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January 8, 2021

SUBJECT: Per- and Polyfluoroalkyl Substances Sampling Results

DNR Site Name: N. W. Mauthe Superfund Site, 725 South Outagamie St.,

Appleton, WI

DNR BRRTS # 02-45-000127

This letter provides the findings of a recent investigation for the N. W. Mauthe Superfund Site by the Wisconsin Department of Natural Resources (DNR). You are receiving this letter as a property owner or occupant of property located near the N. W. Mauthe site.

Summary

Several per- and polyfluoroalkyl substances (PFAS) were detected in the groundwater around the N. W. Mauthe Site, however per the Wisconsin Department of Health Services (DHS), none pose a health risk to residents in the neighborhood.

Sampling Effort

The N.W. Mauthe Superfund Site at 725 South Outagamie Street in Appleton was a metal plating facility from 1960 to 1987. The site was listed on the Superfund National Priorities List in 1989. Groundwater in the neighborhood near the site is collected via underground trenches and discharged to the city of Appleton sanitary sewer system. In 2020, the DNR received approval from the United States Environmental Protection Agency (EPA) to sample the groundwater and analyze it for PFAS compounds. PFAS are a group of human-made chemicals used for numerous products such as stain-resistant fabric, non-stick cookware, and firefighting foams. PFAS were historically used at the N. W. Mauthe Superfund Site during the metal plating process. The investigation was conducted to determine if PFAS were discharged to the environment as the result of past activities at the site. PFAS can persist in the environment and the human body for long periods of time. Ingesting or swallowing high levels of certain PFAS may cause harmful long-term health effects in people. More information on the health effects of exposure to PFAS is provided in the enclosed Fact Sheet and can be found on the DHS website at www.dhs.wisconsin.gov/chemical/pfas.htm.

On December 8th and 9th, an environmental consultant hired by the DNR collected groundwater samples from each of the monitoring wells and the two manholes associated with the M. W. Mauthe Site. The locations of the wells and manholes are shown on the enclosed Site Map. The samples were submitted to Eurofins Test America for laboratory analysis of 36 PFAS compounds.

Test Results

Enclosed is a table titled *Per- and Polyfluoroalkyl Substances (PFAS) Concentrations in Groundwater.* At least one PFAS compound was detected at every monitoring well (MW), at two of the deep piezometer wells (PZ) and at both manholes. Currently Wisconsin has no standards for PFAS in groundwater; however, the concentrations of PFAS reported in the groundwater samples do not pose a health risk to the residents of the neighborhood when compared to DHS recommended standards. The groundwater is contained by the collection trench system, which limits the ability of the contaminants to spread throughout the neighborhood. Ingesting or swallowing PFAS is the main way that people are exposed to PFAS. Your property is connected to the City of Appleton municipal water system and the PFAS present in the M. W. Mauthe Site area do not affect your municipal drinking water supply.



Per- and Polyfluoroalkyl Substances Sampling Results N. W. Mauthe Superfund Site DNR BRRTS # 02-45-000127

Next Steps

The DNR is discussing the sampling results with the city of Appleton to confirm current groundwater management actions continue to be appropriate.

In the event water seeps into your basement, please contact me at (920) 510-4343 or at gwen.saliares@wisconsin.gov prior to contacting a contractor or plumber. Water seeping into your basement may be related to an issue with the groundwater collection system. Standing water should be avoided by children and pets and cleaned up properly. Please see DHS' guidelines on cleaning up after a flood in the attachment.

Thank you for your continued patience and cooperation with this complicated site. Please contact me if you have any questions regarding the environmental investigation or need an update on our progress. Also, please direct any health-related questions to Kurt Eggebrecht, City of Appleton Health Officer, at (920) 832-6429 or Brita Kilburg-Basnyat, DHS, at (608) 266-2817.

Sincerely,

Gwen Saliares Hydrogeologist

JWW Salvare

Remediation and Redevelopment Program

Enclosure: PFAS in Floodwater

Attachments:

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS): Frequently Asked Questions, 08/22/17 N. W. Mauthe Detailed Site Map, 03/20/12

Per- and Polyfluoroalkyl Substances (PFAS) Concentrations in Groundwater, 12/22/20

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Appendix A: PFAS in Floodwaters

Residents can be exposed to PFAS-contaminated water when it enters a home from flooding. DHS recommends the following precautions to reduce exposure to PFAS-contaminated floodwaters entering homes:

- Clean up standing water and any dust or residue from dried up water.
 - We recommend following DHS' guidelines on cleaning up after a flood, which include keeping children and pets out of the affected area, wearing protective equipment like rubber gloves and an N-95 face mask, and removing items that cannot be cleaned or salvaged. You can find these guidelines on the DHS website: https://www.dhs.wisconsin.gov/flood/cleaning.htm

If you have any questions regarding this, please contact Brita Kilburg-Basnyat at DHS by calling 608-266-2817 or emailing her at brita.kilburgbasnyat@dhs.wisconsin.gov.

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

Frequently Asked Questions

What are PFAS?

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a large group of man-made chemicals that have been used in industry and consumer products worldwide since the 1950s.

- PFAS do not occur naturally, but are widespread in the environment.
- PFAS are found in people, wildlife and fish all over the world.
- Some PFAS can stay in people's bodies a long time.
- Some PFAS do not break down easily in the environment.

How can I be exposed to PFAS?

PFAS contamination may be in drinking water, food, indoor dust, some consumer products, and workplaces. Most non worker exposures occur through drinking contaminated water or eating food that contains PFAS.

Although some types of PFAS are no longer used, some products may still contain PFAS:

- Food packaging materials
- Nonstick cookware
- Stain resistant carpet treatments
- Water resistant clothing
- Cleaning products
- Paints, varnishes and sealants
- Firefighting foam
- Some cosmetics

How can I reduce my exposure to PFAS?

PFAS are present at low levels in some food products and in the environment (air, water, soil etc.), so you probably cannot prevent PFAS exposure altogether. However, if you live near known sources of PFAS contamination, you can take steps to reduce your risk of exposure.

- If your drinking water contains PFAS above the EPA Lifetime Health Advisory, consider using an alternative or treated water source for any activity in which you might swallow water:
 - » drinking
 - » food preparation
 - » cooking
 - » brushing teeth, and
 - » preparing infant formula
- Check for fish advisories for water bodies where you fish.
 - » Follow fish advisories that tell people to stop or limit eating fish from waters contaminated with PFAS or other compounds.
 - » Research has shown the benefits of eating fish, so continue to eat fish from safe sources as part of your healthy diet.
- Read consumer product labels and avoid using those with PFAS.

ATSDR

Agency for Toxic Substances and Disease Registry
Division of Community Health Investigations

CS278160-E



How can PFAS affect people's health?

Some scientific studies suggest that certain PFAS may affect different systems in the body. NCEH/ATSDR is working with various partners to better understand how exposure to PFAS might affect people's health—especially how exposure to PFAS in water and food may be harmful. Although more research is needed, some studies in people have shown that certain PFAS may:

- affect growth, learning, and behavior of infants and older children
- lower a woman's chance of getting pregnant
- interfere with the body's natural hormones
- increase cholesterol levels
- affect the immune system and
- increase the risk of cancer

At this time, scientists are still learning about the health effects of exposures to mixtures of PFAS.

How can I learn more?

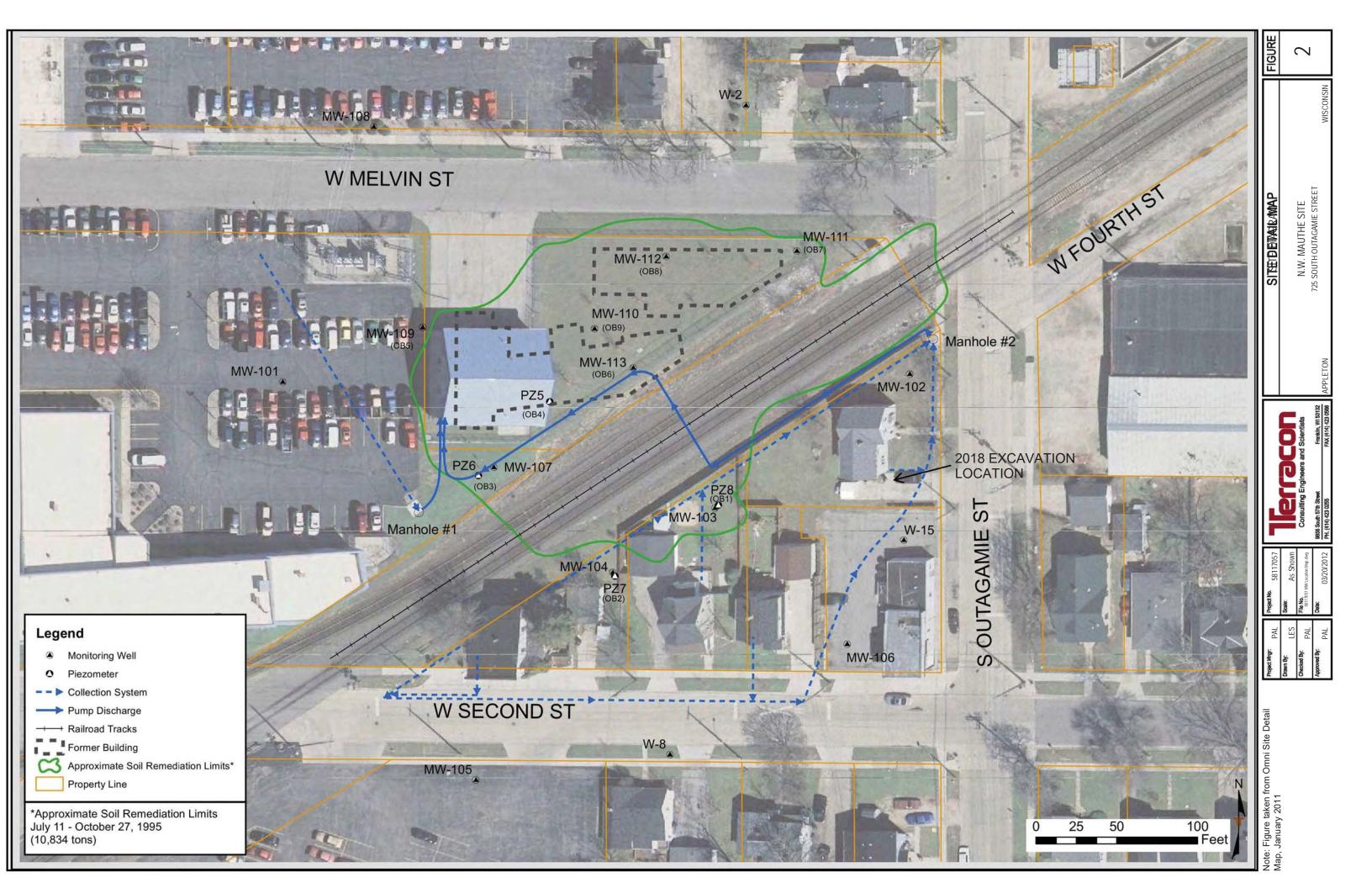
You can visit the following websites for more information:

- CDC/ATSDR:
 - » CDC Info: https://www.cdc.gov/cdc-info/, or (800) 232-4636.
 - » www.atsdr.cdc.gov/pfc/index.html
 - » https://www.cdc.gov/exposurereport/index.html
- Environmental Protection Agency (EPA): https://www.epa.gov/chemical-research/research-and-polyfluoroalkyl-substances-pfas
- Food and Drug Administration: https://www.fda.gov/food/newsevents/constituentupdates/ucm479465.htm
- National Toxicology Program: https://ntp.niehs.nih.gov/pubhealth/hat/noms/pfoa/index.html

If you have questions about the products you use in your home, please contact the **Consumer Product Safety Commission (CPSC)** at **(800) 638-2772**.

List of Common PFAS and Their Abbreviations:

Abbreviation	Chemical name
PFOS	Perfluorooctane sulfonic acid
PFOA (or C8)	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFOSA (or FOSA)	Perfluorooctane sulfonaminde
MeFOSAA (aka Me-PFOSA-AcOH)	2-(N-Methyl-perfluorooctane sulfonamido) acetic acid
Et-FOSAA (aka Et-PFOSA-AcOH)	2-(N-Ethyl-perfluorooctane sulfonamido) acetic acid
PFHxS	Perfluorohexane sulfonic acid



Per- and Polyfluoroalkyl Substances (PFAS) Concentrations in Groundwater

WDNR Site Name: N. W. Mauthe Superfund Site, 725 S Outagamie St, Appleton, WI

BRRTS # 02-45-000127

Samples Collected on 12/8/20 and 12/9/20

	Manhole	Manhole				MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-				
Sample ID	1	2	W-2	W-8	W-15	101	102	103	104	105	106	107	108	109	110	111	112	113	PZ-5	PZ-6	PZ-7	PZ-8
Contaminant																						
10:2 FTS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4:2 FTS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6:2 FTS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.3	ND	ND	ND	ND	ND
8:2 FTS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DONA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
F-53B Major	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
F-53B Minor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HFPO-DA (GenX)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NEtFOSA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NEtFOSAA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NEtFOSE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NMeFOSA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NMeFOSAA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NMeFOSE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorobutanesulfonic acid (PFBS)	<u>2.8</u>	<u>11</u>	<u>3.1</u>	<u>2.9</u>	<u>3.1</u>	<u>2.9</u>	<u>29</u>	<u>12</u>	<u>18</u>	<u>1.9</u>	<u>1.2</u>	<u>1.8</u>	<u>3.5</u>	<u>2.5</u>	<u>2.0</u>	<u>1.8</u>	<u>2.0</u>	<u>1.5</u>	ND	ND	ND	<u>1.8</u>
Perfluorobutanoic acid (PFBA)	<u>5.1</u>	<u>4.5</u>	ND	<u>2.3</u>	ND	2.8	3.2	7.0	<u>2.9</u>	2.7	ND	<u>5.6</u>	4.8	<u>7.1</u>	2.5	<u>5.0</u>	<u>4.7</u>	<u>5.1</u>	ND	ND	ND	<u>6.1</u>
Perfluorodecanesulfonic acid (PFDS)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorodecanoic acid (PFDA)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorododecanesulfonic acid (PFDoS)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorododecanoic acid (PFDoA)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ND	ND	ND	ND	ND	2.8	ND	ND	ND	ND	ND	ND								
Perfluoroheptanoic acid (PFHpA)	1	<u>1.2</u>	ND	0.31	0.26	0.74	1.3	2.8	0.82	0.29	ND	<u>1.5</u>	0.5	<u>1.2</u>	1	0.95	0.59	<u>1.4</u>	ND	ND	ND	<u>1.7</u>
Perfluorohexanesulfonic acid (PFHxS)	<u>1.7</u>	3.3	<u>0.69</u>	<u>1.6</u>	2.3	1	<u>2.9</u>	9.6	<u>1.9</u>	0.62	ND	<u>1.8</u>	2.8	<u>1.6</u>	<u>1.7</u>	<u>1.4</u>	<u>0.74</u>	<u>1.4</u>	ND	ND	ND	ND
Perfluorohexanoic acid (PFHxA)	<u>1.5</u>	<u>1.9</u>	ND	ND	ND	0.7	3.9	5.2	1.2	ND	ND	2.9	0.82	2.4	2.0	1.8	<u>1.3</u>	2.5	ND	ND	0.77	<u>5.6</u>
Perfluoro-n-hexadecanoic acid (PFHxDA)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoro-n-octadecanoic acid (PFODA)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorononanesulfonic acid (PFNS)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorononanoic acid (PFNA)	ND	ND	ND	ND	ND	ND	ND	0.59	ND	ND	ND	ND	ND	ND								
Perfluorooctanesulfonamide (FOSA)	ND	ND	ND	<u>1.5</u>	<u>1.7</u>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

	Manhole	Manhole				MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-				
Sample ID	1	2	W-2	W-8	W-15	101	102	103	104	105	106	107	108	109	110	111	112	113	PZ-5	PZ-6	PZ-7	PZ-8
Contaminant																						
Perfluorooctanesulfonic acid (PFOS)	<u>5.6</u>	<u>12</u>	ND	ND	<u>2.9</u>	<u>1.2</u>	<u>8.4</u>	<u>64</u>	<u>14</u>	ND	3.3	<u>7.4</u>	<u>2.1</u>	<u>4.1</u>	<u>16</u>	<u>5.9</u>	<u>3.4</u>	<u>7.4</u>	ND	ND	ND	ND
Perfluorooctanoic acid (PFOA)	3.4	<u>3.5</u>	ND	<u>1.1</u>	ND	<u>2.1</u>	2.8	<u>21</u>	4.4	<u>1.3</u>	ND	<u>5.7</u>	2.0	3.4	<u>4.8</u>	3.2	<u>1.2</u>	4.8	ND	ND	ND	<u>3.4</u>
Perfluoropentanesulfonic acid (PFPeS)	ND	0.69	ND	<u>0.54</u>	0.88	ND	<u>0.5</u>	<u>3.2</u>	<u>0.59</u>	ND	ND	0.42	<u>1.1</u>	<u>0.41</u>	ND	<u>0.32</u>	ND	ND	ND	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	<u>1.9</u>	<u>2.0</u>	0.72	0.78	0.67	0.97	4.4	<u>3.1</u>	<u>1.3</u>	0.66	0.45	3.2	1.2	3.0	2.3	<u>1.6</u>	<u>1.3</u>	2.7	ND	ND	0.82	4.3
Perfluorotetradecanoic acid (PFTeA)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorotridecanoic acid (PFTriA)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoroundecanoic acid (PFUnA)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

ND = No Detection

<u>Detections</u> (bolded and underlined)

All data units in nanograms per liter (ng/L)