Clear Data | Print... | Save...

Note: In order to fill and save this form electronically, it must be opened using Adobe Reader or Acrobat software. Save a copy of the file, open Adobe Reader, select File > Open and browse for the file you saved.

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Notice: Use this form to request **a written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records law [ss. 19.31 - 19.39, Wis. Stats.].

Definitions

"Property" refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

"Liability Clarification" refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

"Technical Assistance" refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

"Post-closure modification" refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

Select the Correct Form

This from should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

Do not use this form if one of the following applies:

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

All forms, publications and additional information are available on the internet at: dnr.wi.gov/topic/Brownfields/Pubs.html.

Instructions

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf"

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

Section 1. Contact and Recipient Information

Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name	First	MI	Organization/ Business Name		
Roberts	Andrew	S	Environmental Resources Management, Inc. (ERM)		
Mailing Address			City	State	ZIP Code
1701 Golf Road Suite 1-700			Rolling Meadows	IL	60008
Phone # (include area code)	Fax # (include area code)		Email		
(678) 516-1633	(847) 258-8901		andrew.roberts@erm.com		

The requester listed above: (select all that apply)

- ☐ Is currently the owner
- ☐ Is considering selling the Property
- ☐ Is renting or leasing the Property
- ☐ Is considering acquiring the Property
- ☐ Is a lender with a mortgagee interest in the Property
- ☒ Other. Explain the status of the Property with respect to the applicant:

  Environmental Consultant

Contact Information (to be contacted with questions about this request) ☒ Select if same as requester

Contact Last Name	First	MI	Organization/ Business Name		
Roberts	Andrew	S	Environmental Resources Management, Inc. (ERM)		
Mailing Address			City	State	ZIP Code
1701 Golf Road Suite 1-700			Rolling Meadows	IL	60008
Phone # (include area code)	Fax # (include area code)		Email		
(678) 516-1633	(847) 258-8901		andrew.roberts@erm.com		

☒ Property Owner (if different from requester)

Contact Last Name	First	MI	Organization/ Business Name		
Podlaski	Rick		Thermo Fisher Scientific, Inc.		
Mailing Address			City	State	ZIP Code
PO Box 17340			Stamford	CT	06907
Phone # (include area code)	Fax # (include area code)		Email		
(203) 536-7092			rick.podlaski@thermofisher.com		

Section 2. Property Information

Property Name			FID No. (if known)	
Former Hamilton Industries Site			436034060	
BRRTS No. (if known)		Parcel Identification Number		
02-36-578316				
Street Address		City	State	ZIP Code
1316 18th Street		Two Rivers	WI	54241
County	Municipality where the Property is located	Property is composed of:	Property Size Acres	
Manitowoc	◉ City ○ Town ○ Village of	○ Single tax parcel ◉ Multiple tax parcels	13	

1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

○ No ◉ Yes

Date requested by: 04/07/2026

Reason: 60 days

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

◉ No. **Include the fee that is required for your request in Section 3, 4 or 5.**

○ Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:
Section 3. Technical Assistance or Post-Closure Modifications;
Section 4. Liability Clarification; or Section 5. Specialized Agreement.

Section 3. Request for Technical Assistance or Post-Closure Modification

Select the type of technical assistance requested: [**Numbers in brackets are for WI DNR Use]**

- ☐ No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - Include a fee of $350. Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- ☒ Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of $700.**
- ☐ Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of $1050.**
- ☐ Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of $1050.**
- ☐ Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of $1050.**
- ☐ Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of $1050.**
- ☐ Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of $350**
- ☐ Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of $425.**
- ☐ Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of $425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- ☐ Schedule a Technical Assistance Meeting - **Include a fee of $700.**
- ☐ Hazardous Waste Determination - **Include a fee of $700.**
- ☐ Other Technical Assistance - **Include a fee of $700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- ☐ Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of $1050, and:**
  - ☐ Include a fee of $300 for sites with residual soil contamination; and
  - ☐ Include a fee of $350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

Section 4. Request for Liability Clarification

Select the type of liability clarification requested. Use the available space given or attach information, explanations, or specific questions that you need answered in DNR's reply. Complete Sections 6 and 7 of this form. **[Numbers in brackets are for DNR Use]**

☐ "Lender" liability exemption clarification - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of $700.**

Provide the following documentation:

(1) ownership status of the real Property, and/or the personal Property and fixtures;

(2) an environmental assessment, in accordance with s. 292.21, Wis. Stats.;

(3) the date the environmental assessment was conducted by the lender;

(4) the date of the Property acquisition; for foreclosure actions, include a copy of the signed and dated court order confirming the sheriff's sale.

(5) documentation showing how the Property was acquired and the steps followed under the appropriate state statutes.

(6) a copy of the Property deed with the correct legal description; and,

(7) the Lender Liability Exemption Environmental Assessment Tracking Form (Form 4400-196).

(8) If no sampling was done, please provide reasoning as to why it was **not** conducted. Include this either in the accompanying environmental assessment or as an attachment to this form, and cite language in s. 292. 21(1)(c)2.,h.-i., Wis. Stats.:

h. The collection and analysis of representative samples of soil or other materials in the ground that are suspected of being contaminated based on observations made during a visual inspection of the real Property or based on aerial photographs, or other information available to the lender, including stained or discolored soil or other materials in the ground and including soil or materials in the ground in areas with dead or distressed vegetation. The collection and analysis shall identify contaminants in the soil or other materials in the ground and shall quantify concentrations.

i. The collection and analysis of representative samples of unknown wastes or potentially hazardous substances found on the real Property and the determination of concentrations of hazardous waste and hazardous substances found in tanks, drums or other containers or in piles or lagoons on the real Property.

☐ "Representative" liability exemption clarification (e.g. trustees, receivers, etc.) - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of $700.**

Provide the following documentation:

(1) ownership status of the Property;

(2) the date of Property acquisition by the representative;

(3) the means by which the Property was acquired;

(4) documentation that the representative has no beneficial interest in any entity that owns, possesses, or controls the Property;

(5) documentation that the representative has not caused any discharge of a hazardous substance on the Property; and

(6) a copy of the Property deed with the correct legal description.

☐ Clarification of local governmental unit (LGU) liability exemption at sites with: (select all that apply)

☐ hazardous substances spills - s. 292.11(9)(e), Wis. Stats. [649];

☐ Perceived environmental contamination - [649];

☐ hazardous waste - s. 292.24 (2), Wis. Stats. [649]; and/or

☐ solid waste - s. 292.23 (2), Wis. Stats. [649].

❖ **Include a fee of $700, a summary of the environmental liability clarification being requested, and the following:**

(1) clear supporting documentation showing the acquisition method used, and the steps followed under the appropriate state statute(s).

(2) current and proposed ownership status of the Property;

(3) date and means by which the Property was acquired by the LGU, where applicable;

(4) a map and the ¼, ¼ section location of the Property;

(5) summary of current uses of the Property;

(6) intended or potential use(s) of the Property;

(7) descriptions of other investigations that have taken place on the Property; and

(8) (for solid waste clarifications) a summary of the license history of the facility.

Section 4. Request for Liability Clarification (cont.)

☐ Lease liability clarification - s. 292.55, Wis. Stats. [646]

❖ **Include a fee of $700 for a single Property, or $1400 for multiple Properties and the information listed below:**

(1) a copy of the proposed lease;

(2) the name of the current owner of the Property and the person who will lease the Property;

(3) a description of the lease holder's association with any persons who have possession, control, or caused a discharge of a hazardous substance on the Property;

(4) map(s) showing the Property location and any suspected or known sources of contamination detected on the Property;

(5) a description of the intended use of the Property by the lease holder, with reference to the maps to indicate which areas will be used. Explain how the use will not interfere with any future investigation or cleanup at the Property; and

(6) all reports or investigations (e.g. Phase I and Phase II Environmental Assessments and/or Site Investigation Reports conducted under s. NR 716, Wis. Adm. Code) that identify areas of the Property where a discharge has occurred.

General or other environmental liability clarification - s. 292.55, Wis. Stats. [682] - Explain your request below.

❖ **Include a fee of $700 and an adequate summary of relevant environmental work to date.**

☐ No Action Required (NAR) - NR 716.05, [682]

❖ **Include a fee of $700.**

Use where an environmental discharge has or has not occurred, and applicant wants a DNR determination that no further assessment or clean-up work is required. Usually this is requested after a Phase I and Phase II environmental assessment has been conducted; the assessment reports should be submitted with this form. This is not a closure letter.

☐ Clarify the liability associated with a "closed" Property - s. 292.55, Wis. Stats. [682]

❖ **Include a fee of $700.**

- Include a copy of any closure documents if a state agency other than DNR approved the closure.

Use this space or attach additional sheets to provide necessary information, explanations or specific questions to be answered by the DNR.

Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: dnr.wi.gov/topic/Brownfields/lgu.html#tabx4.

☐ Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

❖ **Include a fee of $700, and the information listed below:**

(1) Phase I and II Environmental Site Assessment Reports,

(2) a copy of the Property deed with the correct legal description.

☐ Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

❖ **Include a fee of $700, and the information listed below:**

(1) Phase I and II Environmental Site Assessment Reports,

(2) a copy of the Property deed with the correct legal description.

☐ Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

❖ **Include a fee of $1400, and the information listed below:**

(1) a draft schedule for remediation; and,

(2) the name, mailing address, phone and email for each party to the agreement.

Section 6. Other Information Submitted

Identify all materials that are included with this request.

Send both a paper copy of the signed form and all reports and supporting materials, and an electronic copy of the form and all reports, including Environmental Site Assessment Reports, and supporting materials on a compact disk.

Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.

☐ Phase I Environmental Site Assessment Report - Date: _____

☐ Phase II Environmental Site Assessment Report - Date: _____

☐ Legal Description of Property (required for all liability requests and specialized agreements)

☐ Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

☐ Groundwater ☐ Soil ☐ Sediment ☐ Other medium - Describe: _____

Date of Collection: _____

☐ A copy of the closure letter and submittal materials

☐ Draft tax cancellation agreement

☐ Draft agreement for assignment of tax foreclosure judgment

☒ Other report(s) or information - Describe: PFAS Soil Sampling Work Plan

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

○ Yes - Date (if known): _____

○ No

Note: The Notification for Hazardous Substance Discharge Form - Non-Emergency Only (Form 4400-225) is accessible through the RR Program Submittal Portal application. Directions for using the form and the Submittal Portal application are available on the Submittal Portal web page.

Section 7. Certification by the Person who completed this form

☒ I am the person submitting this request (requester)

☐ I prepared this request for: _____
Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

Signature: Andrew Roberts

Date Signed: 2/6/2026

Title: Principal Consultant, Geology

Telephone Number (include area code): (678) 516-1633

Section 8. DNR Contacts and Addresresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a DNR regional brownfields specialist with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf.

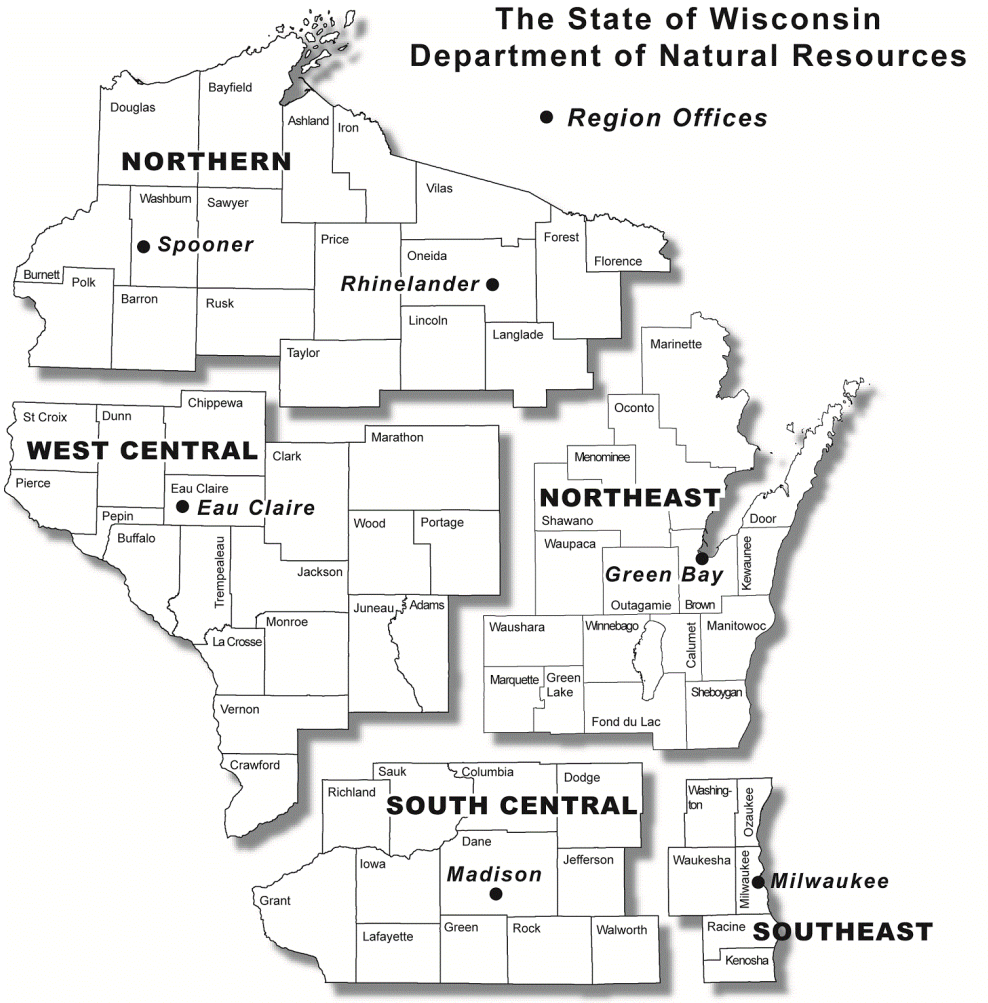
DNR NORTHERN REGION
Attn: RR Program Assistant
Department of Natural Resources
223 E Steinfest Rd Antigo, WI 54409

DNR NORTHEAST REGION
Attn: RR Program Assistant
Department of Natural Resources
2984 Shawano Avenue
Green Bay WI 54313

DNR SOUTH CENTRAL REGION
Attn: RR Program Assistant
Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg WI 53711

DNR SOUTHEAST REGION
Attn: RR Program Assistant
Milwaukee DNR Office
1027 West St. Paul Ave
Milwaukee WI 53233

DNR WEST CENTRAL REGION
Attn: RR Program Assistant
Department of Natural Resources
1300 Clairemont Ave.
Eau Claire WI 54702



Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.

DNR Use Only			
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer		Comments	
Fee Enclosed? ◯ Yes ◯ No	Fee Amount $	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		

7311 W Greenfield Ave, Milwaukee, WI 53214

T +1 414 977 4719

erm.com

TO	Tauren Beggs, WDNR
FROM	David de Courcy-Bower, ERM
DATE	February 6, 2026
SUBJECT	Polyfluorinated Alkyl Substances (PFAS) Soil Workplan Former Hamilton Industries Property, Two Rivers, Wisconsin BRRTS Activity #02-36-578316

Tauren,

The WDNR provided a response about soil sampling at the Hamilton Industries Site (Former) in an email dated December 16, 2025 for the Former Hamilton Industries Facility (BRRTS# 02-36-578316) located in Two Rivers, Wisconsin (Figure 1). The WDNR email was in response to the Off-Site Evaluation of Polyfluorinated Alkyl Substances (PFAS) letter report dated April 21, 2025 and PFAS Soil Evaluation dated September 10, 2025.

The WDNR email comments on the previous request for soil sampling on-site:

"DNR previously requested (6/11/25 letter) soil sampling at the Hamilton Industries Site (Former) to evaluate the potential for PFAS soil impacts. It was the understanding of the DNR at that time that the decision to sample soils on-site for PFAS was paused given regulatory uncertainties about how PFAS detections would be evaluated."

The WDNR email provides updated information regarding evaluation of PFAS in soils:

"*The DNR recognizes that the default residual contaminant levels for direct contact with PFOA in soil may not be practicable to achieve and may fall below presumed ambient concentrations for PFAS in the environment based on our research at this time. With this understanding, sites may use 2 µg/kg as a soil screening level for PFOA. Please be aware that this soil screening level will be applied on a site-specific basis to evaluate whether additional investigation or a remedial action for soil impacts would be needed.*"

This PFAS soil investigation workplan has been prepared in response to the WDNR email, and presents the proposed methods and locations for collection of PFAS soil samples to evaluate the direct contact pathway at the Site.

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Proposed Soil Investigation

Subsurface Utility Clearance

Prior to initiation of the soil investigation, ERM will use a subsurface clearance protocol in an attempt to identify any underground infrastructure in the proposed areas of the borings. This protocol includes studying maps of the underground infrastructure and conducting public and private utility locates to identify underground utilities in areas where proposed intrusive work will be conducted. ERM will be required to relocate proposed soil boring locations based on the potential presence of subsurface utilities.

Soil Sample Locations

The surface conditions of the Site currently consist of either asphalt/concrete paved areas or areas with clean topsoil. Based on a review of historical operations and groundwater data collected to date, there does not appear to be an obvious on-Site source of PFAS at the Site. Proposed soil sample locations were selected based on the extent of PFAS in groundwater and are presented on Figure 2.

Methods

Soil borings will be advanced with a direct-push drill rig (e.g. Geoprobe). Steel components will be utilized to limit PFAS contamination along with silicon-based plumber paste and O-rings in place of Teflon products. Laboratory PFAS-free deionized water (DI) and Alconox will be used for deconning between each soil boring to limit potential sources of cross contamination.

Geological logs will be completed for each soil boring by ERM personnel. Notes will be made of visual and/or olfactory evidence of contamination. Soil cores will not be field screened as field methods for screening PFAS are not currently available.

Soil samples will be collected for 0 to 1 feet below ground surface (ft bgs) and 2-3 ft bgs to evaluate the direct contact pathway. Soil will be collected in clear PVC soil liners. Geoprobe liners have been analyzed for 52 PFAS compounds including PFOS and PFOA. Results indicate they are non-detect for all 52 compounds and do not present a risk of cross-contamination. Equipment blanks will be collected using PFAS-free DI water from the lab. The lab will also provide a trip blank. In addition, samples will be collected using methods in accordance with ERM Standard Operation Procedure (SOP) *Sample Collection Guidelines for PFAS Analysis* in Appendix A.

Soils will be submitted for laboratory analysis of PFAS (EPA Method 1633A). Samples will be collected in laboratory-supplied bottles of appropriate volume and preservation, stored in cooled packaging and dispatched to the laboratory with full chain of custody tracking documentation. ERM will utilize a Wisconsin-certified environmental laboratory (Eurofins, Chicago IL) with a standard turnaround of 10 business days for all sample analyses.

PFAS DATA EVALUATION AND REPORTING

With the exception of PFOA, ERM will compare laboratory analytical results to the WDNR Soil Residual Contaminant Level (RCL) Spreadsheet values for Direct Contact developed in accordance with Wis. Admin. Code ch. NR 720.

Analytical results for PFOA will be compared to a Site-Specific concentration of 2 µg/kg which would be the applicable soil RCL for PFOA. Concentrations of PFOA below 2 µg/kg would not be considered of concern for any property uses including residential. WDNR confirmation is requested that this has been approved for Former Hamilton Industries Facility (BRRTS# 02-36-578316) located in Two Rivers, Wisconsin.

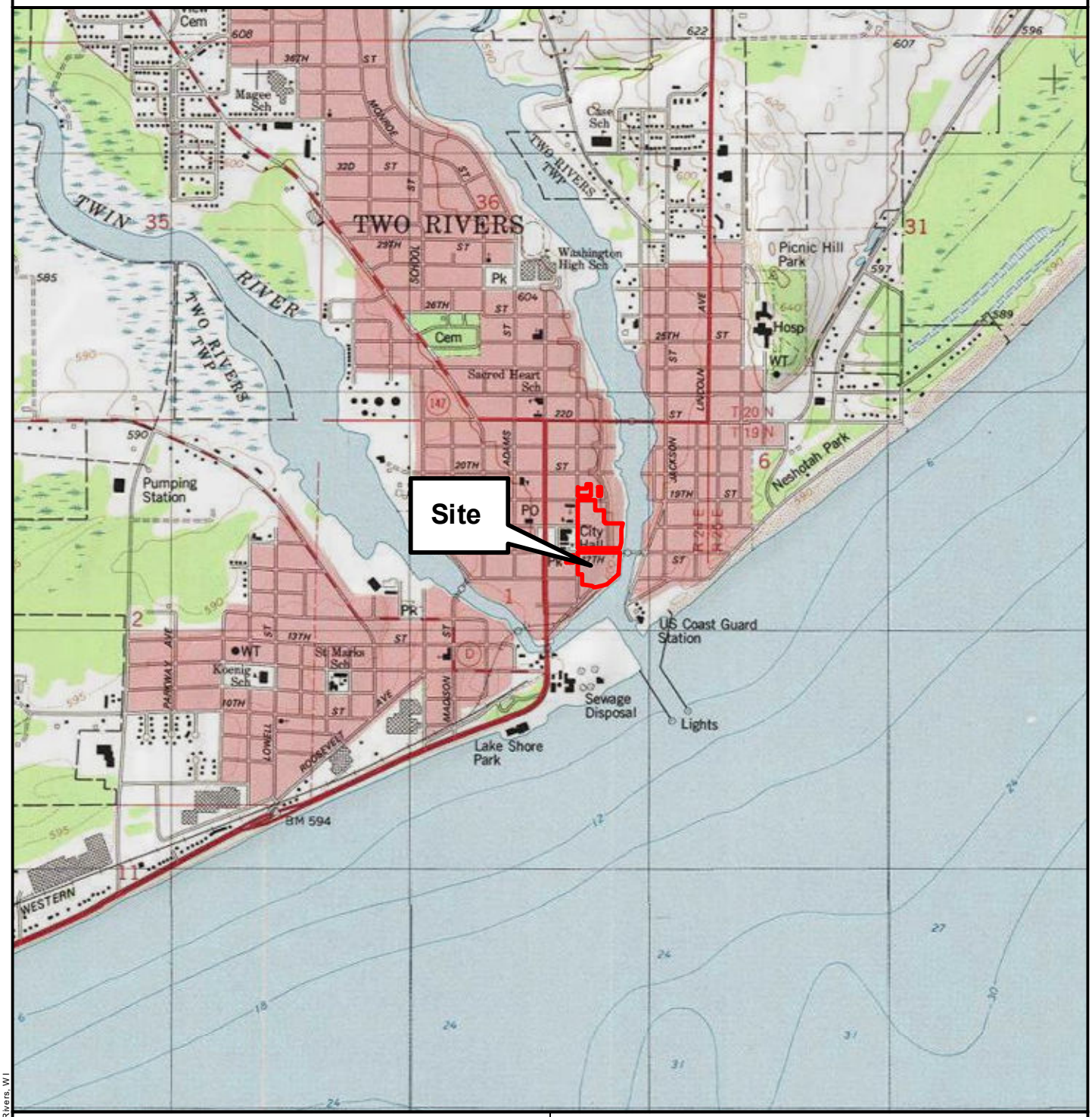
A letter report will be prepared documenting the results of the soil PFAS sampling and will make recommendations based on the results of the investigation.

Regards,

David de Courcy-Bower

Partner, ERM

SITE LOCATION MAP



Legend

Property Boundary

0 2,700 5,400 Feet

Figure 1

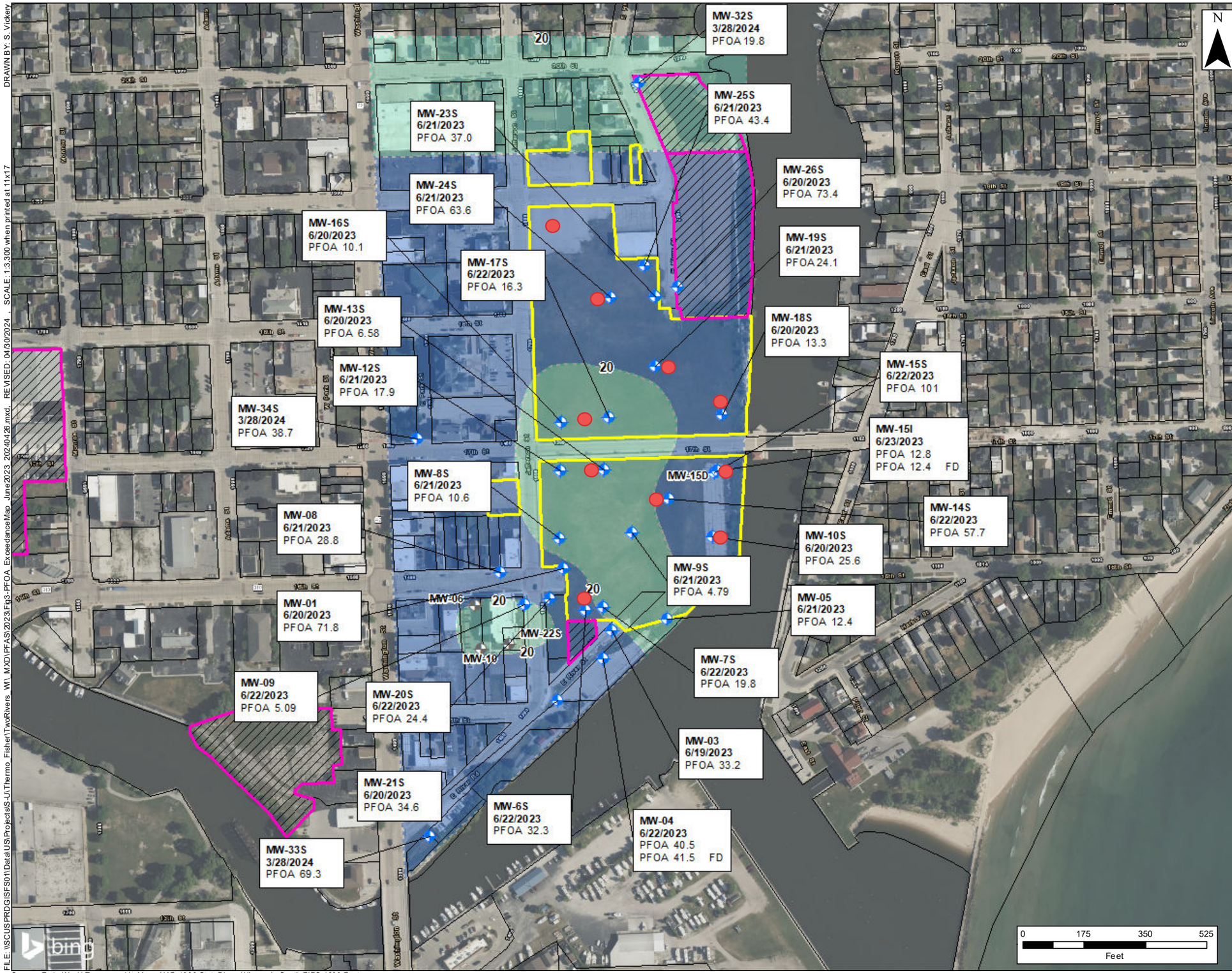
Former Hamilton Industries
1316 18th Street
Two Rivers, WI

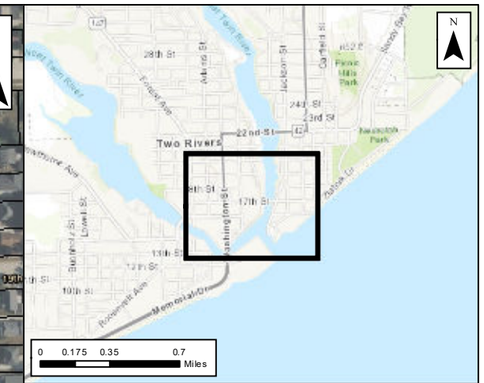
This information is for environmental review purposes only.

ERM

Basemap: USGS Topographic Quadrangle Map - Two Rivers, WI

\\SCUSPRDGISFS01\Data\US\Projects\S-U\Thermo_Fisher\TwoRivers_WI_MXD\Figure 1 Site Location Map.mxd | REVISED: 03/26/2024 | SCALE: 1:24,000 | DRAWN BY: S. Vickery





Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Exceeds Propsoed ES Levels
- Exceeds Proposed PAL Levels
- Former/Current Industrial Properties
- Property Boundary (Approximate)
- Parcel Boundary
- Proposed Soil Boring Location

Notes:
1) PFOA - Perfluorooctanoic acid

2) Proposed ES Levels
PFOA: 20 ng/L

3) Proposed PAL Levels
PFOA: 2 ng/L

4) B - Analyte found in associated blank as well as in sample
5) I - The lower value for the two columns has been reported due to obvious interference
6) Sample event on-site wells June 19-22 2023
7) Sample event off-site wells March 28, 2024
8) All shallow wells are above the PAL value
9) N - Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
10) DUP - Duplicate Sample
11) All results shown in ng/L
12) Concentration contour for PAL unable to be plotted as every well has exceedance of proposed PAL.

Figure 2
Proposed Soil Boring Locations
Former Hamilton Industries
1316 18th Street
Two Rivers, Wisconsin

Environmental Resources Management
www.erm.com
ERM

Source: Esri - World Topographic Map; NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet

FILE: \\SCUSPRDGISFS01\Data\US\Projects\S-U\Thermo_Fisher\TwoRivers_WI_MXD\PFAS\2023\Fig3-PFOA_ExceedanceMap_June2023_20240428.mxd REVISED: 04/30/2024 SCALE: 1:3,300 when printed at 11x17 DRAWN BY: S. Vickey

Appendix A Standard Operating Procedure - Sample Collection Guidelines for PFAS Analysis

STANDARD OPERATING PROCEDURE

DATE	26 January 2026
REFERENCE	001
SUBJECT	Sample Collection Guidelines for PFAS Analysis

1. PURPOSE AND SCOPE OF PROCEDURE

1.1. Purpose

The purpose of this Standard Operating Procedure (SOP) is to describe a standard process for the collection of samples to be analyzed for per- and poly-fluoroalkylated substances (PFAS) to ensure personnel supporting the field activities will follow consistent protocols.

1.2. Scope

This procedure was developed to guide and support sampling for PFAS.

2. DEFINITIONS

FTL	Field Team Leader
HDPE	High-density Polyethylene
LDPE	Low-density Polyethylene
PFAS	Per- and Poly- Fluoroalkyl Substances
PFC	Polyfluorinated Compound
PTFE	Polytetrafluoroethylene (Teflon)
PVC	Polyvinyl Chloride
SOP	Standard Operating Procedure

3. PROCEDURE/PROCESS

This procedure presents guidance on how to collect representative soil samples for analysis of PFAS. In order to achieve the lowest possible detection limits for PFAS, precautions will be taken during the collection of samples to minimize the potential for cross-contamination.

3.1. Special Procedures and Items

This SOP lays out modifications of the SOP for Soil Sampling with the purpose of addressing concerns of cross-contamination between the sampler's clothing, sampling

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equipment, and the samples collected. These modifications and extra requirements are based upon consideration of common items used during field sampling that are known to contain PFAS. Attachment 1 (United States Department of Defense, 2017 and Michigan Department of Environment, Great Lakes and Energy *PFAS Sampling Quick Reference Field Guide*) lists prohibited items during PFAS sampling and their respective acceptable alternatives.

3.1.1. Sampling and Sample Bottle Handling

When collecting samples for PFAS analysis, extra care should be taken to prevent cross contamination from clothing and equipment. Whether one is sampling or handling bottles in the field or field trailer, fresh nitrile gloves are to be worn. This includes changing gloves immediately prior to sampling, regardless of prior activities.

The sample bottles for PFAS must be those provided by the laboratory that will analyze the samples. Bottles made with Polytetrafluoroethylene (PTFE) (e.g., Teflon®) or PTFE lined caps must not be used for Perfluorinated Compound (PFC) sampling. Sample bottles for PFAS should be stored separately from other containers that may contain PFAS. For example, method E1631 for low-level mercury requires PTFE bottles. PTFE lined caps are commonly found in glass jars and vials for volatile organic compounds or fuel analyses.

3.1.2. Exceptions to Prohibited Items

All reasonable efforts are to be made, given conditions and variances from these procedures and are to be documented in the field logbook. Reasonable use of the alternatives and times when alternatives are not practical or safe are detailed below.

3.1.2.1. Field Equipment

Efforts will be made to have on hand and use an affordable alternative to unlined low-density polyethylene (LDPE) tubing for monitoring well and well point purging and sample collection. If no other tubing is available, unlined LDPE tubing is to be used. Teflon® lined LDPE tubing is not acceptable.

In many situations, waterproof field books and sample sheets are required to record data as standard paper is not usable in wet conditions due to durability and inability to be written on. In these cases, Rite-in-the-Rain® waterproof field logbooks and sample sheets are approved for use. The use of these materials will be documented in the field logbook. Samples coolers used for collection and shipping of samples will be kept cool using bagged ice. Blue ice is included as a prohibited item in Attachment 1.

3.1.2.2. Field Clothing and PPE

Clothing and boots containing Gore-Tex® or similar waterproof materials are prohibited when collecting samples for PFC analysis. Rubber boots (e.g., Xtra-Tuf®) boots are to be worn as an alternative to leather boots. If weather conditions require waterproof clothing, rubber raingear is to be worn. Examples include Grundéns® and Helly Hansen® rubber fishing style rain gear. Non-rubber raingear and footwear is not approved. Cosmetics, moisturizers, hand cream, and other personal products are not to be used the morning before collecting samples for PFAS analysis. If

one's hands are extremely dry, hand cream may be used up to the night before sampling commences. Sunscreen is not typically necessary and can be easily avoided by wearing long sleeve shirts. If circumstances require the use of sunscreen, a product consisting of 100% natural ingredients should be selected. The use of insect repellants or clothing with integrated insect repellants, such as Insect Shield® or permethrin, is prohibited. Long-sleeve shirts and mesh head nets are to be worn as alternatives to insect repellant if conditions are required.

3.1.2.3. Food Considerations

Bottled water, snacks, and lunch supplies should remain in the truck or other staging area. These items should not be brought to the location of sample collection.

3.1.3. Equipment Materials and Decontamination

The use of sampling equipment requiring decontamination should be minimized. When drilling soil boring, sleeves made of high-density polyethylene (HDPE) should be used if at all possible. Teflon® lined sleeves or tubing is not acceptable. Care must be taken with water level and oil water interface meters that are re-used. When Decontamination with soap is required, only Alconox or Liquinox will be used. Water used for decontamination and equipment blanks will be certified "PFAS-free" by the laboratory that samples are being sent to for analysis. Bottles with Teflon lids must not be used to store the "PFAS-free" equipment blank water. When multiple laboratories are being used for a project, the equipment rinse water must be properly labeled to indicate the laboratory that provided the water and that it is to be used for PFAS analysis only. Any variations from these guidelines are to be documented in the field logbook.

3.2. Field Blanks

Field blanks are necessary to detect any cross-contamination of samples from clothing and equipment. Equipment blanks and ambient blanks are required when collecting samples for PFAS analysis. Field blanks will be prepared in a location similar to where the samples were collected, away from any possible sources of PFAS contamination. The field blank preparation should be documented on a field sampling sheet to include the location, site conditions, date, time, bottle lot number, and the source of the DI water. Field blanks must be analyzed for all of the same PFAS compounds as the samples. While not specifically blanks, sample equipment to be used that might contain PFAS could be sent to the analytical laboratory to determine whether target PFAS are detected and potentially reduce the number of restricted items.

3.3. Field Documentation

Field documentation shall be reviewed by the Field Team Lead (FTL) daily to ensure recorded information is accurate and complete. Field documentation will also be reviewed prior to report development to ensure records are complete and accurate. Field documentation will be recorded in field logbooks and supplemented on field data collection forms. All variances from the approved clothing and equipment list, including usage of exceptions listed in Section 3.1.2, are to be documented in the field logbook and on the sample data sheets for each location where variances occurred.

4. REFERENCES

Michigan Department of Environment, Great Lakes and Energy. October 2018 *PFAS Sampling Quick Reference Field Guide*

https://www.michigan.gov/pfasresponse/-/media/Project/Websites/PFAS-Response/Sampling-Guidance/Quick-Reference-Field-Guide.pdf?rev=9aab74b786684de6b54319d651e85d09

Interstate Technology Regulatory Council (ITRC), September 2023 *Sampling Precautions and Laboratory Analytical Methods for Per- and Polyfluoroalkyl Substances (PFAS)*

Sampling_and_Lab_PFAS_Fact Sheet_Sept2023_final

ATTACHMENT 1

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY (EGLE) PFAS SAMPLING QUICK REFERENCE FIELD GUIDE

EGLE Michigan Department of Environment, Great Lakes, and Energy

EGLE PFAS Sampling Quick Reference Field Guide[1]

All Items Used During Sampling Event

● Prohibited
• Items or materials that contain fluoropolymers such as ○ Polytetrafluoroethylene (PTFE), that includes the trademarks Teflon® and Hostaflon® ○ Polyvinylidene fluoride (PVDF), that includes the trademark Kynar® ○ Polycholotrifluoroethylene (PCTFE), that includes the trademark Neoflon ® ○ Ethylene-tetrafluoro-ethylene (ETFE), that includes the trademark Tefzel® ○ Fluorinated ethylene propylene (FEP), that includes the trademarks Teflon® FEP and Hostaflon® FEP • Items or materials that contain any other fluoropolymer

Pumps, Tubing, and Sampling Equipment

● Prohibited	■ Allowable	▲ Needs Screening[2]
• Items or materials containing any fluoropolymer (potential items include tubing, valves, or pipe thread seal tape)	• High-density polyethylene (HDPE) • Low-density polyethylene (LDPE) tubing • Polypropylene • Silicone • Stainless-steel • Any items used to secure sampling bottles made from: ○ Natural rubber ○ Nylon (cable ties) ○ Uncoated metal springs ○ Polyethylene	• Any items or materials that will come into direct contact with the sample that have **not** been verified to be PFAS-free ○ Do not assume that any sampling items or materials are PFAS-free based on composition alone

Sample Storage and Preservation

● Prohibited	■ Allowable	▲ Needs Screening[2]
• Polytetrafluoroethylene (PTFE): Teflon® lined bottles or caps	• Glass jars[4] • Laboratory-provided PFAS-Free bottles: ○ HDPE or polypropylene • Regular wet ice • Thin HDPE sheeting • LDPE resealable storage bags (i.e. Ziploc®) that will not contact the sample media[6]	• Aluminium foil[4] • Chemical or blue ice[5] • Plastic storage bags other than those listed as ■ Allowable • Low-density polyethylene (LDPE) bottles

Field Documentation

● Prohibited	■ Allowable	▲ Needs Screening[2]
• Clipboards coated with PFAS • Notebooks made with PFAS treated paper • PFAS treated loose paper • PFAS treated adhesive paper products	• Loose paper (non-waterproof, non-recycled) • Rite in the Rain® notebooks • Aluminium, polypropylene, or Masonite field clipboards • Ballpoint pens, pencils, and Fine or Ultra-Fine Point Sharpie® markers	• Plastic clipboards, binders, or spiral hard cover notebooks • All markers not listed as ■ Allowable • Post-It® Notes or other adhesive paper products • Waterproof field books

Decontamination

● Prohibited	■ Allowable	▲ Needs Screening[2]
• Decon 90® • PFAS treated paper towel	• Alconox®, Liquinox®, or Citranox® • Triple rinse with PFAS-free deionized water • Cotton cloth or untreated paper towel	• Municipal water • Recycled paper towels or chemically treated paper towels

Clothing, Boots, Rain Gear, and PPE

● Prohibited	■ Allowable	▲Needs Screening[2]
• New or unwashed clothing • Anything made of or with: ○ Gore-Tex™ or other water-resistant synthetics • Anything applied with or recently washed with: ○ Fabric softeners ○ Fabric protectors, including UV protection ○ Insect resistant chemicals ○ Water, dirt, and/or stain resistant chemicals	• Powderless nitrile gloves • Well-laundered synthetic or 100% cotton clothing, with most recent launderings not using fabric softeners • Made of or with: ○ Polyurethane ○ Polyvinyl chloride (PVC) ○ Wax coated fabrics ○ Rubber / Neoprene ○ Uncoated Tyvek®	• Latex gloves • Water and/or dirt resistant leather gloves • Any special gloves required by a HASP • Tyvek® suits, clothing that contains Tyvek®, or coated Tyvek®

Food and Beverages

● Prohibited	■ Allowable
• No food should be consumed in the staging or sampling areas, including pre-packaged food or snacks. ■ If consuming food on-site becomes necessary, move to the staging area and remove PPE. After eating, wash hands thoroughly and put on new PPE.	• Brought and consumed only outside the vicinity of the sampling area: ○ Bottled water ○ Hydration drinks (i.e. Gatorade®, Powerade®)

Personal Care Products (PCPs) - for day of sample collection[6]

● Prohibited	■ Allowable	▲Needs Screening[2]
• Any PCPs[6], sunscreen, and insect repellent applied in the sampling area.	PCPs[6], sunscreens, and insect repellents applied in the staging area, away from sampling bottles and equipment followed by thoroughly washing hands: **PCPs[6]:** • Cosmetics, deodorants/antiperspirants, moisturizers, hand creams, and other PCPs[6] **Sunscreens:** • Banana Boat® for Men Triple Defense Continuous Spray Sunscreen SPF 30 • Banana Boat® Sport Performance Coolzone Broad Spectrum SPF 30 • Banana Boat® Sport Performance Sunscreen Lotion Broad Spectrum SPF 30 • Banana Boat® Sport Performance Sunscreen Stick SPF 50 • Coppertone® Sunscreen Lotion Ultra Guard Broad Spectrum SPF 50 • Coppertone® Sport High Performance AccuSpray Sunscreen SPF 30 • Coppertone® Sunscreen Stick Kids SPF 55 • L'Oréal® Silky Sheer Face Lotion 50 • Meijer® Clear Zinc Sunscreen Lotion Broad Spectrum SPF 50 • Meijer® Sunscreen Continuous Spray Broad Spectrum SPF 30 • Meijer® Clear Zinc Sunscreen Lotion Broad Spectrum SPF 15, 30 and 50 • Meijer® Wet Skin Kids Sunscreen Continuous Spray Broad Spectrum SPF 70 • Neutrogena® Beach Defense Water+Sun Barrier Lotion SPF 70 • Neutrogena® Beach Defense Water+Sun Barrier Spray Broad Spectrum SPF 30 • Neutrogena® Pure & Free Baby Sunscreen Broad Spectrum SPF 60+ • Neutrogena® UltraSheer Dry-Touch Sunscreen Broad Spectrum SPF 30 **Insect Repellents:** • OFF® Deep Woods • Sawyer® Permethrin	• Products other than those listed as ■Allowable

[1] This table is not considered to be a complete listing of prohibited or allowable materials. All materials should be evaluated prior to use during sampling. The manufacturers of various products should be contacted in order to determine if PFAS was used in the production of any particular product.

[2] Equipment blank samples should be taken to verify these products are PFAS-free prior to use during sampling.

[3] **For surface water foam samples:** LDPE storage bags may be used in the sampling of foam on surface waters. In this instance, it is allowable for the LDPE bag to come into direct contact with the sample media.

[4] **For fish and other wildlife samples:** Depending on the project objectives, glass jars and aluminum foil might be used for PFAS sampling. PFAS has been found to bind to glass and if the sample is stored in a glass jar, a rinse of the jar is required during the sample analysis. PFAS are sometimes used as a protective layer for some aluminum foils. An equipment blank sample should be collected prior to any aluminum foil use.

[5] Regular ice is recommended as there are concerns that chemical and blue ice may not cool and maintain the sample at or below 42.8˚F (6°C) (as determined by EPA 40 CFR 136 – NPDES) during collection and through transit to the laboratory.

[6] Based on evidence, avoidance of PCPs is considered to be precautionary because none have been documented as having cross-contaminated samples due to their use. However, if used, application of PCPs must be done at the staging area and away from sampling bottles and equipment, and hands must be thoroughly washed after the use of any PCPs prior to sampling.

●- Prohibited ■- Allowable ▲- Needs Screening