

## **Memorandum of Understanding Between your Minnesota District or City and the Minnesota Pollution Control Agency for the Statewide Monitoring of Per- and Polyfluoroalkyl Substances (PFAS)**

This Memorandum of Understanding is between your City and the Minnesota Pollution Control Agency (MPCA).

**Whereas**, PFAS is a known class of environmental contaminants with thousands of unique chemical structures which are persistent in the environment, bioaccumulative, and are in widespread use in industrial, commercial, and household applications;

**Whereas**, municipal wastewater treatment facilities are a receiver of PFAS and can be a conduit for the discharge of PFAS into the environment;

**Whereas**, municipal wastewater treatment facilities have regulatory authority over their significant industrial users and generally all users through National Pollutant Discharge Elimination Discharge (NPDES) permits issued to permittees in Minnesota;

**Whereas**, your permitted wastewater treatment facility has been identified as having at least one significant industrial user;

**Whereas**, significant industrial users may be a contributing source of PFAS to wastewater treatment facilities;

**Whereas**, to protect human health and the environment, the MPCA established goals to identify and reduce PFAS in the environment through implementation of its 2022 PFAS Monitoring Plan, that seeks to partner with all sources to reduce releases to the air, water, and land;

**Whereas**, funding has been appropriated by the Minnesota Legislature to develop tools to assist municipal wastewater treatment facilities in source identification and source reduction of PFAS. This appropriation is specific to these activities and will not be used for sample collection or sample analysis. A contract has been executed between Antea Group and the MPCA where PFAS Source Identification & Reduction tools will be developed. These tools will be available for use in conjunction with the development of PFAS pollutant management plans and;

**Whereas**, response thresholds will be developed based on data collected from the first two sampling events. The response thresholds will be statistically based, not risked based, to help prioritize source identification and reduction activities. All facilities will be assigned one of three priority categories which will include specific actions for the facilities to complete.

- A. Category one - No further sampling required at this time, unless state or federal funding is obtained. It is strongly encouraged that these facilities complete an inventory of industrial users who may be potential contributors of PFAS. If the MPCA obtains funding to collect and analyze PFAS we reserve the right to collect two additional samples at these facilities.
- B. Category two - Complete an inventory of potential industrial sources of PFAS and start a dialog with those potential sources to initiate source identification and reduction work. Develop, complete, and submit a PFAS Pollutant Management Plan (PFAS PMP) and complete and submit the final two sampling events.

- C. Category three - Complete an inventory of potential industrial sources of PFAS and start a dialog with those potential sources to initiate source identification and reduction work. Develop, complete, and submit a PFAS Pollutant Management Plan (PFAS PMP) and complete and submit the final two sampling events. Based on the industrial user inventory MPCA will work with you to identify further actions to verify PFAS discharges from these potential sources.

**Whereas**, the MPCA will continue to pursue funding to offset the cost of sample collection and sample analysis. If funding is obtained, an MPCA identified contractor will be used to coordinate and collect samples from designated influent monitoring locations at the wastewater treatment facilities identified in the MPCA PFAS monitoring plan. The collected influent samples will then be sent to an MPCA designated certified laboratory for analysis. Related costs associated with sample collection and analysis will be covered pursuant to the amount of funding obtained and any potential eligibility requirements. The results of the monitoring will be shared with both the monitored wastewater facilities and the MPCA. Data will be submitted via the EQUIS system.

**Whereas**, MPCA Municipal wastewater contacts for the PFAS Monitoring Plan are:

Jaramie Logelin, [jaramie.logelin@state.mn.us](mailto:jaramie.logelin@state.mn.us), 218-302-6640 or

Sherry Bock, [sheryl.bock@state.mn.us](mailto:sheryl.bock@state.mn.us), 218-316-3882.

**Therefore**, Phase I of the 2022 PFAS Monitoring Plan includes a goal that all municipal wastewater treatment facilities, which have delegated pretreatment programs or have identified one or more significant industrial users, will:

- A. Participate in influent wastewater sampling; and
- B. Participate in the identification and understanding of sources of PFAS entering into your wastewater treatment facility; and
- C. If a category two, complete an inventory of potential industrial sources of PFAS and start a dialog with those potential sources to initiate source identification and reduction work. Develop, complete, and submit a PFAS Pollutant Management Plan (PFAS PMP) and complete and submit the final two sampling events; and
- D. If a category three, complete an inventory of potential industrial sources of PFAS and start a dialog with those potential sources to initiate source identification and reduction work. Develop, complete, and submit a PFAS Pollutant Management Plan (PFAS PMP) and complete and submit the final two sampling events. Based on the industrial user inventory, MPCA will work with you to identify further actions to verify PFAS discharges from these potential sources.

In furtherance of these goals, your District or City and MPCA agree to the following actions:

### **Wastewater Treatment Facility Actions**

#### **1. PFAS sampling plan.**

- a. By January 1, 2023, develop and submit, for review and approval to the MPCA, a PFAS Sampling Plan specific to the District's or City's PFAS influent monitoring.
  - i. The PFAS Sampling Plan must follow MPCA's updated analytical fact sheet for Per- and Polyfluoroalkyl substances: [Guidance for Per- and Polyfluorinated Alkyl Substance: Analytical \(state.mn.us\)](#).

- ii. The PFAS Sampling Plan must include, but not be limited to, specific sample location, sample collection type, who will be collecting samples (Permittee or contractor), selected lab for analysis and sample analysis method the lab will be using including the reporting limit of each of the PFAS compounds. All samples should be unfiltered and collected at your facility's influent waste stream (WS) station. Each sample shall include at a minimum all PFAS compounds listed in Appendix A. Please note the reporting limits in Appendix A for the six bolded parameters. All other parameters have a goal of under 4 nanograms per liter (ng/L) but will be subject to change upon guidance revisions.
- iii. The PFAS Sampling Plan should be submitted electronically to both Jaramie Logelin and Sherry Bock to their noted emails.

## **2. Collect Influent Samples.**

- a. Collect and submit to the lab round one influent sample by March 31, 2023, in accordance with the completed PFAS sampling plan. By June 30, 2023, submit the first round of influent monitoring data to the MPCA's EQulS database. The monitoring data may be submitted by the District or City or your accredited laboratory.
- b. Collect and submit to the lab round two influent sample by June 30, 2023.
- c. By August 31, 2023, submit the second round of influent monitoring data into MPCA's EQulS database. The monitoring data may be submitted by the District or City or your accredited lab.
- d. Collect and submit to the lab round three influent sample by June 30, 2024.
- e. By September 31, 2024, submit the third round of influent monitoring data to the MPCA's EQulS database. The monitoring data may be submitted by the District or City or your accredited laboratory.
- f. Collect and submit to the lab round four influent sample by September 31, 2024.
- g. By December 31, 2024, submit the results of the fourth round of influent sampling monitoring data into MPCA's EQulS database. The monitoring data may be submitted by the District or City or your accredited lab.

## **3. Inventory of potential PFAS sources.**

- a. By August 31, 2023, start inventorying industrial users that may be potential PFAS contributors to your wastewater collection system
  - i. The initial inventory should identify all industrial users, including but not limited to, all significant industrial users, categorical industrial users, and nonsignificant industrial users based on the NAICS Codes identified in Appendix F of the MPCA's PFAS Monitoring Plan (starting on page 32).
- b. Complete the inventory of potential sources for use in your pollutant management plan by December 31, 2023. Maintain the inventory onsite.

**4. PFAS Pollutant Management Plan.**

- a. By September 15, 2023, start to develop a PFAS Pollutant Management Plan. The goal will be to identify any non-domestic wastewater sources of PFAS entering your facility and to promote source reduction activities for those sources.
- b. By March 15, 2024, submit the completed PFAS Pollutant Management Plan to the MPCA for review.

**5. Implementation of PFAS Pollutant Management Plan.**

- a. By 30 days after the submittal of the PFAS Pollutant Management Plan, provide continuing education and information to industrial users and the community on reducing PFAS. Implement the PFAS Pollutant Management Plan and begin implementing follow-up PFAS reduction actions based on MPCA developed response thresholds as identified in MPCA Responsibilities item #5.

**6. Continual**

- a. Operating and maintaining your wastewater treatment systems to optimize PFAS reduction activities.

**MPCA Responsibilities**

- 1. By November 1, 2022, establish monitoring and sampling criteria, and a process to capture the data in MPCA's EQulS database.
- 2. By November 1, 2022, finalize and distribute a final sampling and analysis guide to be used by all facilities.
- 3. Develop and, when available, distribute a Legislative PFAS Source Identification & Reduction Tool Kit to all applicable permittees.
- 4. By September 15, 2023, or within 15 days of substantial submittal of round 1 and 2 monitoring data, develop and communicate response thresholds based on the first two sample results.
- 5. Continue to pursue funding to help cover costs of sample collection and sample analysis. If funding is obtained, it will be dispersed pursuant to any eligibility requirements.

**Joint District or City/MPCA Responsibilities**

- 1. Collaborate on efforts to work with suppliers, manufacturers, educational institutions, and other interested parties to reduce the use of PFAS in products and procedures where pragmatic alternatives exist.
- 2. Collaborate to develop communication strategies for the public to understand the data and information gained from this joint effort to manage PFAS.

**Terms and Conditions**

This is a voluntary agreement and can be nullified by either party at any time.

This agreement does not amend, nor shall it be construed as part of the National Pollutant Discharge Elimination System (NPDES) permit for your wastewater treatment facility, however the MPCA expects compliance with provisions within this agreement and reserves the right to utilize MPCA authority under Minn. Stat. § 115.03 to obtain and collect data and information as needed.

This agreement will expire upon the completion of collection and submittal of the final requested sampling data.

**Authorized Representatives**

The District's or City's Authorized Representative for purposes of administration of the Memorandum of Understanding is:

Marshall Wastewater Treatment Plant

By: Robert Byrnes

Name: Robert Byrnes

Title: Mayor

Date: 10/5/2022

The MPCA's Authorized Representative for purposes of administration of this Memorandum of Understanding is:

**STATE OF MINNESOTA  
POLLUTION CONTROL AGENCY**

By: Katrina Kessler

Katrina Kessler, P.E.  
Commissioner

Date: October 5, 2022

## Appendix A

## Minimum list of requested PFAS Compounds

Compound (Acronym) (Source of Compound list and Reporting Limit (RL) goals* <a href="#">found here</a> )*Subject to change upon guidance revision	Aqueous Reporting Limit (RL) Goals (ng/L)	CAS Number
<b>Perfluorobutanoate (PFBA)</b>	under 6	375-22-4
Perfluoropentanoate (PFPeA)		2706-90-3
<b>Perfluorohexanoate (PFHxA)</b>	under 4	307-24-4
Perfluoroheptanoate (PFHpA)		375-85-9
<b>Perfluorooctanoate (PFOA)</b>	under 4	335-67-1
Perfluorononanoate (PFNA)		375-95-1
Perfluorodecanoate (PFDA)		335-76-2
Perfluoroundecanoate (PFUnA)		2058-94-8
Perfluorododecanoate (PFDoA)		307-55-1
Perfluorotridecanoic Acid (PFTTrDA)		72629-94-8
Perfluorotetradecanoic acid (PFTeDA)		376-06-7
<b>Perfluorobutanesulfonate (PFBS)</b>	under 4	375-73-5
Perfluoropentanesulfonate (PFPeS)		2706-91-4
<b>Perfluorohexanesulfonate (PFHxS)</b>	under 4	355-46-4
Perfluoroheptanesulfonate (PFHpS)		375-92-8
<b>Perfluorooctanesulfonate (PFOS)</b>	under 4	1763-23-1
Perfluorononanesulfonate (PFNS)		474511-07-4
Perfluorodecanesulfonate (PFDS)		335-77-3
Perfluorododecanesulfonate (PFDoS)		79780-39-5
4:2 Fluorotelomer sulfonic acid (4:2 FTS)		757124-72-4
6:2 Fluorotelomer sulfonic acid (6:2 FTS)		27619-97-2
8:2 Fluorotelomer sulfonic acid (8:2 FTS)		39108-34-4
N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA)		2355-31-9
N-Methylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA)		2991-50-6
Perfluorooctane Sulfonamide (PFOSA)		754-91-6
N-Methyl perfluorooctane sulfonamide (N-MeFOSA)		31506-32-8

Compound (Acronym) (Source of Compound list and Reporting Limit (RL) goals* <a href="#">found here</a> ) *Subject to change upon guidance revision	Aqueous Reporting Limit (RL) Goals (ng/L)	CAS Number
N-Ethyl perfluorooctane sulfonamide (N-EtFOSA)		4151-50-2
N-Methyl perfluorooctane sulfonamidoethanol (N-MeFOSE)		24448-09-7
N-Ethyl perfluorooctane sulfonamidoethanol (N-EtFOSE)		1691-99-2
Hexafluoropropylene oxide dimer acid (HFPO-DA)		13252-13-6
3H-Perfluoro-3-[(3-methoxy-propoxy) propanoic acid] (ADONA)		919005-14-4
9-Chlorohexadecafluoro-3-oxane-1-sulfonic acid (9Cl-PF3ONS)		756426-58-1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		763051-92-9

## **Municipal Wastewater PFAS Monitoring and MOU Summary for local decision makers:**

- Per- and polyfluoroalkyl substances (PFAS) are a family of nearly 5,000 chemicals which have been widely used in industrial, commercial, and residential applications, are resistant to breakdown, and are found virtually everywhere in our environment.
- At concentrations which vary by specific chemical, PFAS can be toxic, causing adverse health effects in humans, fish, and wildlife.
- In February of 2021, the MPCA released a PFAS Blueprint for addressing PFAS statewide. This was followed by a PFAS Monitoring Plan (March 2022) which identifies how the MPCA will collect PFAS monitoring data from all major regulatory program areas.
- Wastewater treatment plants (WWTPs) are a receiver of PFAS and can be a conduit for the discharge of PFAS into the environment. PFAS can be present in wastewater which flows to WWTPs and is not treated by conventional treatment technologies. PFAS treatment at the wastewater treatment facility is not economically feasible at this point, so the MPCA is focusing on source identification and source reduction.
- In an effort to collaborate with the WWTPs the MPCA has asked that the monitoring be completed outside the City's wastewater permit, through the use of the MOU.
- The MPCA is requesting approximately 90 municipal WWTPs, which have identified significant industrial users, to participate in phase 1 of the PFAS Monitoring Plan. By signing a Memorandum of Understanding (MOU), these facilities agree to the following:
  1. Submit a PFAS Sampling Plan
  2. Collect four quarterly influent samples
  3. Inventory potential sources, develop a PFAS Pollutant Management Plan, and work with industrial users and other users to reduce PFAS in wastewater influent base on a defined response threshold.
- The MPCA has secured funding to cover the costs of sample collection and analysis for the first two influent samples for facilities who sign the MOU. The MPCA will continue to pursue funding in an effort to potentially cover some or all of the costs of collecting and analyzing the last two influent samples.
- The goal of this monitoring is to:
  1. Evaluate PFAS concentrations discharged to WWTPs,
  2. Identify sources of PFAS,
  3. Begin to make progress reducing PFAS discharged to WWTPs, and
  4. To inform future monitoring and regulatory decisions in future phases of the PFAS monitoring plan in an effort to reduce PFAS discharged to the environment.