



## **Community PFAS Testing & Monitoring Toolkit**

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## Introduction

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### PFAS Background

Communities across the Great Lakes region impacted by PFAS contamination are struggling to secure the testing and monitoring they believe is needed to better understand how people are being impacted by contamination where they live. Communities have questions around PFAS contamination in surface water, fish, air, rain, wildlife, on farmland, in soil, and in people's blood. Few affordable resources exist for community members to access testing of this kind. Too often state agencies are unable or unwilling to test mediums which communities are concerned about.

The Ecology Center via the Great Lakes PFAS Action Network is working to change this dynamic in the Great Lakes through this Community PFAS Testing and Monitoring Toolkit. This toolkit provides guidance for community members on how to secure and implement the processes, resources, and funding needed to complete their own PFAS sampling project. Also included is a section on how to utilize testing results to influence action at the local or state level.

We hope communities find this information helpful and will help us continue to refine it as a useful toolkit. To provide feedback on the toolkit, to access current grant opportunities, or to ask for assistance with designing a PFAS community science project in the Great Lakes region, please visit [www.glpan.org](http://www.glpan.org) or email [connect@glpan.org](mailto:connect@glpan.org).

# Key Components of a PFAS Community Science Program

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The following bullets are key components to consider when designing a PFAS testing and monitoring program in your community

- **Strong Community Buy-In**
  - Dedicated group of community members willing to work together to design, collect, and disseminate the sampling results.
  - Clearly defined questions that the community wants answered.
  - 1-2 people willing to take the lead in organizing a dedicated group of community members.
- **Clear and Compelling Vision for Change**
  - Articulate together why the community wants to do the sampling. For example, how will sample results help to change the current situation facing the community?
  - Identify specific decision makers that will need to be influenced. Are they individuals, agencies, government entities? Knowing this will be critical to disseminating your results once the project is complete.
- **Funding**
  - What are the expenses you may have? Write a list of your estimated expenses and provide estimated costs to each one (e.g. sampling equipment, supporting volunteers in training and coordination needs, etc.)
  - If you need funds, think about ways you can raise money:
    - Partner with a nonprofit organization or an academic institution
    - Fundraise locally through schools, businesses, neighbors, etc.
- **Scientific Partner/s and Laboratory Services:**
  - Nonprofit organizations may help develop or train community members in scientific processes and practices needed to maintain sample integrity.
  - Ensure the laboratory services you select have met the level of certification needed for government agencies to recognize the results. The lab process is what makes the data credible to certain agencies.
- **Setting up the Sample Project**
  - Establishing a realistic sampling load that matches with the resources of the coordinator and the volunteers is critical to a successful start.
  - Create a sample plan that helps answer your project questions and goals. Identify where you'd like to sample, the number of samples, and any barriers you may encounter at sampling locations.
  - Are there any permits or permissions you'll need before sampling at a specific location?
- **Clear Sampling Processes:**
  - Getting high quality data is a rigorous process that requires clear procedures, logistics, and consistency.
  - Use a chain of custody protocols to preserve the quality of the data. The lab will provide this.
  - If volunteers will be doing the sampling, you'll want well-supported and coordinated volunteers. This could include a sampling training with clear goals, clear procedures, and allows for ease of sampling.

## Identifying Allies and Partners

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Nonprofit organizations or academic institutions can help and support your projects. For example, they can help identify which government departments have jurisdiction over the issue, help navigate agencies or lawmaker offices, help interpret data, be a host to sampling sites, or even make connections to local media.

Whether this is an existing or new partnership consider some of the below questions before entering into a partnership for your testing and monitoring projects.

- 1) What are the project costs and will a partner be able to help fundraise or directly contribute to the project? Do you need the partner to be the project's fiscal sponsor? If so, will the partner manage the funds equitably and with transparency?
- 2) Think about what resources, expertise and technical support you need from a partner. Will the partner contribute to the project in a way that primarily benefits your community, or is the partner putting their needs first?
- 3) Consider putting the terms of your partnership in writing. This can be accomplished either through a non-legally binding Memorandum of Understanding (MOU) or, if money will be exchanged, through a contract.
- 4) What is the history of the partner(s) in your community? Have they shown up to meetings or events? Do they have a good relationship with other members of your community? If they are new, what sort of commitment are they proposing to learn about and understand your community's assets and needs?
- 5) How will the partner support your data collection, interpretation, or data sharing? Do they have protocols that may create barriers for your community involvement? Clearly define your data needs for the partner.

## Disseminating Results and Advocacy

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Releasing results strategically may help influence change and address the situation the community is trying to address. Some nonprofit organizations can be helpful in assisting communities navigate decision making processes where change can happen. Community members should decide if they want to establish a partnership to help with advocacy.

After you've gathered all of your samples and received the results, consider the following steps.

- 1. Produce a 1-2 page document.** Summarize the goals of the project outlining the sampling protocols to show the samples have integrity. Highlight the key results, and include a section on what the community is asking for. In other words, based on your sampling, what do you want to change? For example, increased testing in a certain area, additional clean up actions implemented, etc.
- 2. Brief Decision makers.** Based on the change you want to see, identify the decision makers who are able to influence that change and meet with them to present your results and state your needs. Do you want the state health or environmental agency to take action? The city you live in? Are you trying to ensure a polluter follows the law? In that case, the federal or state agencies with jurisdiction to enforce would make the most sense.
- 3. Follow Up.** Give the decision makers 2-4 weeks to develop and respond to your request. Check in with them every 1-2 weeks for updates. If they have not provided a satisfactory solution or answer in that timeframe, consider approaching additional decision makers who are higher up in the power structure (their boss, another agency, the governor's office, etc).
- 4. Public Distribution.** It's likely as a community group that you want other community members to be made aware of the results you have collected. You can do this in a variety of ways, including hosting a meeting or webinar where you can present your results and allow time for questions from community members.
- 5. The Media.** Depending on what you are sampling, the media will likely have a keen interest in your results. Think carefully before sending your results to the media as doing so before you have gotten what you are asking for from decision makers may jeopardize your ability to be successful. Conversely, the media is a powerful advocacy tool. If the decision maker you are trying to influence will not take action after repeated requests, talking with reporters about your community's concerns, the results your project produced, and the asks you have made from decision makers is absolutely warranted and can be very effective in persuading decision makers to ultimately do the right thing.

## Case Study: Testing Surface Water Foam for PFAS in Oscoda, Michigan

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In Oscoda, Michigan PFAS containing firefighting foam from the former Wurtsmith Air Force Base has contaminated water bodies, wildlife and impacted human health. Members of the grassroots group Need our Water (NOW) in Oscoda strongly believed that a significant barrier in PFAS clean-up efforts has been a lack of consistent and comprehensive water monitoring in areas of high use or in water areas of significance to residents.

The community had reasons to believe that firefighting foam from the Wurtsmith Air Force Base had contaminated even more water bodies than the state of Michigan or the Air Force was willing to test. NOW was frustrated by the lack of testing and monitoring in these additional areas. With a trusted partnership already established between the National Wildlife Federation Great Lakes Regional Center and the Ecology Center - two Ann Arbor-based conservation and environmental organizations, NOW had many of the critical components needed to establish a successful community science PFAS testing and monitoring program.

In 2022-2023, NOW worked with the two organizations to test surface water foam on Lake Huron. With funding from a Michigan-based foundation the groups designed the project to accomplish the following goals. These goals informed the sample collection process

- 1) Understand the concentrations of PFAS in surface water foam on the shores of Lake Huron and the mouth of the Au Sable River.
- 2) Present PFAS foam monitoring data from high priority areas to concerned community members, as well as state and federal decision-makers.
- 3) Illustrate the potential connection between PFAS contamination in areas deemed 'outside' of Wurtsmith AFB plumes and present recommended actions based on the data.
- 4) Empower community members in Oscoda and throughout Michigan with a Toolkit to investigate their own chemical contamination concerns.

### Sample Collection Process

1. **Followed the state's protocols:** Michigan Department of Environment, Great Lakes, and Energy (EGLE) [Surface water foam PFAS testing guidance](#)
2. **Identified certified lab to do the analysis:** Enviro Lab Services did the analysis on the foam. The lab also provided sampling materials to the group.
3. **Designed sampling project:** Identified areas along Lake Huron to collect foam; based on budget decided to collect five samples.
4. **Participated in training:** The Ecology Center trained three NOW volunteers on how to collect surface water foam using a training video they created: [Foam Collection Training Video](#)

- Monitored the sample area:** Volunteers monitored the areas closely over several months. They kept sampling materials on-hand and collected foam upon sightings.

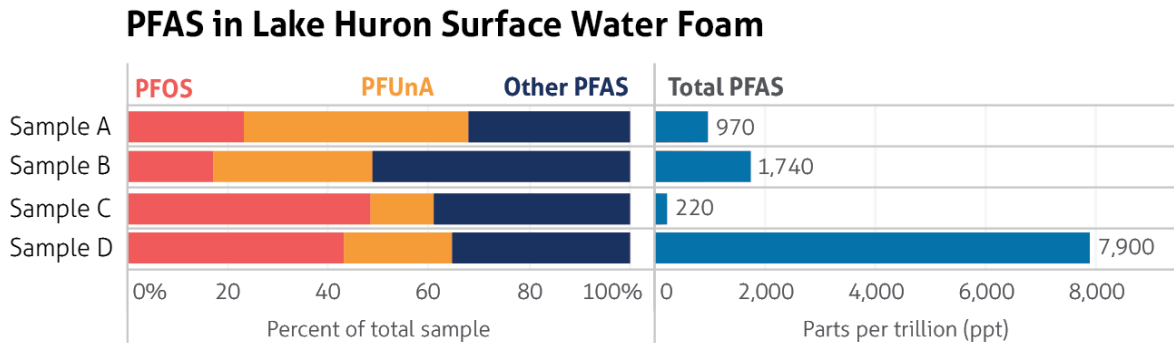
**Materials**

- Ziploc bags
- Nitrile gloves
- Pool skimmers
- Coolers
- Sharpie pens
- Chain of Custody for Enviro Lab

**Results**

The Ecology Center worked with NOW volunteers to produce a report “PFAS in Lake Huron Foam: Community-Science Monitoring and Testing.” This report showed the testing results and outlined key actions needed.

Below is an example of how your group could display results:



**Action Needed!**

- EGLE and MDHHS should set health-protective policies for Lake Huron foam. These include publicly available testing and data, foam advisories, and increased public education.
- Signage needs to be permanently installed on Lake Huron high-use beaches and shorelines to educate the public on visual indications of PFAS foam and alert about the dangers of touching PFAS foam.

## **Appendices:**

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Appendix A: Example chain of custody form

Appendix B: PFAS Sampling Guidance (MI PFAS Action Response Team)

Appendix C: Sample expense budget

Appendix D: Sample study design

Appendix E: List of Certified Michigan labs

Appendix F: Contact information (NOW, Ecology Center, GLPAN)



## Appendix A: Example Chain of Custody Form

<b>CHAIN OF CUSTODY FORM</b>					
Group Name (if applicable)					
PROJECT Name:					
SAMPLED BY:					
ADDRESS:					
PHONE:					
EMAIL:					
SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	SAMPLE LOCATION	Amount Sampled (weight, length, height)	
SIGNATURE	NAME	DATE	TIME		
RELEASED BY:					
RECEIVED BY:					

## **Appendix B: PFAS Sampling Guidance**

### **The Michigan PFAS Action Response Team website**

<https://www.michigan.gov/pfasresponse/investigations/sampling-guidance>

### **General PFAS Sampling Guidance**

<https://www.michigan.gov/pfasresponse/-/media/Project/Websites/PFAS-Response/Sampling-Guidance/General.pdf?rev=5fb24f7dabfo468b9415679b60681503>

### **Residential Wells**

<https://www.michigan.gov/pfasresponse/-/media/Project/Websites/PFAS-Response/Sampling-Guidance/Residential-Well-Residents.pdf?rev=fd625a4285d44ba0b696475301248b16&hash=D73633204316DE6C196DFA4F78B6CC51>

### **Videos for residents collecting their own water samples**

<https://www.michigan.gov/pfasresponse/investigations/sampling-guidance>

**Appendix C: Sample Expense Budget**

<b>Item</b>	<b>Cost/Item</b>	<b># of Items</b>	<b>Total Cost</b>
Project Team Stipends			
Laboratory Fees			
Supplies (examples below)			
<i>Buckets</i>			
<i>Ziploc bags</i>			
<i>Sharpies pens</i>			
<i>Scale</i>			
<i>Measuring cups</i>			
Travel			
Food for meetings			
Other (e.g. gift cards, childcare, printing)			
<b>Total Costs</b>			

## Appendix D: Sample Study Design

Consider your budget for lab testing and what questions/goals you have

Below is fish PFAS sample

<b>Watershed</b>	<b>Location</b>	<b>Species</b>	<b># of species to collect</b>
Huron	Kent Lake	bluegill	1
	Whitmore Lake	bluegill	1
	Portage Lake	rockbass	1
	Ford Lake	smallmouth bass	1
Rouge	Johnson Creek	creek chub	1
	Phoenix Lake	bluegill	1
	Dearborn Street	catfish	1
	Newburgh Lake	bluegill	1
none	Method "blank"	apple	1

## **Appendix E: List of Certified Michigan Labs**

Insert MPART Certified Labs

<https://www.michigan.gov/pfasresponse/-/media/Project/Websites/PFAS-Response/Drinking-Water/Certified-PFAS-Labs.pdf?rev=b32679b140e54933a811fe723c1c9d28&hash=6802842A0F633C24A788F451C0B6D5FE>

## **Appendix F: Contact Information**

### **Need our Water (NOW) Oscoda**

Project Leads: Cathy Wusterbarth, Christina Coulon, Tess Nelkie

### **Great Lakes PFAS Action Network**

Email: [connect@glpan.org](mailto:connect@glpan.org)

FB: [facebook.com/greatlakesPFASaction](https://facebook.com/greatlakesPFASaction)

Website: [glpan.org](http://glpan.org)

### **Ecology Center**

Erica Bloom, Toxics Campaign Director, [bloom@ecocenter.org](mailto:bloom@ecocenter.org)

Jeff Gearhart, Research Director, [jeffg@ecocenter.org](mailto:jeffg@ecocenter.org)