

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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Madison WI 53707-7921

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October 7, 2019

SENT VIA E-MAIL

Captain Matthew Shaw
Wisconsin Air National Guard
115CES/CEIE
Dane County Regional Airport
3110 Mitchell Street, Building 1210
Madison, WI 53704-2529

Michael Kirchner
Director of Engineering
Dane County Regional Airport
4000 International Lane
Madison, WI 53704

Mayor Satya Rhodes-Conway
City of Madison
210 Martin Luther King Blvd., #403
Madison, WI 53703

Subject: Reported Contamination in and Responsibilities for Starkweather Creek, Truax Field, 4000 International Lane, Madison, WI 53074; DNR BRRTS Activity #02-13-584369

Dear Captain Shaw, Director Kirchner, and Mayor Rhodes-Conway:

As you are aware, the Wisconsin Air National Guard (“WANG”) has already received a responsible party (“RP”) letter for per- and polyfluoroalkyl substances (“PFAS”) contamination on the base, tracked as BRRTS Activity #02-13-581254. Further, each of your respective entities received a potentially responsible party (“PRP”) letter for historic burn pits on or adjacent to the airport property where AFFF fire-fighting foam has been used for many years, tracked as BRRTS Activity #02-13-584369. The Department of Natural Resources (“department”) requested that as PRPs, you conduct sampling of the burn pit areas for PFAS. To date, a site investigation has not been completed associated with the burn pit areas. September 2019, the department received surface water sample results from various locations sampled by the department within Starkweather Creek, which flows through and around Dane County Regional Airport property. Several perfluoroalkyl substances (PFAS) were detected in Starkweather Creek. The surface water sample results are attached to this letter as Attachment 1.

Information obtained by the department regarding this site indicates you are responsible for the discharge of a hazardous substance or other environmental pollution (hereafter referred to as “contamination”) at the above-described site. You are receiving this letter as a person who caused, possesses or controls the PFAS contamination discovered by the department. “Site” refers to the property where the contamination occurred and any other property it has migrated to, as defined in Wisconsin Administrative Code (“Wis. Admin. Code”) § NR 700.03(56). Under ch. 292, Stats., you may be considered a responsible party whether or not you own the property.

This letter explains how to initiate the investigation and cleanup of contamination of the site, and how to access further information and assistance from the department. The longer contamination is left in the environment, the farther it can spread and the more it may cost to clean up. Quick action may lessen damage to your property and neighboring properties and reduce your costs in investigating and cleaning up the contamination.

Please note that in addition to the standard requirements for responsible parties, this letter also specifies the department's direction that you take any immediate actions necessary to halt and minimize the harmful effects of the contamination. This may include evaluating the need for a proposed interim action to halt and treat PFAS contamination from migrating into Starkweather Creek.

Lastly, this letter also specifies the requirements for public notice near Dane County Regional Airport and Starkweather Creek.

Site Investigation, Immediate, Interim and Remedial Actions

Wis. Admin. Code Chapter NR 716 lists the requirements for investigation of contamination in the environment. Specifically, Wis. Admin. Code § NR 716.11(3)(a) requires that the field investigation determine the "nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media." Your proposed work plan must outline an investigation that will determine the full extent of PFAS contamination, including contaminant source identification, in the area of Anderson Road and Starkweather Creek. Further remedial responses, in addition to immediate and interim actions, may be necessary upon completion of a remedial action options report.

The law requires you to take any immediate actions needed to halt and minimize harmful effects, unless you are otherwise directed by department staff, and to submit documentation describing immediate actions and outcomes within 45 days of receipt of this letter unless otherwise directed by the department. A final immediate action report should be submitted in accordance with Wis. Admin. Code NR 708.09.

The department also requests that you evaluate the need within 60 days for an interim action to mitigate and treat PFAS-contaminated groundwater and surface water impacting Starkweather Creek, consistent with Wis. Admin. Code NR § 708.11. If directed, the RPs shall take any interim actions directed by the department.

In addition to these steps, pursuant to Wis. Admin. Code §§ NR 714.07(2), (3)(j), and (4), you shall provide public notice regarding PFAS contamination as follows:

1. Post signs at various surface water public access points along Starkweather Creek that are visible to the general public within the area impacted by PFAS.
 - a. The department recommends that the signs be a minimum of 12 inches by 18 inches in size, constructed of a durable material that will withstand the elements, and posted in clearly visible location within the areas described above.
 - b. These signs shall be maintained and remain legible for the duration of the response action until final case closure is received in accordance with Wis. Admin. Code ch. 726 or until no longer required by the department.
2. Mail letters to all landowners adjacent to Starkweather Creek and to the affiliated neighborhood associations. The letter shall provide them with the same information as outlined in correspondence the department received from the Wisconsin Department of Health Services (Attachment 2), as well as a copy of the necessary sign language (Attachment 3) and a map showing sample results of impacted surface waters (Attachment 1) and posted sign locations. Please work with impacted citizens on sign placement.
3. Provide a public notice in the local newspaper regarding the signs.

Additionally, please provide the department with a map of the proposed locations where signs will be posted, a mock-up of the proposed sign, a draft letter to adjacent landowners and the neighborhood associations, and a list

of homeowners and associations that will receive the letter within 21 days of the date of this letter. The signs shall be installed within 14 days of the date of department's written approval.

Legal Responsibilities:

Persons meeting the definition of "responsible party" under Wis. Admin. Code § NR 700.03(51) must follow applicable law to address the discharge of a hazardous substance to the environment or other environmental pollution. Wisconsin Statutes ("Wis. Stats.") ch. 292 and Wis. Admin. Code chs. NR 700 through NR 754 provide specific requirements for undertaking appropriate response actions to address contamination, including requirements for emergency and interim actions, public information, site investigations, remedy selection, design and operation of remedial action systems, and case closure.

General Recommendations for Responsible Parties:

The department recommends that you:

1. Hire a Qualified Environmental Consultant

To ensure response actions you plan to undertake comply with Wisconsin law, you should hire an environmental consultant within **30 days of the date of this letter** to meet the regulatory deadlines listed below. A delay in hiring an environmental consultant could result in you missing key submittal deadlines.

Hiring a consulting firm with staff that have the appropriate State of Wisconsin qualifications to supervise and certify the submittals is a critical component and necessary to meet your requirements. Further, an environmental consultant should be knowledgeable of Wisconsin's technical procedures and laws and be able to answer questions regarding cleanup requirements. Required qualifications for environmental consultants are specified in Wis. Admin. Code ch. NR 712. Program guidance is available, see *Wis. Admin. Code ch. NR 712 Qualifications and Certifications, RR-081*.

2. Properly Submit Reports on Time with Required Information Included

Wisconsin law includes timeframes for submitting technical documents and conducting work, as well as specifications for what should be included in those submittals. This letter provides a general overview of the timeframes and first steps to take for site investigation and cleanup. For an overview of timing requirements, please refer to *NR 700 Process and Timeline Overview, RR-967, enclosed*.

The department developed the publication *Guidance for Electronic Submittals for the Remediation and Redevelopment Program, RR-690*, enclosed, to assist responsible parties and consultants in properly submitting documents. Wis. Admin. Code § NR 700.11(3g), and other specific provisions within Wis. Admin. Code ch. NR 700, outline the requirements for submittals, including electronic submittals. Consultants and representatives of responsible parties are required to submit one paper copy and one electronic copy of submittals, including case closure documents. The electronic version must be an exact duplicate of the paper version. Failure to submit both a paper copy and electronic copy delays acceptance of your submittals.

3. Consider the Benefits of a Fee-based Technical Review of your Submittals

In-depth department review of technical reports and submittals is available for a fee. The Remediation and Redevelopment (RR) Program project managers are available throughout the process to answer general questions and provide general input as the site moves toward closure. However, if you want a formal written response from the department, a meeting or both on a specific submittal, a review fee will be required in accordance with Wis. Admin. Code ch. NR 749. **Obtaining technical assistance from department project managers throughout the**

process is an effective way to prevent problems and delays at the end of the process when case closure is requested. Forms, a fee schedule, and further information on technical assistance is available at dnr.wi.gov and searching “brownfield fees.”

Required Steps to Take and Documents to Submit:

The steps listed below serve as a general overview only — all mandatory steps and submittals specified in state law must be met before the department can grant “case closure,” which is a determination by the department that no further cleanup is necessary at a site, as defined in Wis. Admin. Code § NR 700.03(3m).

1. **Immediate Actions – NR 708.05:** The law requires you to take any immediate actions needed to halt and minimize harmful effects, unless you are otherwise directed by department staff, and to submit documentation describing immediate actions and outcomes within 45 days after receipt of this letter. A final immediate action report should be submitted in accordance with Wis. Admin. Code NR 708.09.
2. **Interim Actions – NR 708.11:** The law requires you to evaluate the need for interim action prior to initiating a site investigation and during a site investigation. Interim action shall be taken where it is necessary to contain or stabilize a discharge of a hazardous substance or environmental pollution, in order to minimize any threat to public health, safety, or welfare, or the environment. When warranted, responsible parties shall implement an interim action as soon as possible.
3. **Scoping and Work Plan Submittal – NR 716.07 and 716.09:** The law requires that you appropriately scope out your site investigation and submit a work plan within **60 days of this notification**, for completing a site investigation. The work plan must comply with the requirements in Wis. Admin. Code, chs. NR 700 through NR 799. For additional assistance, the department has extensive guidance on its web page at dnr.wi.gov and search “brownfield publications.”

Prior to and during a site investigation, you must evaluate whether any interim actions are needed to contain or stabilize a hazardous substance discharge or environmental pollution, pursuant to Wis. Admin. Code § NR 708.11. If you undertake an interim action (*e.g.*, free product removal), you must submit documentation of the action per Wis. Admin. Code § NR 708.15.

As you develop the site investigation work plan, you must include an assessment of the vapor intrusion pathway. Wis. Admin. Code § NR 716.11(5) outlines the requirements for when to evaluate for the presence of vapors in the sub-surface and in indoor air. The results and conclusions from the vapor assessment must be included in the Wis. Admin. Code § NR 716.15 site investigation report whether or not you elected to take vapor samples. *Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin, RR-800*, is available to help responsible parties and their consultants comply with these requirements.

4. **Field Investigation – NR 716.11:** Following submission of the work plan, the site investigation must be started within the timeframe provided under law. The timeframe varies depending on whether you are requesting the department’s fee-based review of the work plan. If you do not request a fee-based review of the work plan, you must initiate the field investigation within 90 days of submitting the work plan, and you may proceed with the field investigation upon department notification to proceed; however, if the department has not responded within 30 days, from submittal of the work plan, you may then proceed with the field investigation. If a fee and request for department review of the work plan is submitted, the field investigation must begin within 60 days after receiving department approval.
5. **Sample Results Notification Requirements – NR 716.14:** You must report sampling results to the department, owners, occupants, and various other parties within 10 business days after receiving the sampling

results, unless a different timeframe is approved by the department, in accordance with Wis. Admin. Code § NR 716.14.

6. **Site Investigation Report – NR 716.15**: Within 60 days after completion of the field investigation and receipt of laboratory data, the law requires you to submit a Site Investigation Report (SIR) to the department. As part of the SIR or in the Remedial Actions Options Report (RAOR), if there is soil contamination, the responsible party shall identify the current land use (*i.e.*, industrial or non-industrial) and zoning for the site or facility in accordance with Wis. Admin. Code § NR 720.05(5). Also, as part of the SIR or in the RAOR, you must include any interim action report that may be required under Wis. Admin. Code § NR 708.15.
7. **Remedial Actions Options Report – NR 722**: Within 60 days after submitting the SIR, the law requires you to submit a RAOR. The selected remedy in the RAOR should include an evaluation of green and sustainable remediation criteria, as appropriate, as required by Wis. Admin. Code § NR 722.09(2m). This may be submitted as part of a broader SIR.
8. **Remedial and Interim Action Design, Implementation, Operation, Maintenance and Monitoring Reports – NR 724**: Unless otherwise directed by the department, the responsible party shall submit all plans and reports required in Wis. Admin. Code ch. NR 724.
9. **Notification of Residual Contamination or Continuing Obligations – NR 725**: In situations where notification is required, the responsible party must provide submittal(s) that confirms that continuing obligations have been identified and affected property owners have been notified by the responsible parties 30 days prior to case closure, as required by Wis. Admin. Code ch. NR 725.
10. **Semi-annual Reporting -- NR 700.11**: Wis. Admin. Code § NR 700.11(1)(a) requires responsible parties to submit semi-annual site progress reports to the department until final case closure is granted. The reports summarize the work completed over six months and additional work planned to adequately complete the response action at the site. Consultants may submit these reports on behalf of responsible parties. These reports are due in January and July of each year. Please refer to department publication *NR 700 Semi-Annual Site Progress Report, RR-082*, for more information.

Submittals required under Wis. Admin. Code chs. NR 700 - 726

These documents, as applicable, must be submitted to the department prior to the responsible party requesting case closure, unless otherwise directed by the department:

- Ch. NR 708 reports and documentation for any immediate or interim actions.
- Ch. NR 712 professional certifications and signatures are included with applicable submittals.
- Ch. NR 716 work plan(s) and site investigation report.
- Ch. NR 722 remedial action options report (exception is for Dry Cleaners Environmental Response Fund sites), with the selected remedial action identified.
- Ch. NR 724 design, construction documentation, operation, maintenance and monitoring plans and reports, including vapor mitigation commissioning.
- Ch. NR 725 submittal(s) that confirms that continuing obligations have been identified and affected property owners have been notified by the responsible parties 30 days prior to case closure.
- If requesting case closure, the Ch. NR 726 case closure form and documentation substantiating compliance with the NR 700 rule series.
- Ch. NR 749 fees have been paid, as applicable, including closure and database fees.
- Ch. NR 700 semi-annual site progress reports starting six months after notification.

Additional Information:

The department tracks information on all cleanup sites in a department database available at dnr.wi.gov and search "BOTW". The Bureau for Remediation and Redevelopment Tracking System (BRRTS) identification number for this site is listed at the top of this letter. You may view information related to your site on this database at any time.

All correspondence regarding this site should be directed to:

Mike Schmoller, Project Manager
Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711-5367

Email: Michael.Schmoller@wisconsin.gov
Phone: (608) 275-3303

As previously noted, you are required to submit one paper copy and one electronic copy of plans and reports. To speed up processing, your correspondence should reference the BRRTS and Facility Identification (FID) numbers (if assigned) listed at the top of this letter.

Please visit the department's Remediation and Redevelopment Program website at dnr.wi.gov and search "Brownfields," for information on selecting a consultant, seeking financial assistance, and understanding the investigation and cleanup process. Information regarding review fees, liability clarification letters, post-cleanup liability and more is also available.

If you have questions, please contact the DNR project manager identified above, or Wendy Weihemuller, Environmental Program Associate, at 608-275-3212, or Wendy.Weihemuller@wisconsin.gov for assistance.

Thank you for your cooperation.

Sincerely,



Christine Haag, Director
Remediation & Redevelopment Program

Enclosures: Attachment 1 - Sample results from Starkweather Creek
Attachment 2 – Letter from DHS to DNR
Attachment 3 – Required sign language
NR 700 Process and Timeline Overview, RR-967
Selecting a Consultant, RR-502
Guidance for Electronic Submittals for the Remediation and Redevelopment Program, RR-690

cc: Darsi Foss – AD/8
Mark Aquino – SCR-Fitchburg
Mike Schmoller – SCR-Fitchburg
Steve Martin – SCR-Fitchburg
Adrian Stocks – WY/3

Waterbody: Starkweather Creek (WBICs: 805100 & 805200)

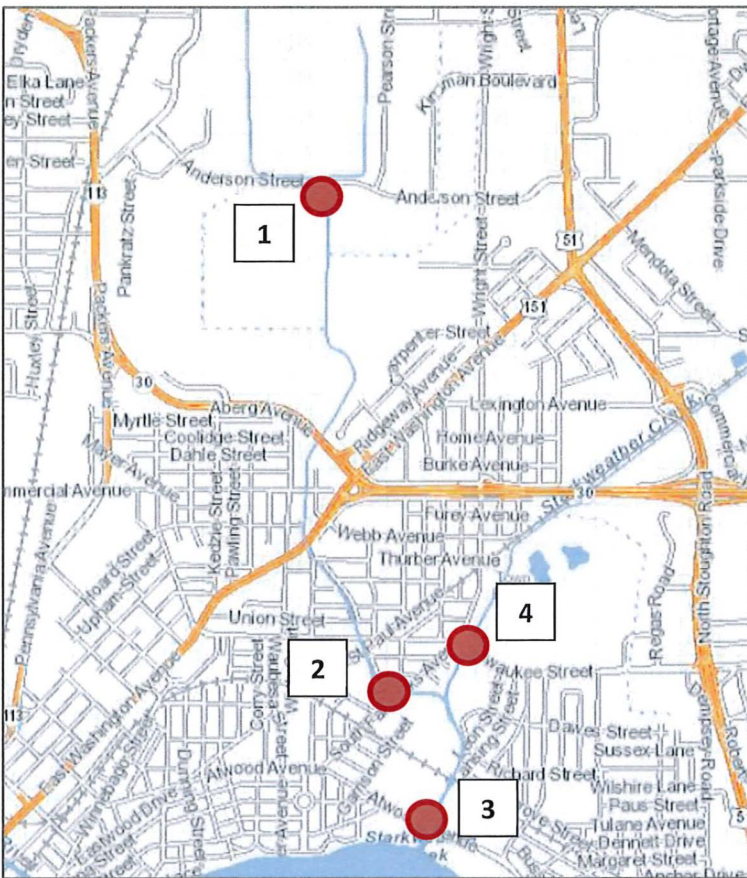
County: Dane

Water chemistry sampling rounds reported: 1 of 3

Fish tissue results reported: None

Why Starkweather Creek was selected for monitoring: PFAS were found in drinking water wells in the City of Madison in proximity to Starkweather Creek. Additionally, Truax Field Air National Guard Base historically held fire suppression training activities with AFFF, a now-known source of PFAS contamination. The headwaters of the West Branch of Starkweather Creek originate on or near Truax Field and the Dane County Regional Airport. Other historical sources of contamination are likely located in the Starkweather Creek watershed.

Monitoring Locations: Four locations were selected for monitoring in Starkweather Creek. Three locations were selected on the West Branch and Mainstem of Starkweather Creek to cover the longitudinal span of the Creek. A fourth monitoring location was selected on the East Branch of Starkweather Creek to determine background conditions of PFAS in the watershed. Additionally, fish tissue samples were collected in the mainstem of Starkweather Creek near the mouth of Lake Monona. Water chemistry results will be paired with fish tissue analysis for PFAS to aid in the potential development of a water quality standard.



- 1) West Branch Starkweather at Anderson St
- 2) West Branch Starkweather Creek at Fair Oaks Ave
- 3) Starkweather Creek at Atwood Ave
- 4) East Branch Starkweather Creek at Milwaukee St

06/20/19	1) Starkweather Creek	2) W Br Starkweather	3) W Br Starkweather	4) E Br Starkweather	Field Blank
Analyte (ng/l)	Anderson St	Fair Oaks Ave	Atwood Ave	Milwaukee St	
10:2 FTSA	ND	ND	ND	ND	ND
11Cl-PF3OUdS	ND	ND	ND	ND	ND
4:2 FTSA	0.11*	0.42	0.22*	ND	ND
6:2 FTSA	16	56	31	0.18*	ND
8:2 FTSA	4.1	7.9	3.3	ND	ND
9Cl-PF3ONS	ND	ND	ND	ND	ND
DONA	ND	ND	ND	ND	ND
FOSA	0.93	0.94	0.57	ND	ND
HFPO-DA	ND	ND	ND	ND	ND
N-EtFOSA	ND	ND	ND	ND	ND
N-EtFOSAA	ND	ND	ND	ND	ND
N-EtFOSE	0.56	ND	0.88	ND	ND
N-MeFOSA	ND	ND	ND	ND	ND
N-MeFOSAA	ND	ND	0.11*	0.072*	ND
N-MeFOSE	ND	ND	ND	ND	ND
PFBA	7.9	13	20	16	ND
PFBS	10	24	20	9	ND
PFDA	1.5	5.6	2	0.3*	ND
PFDoA	0.54	0.79	0.25*	ND	ND
PFDoS	ND	ND	ND	ND	ND
PFDS	ND	ND	ND	ND	ND
PFHpA	6.3	11	6.7	1.1	ND
PFHpS	2.2	7.9	4	ND	ND
PFHxA	21	42	26	4.3	ND
PFHxDA	ND	ND	ND	ND	ND
PFHxS	71	160	96	2.6	ND
PFNA	1.1	2.9	1.8	0.31	ND
PFNS	0.047*	0.17	ND	ND	ND
PFOA	23	43	27	2.6	ND
PFODA	ND	ND	ND	ND	ND
PFOS	79	270	160	2.6	ND
PFPeA	11	14	ND	ND	ND
PFPeS	8.7	20	12	ND	ND
PFTeDA	ND	ND	ND	ND	ND
PFTTrDA	ND	ND	ND	ND	ND
PFUnA	0.15*	0.46	0.2*	ND	ND

*Between LOD and LOQ

ND =Non-Detect

Tony Evers
Governor



Andrea Palm
Secretary

State of Wisconsin
Department of Health Services

DIVISION OF PUBLIC HEALTH

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October 4, 2019

Christine Haag
Wisconsin Department of Natural Resources
Remediation & Redevelopment Program Director

Dear Ms. Haag,

The Wisconsin Department of Health Services (DHS) received a request from the Wisconsin Department of Natural Resources (DNR) to assess the health risks of perfluoroalkyl and polyfluoroalkyl substances (PFAS) in surface waters. This request is part of the ongoing investigation at Starkweather Creek, Truax Field, 4000 International Lane, Madison, WI (BRRTS Activity No. 02-13-584369). We were specifically asked for assistance with messaging to put on signs in the area.

During recreational activities in lakes and creeks, people can be exposed to PFAS by swallowing and touching the water. Accidental swallowing (ingestion) is the main source of PFAS exposure from surface water; this is especially true for children as they swallow more water than adults during recreational activities. However, touching (dermal) is a minor source of PFAS exposure. Available information suggests that as a class of chemicals PFAS do not easily enter through the skin, although the extent to which they do cross the skin depends on the chemical's characteristics and some PFAS are more readily absorbed than others. This means that people are not likely to absorb PFAS through the skin while swimming, splashing, or wading in the waters.

There is a small chance of swallowing (ingestion exposure) PFAS in surface water during recreational activities. Accidentally swallowing water is unlikely to cause someone to become sick. However, we recommend avoiding unnecessary exposure to PFAS to prevent any potential long-term health effects. Touching (dermal exposure) is not a major source of exposure from surface water and should not lead to health effects. However, we recommend people wash their hands after touching surface water to avoid accidentally ingesting PFAS through hand-to-mouth activity. Currently, we do not know how much PFAS is present in fish caught from this area. However, following the current statewide fish consumption advisory will limit your PFAS exposure.

Recommendations:

To best protect people from potential PFAS exposure from surface water, DHS recommends people avoid drinking or accidentally swallowing water and wash after wading or playing in the water. We also recommend pets to be thoroughly rinsed off after contact with water to avoid swallowing PFAS that may be on their fur.

DHS recommends this information be shared broadly with the community, either through the posting of signs or other communication methods, such as websites. The attached appendix has sample sign language to include on the signs.

Please let me know if we can be of further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Clara Jeong".

Clara Jeong, PhD
Toxicologist
Division of Public Health

Appendix: Sample Sign Language

The Wisconsin Department of Health Services recommends that to best protect you, your family, and your pets from potential PFAS exposure:

- Avoid drinking or accidentally swallowing the water.
- Wash your hands after wading or playing in the water.
- Rinse pets after contact with water to avoid swallowing PFAS that may be on their fur.

Touching the water is not a health concern.

For more health information, visit:

- Wis. DHS website: www.dhs.wisconsin.gov/chemical/pfas.htm
- Wis. DNR Fish Advisories: www.dnr.wi.gov/topic/fishing/consumption

ADVISORY

Possible Chemical Exposure Hazard

This water contains PFAS (per- and polyfluoroalkyl substances)

The Wisconsin Department of Health Services recommends that to best protect you, your family, and your pets from potential PFAS exposure:

- Avoid drinking or accidentally swallowing the water or foam.
- Wash your hands after wading or playing in the water or foam.
- Rinse pets after contact with water or foam to avoid swallowing PFAS that may be on their fur.

Touching the water or foam is not a health concern.

This surface water is currently being investigated and cleaned up in accordance with Wisconsin laws.

For more information:

- Wisconsin Air National Guard: 3110 Mitchell Street, Building 1210, Madison; xxx-xxx-xxxx
- Dane County Regional Airport: 4000 International Lane, Madison; xxx-xxx-xxxx
- City of Madison: 210 Martin Luther King Blvd, #403, Madison; xxx-xxx-xxxx
- Wis. DNR PFAS website: dnr.wi.us (search "PFAS")
- Wis. DNR Bureau for Remediation and Redevelopment Tracking System: dnr.wi.us (search "BOTW", Activity #02-13-584369)