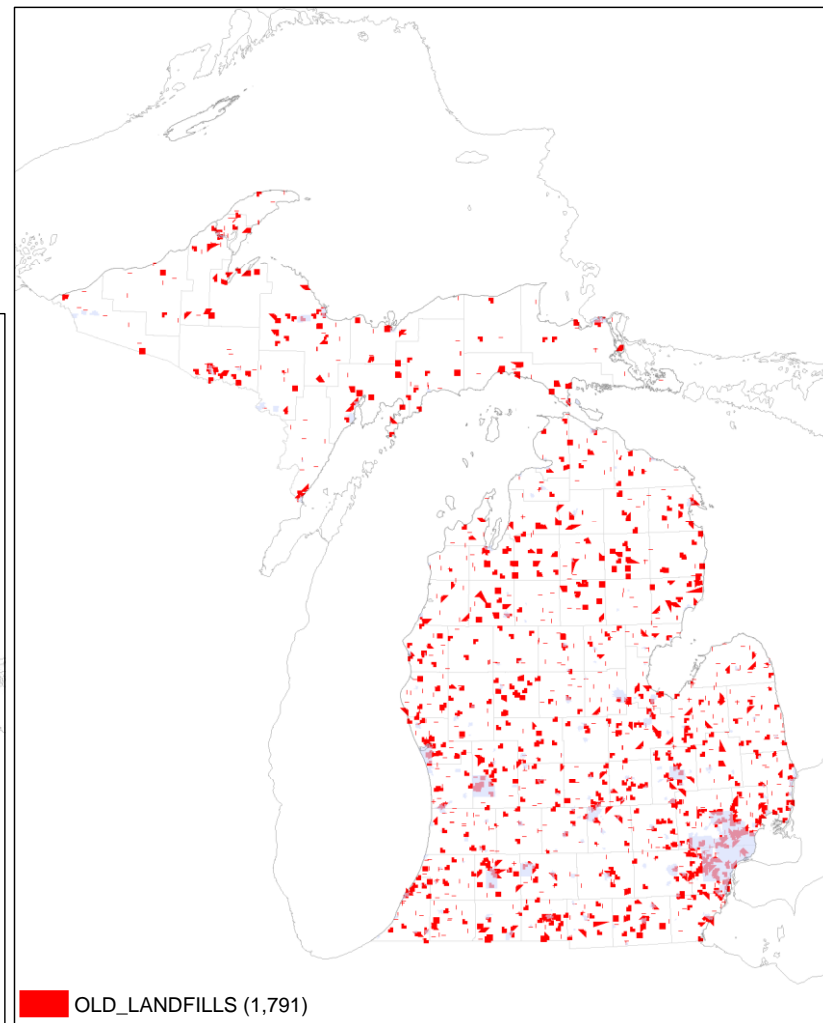


Notification to **1.2 Million** residential well owners near **“potentially”** impacted sites of PFAS contamination.

NPDES WASTE WATER TREATMENT PLANTS & WWSL



OLD LANDFILLS



Draw 1-mile radius around all potential sites in Michigan = statewide education

# Conclusions

- Our analysis of the facts do not support notifying everyone within a one-mile radius of every investigation
- Due to the number of other potential sites/sources in Michigan, a statewide education campaign effort makes more sense to help more people to:
  - Understand where they live in relation to potential sources of PFAS
  - Raise general awareness of PFAS
  - Goal – Encourage self-sampling their own well

# Notification Document

Final Public Notification Recommendation Memo –  
Revision 2

To: EGLE MPART

From: CAWG

Date: January 13, 2023

**On November 13, 2017**, Governor Snyder signed Executive Order 2017-4 regarding MPART.

The following excerpt is foundational to this memo in which the CAWG makes the following recommendations to MPART regarding prompt notification to all stakeholders, most notably citizens, about PFAS contamination investigations that could impact drinking water wells, surface water, and/or other exposure pathways near a PFAS investigation site.

“[MPART] shall direct the implementation of the state's action strategy, which includes, but is not limited to research, identify, and establish PFAS response actions relative to the discovery, communication, and mitigation of PFAS. To the extent practicable, the [MPART] shall do each of the following...

D. Perform state and local public outreach to ensure that residents in the impacted areas, including all community members, local government, corporate and non-profit partners, and affected stakeholders are informed, educated, and empowered.”

On March 9, 2021 the Michigan Department of Environment, Great Lakes and Energy (EGLE) Michigan PFAS Action Response Team (MPART) Executive Director charged the Community Action Work Group (CAWG) Engaging the Public Subcommittee (the Subcommittee) to develop a proposal to inform citizens about PFAS contamination investigations that could impact drinking water wells, surface water. and/or other exposure pathways near the investigation site.

Members of the Subcommittee have attended over 21 PFAS informational, local, leaders or town hall meetings held by MPART since March 9, 2021. Of the 17 unique sites addressed by these meetings, one had PFAS contained at the site, five had only surface water detections of PFAS compounds, six had surface water and residential well contamination by PFAS compounds, and five had surface water detections of PFAS compounds and likely drinking water well contamination above at least one of the State of Michigan PFAS Minimum Contamination Levels (MCLs).

To date, MPART has identified 230 PFAS sites, and the Subcommittee realizes that there could be hundreds of additional PFAS site investigations in the future. Public health must be the paramount concern as these investigations continue. Informing the public of PFAS contamination near their residences and community needs to be done as each investigation begins.

Therefore, the MPART Informing the Public Sub-Committee is recommending that the CAWG consider proposing to MPART the following actions for implementation by MPART.

**Policy and Guiding Principles.** The State of Michigan should notify all potentially exposed individuals as soon as it has sufficient information to commence an investigation of possible PFAS contamination or exposure and to keep those individuals apprised of all material developments throughout the investigation. The following recommendations are intended to provide guidance for implementing that policy. These recommendations should be interpreted in all instances to effectuate this policy's fundamental and guiding principles, which are:

(i) that potentially impacted individuals have the right to know the relevant and available information about the risks of the possible PFAS exposure(s) being investigated, and (ii) that those individuals have the right to make their own timely and informed health decisions (and to provide input to the State) when an investigation is begun and as it unfolds. Accordingly, whenever there is doubt or uncertainty as to whether, when, or the extent to which an individual should be notified, the State should err on the side of notification without delay.

**Qualifying Investigation Trigger for Notification** – EGLE/MPART should notify the public of all Investigations of PFAS that have the potential to impact any household (MPART intends to do this notification on a Statewide basis through a Public Education Campaign) or other water supply, body of surface water, or other exposure pathway (MPART includes data layers of other relevant sampling as available to the website for public information.) This notification shall be provided at the beginning of any investigation or as part of any current (ongoing) investigation. Direct notification at a minimum, must be given to local units of government and potentially impacted households and individuals. (At the beginning of an MPART investigation, local units of government, local health and EGLE work together to identify and potentially sample impacted households.)

**What Constitutes Initial Notice** - Prior Subcommittee discussions concluded that notification should include a notice to impacted and potentially impacted households and individuals, regardless of property ownership status, as well as local governmental and non-governmental entities, including but not limited to local government, health departments, and local media outlets.

It's critical that potentially affected residents and their community representatives be notified at the same time as responsible parties when a site investigation begins. If there is enough evidence to initiate a site investigation and notify a polluter or potentially responsible party, there is enough evidence to notify potentially affected residents.

Notice should include a brief summary of the following: (MPART has been contacting potentially impacted households by mail, phone and door knocking to try and obtain access to sample the res wells as part of a coordinated effort by EGLE, DHHS and Local Health.)

- a) The basis for the Investigation – e.g., a summary of historical records, sampling, type of facility, witnesses, etc.
- b) What PFAS chemicals are likely or possibly involved -including known associated health risks
- c) Extent of the contamination – to the extent known. If not known, explain why & provide a timeline
- d) Next steps – if known, including expected sampling schedules, testing planned, and drinking water treatment.
- e) Residential well sampling and testing – directing residents to information and expertise on how to sample their own well water if concerned.
- f) Contact information – provide the names of state and local officials familiar with the site, with the investigation(s) and PFAS contamination generalities and specifics.

(This information is often not available at the onset of an investigation. MPART notifies local officials and legislators if the site becomes an MPART site; information is also added online.)

As an example, in a case where there are potentially affected private well owners, EGLE/MDHHS should notify potentially affected private well owners located within a 1 mile radius (at a minimum) for each of the following events: (a) at the beginning of an investigation (whether by EGLE or by potentially responsible party); (b) when EGLE becomes aware of a historical or current release of PFAS that has a high likelihood of contaminating the groundwater or soil; and (c) when laboratory analytical data becomes available of PFAS groundwater contamination that exceeds the Michigan Drinking Water Standards. (MPART believes that using the available information to determine groundwater flow direction is a better way to identify households that may be at risk rather than notifying everyone in a radius. Additionally, the MPART website is used to share results from statewide sampling events such as surface water monitoring, fish contaminant monitoring and public water supplies.) EGLE or the local Health Department should notify potentially impacted well owners by letter or home visit as soon or phone alert as soon as reasonably possible upon (and not later than two weeks after) the occurrence of each of the above events. We encourage EGLE and local Health Departments to work with local units of government or County GIS offices to help identify parcel owners that may be impacted by PFAS contamination. (The MPART project teams,



including EGLE, DHHS and Local Health, work together to identify potential households at risk, including their names, addresses, well depths, year of well installation and other pertinent information as part of the initial Precautionary Res Well Sampling efforts.)

Other examples are provided in the attached Public Notification Guidance matrix. Additional or updated examples may be provided in further guidance materials developed from time to time by the CAWG. The examples are illustrative only and are not intended to cover every circumstance in which public notification should be given.

**3) Need for Ongoing Investigation Progress Notification** – Water and other test results and other relevant information should be released for public access, with notification, as soon as the analytical and related data are verified to have met testing laboratory Quality Assurance/Quality Control (QA/QC) criteria. If responsible parties are not investigating as required, notify neighbors and the media. Rather than waiting for all testing to be completed, smaller batches of qualified analytical test results should be released to the public as they become available. (MPART uses the MPART website to communicate initial, significant results to the public, and local officials. With the large volume of PFAS sampling occurring in the State, there is no viable way to provide all testing data to the public.)

**4) Provide Education Resources** – including an on-line easily-accessible periodically-updated PFAS 101 informational course that includes content on residential drinking water wells and water quality, as well as links to local resources, including names and contacts for the local health department and medical expertise. (MPART created a PFAS 101 recording in May 2021 and an Introduction to PFAS 101 video in May 2022. Additional educational resources are on the MPART website and on the DHHS Drinking Water Contamination Webpage.)

**5) Continued Enhancement of the Web Based PFAS Contamination Location System.** The computerized mapping system allows private drinking water well owners across the state to independently gauge PFAS hazards in their area based on available information. (MPART continues to add and update content on the PFAS Geographic Information System, which also has the ability to filter by types of PFAS sites.)

# Conclusions

To reach more of the 1.2M PLUS residents on private residential wells, MPART will be:

- Continuing to sample residential wells that are deemed to be at most potential risk as determined by EGLE, DHHS and local health (Precautionary Res Well Sampling Protocol)
- Implementing the DHHS statewide educational campaign to increase awareness of sources of pollution in their wells and encourage people to evaluate their wells in relation to their home and potential sources of pollution.
- Participating in community-specific meetings
- Educating local governments about sources of PFAS and see if their GIS staff can evaluate nearby res wells and reach out to specific homeowners who might be near PFAS sources, using whatever outreach tool they think will be most effective
- Continuing to offer calls with local officials (and town halls) for all new sites
- Continuing to add information to our robust web site

# When We Work Together...

- Web sites improvements
  - Site table replaced old site tiles
  - Geographic Information System (more data online)
    - Coming soon! Public Water Supply data being combined into one data set
- Community awareness document the CAWG created
- Educating other communities – Theresa Landrum example
- Educating governmental agencies
  - Local health departments (every site and some new investigations)
  - Counties
  - Townships

# What if....

- CAWG members pass on social media messages and other tools that come out of the DHHS statewide campaign?
- Each CAWG member reached out to the community next to them to help them understand PFAS?
- CAWG members helped educate more of the:
  - 83 counties. I presented to the counties to see if any of them can start evaluating residential wells in relation to PFAS sources.
  - 1,250 townships. What if counties started evaluating residential wells in their township?
  - Other “What if” opportunities

Bay	Bangor	9
Bay	Beaver	529
Bay	Frankenlust	150
Bay	Fraser	493
Bay	Garfield	574
Bay	Gibson	399
Bay	Hampton	3
Bay	Kawkawlin	297
Bay	Merritt	87
Bay	Monitor	130
Bay	Mount Forest	470
Bay	Pinconning	425
Bay	Portsmouth	102
Bay	Williams	311

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Future Topics?

Next CAWG Meeting  
– April 11<sup>th</sup>



# MICHIGAN PFAS ACTION RESPONSE TEAM (MPART)

[www.Michigan.gov/PfasResponse](http://www.Michigan.gov/PfasResponse)



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

