

MPART Citizens Advisory Workgroup

June 9, 2020

Citizens Advisory Workgroup Members

LIST OF MEMBERS AS OF JANUARY 7, 2020 (BY COUNTY)

COUNTY	CITY/TOWNSHIP	NAME	COUNTY	CITY/TOWNSHIP	NAME
Allegan	Otsego	Gale Dugan	Livingston	Brighton	Robert Potocki
Allegan	Otsego	Pam McQueer	Livingston	Whitmore Lake	William Creal
Grand Traverse	Traverse City	David Lipscomb	Macomb	Shelby Township	David Winn
Ingham	East Lansing	Lea Dyga	Menominee	Menominee	Daniel Burlingame
Ingham	Williamston	Kate Gislason	Montcalm	Pierson	Daniel Buyze
Iosco	Oscoda	Aaron Weed	Muskegon	Muskegon	Matthew Farrar
Kent	Ada	A. J. Birkbeck	Oakland	Milford	Christina Schroeder
Kent	Belmont	Jennifer Carney	Oakland	Northville	Gary Pettyjohn
Kent	Belmont	Sandy Wynn-Stelt	Oakland	Troy	Tony Spaniola
Kent	Comstock Park	Renae Mata	Ottawa	Grand Haven	Jeffery Dutton
Kent	Grand Rapids	Patti Baldwin	Saginaw	Carrollton Township	Shellene Thurston
Kent	Rockford	Kenneth Harvey	Washtenaw	Ann Arbor	Daniel Brown
Kent	Rockford	Lynn McIntosh	Wayne	Detroit	Theresa Landrum
Livingston	Brighton	Elizabeth Hauptman	Wayne	Grosse Pointe Farms	Connie Boris
			Wexford	Cadillac	William Barnett

**As it appears on the Citizen's Advisory Workgroup webpage.*

Agenda

- Welcome and Webinar Instructions – 5 min
- PFECHs Whitepaper (DHHS) – 5 min
- Epidemiology Investigation (DHHS) – 15 min
- Surface Water Sampling (EGLE) – 15 min
- MPART Updates – 15 min
- ***DRAFT*** Plan for Announcing MPART's Expanded Universe – 15 min
- Next Steps – 5 min
- Community Sharing Round Robin – 15 min

PFECHS Whitepaper

- Document attached to the meeting notice
- Prepared by MPART's Human Health Workgroup
 - For additional questions at contact:
Jordan Bailey (DHHS)
517-284-8997
BaileyJ17@Michigan.gov

MDHHS Update of PFAS Epidemiology Investigations

MPART Citizens Advisory Workgroup Meeting

June 9, 2020

Betsy Wasilevich PhD, MPH
Sr. Epidemiologist
Division of Environmental Health
Michigan Department of Health and Human Services

Environmental Epidemiology Investigations

Exposure
Assessment

With a known source, were people exposed? And by how much?

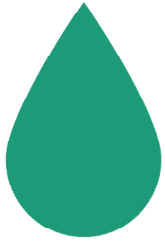
Health Study

Is exposure related to health?

Biomonitoring
Surveillance

Is exposure different for different groups or is it changing over time?

PFAS Epidemiology Investigations



Exposure Assessment

- North Kent County Exposure Assessment (NKCEA)



Health Studies

- Michigan PFAS Exposure and Health Study (MiPEHS)
- Multi-site Health Study (MSS)



Biomonitoring Surveillance Programs

- Michigan Chemical Exposure Monitoring Program (MiChEM)
- PFAS in Firefighters of Michigan Surveillance (PFOMS) Program

North Kent County Exposure Assessment

- We are currently working on reports that describe PFAS levels in drinking water and blood samples across the community
- First report will be a preliminary report focusing on describing blood PFAS levels among participants
- A summary of the preliminary report will be mailed directly to all North Kent County Exposure Assessment participants
- Both the summary and the full preliminary report will be posted on our website (www.michigan.gov/envirohealth)

Two Health Studies

Michigan PFAS Exposure and Health Study (MiPEHS)

City of Parchment,
Cooper Township, and
North Kent County



MiPEHS and Multi-site Health Study

MDHHS Research Team



Jordan Bailey,
Ph.D.



Joost van 't
Erve, Ph.D.



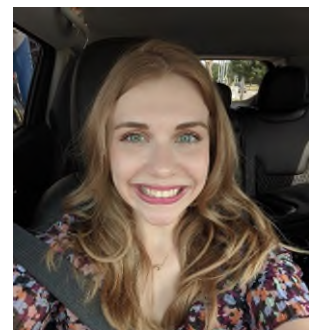
Laura Abington,
M. Ed., MPH



Taylor Sullivan,
MPH



Sarah Allison,
MPH



Ellery Johnson,
MPP



Dustin Wippel,
MBA

Partners

Scientific Guidance
Panel

Community
Stakeholder
Groups



CDC/ATSDR
(MSS only)

MiPEHS Design Overview

- Multi-year cohort study measuring the health effects of PFAS in drinking water
- Recruitment area: City of Parchment/Cooper Township and North Kent County
- Will try to accommodate as many eligible participants as possible
- Data and sample collection from participants at three timepoints
 - Phase 1, 2, and 3; each spaced approximately 2 years apart
 - People may enter study at phase 1, 2, or 3
 - Participation in all timepoints will provide the most information
- Funded by the State of Michigan

MiPEHS Project Status

- Planning for MiPEHS began in July 2019
 - Weekly internal team meetings for research logistics, data management, laboratory coordination
 - Weekly meetings with RTI
- Research protocol under management and IRB review
 - Work cannot start due to COVID-19
- Monthly community stakeholder meetings in both locations for input on study logistics and outreach
- Recruitment and study office visits 17 weeks after MDHHS IRB approval to start work

Multi-site Health Study Design Overview



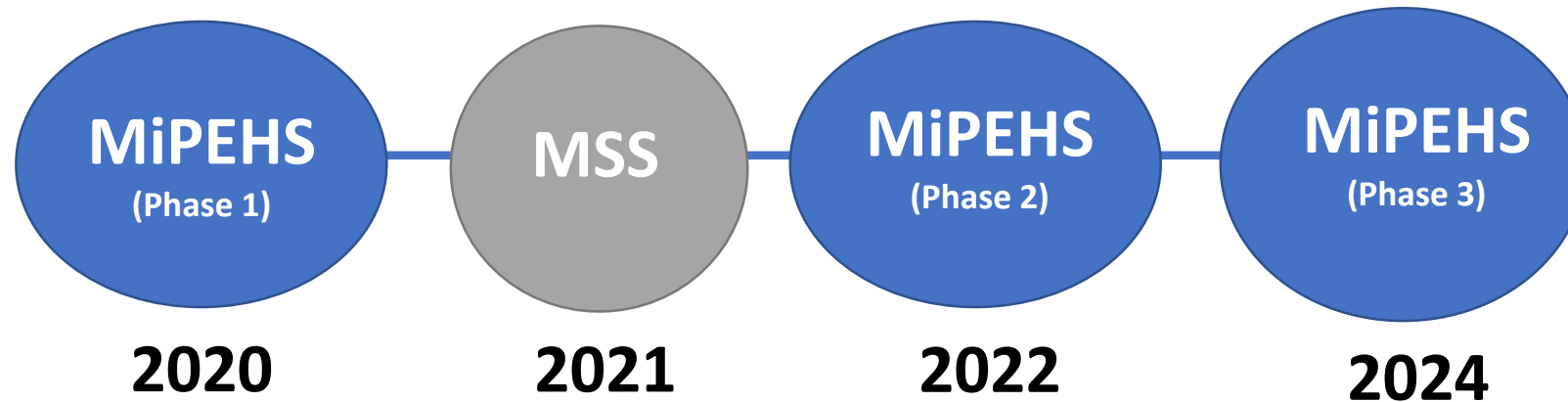
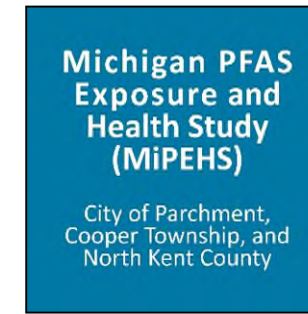
- One-time study measuring the health effects of PFAS in drinking water
- A multi-site study - Michigan's study data will be compiled with data from 6 other sites across the US
 - A common core protocol implemented across all sites
- Recruitment area: City of Parchment/Cooper Township and North Kent County (same as MiPEHS)
- Up to 1,300 participants at our site with specific eligibility criteria: 1,000 Adults and 300 Children
- Data and sample collection from participants at one timepoint
- Funded through cooperative agreement with ATSDR



Multi-site Health Study Project Status

- Work started on October 1, 2019
 - Weekly internal team meetings for research logistics, data management, laboratory coordination
 - Monthly “1:1” and “All PIs” calls with ATSDR
- Year 1 focus is on planning and historical reconstruction/Physiologically Based Pharmacokinetic Model (PBPK) modeling
- Monthly community stakeholder meetings in both locations
- Recruitment and study office visits planned to start budget year 2 (2020-2021)

Data and Sample Collection for MiPEHS and MSS



*Anticipated timeline, will depend on the ongoing COVID-19 pandemic response efforts

The study team is working to minimize confusion with having two similar yet separate studies in the field!

Two Biomonitoring Surveillance Programs

Michigan Chemical
Exposure
Monitoring
(MiChEM) Program

PFAS in Firefighters
of Michigan
Surveillance
(PFOMS) Program

MiChEM Overview and Status

- Surveillance system measuring the Michigan adult population for levels of chemical exposure
- Recruitment criteria: adult, Michigan residents who respond to the Michigan Behavioral Risk Factor Surveillance Survey
- 1,375 participants over 3 years
- Data and sample collection from participants at one timepoint
- Funded through cooperative agreement with CDC
- Work started on October 1, 2019
- Pilot data collection procedures anticipated at the end of 2020; participant recruitment planned to begin in 2021

PFOMS Overview and Status

- Surveillance system measuring the Michigan firefighter population for levels of PFAS exposure
- Recruitment criteria: career and volunteer, adult, firefighters who work for airport or municipal fire stations
- 600 firefighters over 3.5 years
- Data and sample collection from participants at one timepoint
- Funded through cooperative agreement with CDC
- Work started on October 1, 2019
- Fire station census to launch this summer; participant recruitment planned to begin in 2021

Questions?

Betsy Wasilevich PhD, MPH
Sr. Epidemiologist
Division of Environmental Health
Michigan Department of Health and Human Services

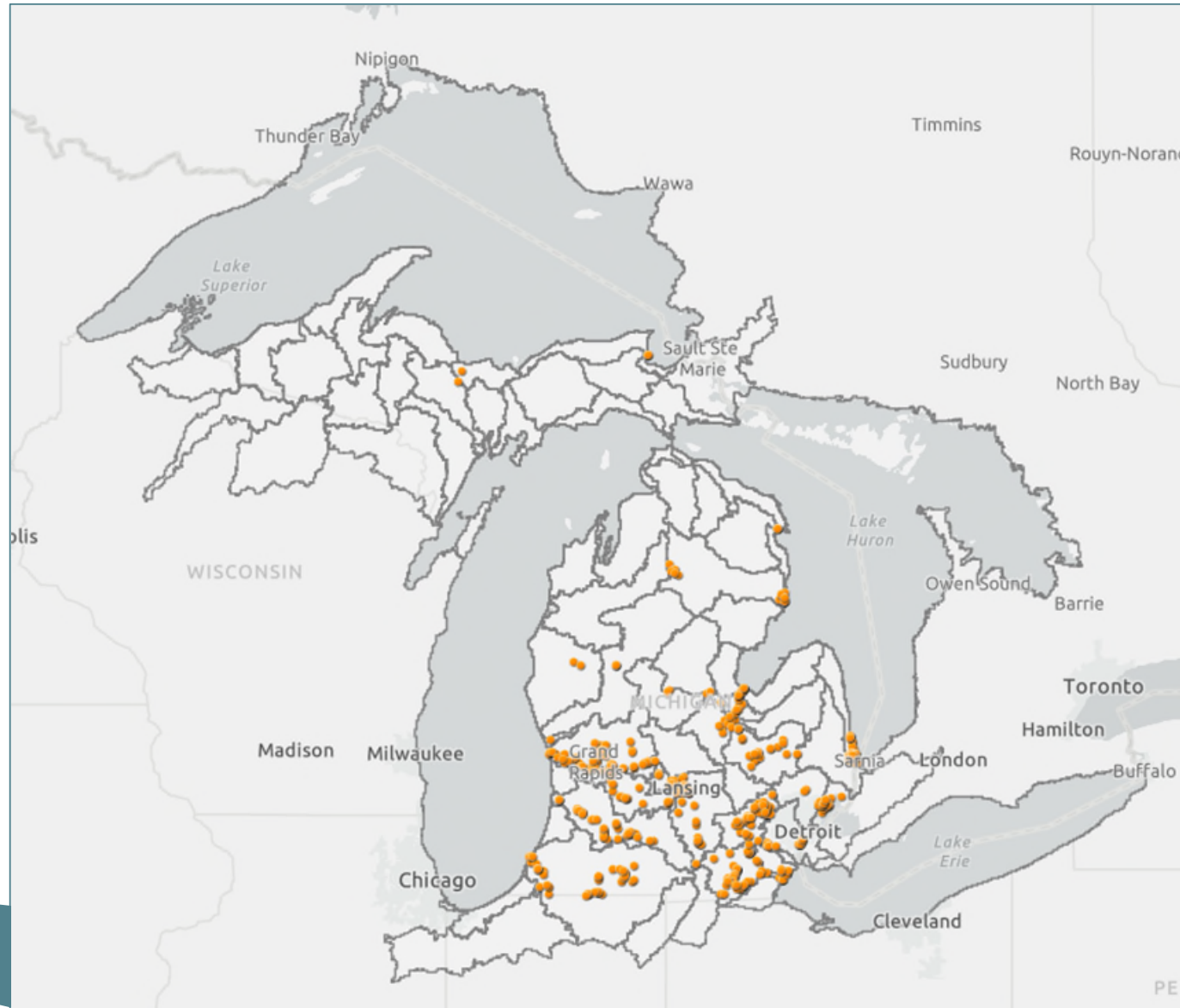
How to request PFAS sampling

Michael Alexander, Manager
Surface Water Assessment Section
Water Resources Division (WRD), EGLE
AlexanderM2@Michigan.gov, 517-449-7971

EGLE PFAS Surface Water Investigations

- To date, 695 ambient surface water samples from 202 waterbodies analyzed for PFAS
- Eight major watersheds sampled intensively as part of source tracking investigations
- [MPART watershed investigations](#)
 - Clinton River
 - Flint River
 - Grand River
 - Thornapple River
 - Huron River
 - Kalamazoo River
 - River Raisin
 - Saginaw River

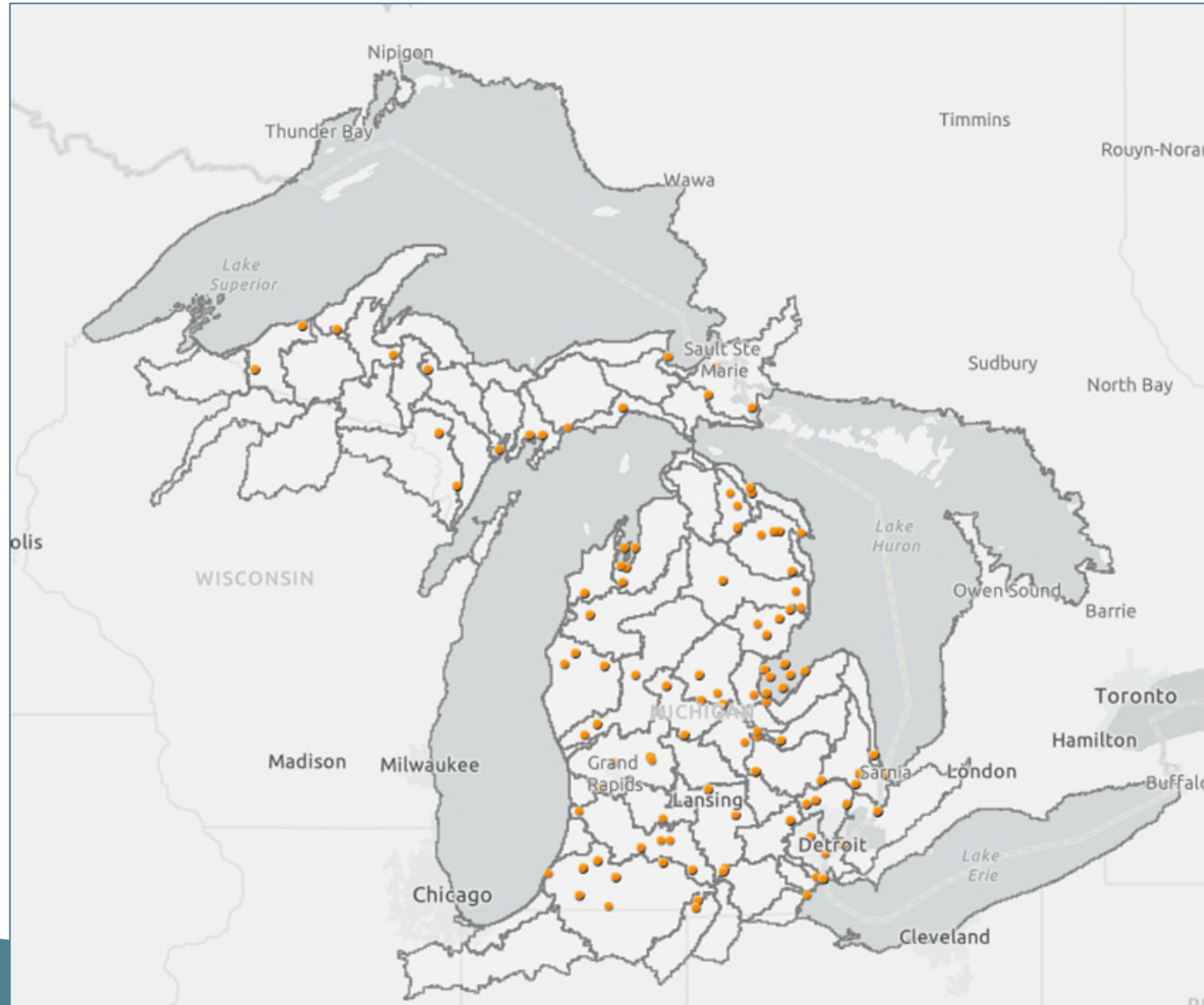
Investigative PFAS Sampling Locations to date



Water Chemistry Monitoring Program (WCMP)

- The primary objectives of the WCMP are to
 - (1) Identify the chemical character of surface waters of the state and relate characteristics to Michigan's Part 4 rules, Water Quality Standards, when applicable
 - (2) Determine whether the chemical character of surface waters of the state are changing over time
- To date, 359 ambient surface water samples from 106 locations analyzed for PFAS as a part of the WCMP

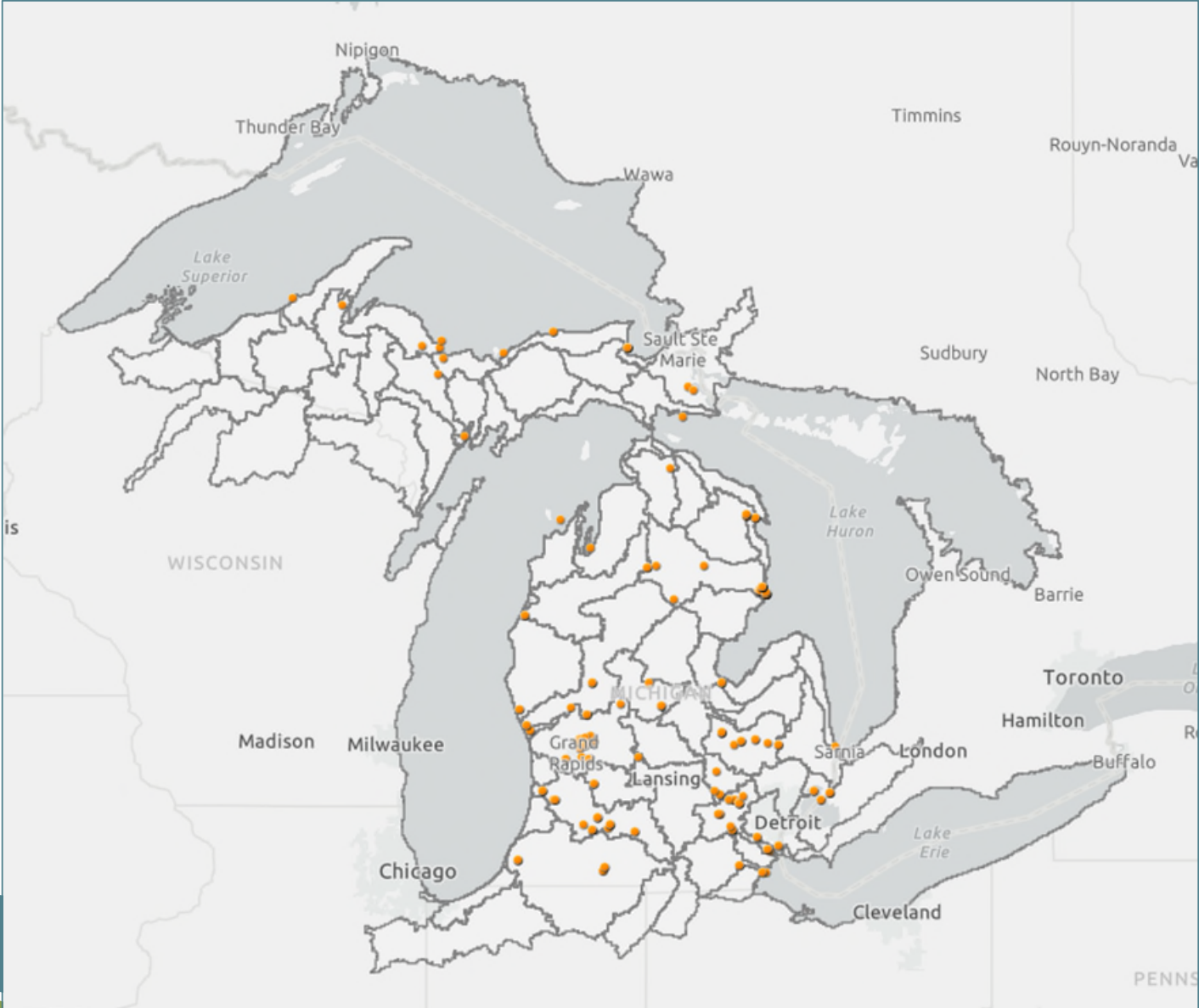
WCMP PFAS Sampling Locations to date



Fish Contaminant Monitoring Program (FCMP)

- Specific objectives of the FCMP include
 - Determine whether fish from the waters of the state are safe for human consumption.
 - Assist in the identification of waters that may exceed standards and target additional monitoring activities.
 - Evaluate the overall effectiveness of EGLE programs in reducing contaminant levels in fish.
- To date, 1,830 fillet samples from 73 waterbodies analyzed for PFAS

FCMP PFAS Sampling Locations to date



EGLE PFAS Sampling Selection Process

- Michigan's [five-year](#) rotating watershed system
- EGLE WRD's [Targeted Monitoring](#) Requests
- Source Tracking
 - Elevated result from the [Industrial Pretreatment Program](#)
 - Nearby MPART [PFAS Site](#)
 - PFAS [Foam Complaint](#)
- Trend Monitoring
- Show improvements following Mitigation/Remediation activities

Targeted Monitoring Requests Program

- EGLE solicits monitoring requests to support implementation of the WRD monitoring strategy.
 - Goals of the strategy:
 - Assess current status and condition of water of the state
 - Measure spatial and temporal trends
 - Evaluate effectiveness of protection & restoration programs
 - Detect new and emerging problems

https://www.michigan.gov/egle/0,9429,7-135-3313_3681_3686_3728-32609--,00.html

Monitoring capabilities

- Water chemistry
- Sediment chemistry
- Fish contaminant
- Fish and/or macroinvertebrate studies
- Aquatic toxicity tests (ambient waters)
- Lake trophic status
- Nutrient pollution
- Harmful algal bloom conditions
- Aquatic Invasive Species
- *E. coli* bacteria
- Channel morphology



- https://www.michigan.gov/egle/0,9429,7-135-3313_3681_3686_3728---,00.html



ABOUT EGLE

AIR

LAND

WASTE

WATER

SUSTAINABILITY

WATER

Great Lakes

Drinking Water

Lakes & Streams

Aquatic Nuisance Control

Water Quality Monitoring

Lakes & Streams Protection

Marinas

Related Links

Wetlands

MiWaters

Wastewater

Water Permits

Water Management

EGLE / WATER / LAKES & STREAMS / WATER QUALITY MONITORING

Monitoring Request Form

EGLE's Water Resources Division (WRD), is soliciting surface water quality monitoring recommendations for fiscal year (FY) 2020 to support implementation of the watershed-specific component of our [Strategic Environmental Quality Monitoring Program for Michigan's Surface Waters \(Strategy\)](#).¹

Monitoring efforts will be focused in the watersheds highlighted in the [Basin Year 2 \(2020\) map](#). However, surface water quality monitoring requests in other Michigan watersheds, including the Great Lakes and their connecting channels, will be considered.

The availability of Clean Michigan Initiative - Clean Water Fund and Renew Michigan Fund monies has allowed the WRD to greatly enhance its water quality monitoring capabilities. As a result, several types of monitoring activities can be requested for consideration. Please note that submission of a request does not guarantee that the WRD will be able to conduct the requested monitoring. Many factors, including budget, staff availability, and the division priorities, are taken into consideration during the decision-making process.

Typical parameters monitored by the WRD include the following:

- [Water chemistry](#)
- [Sediment chemistry](#)
- [Fish contaminant](#)
- [Fish and/or macroinvertebrate community studies](#)
- [Aquatic toxicity tests \(ambient waters\)](#)
- [Lake trophic status](#)
- [Nutrient pollution](#)
- [Harmful algal bloom conditions](#)
- [Aquatic Invasive Species](#)
- [E. coli bacteria](#)
- [Channel morphology](#)

Please electronically complete and submit a Water Quality Monitoring request at https://www.surveymonkey.com/r/WRD_MonReq. To be considered for sampling in 2020, please submit your request(s) by October 30, 2019.

Monitoring Request Form



Water Resources Division - Water Quality Monitoring Request

The following information will be used to select and prioritize monitoring requests, therefore, please ensure the completeness and accuracy of your request prior to submittal. (Fields marked with an asterisk (*) are required.)

Requestor Information:

First Name *	<input type="text"/>
Last Name *	<input type="text"/>
Organization	<input type="text"/>
Street Address	<input type="text"/>
City / Town	<input type="text"/>
ZIP / Postal Code	<input type="text"/>
Phone Number (e.g., 5175550123)	<input type="text"/>
Email Address *	<input type="text"/>

Monitoring Request Form

Monitoring Information:

In order to prioritize monitoring requests received, it is important to provide accurate information on the desired sampling location. This online form will allow you to request up to 3 different sites. If your request includes more than 3 sites, please fill out an additional Water Quality Monitoring Request form.

Waterbody Name*

County

Location (e.g., road crossing
or other description)*

Latitude *

(e.g., 42.73194)

Longitude *

(e.g., -84.55923)

Monitoring Request Form

Concern/Question/Objective:

What is your environmental concern, question, or objective at this location?

NOTE regarding lake monitoring:

This monitoring request form is for streams, rivers, and lakes.

Trophic state lake monitoring is designed to assess lake productivity through measurements of water transparency, nutrients, and algal biomass. EGLE does not conduct fish or macroinvertebrate community surveys for lakes. For additional information visit the Inland Lakes Monitoring Strategy webpage by clicking [here](#). EGLE is unlikely to conduct monitoring that could be completed by lake residents through the Cooperative Lakes Monitoring Program. For more information on this program click [here](#). In order to be considered for targeted EGLE lake monitoring, please identify a larger problem and objective for monitoring.

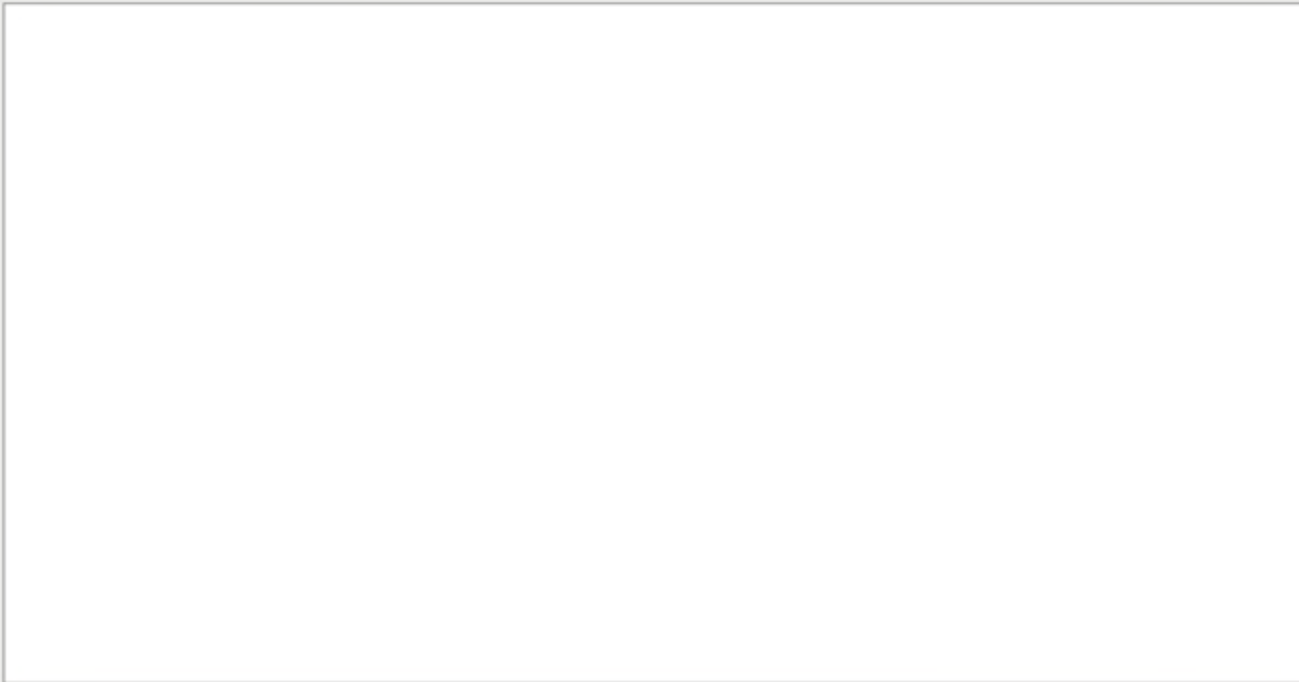
Use of the Data/Information:

What outcome do you hope will be achieved with this monitoring?

Monitoring Request Form

Requested Monitoring Justification:

Provide a short summary of why monitoring should be performed at the requested site(s). If necessary, additional justification can be provided in the “Additional Comments” section below. If applicable, please point out whether the requested monitoring is related to Total Maximum Daily Loads (TMDLs), National Pollutant Discharge Elimination System (NPDES), Areas of Concern (AOC), potential restoration or best management practice success stories, long term trend monitoring, etc.



Monitoring Request Form

Do you have another site you would like to add?*

Yes

No

** NOTE: Click "Yes" if you have additional sites to add (you may add up to 3 sites on one request form). You will then be taken to another page where you will be able to enter additional site information. If information such as the "Requested Monitoring Justification" or "Additional Comments" are the same as your first site, you may write "Same" in those text boxes, as long as there is a justification for the first site. You may then either submit your request or add an additional site.

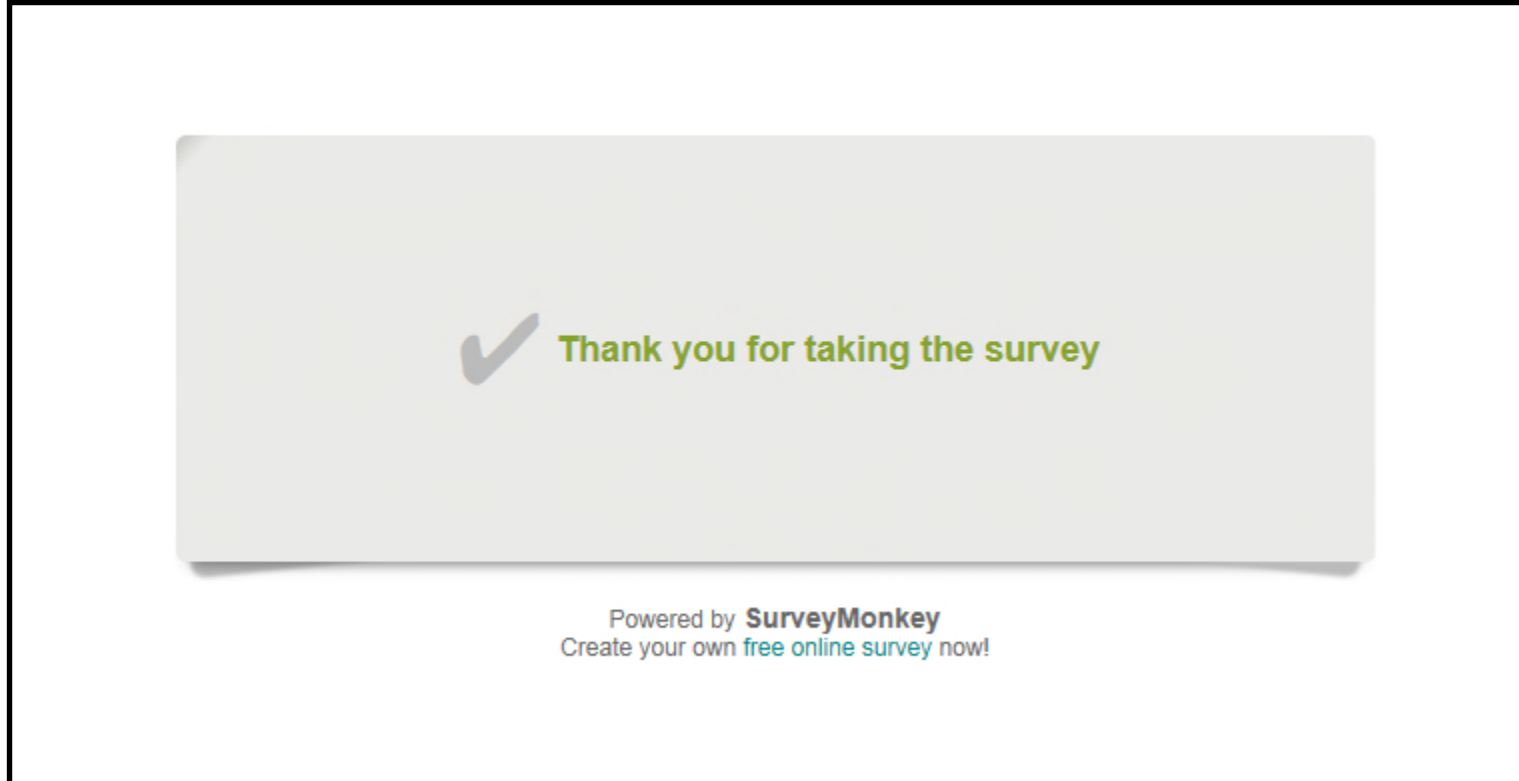
If you do not have another site to add, click "No". **You must click "Submit" on this page for your request to be processed.** You should see a "Thank you for taking the survey" page if your request has been submitted.

For assistance with this request please contact:

Michigan Department of Environment, Great Lakes, and Energy
Water Resources Division
Lee Schoen [\(517\) 342-4500](tel:5173424500) or Matt Wesener [\(517\) 342-4568](tel:5173424568)
EGLE-WRD-TMR@michigan.gov

Submit

Monitoring Request Form



Tentative Schedule for 2021 requests

Important Dates (2021 Monitoring)

<u>Date</u>	<u>Deadline</u>
September 2020 -	Official application period opens
October 2020	- Deadline for submitting 2021 requests
January 2021	- Confirmation emails sent out
June 2021	- Notification of final decisions

Additional Questions about Michigan Targeted Monitoring Request Process

Contact Information:

- EGLE-WRD-TMR@michigan.gov
 - Lee Schoen, schoenl1@michigan.gov, (517) 342-4500
 - Jeff Varricchione, varricchionej@michigan.gov, (517) 342-4557
-

Monitoring Request Homepage:

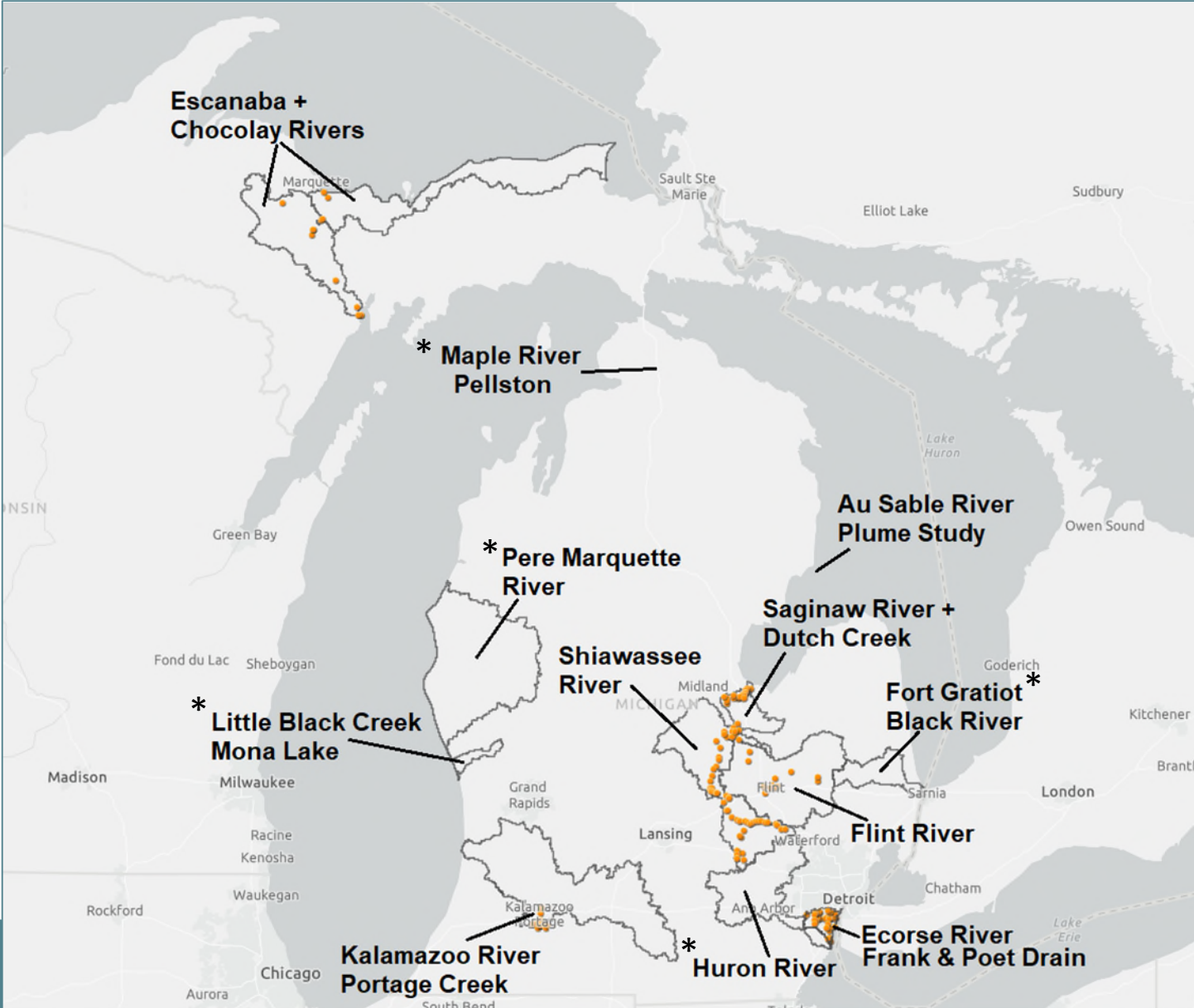
<https://www.michigan.gov/egle/0,9429,7-135-3304-12735--,00.html>

Monitoring Request Form:

https://www.surveymonkey.com/r/WRD_MonReq

Proposed 2020 Surface Water Sampling

* Sampling Plan not developed



Proposed 2020 FCMP PFAS locations



Questions?

MPART Updates

- Industrial Pretreatment Program and Biosolids Summary Report
 - https://www.michigan.gov/documents/egle/wrd-pfas-initiatives_691391_7.pdf
- MPART GovDelivery – 1,700 + Subscribers
 - Sending weekly updates since June 24, 2019
- Budget Update

MPART Update

- Airport PFAS Grant
 - 12 Airports submitted a proposals
 - ~ \$2.8 Million requested
 - July 1st is the target for awards to be announced
- Currently 93 official MPART sites

DRAFT Plan for Announcing MPART's Expanded Universe

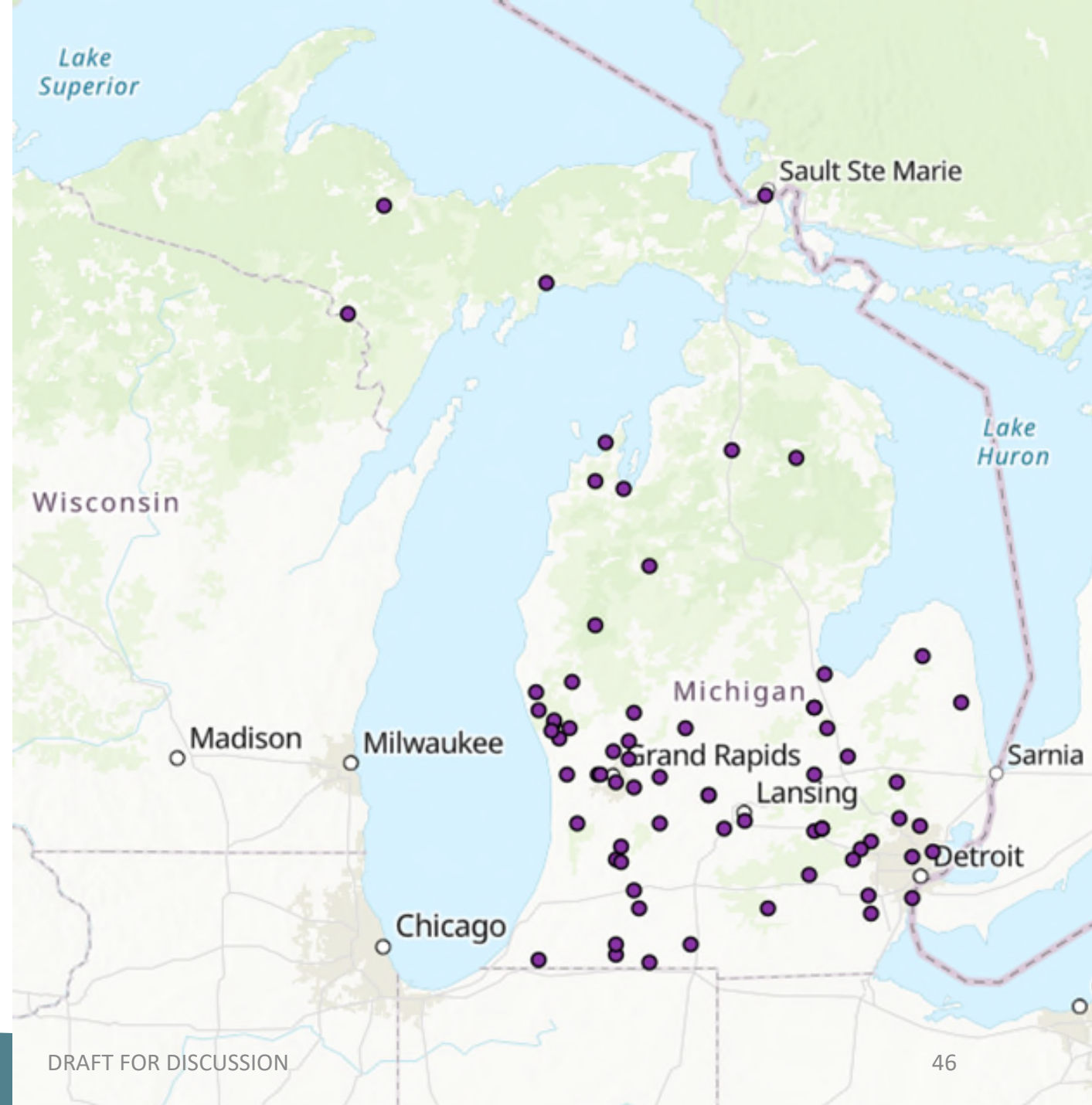
DRAFT FOR DISCUSSION

Objectives

- Notify communities that are part of the expanded universe of MPART sites and areas of interest
- Grouped outreach
 - State, regional, etc. rather than 70+ individually
- Timely – tied to promulgation of MCLs
- Informative
 - MPART
 - PFAS 101 (chemistry and health effects)
 - New locations
 - Plan for integrating them into MPART's processes

Distribution of Expanded Universe

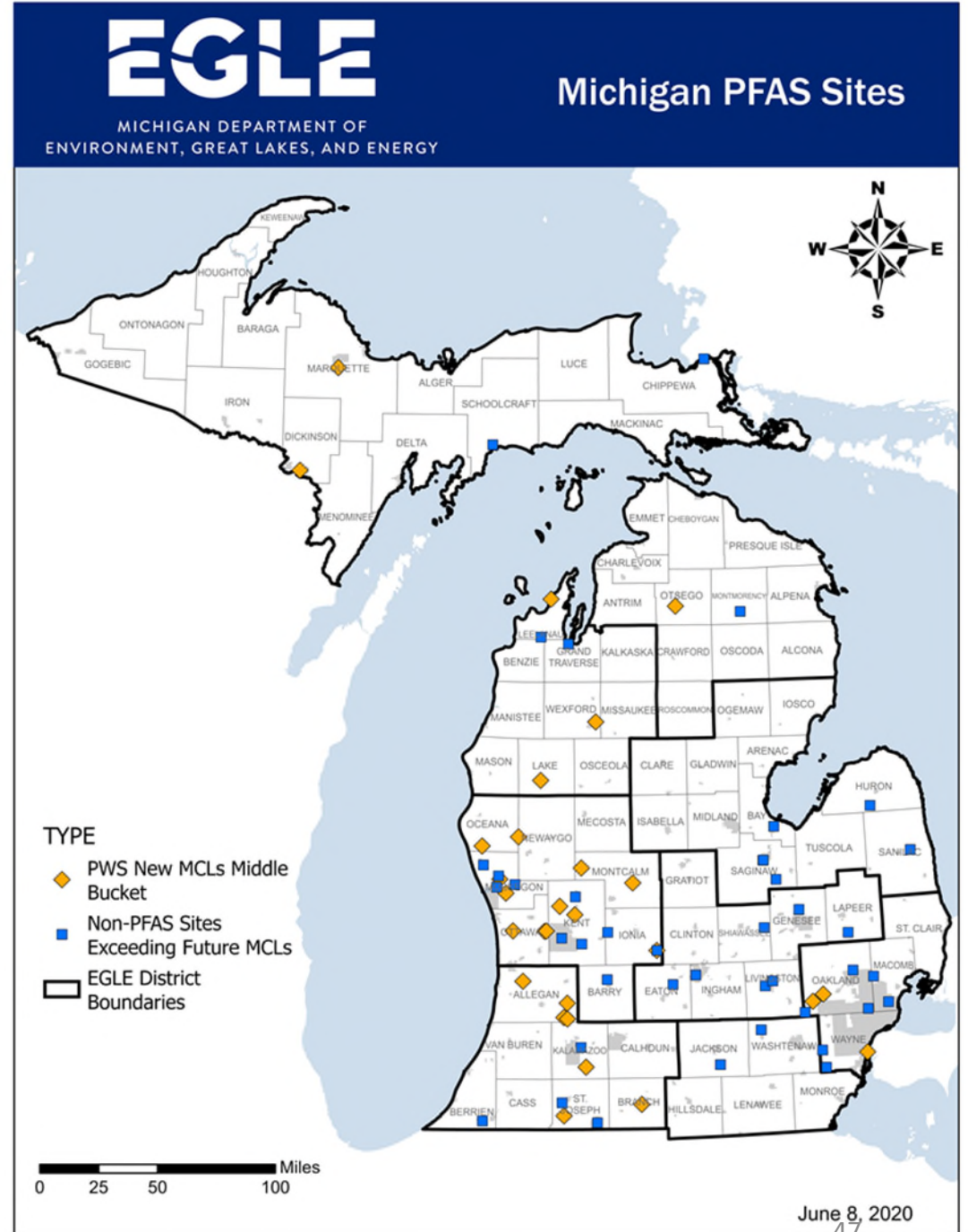
- 9 EGLE districts
 - 2 – 22 investigations each
- 33 Local health agencies
 - 1 – 6 investigations each
- 38 Counties
 - 1 – 6 investigations each
- Not uniform
- 42 new 'sites'
- <28 areas of interest in vicinity of Public Water Supplies



Distribution Across EGLE Districts

- 2 – Gaylord
- 2 – Jackson
- 4 – UP
- 5 – Cadillac
- 6 – Saginaw Bay
- 8 – Lansing
- 10 – SEMI
- 11 – Kalamazoo
- 22 – Grand Rapids

DRAFT FOR DISCUSSION



Adapting MPART Communication Protocol

- Informal outreach to local officials
- Statewide webinar(s) to announce expanded universe
- Posting site and area of interest write-ups on the web
- Individual town halls later as MPART prepares to investigate residential wells

Outreach Timeline

- Informal outreach before promulgation of MCLs
 - DHHS call local health
 - EGLE call local municipal
 - EGLE call legislators
- After promulgation of MCLs
 - News release
 - Webinars
 - Site write-ups posted on MPART website

DRAFT FOR DISCUSSION

Webinar Content

- MPART
- PFAS
 - Chemistry
 - Toxicity
- Expanded Universe
 - Sites and AOIs identified earlier
 - Additional work warranted with adoption of lower standards
- List of Locations
 - More information on Web
- Community-specific town halls will be conducted as investigations progress

DRAFT FOR DISCUSSION

Webinar Coverage Areas

- Group 1
 - Upper Peninsula
 - Cadillac
 - Gaylord
 - Saginaw Bay
- Group 2
 - Lansing
 - Jackson
 - SEMI
- Group 3
 - Grand Rapids
 - Kalamazoo

DRAFT FOR DISCUSSION

Key Messages

- MCLs are an added tool for MPART to promote further investigation and response
- The levels and basis for them has been widely advertised for over a year during MPART meetings, rule development, and the Environmental Rules Review Committee process
- The health-based values behind the MCLs have been used to inform public health actions
- We have been preparing to implement the lower levels to drive investigations
- Fortunate to have already identified the 70 locations where further investigation and response are warranted
- The 70 locations will be integrated into MPART's continued efforts to identify and reduce exposures, prioritized among work at the 93 other sites and new ones identified going forward

DRAFT FOR DISCUSSION

CAWG Subcommittee's

Engaging the Public Subcommittee:

Ken Harvey – Chair

A.J. Birkbeck

Shelli Thurston

Sandy Wynn-Stelt

- Establish timeline and scope
- Leads to report out monthly

Web Review Subcommittee:

A.J. Birkbeck – Chair

Bill Creal

Shelli Thurston

Next Steps

- Subcommittee's Progress
- Future meetings
 - July 14, 2020
 - August 11, 2020 (Cancel ?)

Community Sharing Round-Robin



UPDATES



ANNOUNCEMENTS



QUESTIONS

MICHIGAN PFAS ACTION RESPONSE TEAM (MPART)

www.Michigan.gov/PfasResponse



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

