Permit Modification Fact Sheet

Changes from the previous permit fact sheet are highlighted in grey.

General Information

Permit Number:	WI-0030651-09-2	
Permittee Name:	City of Peshtigo	
Address:	331 French St. Suite A Peshtigo, WI 54157 (Mailing) N1890 Harbor Road, Peshtigo, WI 54157 (Site)	
City/State/Zip:	Peshtigo WI 54157-0100	
Discharge Location:	Lower Peshtigo River Watershed, Upper Green Bay Basin (GB07) SE ¼ of the NW ¼ Sec. 32, T30N-R23E, Marinette County	
Receiving Water:	Peshtigo River	
StreamFlow ($Q_{7,10}$):	214 cfs	
Stream Classification:	Warmwater sportfish community, not classifies as a public water supply	
Design Flow(s)	Annual Average	2.474 MGD
Significant Industrial Loading?	No	
Operator at Proper Grade?	Yes, the facility is rated as an Advanced level facility in subclasses A1, Suspended Growth Processes; B, Solids Separation; C, Biological Solids/Sludge Processing; D, Disinfection; L, Laboratory P, Phosphorus Removal, and SS, Sanitary Sewage Collection System; The Operator-In-Charge, Rich Sparks, has Advanced level certification in A1, B, C, P, D, and L subclasses. Mark Madden has basic certification for SS.	
Approved Pretreatment Program?	N/A	

Facility Description

Municipal secondary wastewater facility that treats wastewater from residential sources. The City provides treatment using an activated sludge system which is operated in the extended aeration mode. Processes include two manual bar screens, two aeration basins, three final clarifiers, a chlorine contact tank, and one gravity thickener. Disinfection is accomplished using chlorine gas. Approximately 3 years of sludge storage has been provided. Sludge is land applied to agricultural fields by a contact hauler.

Substantial Compliance Determination

Enforcement During Last Permit: On March 22, 2022, the facility was sent a letter regarding non-compliance of Sanitary Sewer Overflows (SSOs), which has been occurring since 2016. The letter outlines the steps and time frame to get into compliance. The river crossing project to get the City back into compliance is expected to be completed by the summer of 2024.

Sample Point Designation		
Sample Point Number	**Discharge Flow, Units, and Averaging Period**	**Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)**
701	N/A	Influent - Representative samples shall be collected from the influent flume in the metering building.
001	2.474 MGD	Effluent - Representative composite samples of the effluent shall be collected at the sample tap on the makeup water feed line prior to the chlorine contact tank. Representative grab samples shall be collected at the effluent manhole following the chlorine contact tank.
005	154 dry US tons	Liquid Sludge - Representative samples of the aerobically digested, gravity thickened liquid shall be collected from the sludge storage tank after complete mixing.
111	N/A	Field Blank Effluent: Sample point for reporting analysis results of field blanks collected using standard sample handling procedures for grab type effluent samples for Total Recoverable Mercury at sample point 001.
601	N/A	Peshtigo River - Sample point for reporting water quality characteristics of the Peshtigo River. Monitoring and reporting under this sample point is voluntary on the part of the permittee and is not required by this permit.

1 Influent - Proposed Monitoring

Sample Point Number: 701- Influent

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
BOD5, Total		mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	5/Week	24-Hr Flow Prop Comp	
Mercury, Total Recoverable		ng/L	Quarterly	24-Hr Flow Prop Comp	

Changes from Previous Permit:

No changes.

Explanation of Limits and Monitoring Requirements

As a condition of reissuing this permit with an alternative mercury effluent limitation, influent monitoring for mercury is required, per s. NR 106.145(6), Wis. Adm. Code. Monthly sampling is recommended pursuant to s. NR 106.145, Wis. Adm. Code.

2 Inplant - Proposed Monitoring and Limitations

Sample Point Number: 111- Field Blank - Effluent

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Mercury, Total Recoverable		ng/L	Quarterly	Blank	

Changes from Previous Permit:

No changes.

Explanation of Limits and Monitoring Requirements

Collection of Field Blanks is required under s. NR 106.145(9) whenever samples are collected for "low-level" mercury analysis as a quality control measure.

3 Surface Water - Proposed Monitoring and Limitations

Sample Point Number: 001- Effluent

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
BOD5, Total	Monthly Avg	30 mg/L	5/Week	24-Hr Flow Prop Comp	
BOD5, Total	Weekly Avg	45 mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	30 mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Weekly Avg	45 mg/L	5/Week	24-Hr Flow Prop Comp	
pH Field	Daily Max	9.0 su	5/Week	Grab	
pH Field	Daily Min	6.0 su	5/Week	Grab	
Phosphorus, Total	Monthly Avg	1.0 mg/L	5/Week	24-Hr Flow Prop Comp	

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
E. coli	Geometric Mean - Monthly	126 #/100 ml	Weekly	Grab	Effective May through September annually.
E. coli	% Exceedance	10 Percent	Monthly	Calculated	Effective May through September annually.
Chlorine, Total Residual	Daily Max	38 ug/L	Daily	Grab	Effective May through September annually.
Chlorine, Total Residual	Weekly Avg	38 ug/L	Daily	Grab	Effective May through September annually.
Chlorine, Total Residual	Monthly Avg	38 ug/L	Daily	Grab	Effective May through September annually.
Mercury, Total Recoverable		ng/L	Quarterly	Grab	PMP efforts are required to maintain effluent quality at or below current levels.
Nitrogen, Total Kjeldahl		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annual in rotating quarters. See Nitrogen Series Monitoring section below.
Nitrogen, Nitrite + Nitrate Total		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annual in rotating quarters. See Nitrogen Series Monitoring section below.
Nitrogen, Total		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annual in rotating quarters. See Nitrogen Series Monitoring section below.
Acute WET		TUa	See Listed Qtr(s)	24-Hr Flow Prop Comp	See Whole Effluent Toxicity (WET) section below for testing requirements and the WET testing schedule.
Chronic WET		TUc	See Listed Qtr(s)	24-Hr Flow Prop Comp	See Whole Effluent Toxicity (WET) section below for testing requirements and the WET testing schedule.
PFOS		ng/L	1/ 2 Months	Grab	Monitoring only. See the PFOS Minimization Plan Schedule.
PFOA		ng/L	1/ 2 Months	Grab	Monitoring only. See the PFOS Minimization Plan Schedule.

Changes from Previous Permit

Changes from the previous permit include:

- Addition of E. coli monitoring & limits, removal of Fecal Coliform testing requirement.
- Addition of Nitrogen, Ammonia Variable Limit monitoring.
- Addition of TKN, Nitrate+Nitrite, and Total Nitrogen monitoring.
- Addition of Daily Flow Rate Monitoring to the Table.
- The limit for mercury was removed, but quarterly monitoring for mercury is still required
- Chronic WET monitoring change from rTUc to TUc.
- Language requiring the implementation of a PFOS Minimization Plan has been added to the permit.

Explanation of Limits and Monitoring Requirements

Categorical limits are required per Ch. NR 210, Wis. Adm. Code, (sewage treatment works).

BOD5, TSS and pH

The effluent limitations for BOD5, TSS and pH are carried over into this permit. These limitations are not subject to change at this time because the receiving water characteristics have not changed.

E. Coli

On May 1, 2020, revisions to chs. NR 102 and NR 210, Wis. Adm. Code, became effective and replace fecal coliform limits with new Escherichia coli (E. coli) limits for protection of recreation uses. Since the facility is required to disinfect the following limits are included in the proposed permit in accordance with s. NR 210.06(2)(a)1, Wis. Adm. Code. The existing fecal coliform limit of 400 #/100 ml as a monthly geometric mean is replaced with E. coli limit of 126 #/100 ml as a monthly geometric mean and no more than 10 percent of E. coli bacteria samples collected in any calendar month may exceed 410 #/100 ml. The permittee indicated to the department that the permittee will be in compliance with E. coli limits immediately.

Disinfection

Disinfection is required because the receiving water is classified for recreational use. Seasonal disinfection from May through September is required to coincide with the typical timeframe for recreational activities in Wisconsin's waters.

Phosphorus

Chapter NR 217 of the Wis. Adm. Code addresses point source dischargers of phosphorus to surface waters. Subchapter II of that code limits municipal dischargers of more than 150 pounds of phosphorus per month to an effluent limit of 1.0 mg/L total phosphorus – unless an alternative limit is approved.

Chapter NR 217 was revised on December 1, 2010, with the addition of Subchapter III, which includes WQBELs for phosphorus, based upon criteria contained in Chapter NR 102. The June 22, 2022 WQBEL memo presents recommendations for phosphorus WQBELs for the operation of the permittee's WWTF under a continuous discharge mode of operation, derived according to the procedure specified under s. NR 217.13, Wis. Adm. Code.

Mercury

Quarterly monitoring and PMP efforts are recommended to continue during the reissued permit term to maintain effluent quality at or below current levels.

Water Quality-Based Limits

Phosphorous and other available data were evaluated by Department staff and recommendations for water quality-based effluent limitations (WQBELs) and Whole Effluent Toxicity testing are presented in the June 22, 2022 memo, "Water

Quality-Based Effluent Limitations for the Peshtigo Wastewater Treatment Facility WPDES Permit No. WI-0030651-09-0.

Total Nitrogen Monitoring (NO2+NO3, TKN and Total N)

The Department has included effluent monitoring for Total Nitrogen in the permit through the authority under §§ 283.55(1)(e), Wis. Stats., which allows the department to require the permittee to submit information necessary to identify the type and quantity of any pollutants discharged from the point source, and through s. NR 200.065(1)(h), Wis. Adm. Code, which allows for this monitoring to be collected during the permit term. More information on the justification to include total nitrogen monitoring in wastewater permits can be found in the "Guidance for Total Nitrogen Monitoring in Wastewater Permits" dated October 1, 2019. Annual tests are scheduled in the following rotating quarters: 2nd Quarter: (April – June) 2024, 3rd Quarter: (July – September) 2025; 4th Quarter (October – December) 2026, 1st Quarter: (Jan – March) 2027; 2nd Quarter (April – June) 2028.

PFOS and PFOA

NR 106 Subchapter VIII – Permit Requirements for PFOS and PFOA Dischargers became effective on August 1, 2022. At the first reissuance of a WPDES permit after August 1, 2022, the new rule requires WPDES permits for municipal dischargers with an average flow rate less than 1 MGD, to be evaluated on a case-by-case basis to determine if monitoring is required pursuant to s. NR 106.98(2)(c), Wis. Adm. Code. The department evaluated the need for PFOS and PFOA monitoring taking into consideration the presence of potential PFOS or PFOA industrial wastes, remediation sites and other potential sources of PFOS or PFOA. Based on information available at the time the proposed permit was drafted, it was identified that the discharge may be a potential source of PFOS/PFOA. Therefore, monitoring once every two months is included. The initial determination of the need for sampling shall be conducted for up to two years in order to determine if the permitted discharge has the reasonable potential to cause or contribute to an exceedance of the PFOS or PFOA standards under s. NR 102.04(8)(d)1, Wis. Adm. Code. See the Schedules section for the PFOS/PFOA Minimization Plan Determination of Need schedule.

Language was added to the permit to ensure that the actions outlined in the approved minimization plan are accomplished over the next several years. The determination to require the implementation of a minimization plan will be reevaluated at the next permit reissuance.

Pursuant to s. NR 106.985(1), Wis. Adm. Code, the department notified the permittee on 06/24/2026 of the requirement to develop a PFOS Minimization Plan that satisfies the requirements in s. NR 106.99, Wis. Adm. Code. The permittee submitted a minimization plan on 09/09/2026; this plan was approved by the department on 10/07/2026.

Whole Effluent Toxicity

Whole effluent toxicity (WET) testing requirements and limits (if applicable) are determined in accordance with ss. NR 106.08 and NR 106.09 Wis. Adm. Code, as revised August 2016. (See the current version of the Whole Effluent Toxicity Program Guidance Document and checklist and WET information, guidance and test methods at http://dnr.wi.gov/topic/wastewater/wet.html). Acute WET testing twice in the permit term in rotating quarters is required as listed in the permit.

Municipal Effluent Limits – In accordance with the federal regulation 40 CFR 122.45(d), limits in this permit are to be expressed as weekly average and monthly average limits whenever practicable. No additional limits were required to comply with the regulation.

Monitoring Frequency - The Monitoring Frequencies for Individual Wastewater Permits guidance (April 12, 2021) recommends that standard monitoring frequencies be included in individual wastewater permits based on the size and type of the facility, in order to characterize effluent quality and variability, to detect events of noncompliance, and to ensure fairness and consistency in permits issued across the state. Guidance and requirements in administrative code were considered when determining the appropriate monitoring frequencies for pollutants that have final effluent limits in effect during this permit term. After evaluation no changes to sampling frequency were warranted as they are at the minimum recommended sampling frequency.

Sample Point Number: 601- Peshtigo River

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Mercury, Total Recoverable		ng/L	Per Occurrence	Grab	Voluntary monitoring of Peshtigo River, see mercury section.

Changes from Previous Permit

No changes.

Explanation of Limits and Monitoring Requirements

This is voluntary monitoring to help determine the background mercury levels in the river.

4 Land Application - Proposed Monitoring and Limitations

Municipal Sludge Description						
Sample Point	**Sludge Class (A or B)**	**Sludge Type (Liquid or Cake)**	**Pathogen Reduction Method**	**Vector Attraction Method**	**Reuse Option**	**Amount Reused/Disposed (Dry Tons/Year)**
005	B	Liquid	Fecal coliform	Injection or incorporation	Land Application	154 dry US tons
Does sludge management demonstrate compliance? **Yes**						
Is additional sludge storage required? **No**						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? **Yes** If yes, special monitoring and recycling conditions will be included in the permit to track any potential problems in landapplying sludge from this facility						
Is a priority pollutant scan required? **N/A**						

Sample Point Number: 005- Liquid Sludge

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Solids, Total		Percent	Annual	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Annual	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Annual	Composite	

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Cadmium Dry Wt	Ceiling	85 mg/kg	Annual	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Annual	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Annual	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Annual	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Annual	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Annual	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Annual	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Annual	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Annual	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Annual	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Annual	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Annual	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Annual	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Annual	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Annual	Composite	
Radium 226 Dry Wt		pCi/g	Annual	Composite	
Nitrogen, Total Kjeldahl		Percent	Annual	Composite	
Nitrogen, Ammonium (NH4-N) Total		Percent	Annual	Composite	
Phosphorus, Total		Percent	Annual	Composite	
Phosphorus, Water Extractable		% of Tot P	Annual	Composite	
Potassium, Total Recoverable		Percent	Annual	Composite	
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	PCB monitoring required in 2024 only. See PCB subsection below.
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	PCB monitoring required in 2024 only. See PCB subsection below.
PFOA + PFOS		ug/kg	Annual	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
PFAS Dry Wt			Annual	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.

Changes from Previous Permit:

PFAS – Annual/Once monitoring is included in the permit pursuant s. NR 204.06(2)(b)9., Wis. Adm. Code.

Explanation of Limits and Monitoring Requirements

Requirements for land application of municipal sludge are determined in accordance with ch. NR 204 Wis. Adm. Code. Ceiling and high quality limits for metals in sludge are specified in s. NR 204.07(5). Requirements for pathogens are specified in s. NR 204.07(6) and in s. NR 204.07 (7) for vector attraction requirements. Limitations for PCBs are addressed in s. NR 204.07(3)(k). Radium requirements are addressed in s. NR 204.07(3)(n).

PFAS: The presence and fate of PFAS in municipal and industrial sludges is an emerging public health concern. EPA is currently developing a risk assessment to determine future land application rates and expects to release this risk assessment by the end of 2024. In the interim, the department has developed the "Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS."

Collecting sludge data on PFAS concentrations from a wide range of wastewater treatment facilities will help protect public health from exposure to elevated levels of PFAS and determine the department's implementation of EPA's recommendations. To quantitate this risk, PFAS sampling has been included in the proposed WPDES permit pursuant to ss. NR 214.18(5)(b) and NR 204.06(2)(b)9., Wis. Adm. Code.

5 Schedules

5.1 Land Application Management Plan

A management plan is required for the land application system.

Required Action	Due Date
Land Application Management Plan Submittal: Submit an update to the management plan to optimize the land application system performance and demonstrate compliance with ch. NR 204, Wis. Adm. Code, by the Due Date. This management plan shall 1) specify information on pretreatment processes (if any); 2) identify land application sites; 3) describe site limitations; 4) address vegetative cover management and removal; 5) specify availability of storage; 6) describe the type of transporting and spreading vehicle(s); 7) specify monitoring procedures; 8) track site loading; 9) address contingency plans for adverse weather and odor/nuisance abatement; and 10) include any other pertinent information. Once approved, all landspreading activities shall be conducted in accordance with the plan. Any changes to the plan must be approved by the Department prior to implementing the changes.	01/01/2025

5.2 Mercury Pollutant Minimization Program

Required Action	Due Date
Annual Mercury Progress Reports: Submit an annual mercury progress report related to the pollutant minimization activities for the previous year. The annual mercury progress report shall: Indicate which mercury pollutant minimization activities or activities outlined in the Pollutant Minimization Program Plan have been implemented and state which, if any, activities from the Pollutant Minimization Program Plan were not pursued and why; Include an assessment of whether each implemented pollutant minimization activity appears to be effective or ineffective at reducing pollutant discharge concentrations and identify actions planned for the upcoming year; Identification of barriers that have limited program effectiveness and adjustments to the program that will be implemented during the next year to help address these barriers; Include an analysis of trends in total effluent mercury concentrations based on mercury sampling; and Include an analysis of how influent and effluent mercury varies with time and with significant loading of mercury. The first annual mercury progress report is to be submitted by the Due Date.	12/31/2024
Annual Mercury Progress Report #2: Submit a mercury progress report, related to the pollutant minimization activities for the previous year, as defined above.	12/31/2025
Annual Mercury Progress Report #3: Submit a mercury progress report, related to the pollutant minimization activities for the previous year, as defined above.	12/31/2026
Annual Mercury Progress Report #4: Submit a mercury progress report, related to the pollutant minimization activities for the previous year, as defined above.	12/31/2027
Final Mercury Report: Submit a final report documenting the success in reducing mercury concentrations in the effluent, as well as the anticipated future reduction in mercury sources and mercury effluent concentrations. The report shall: Summarize mercury pollutant minimization activities that have been implemented during the current permit term and state which, if any, activities from the Pollutant Minimization Program Plan were not pursued and why; Include an assessment of which pollutant minimization activities appear to have been effective or ineffective. Evaluate any needed changes to the pollutant reduction strategy accordingly; Identification of barriers that have limited program effectiveness and adjustments to the program to help address these barriers; Include an analysis of trends in mercury concentrations based on sampling and data during the current permit term; and Include an analysis of how influent and effluent mercury varies with time and with significant loadings of mercury.	12/31/2028
Annual Mercury Reports After Permit Expiration: In the event that this permit is not reissued by the date the permit expires, the permittee shall continue to submit annual mercury reports for the previous year following the due date of Annual Mercury Progress Reports listed above. Annual Mercury Progress reports shall include the information as defined above.	

5.3 PFOS Minimization Plan

This compliance schedule requires the permittee to achieve compliance by the Due Date.

Required Action	Due Date
Submit Progress Report #1: Submit an annual progress report. The annual progress report shall: Indicate which source reduction measures or activities in the approved PFOS minimization plan have been implemented; Identify which suspected sources have been monitored; Include an analysis of trends in weekly, monthly and annual average PFOS concentrations; and Include an analysis of how influent and effluent concentrations vary with time and with significant loadings of PFAS such as loads from industries or other sources into the collection system.	12/31/2027
Submit Progress Report #2 and Re-evaluation: Submit a progress report on the success in the implementation of the PFOS minimization plan. The report shall include a summary of all actions taken and analysis of trends in weekly, monthly, and annual average PFOS effluent concentrations. If initial PMP actions were not successful enough to result in PFOS reductions below the values in s. NR 102.04(8)(d)1., Wis. Adm. Code, the permittee shall submit an updated PMP with the permit application for reissuance. Based on facility and PMP specifics the permittee may be allowed up to 53 additional months after the permit expiration date to implement additional PMP actions before being required to install PFAS treatment technologies. This schedule may be modified to adjust compliance schedule dates to incorporate any changes in minimization plan goals and actions or as new information is made available to the department.	06/30/2028
Submit Progress Report #3: Submit the PFOS minimization progress report as defined above.	12/31/2029
Submit Progress Report #4: Submit the PFOS minimization progress report as defined above.	12/31/2030
Submit Progress Report #5: Submit the PFOS minimization progress report as defined above.	12/31/2031
Submit Progress Report #6: Submit the PFOS minimization progress report as defined above.	12/31/2032
Submit Final Progress Report and Re-evaluation: Submit a progress report on the success in the implementation of the PFOS minimization plan. The report shall include a summary of all actions taken and analysis of trends in weekly, monthly, and annual average PFOS effluent concentrations. If initial PMP actions were not successful enough to result in PFOS reductions below the values in s. NR 102.04(8)(d)1., Wis. Adm. Code, the permittee shall be required to install PFAS treatment technologies to meet the calculated WQBELs.	06/30/2033
Submit Facility Plan: The permittee shall submit a facility plan to the Department for approval pursuant to s. NR 110.09, Wis. Adm. Code. The permittee may submit an abbreviated facility plan after discussions with the Department.	06/30/2034
Plan and Specification Submittal: The permittee shall submit final construction plans and specifications to the Department for approval pursuant to ch. NR 108, Wis. Adm. Code, specifying treatment plant upgrades that must be constructed to achieve compliance with the applicable PFOS WQBELs, and a schedule for completing construction of the upgrades by the complete construction date specified below.	06/30/2035
Treatment Plant Upgrade to Meet Limitations: The permittee shall initiate bidding, procurement, and/or construction of the project. The permittee shall obtain approval of final constructions plans and schedule from the Department pursuant to s. 281.41, Stats., prior to initiating activities defined as	06/30/2036

construction under ch. NR 108, Wis. Adm. Code. Upon approval of the final construction plans/specifications and schedule by the Department, the permittee shall construct the treatment plant upgrades in accordance with the approved plans and specifications.	
Complete Construction: The permittee shall complete construction of the wastewater treatment plant upgrades.	06/30/2037
Achieve Compliance: The permittee shall achieve compliance with the PFOS water quality-based effluent limit of 8 ng/L as a monthly average.	08/01/2037

Explanation of Schedules

The compliance schedule regarding the mercury pollutant minimization program will ensure that the permittee maintains compliance with the requirements of the alternative mercury effluent limitation and will continue to work towards compliance with the final mercury limitation.

PFOS Minimization Plan – The department has made the determination that this facility has reasonable potential to cause or contribute to an exceedance of the PFOS standard in s. NR 102.04(8)(d)1., Wis. Adm. Code, based on the reasonable potential procedures and data collected under s. NR 106.98, Wis. Adm. Code. Pursuant to s. NR 106.985(1), Wis. Adm. Code, the department notified the permittee on 06/24/2026 of the requirement to develop a PFOS Minimization Plan that satisfies the requirements in s. NR 106.99, Wis. Adm. Code. The permittee submitted a minimization plan on 09/09/2026; this plan was approved by the department on 10/07/2026.

The permittee is allowed up to 85 months to implement the minimization plan as outlined above. This schedule may be modified as more data is collected and the success of the proposed minimization plan is further evaluated. The permittee is required to submit annual progress reports every year, with a third progress report required to be submitted with the permit application. If necessary, a final progress report is required at the end of the next permit term.

If the minimization plan actions have not been successful enough to no longer have reasonable potential to cause or contribute to an exceedance of the applicable PFOS standards, then the permittee will be required to install a treatment system or otherwise take steps necessary to come into compliance with the applicable standard(s) by the final Due Date.

Attachments:

PFOS and PFOA Water Quality-Based Effluent Limitations for the Peshtigo Wastewater Treatment Facility -WPDES Permit No. (WI-0030651) in Marinette County, by Amy Garbe, PE, Wastewater Engineer, dated June 22, 2026

City of Peshtigo - WWTF, PFOS Minimization Plan, dated September 9, 2026

Approval of PFOS Minimization Plan letter, by Nate Willis, PE, Wastewater Section Manager, dated 10/07/2026

Proposed Expiration Date:

December 31, 2028

Justification Of Any Waivers From Permit Application Requirements:

No waivers from permit application requirements granted.

Prepared By: Sarah Adkins, Wastewater Specialist **Date:** May 28, 2024

Revised By: Sarah Donoughe, Wastewater Specialist-Adv **Date:** October 26, 2026

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: June 22, 2026

TO: Sarah Donoughe – NER

FROM: Kari Fleming – WY/3

SUBJECT: PFOS and PFOA Water Quality-Based Effluent Limitations for the Peshtigo Wastewater Treatment Facility -WPDES Permit No. (WI-0030651) in Marinette County

This is in response to your request for an evaluation of the need for PFOS and PFOA limitations for the Peshtigo Wastewater Treatment Facility. This municipal wastewater treatment facility (WWTF) discharges to the Peshtigo River, located in the Lower Peshtigo River Watershed in the Green Bay Basin.

The current permit, effective since January 2024, has monitoring only for PFOS and PFOA. The following review is based on new regulations which are now in effect throughout the state of Wisconsin and recommendations are made in accordance with chapters NR 102, 104, 105, 106, 207, and 217 of the Wisconsin Administrative Code, where applicable.

Receiving Water Information

- Name: Peshtigo River
- Classification: Warm Water Sport Fish (WWSF) community, non-public water supply. Cold Water and Public Water Supply criteria are used for bioaccumulating compounds of concern, because the discharge is within the Great Lakes basin.
- Flow: The following 7-Q_{10} and 7-Q_2 values are from USGS for Station 05424057, where Outfall 001 is located:
  7-Q_{10} = 214 cfs (cubic feet per second)
  7-Q_2 = 306 cfs
  Harmonic Mean Flow = 483 cfs using a drainage area of 1080 mi^2

The Harmonic Mean has been estimated based on average flow and the 7-Q_{10} using an equation from U.S. EPA's *Technical Support Document for Water Quality-Based Toxics Control* (March 1991, EPA/505/2-90-001, pgs. 88-89).

- % of Flow used to calculate limits: 25%

Effluent Information

- Flow: Average Design Flow = 2.474 MGD (million gallons per day)
  For reference, the actual average flow from January 2024 to April 2026 was 0.59 MGD.
- Effluent characterization: This facility is categorized as a major municipality.

The following table lists the statistics for effluent PFOS and PFOA levels from February 2024 through April 2026.

	PFOS ng/L	PFOA ng/L
1-day P_{99}	21.80	16.21
4-day P_{99}	13.75	11.62
30-day P_{99}	9.67	9.21
Mean	7.76	8.0

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Std	4.11	2.68
Sample Size	14	14
Range	2.2-14	4.9-14

Water Quality Based Limit – PFOS and PFOA

Administrative rules for PFOS and PFOA took effect on August 1, 2022. These rule revisions include additions to ch. NR 102 (s. NR 102.05), Wis. Adm. Code, which establish PFOS and PFOA standards for surface waters. Revisions to ch. NR 106 (s. NR 106, Subchapter VIII), Wis. Adm. Code, establish procedures for determining water quality based effluent limits for PFOS and PFOA, based on the applicable standards in ch. NR 102, Wis. Adm. Code.

PFOS

Due to PFOS being a bioaccumulating compound of concern (BCC), no mixing zone is allowed pursuant to s. NR 106.98(4), Wis. Adm. Code. Therefore, the effluent limit for PFOS is set equal to criterion (8 ng/L).

PFOA

The conservation of mass equation is described in s. NR 106.06(4)(b)1., Wis. Adm. Code, and includes variables of water quality criterion (WQC), receiving water flow rate (Qs), effluent flow rate (Qe), and upstream PFOA concentrations (Cs) provided below.

$$\text{Limitation} = [(WQC)(Qs+(1-f)\,Qe) - (Qs-f\,Qe)\,(Cs)]/Qe$$

Where:

WQC = 95 ng/L for the Peshtigo River
Qs = 25% of the harmonic mean pursuant s. NR 106.06(4)(c)10., Wis. Adm. Code = 120.75 cfs
Cs = background concentration of PFOA in the receiving water pursuant to s. NR 106.06(4)(e), Wis. Adm. Code
Qe = effluent flow rate = 2.474 MGD = 3.83 cfs
f = the fraction of effluent withdrawn from the receiving water = 0

After substituting the appropriate variables, the calculated PFOA limit is 3,091 ng/L.

Reasonable Potential Determination

In accordance with s. NR 106.98(4)(a), Wis. Adm. Code, **the discharge has reasonable potential to cause or contribute to an exceedance of the water quality criterion for PFOS** because the 30-day P_{99} of reported effluent PFOS data is greater than the calculated WQBEL (8 ng/L). Therefore, **a WQBEL is required.**

The discharge does not have reasonable potential to cause or contribute to an exceedance of the water quality criterion for PFOA because the 30-day P_{99} of reported effluent PFOA data is less than the calculated WQBEL (3,091 ng/L). Therefore, **a WQBEL is not required.**

Conclusions

The following is a summary of limits recommended by this evaluation:

- Monthly average PFOS limit of 8 ng/L

If there are any questions or comments on these recommendations, please contact Amy Garbe by telephone at (608) 716-9968 or by email at Amy.Garbe@wisconsin.gov.

Attachments (2) – P99 Calculations

PREPARED BY: _____ date: 6/22/26
Amy Garbe, P.E., Wastewater Engineer

cc: Laura Gerold, Basin Engineer – NER/Green Bay
Nate Willis, P.E., PFAS Implementation Coordinator – CO

Attachment 1 – PFOS P99 Calculation

EFFLUENT VARIABILITY ANALYSIS -			
=	= =	=	=
SUBSTANCE:			
NUMBER OF VALUES:	------		
TOTAL	14		
DETECTED	14		
NON-DETECTED			
d	0		
m	7.76429		
mean of all data	7.76429		
s	4.10677		
	------	------	------
n	1	4	30
d^n	0	0	0
p	0.99	0.99	0.99
Z_p	2.32679	2.32679	2.32679
1+(s/m)^2	1.27977	1.27977	1.27977
(sigma_d)^2	0.24668	0.24668	0.24668
mu_d	1.9262	1.9262	1.9262
(sigma_dn)^2	0.24668	0.0676	0.00928
mu_dn	1.9262	2.01573	2.04489
P_99 exponent	3.08183	2.62072	2.26907
	-------	-------	-------
P_99	21.80	13.75	9.67
	-------	-------	-------

Data Summary

Feb-24	3.2
Mar-24	4.1
May-24	7.9
Jul-24	14
Oct-24	9.7
Nov-24	6.5
Jan-25	4.8
Mar-25	4.1
Jun-25	14
Aug-25	14
Oct-25	10
Dec-25	5.7
Jan-26	2.2
Apr-26	8.5

Attachment 2 – PFOA P99 Calculation

EFFLUENT VARIABILITY ANALYSIS -			
=	= =	=	=
SUBSTANCE:			
NUMBER OF VALUES:	------		
TOTAL	14		
DETECTED	14		
NON-DETECTED	0		
d	0		
m	8		
mean of all data	8		
s	2.68213		
	------	------	------
n	1	4	30
d^n	0	0	0
p	0.99	0.99	0.99
Z_p	2.32679	2.32679	2.32679
1+(s/m)^2	1.1124	1.1124	1.1124
(sigma_d)^2	0.10652	0.10652	0.10652
mu_d	2.02618	2.02618	2.02618
(sigma_dn)^2	0.10652	0.02771	0.00374
mu_dn	2.02618	2.06558	2.07757
P_99 exponent	2.78559	2.45293	2.21986
	-------	-------	-------
P_99	16.21	11.62	9.21
	-------	-------	-------

Data Summary	
Feb-24	4.9
Mar-24	5.2
May-24	8.2
Jul-24	8.5
Oct-24	7.9
Nov-24	7.5
Jan-25	6.7
Mar-25	5.5
Jun-25	12
Aug-25	14
Oct-25	11
Dec-25	7.1
Jan-26	5.6
Apr-26	7.9

PFOS MINIMIZATION PLAN



City of Peshtigo - WWTF PFOS Minimization Plan
Permit Number: WI-0030651-09-1
Permit Issue Date: July 30, 2024
Report Date: September 9, 2026

PREPARED FOR:
City of Peshtigo
331 French Street
Suite A
Peshtigo, WI 54157

PREPARED BY:
Ruekert & Mielke, Inc.
1400 Lombardi Avenue
Suite 101S
Green Bay, WI 54304

Ruekert • Mielke

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CITY OF PESHTIGO WASTEWATER TREATMENT FACILITY
PFOS MINIMIZATION PLAN
PERMIT NUMBER: WI-0030651-09-1
DATE: JULY 30, 2024

NARRATIVE

The City of Peshtigo owns and operates a Wastewater Treatment Facility (WWTF) the is used to treat domestic, commercial and industrial wastewater discharged to the City of Peshtigo wastewater collection system. The City of Peshtigo also accepts hauled waste from septage and holding tanks. The WWTF utilizes an extended aeration activated sludge process to treat the wastewater. The extended aeration activated sludge process is followed by secondary clarification and seasonal disinfection. Phosphorus removal is also performed by precipitation.

Wastewater from the collection system and hauled waste are pumped by the Main Sewage lift Station to the WWTF headworks through 18-inch diameter force main. The wastewater is pumped to the raw sewage metering building. Two manually cleaned bar screens are installed in the influent channel to the metering building. Wastewater flow is measured by an 18-inch Parshall flume and sampled prior in the Metering building. The raw wastewater flows by gravity through a 24-inch diameter pipeline to the mixed liquor splitter box. Raw sewage and RAS combine in the splitter box to form mixed liquor prior to being discharged to aeration basins. The influent channel and metering building are in poor condition. The metering building HVAC equipment is no longer operational.

Mixed liquor in the splitter box flows by gravity through 20-inch diameter pipelines to the aeration basins. The activated sludge system has four aeration basins. Normally one aeration basin is in service. Aeration basin No. 1 and Aeration Basin No. 3 are used for treatment in an alternating sequence. Aeration Basin No. 2 is not in service. Aeration Basin No. 4 is typically used to store excess sludge. The activated sludge system is operated as an extended aeration process.

Each aeration basin is equipped with a rectangular weir for level control. Mixed liquor flows over the weirs by gravity through 20-inch, 24-inch, and 36-inch diameter pipelines to a splitter box. The mixed liquor in the splitter box is distributed to three circular secondary clarifiers through 24-inch diameter pipelines. Typically, two secondary clarifiers are in service, and the third clarifier is used as a standby clarifier. Mixed liquor suspended solids are settled in the clarifiers.

The effluent from the secondary clarifiers flows over V-notch weirs, collects in a trough, and flows by gravity through 18-inch diameter pipelines to a control manhole. The clarifier effluent flows through a 24-inch diameter pipeline to the chlorine contact tank. Chlorine solution is added to the inlet to the contact tank.

The clarifier effluent can be directed to the emergency settling basin through a 24-inch diameter pipeline. Sodium Bisulfite is added to the effluent structure of the chlorine contact tank for dechlorination. The effluent from the chlorine contact tank flows through a 24-inch diameter pipeline to the Peshtigo River.

Solids generated at the WWTF waste activated sludge (WAS) from the extended aeration activated sludge process. WAS is pumped by the RAS pumps to the gravity sludge thickener. Thickened WAS from the sludge thickener is pumped by one of two thickened sludge pumps to the sludge storage tank.

The sludge storage tank is equipped with a submersible mixer. The plant staff uses a portable submersible pump to decant supernatant from the storage tank. The total volume of the sludge storage tank is 704,980 gallons. The sludge storage tank along with Aeration Basin No. 4 provide well over 180 days required by NR 208. The sludge from the sludge storage tank is disposed of on agricultural land by contract haulers. Sludge is injected when applied to comply with vector attraction reduction methods.

Sludge was last disposed of on agricultural land in 2022. A total of 780,000 gallons were applied to agricultural land in 2022.

Current actions being taken to address Per- and Polyfluoroalkyl Substances (PFAS) contamination in the Town of Peshtigo include the ongoing site investigation and treatment of contaminants from the JCI/Tyco Fire Products facility—a project which has been active since 2017. This project is being carried out by the Town of Peshtigo with involvement from the Wisconsin department of Natural Resources (WDNR) and the United States Environmental Protection Agency (USEPA)—and the Private Well PFAS Testing project, which completed its initial sampling phase in 2024-2025.

A permit modification was issued on July 30, 2024 which included a requirement for bimonthly PFAS testing for the WWTF effluent. The city has performed bimonthly WWTF effluent testing from 2024-2026 to analyze which types of PFAS contamination are most prominent and identify any seasonal or annual trends. Wastewater collection system samples were also taken in 2019, though no pre-treatment samples have been taken in more recent years. Testing of biosolids was performed in 2022, as well. Statistics for the effluent Perfluorooctane Sulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA) levels calculated from the 2024-2026 data are listed in the following table.

Table 1: PFOS & PFOA Effluent Statistics

	PFOS ng/L	PFOA ng/L
1-day P_{99}	21.80	16.21
4-day P_{99}	13.75	11.62
30-day P_{99}	9.67	9.21
Mean	7.76	8.0
Std Dev	4.11	2.68
Sample Size	14	14
Range	2.2-14	4.9-14

The WDNR, after review of the WWTF effluent testing data, has determined the need for the City of Peshtigo to proceed with a PFOS Minimization Plan. Based on the above effluent statistics, the WDNR determined there is reasonable potential for the WWTF to discharge PFOS in concentrations above the narrative standard in Wisconsin Administrative code s. NR102.04(8)(d). The narrative standard for surface waters for PFOS in NR102.04(8)(d) is 8 nanograms per Liter (ng/L). Implementation of this minimization plan may result in a reduction of PFOS in the effluent of the WWTF to comply with NR102.04(8)(d).

SOURCE IDENTIFICATION

The City of Peshtigo performed collection system grab sampling in August and November of 2019. A summary of this data can be found in Appendix B. Figure 1 shows the different sampling locations, their names, and any relevant industries or infrastructure near the sampling point.

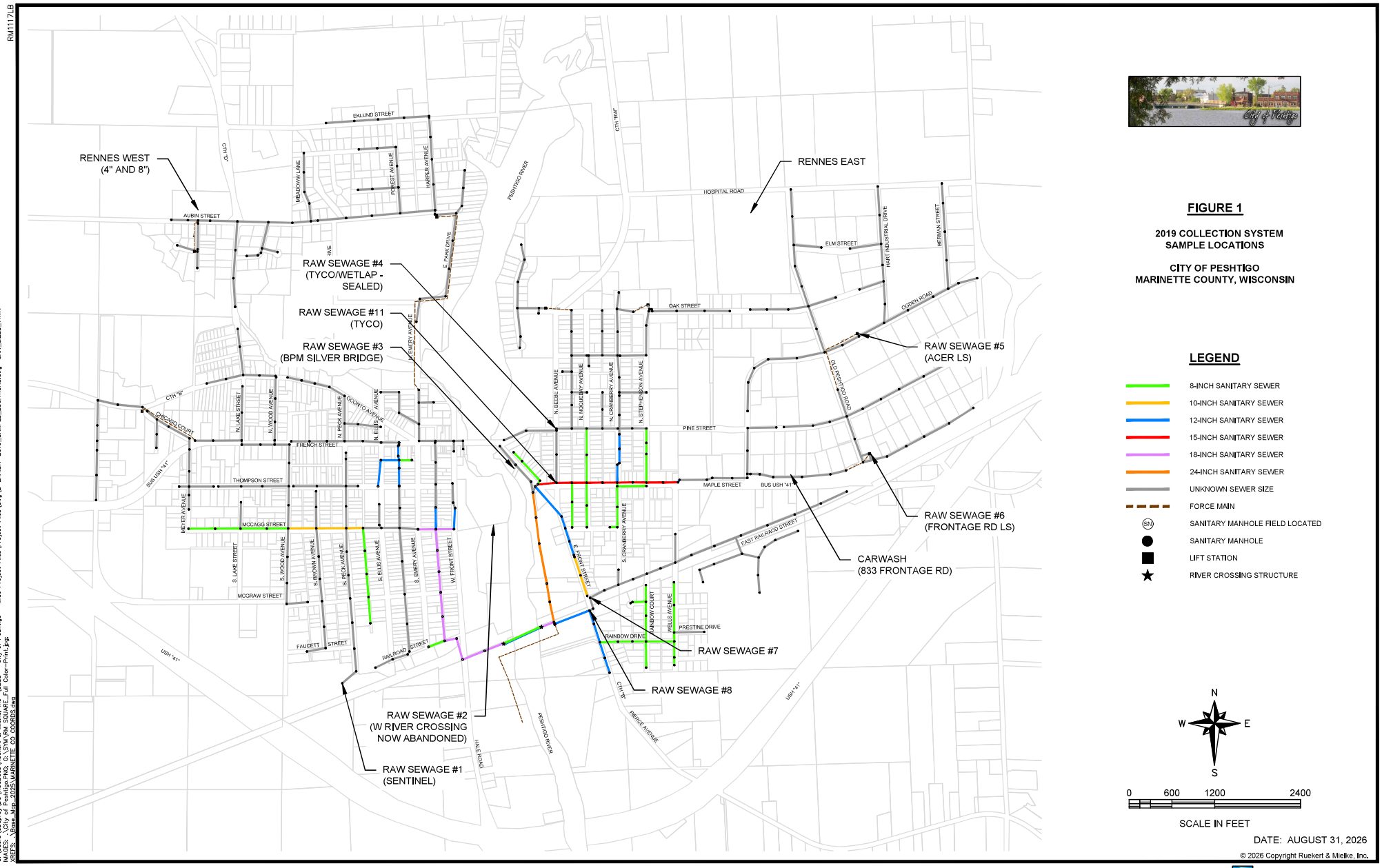


FIGURE 1

2019 COLLECTION SYSTEM SAMPLE LOCATIONS

CITY OF PESHTIGO
MARINETTE COUNTY, WISCONSIN

LEGEND

- 8-INCH SANITARY SEWER
- 10-INCH SANITARY SEWER
- 12-INCH SANITARY SEWER
- 15-INCH SANITARY SEWER
- 18-INCH SANITARY SEWER
- 24-INCH SANITARY SEWER
- UNKNOWN SEWER SIZE
- FORCE MAIN
- SANITARY MANHOLE FIELD LOCATED
- SANITARY MANHOLE
- LIFT STATION
- RIVER CROSSING STRUCTURE

N
W E
S

0 600 1200 2400

SCALE IN FEET

DATE: AUGUST 31, 2026

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SOURCE:
BASEMAP SOURCE:

Ruekert • Mielke
www.ruekertmielke.com

RM1117.LB

Aug 31, 2026 8:17am PLOTTED BY: GDegrey SAVED BY: GDegrey
C:\Users\GDegrey\DC\ACCDocs\Ruekert & Mielke, Inc-\8288 - City of Peshtigo - Misc Project Files\Project Files\dwg\Z-EXHIBIT-2019_SAMPLE_LOCATIONS.dwg SAN_SIZES_11X17
IMAGES: .\City of Peshtigo.PNG; G:\SYM\RM SQUARE_Full Color-Print.jpg
XREFS: .\Base_Map_2025\MARINETTE CO_CODED.dwg

Table 2: PFOS 2019 Mass Loading

PFOS Source Category	2019 Annual Mass Loading (lbs/yr)	Annual Percent of Total
JCI/Tyco (closed)	0	0%
Sentinel Structures (closed)	2.6×10^{-5}	22%
Frontage Carwash	3.1×10^{-6}	3%
Collins/UTC Aerospace (closed)	1.9×10^{-6}	2%
BPM	No data	No data
Aacer Flooring (closed)	8.7×10^{-5}	74%
TOTAL	**1.18×10^{-4}**	**100%**

The above mass loading values in Table 2 were determined using water consumption data, since there is no direct metering of wastewater from specific sources. Therefore, for sources like Aacer where much of the water is likely being lost as steam, the mass loading is likely an overestimate. More direct metering at each source would be needed to create more accurate mass loading estimates.

Additionally, four of the above six major sources have closed or ceased operations since the 2019 data was collected, and additional potential sources without any existing data like those listed above further impact the accuracy of the mass loading estimates. BPM Paper Mill had available concentration data but no flow data since private wells are used for process water at the paper mill. Some potential additional sources of PFOS not accounted for in the 2019 data collection include hauled waste, inflow and infiltration, and legacy solids contamination. More current data and additional sampling would be needed to further investigate potential sources for PFOS loading on the WWTF.

DATA ANALYSIS

Data from the effluent sampling shows a general trend of some PFAS concentrations, including PFOS and PFOA, spiking in the spring and summer and decreasing in the fall and winter. The months with higher concentrations tend to be correlated with months of higher precipitation and higher hauled waste rates, indicating that the contaminants are likely being mobilized during higher flow rates. The substances with the highest concentrations recorded in the effluent data are PFPeA, PFHxA, PFOA, PFBS, PFOS, and PFBA.

Figure 2: PFAS WWTF Effluent Concentrations Over Time

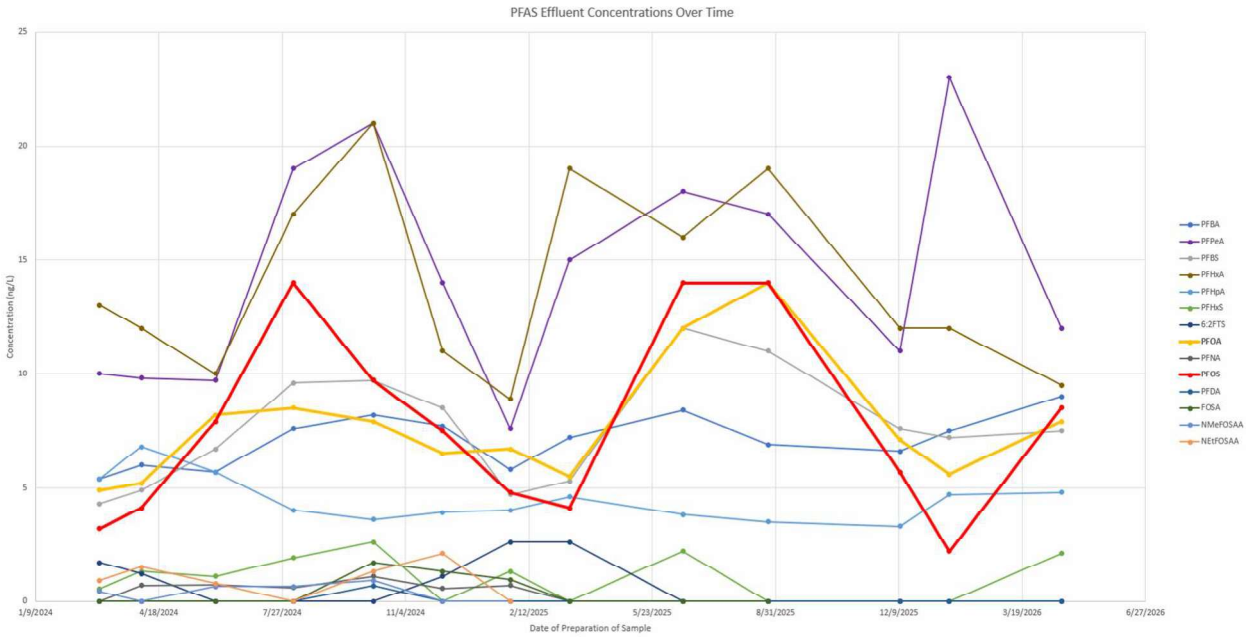
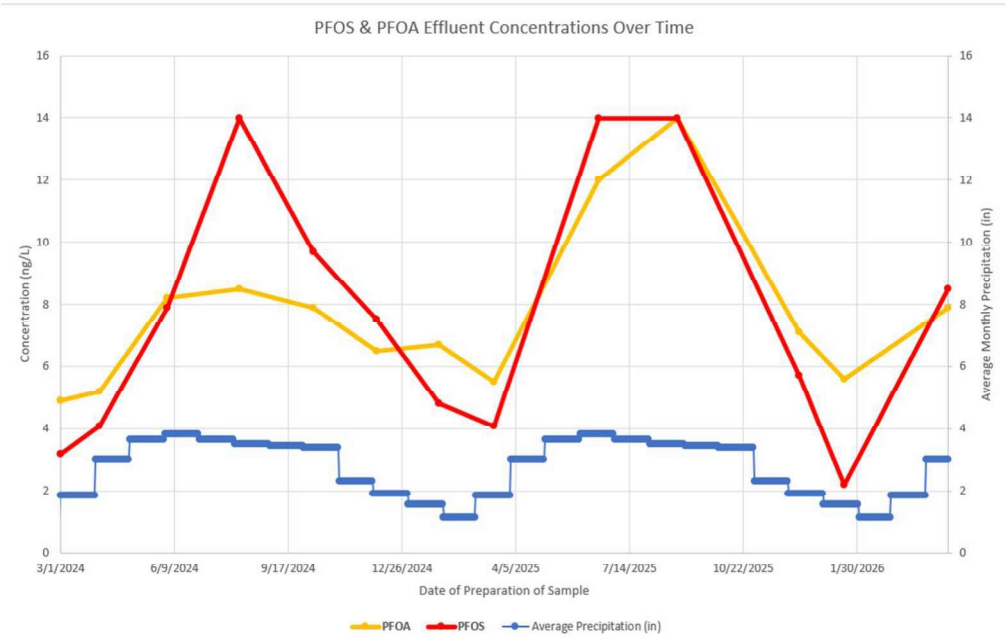
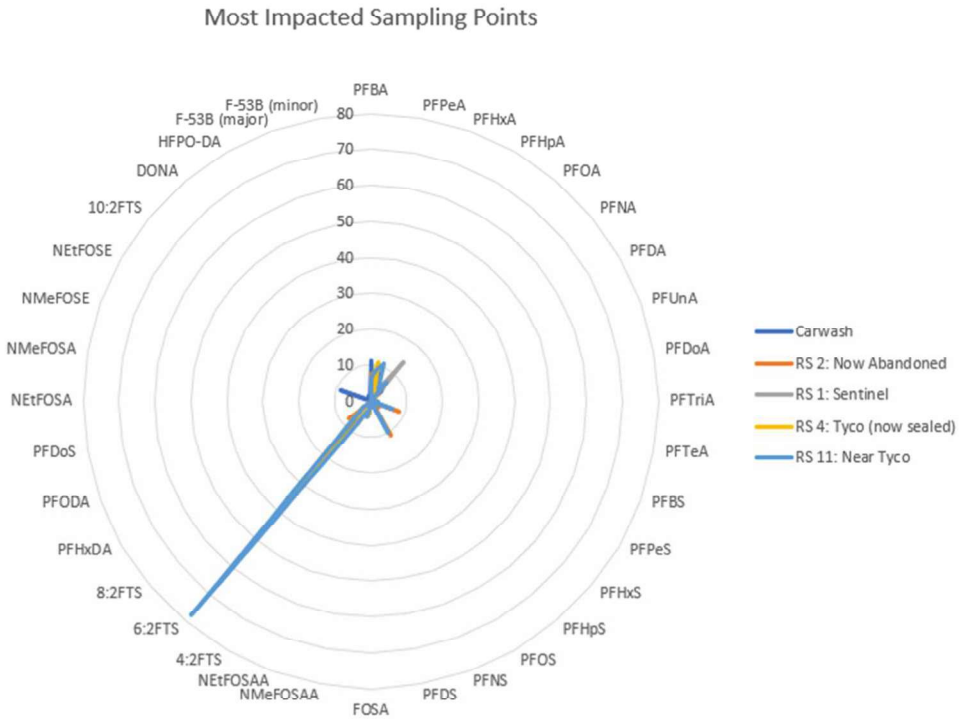


Figure 3: PFOS & PFOA WWTF Effluent Concentrations, Average Monthly Precipitation



Data from the collection system, though out of date, can be used in conjunction with the WDNR's PFAS fingerprinting program to aid in source identification, as well as compared to the more recent effluent data to identify changes in concentration patterns. This older data showed very high levels of 6:2FTS—a chemical frequently used in Aqueous Film-Forming Foams (AFFFs)—specifically near JCI/Tyco and the Frontage Road car wash, though these levels are not reflected in the more current WWTF effluent data. PFOA and PFOS levels similar to those observed in the more current WWTF effluent data were measured near the former Sentinel Structures and at the now-abandoned old river crossing.

Figure 4: Most Impacted 2019 Sampling Points Radar Graph



The decrease in 6:2FTS concentrations between the 2019 collection system data and the 2024-2026 WWTF effluent data are likely due to a few factors: the sealing of the collection point nearest to JCI/Tyco, the ongoing remediation efforts at the site, and its tendency to sorb onto waste sludge rather than remaining in effluent water[1].

The WWTF also carried out PFAS testing of the sludge and effluent in 2022, which showed a 6:2FTS effluent concentration of 3.8 ng/L—slightly higher than effluent levels in 2024-2026 but much lower than the collection system levels in 2019. The 2022 WWTF results showed nondetectable levels in biosolids. Since 6:2FTS is not significantly degraded in conventional wastewater treatment processes and there are no excessively high concentrations in either the effluent water or sludge, it is likely that the 6:2FTS was coming from JCI/Tyco and is no longer entering the wastewater system.

[1] (Wang et al., 2011): https://doi.org/10.1016/j.chemosphere.2010.11.003

Average PFOA and PFOS concentrations, however, increased between the 2019 collection system measurements and the 2024-26 WWTF effluent measurements. While it is difficult to attribute a precise cause to this increase with the limited data available, studies have demonstrated that PFAS—particularly PFOA and PFOS—concentrations frequently increase during conventional wastewater treatment processes due to the transformation of precursor substances and desorption of PFAS from solids. NEtFOSAA, NEtFOSA, and FOSA compounds are precursor substances and transform to PFOS through biodegradation[2]. There is a higher combined concentration of the above PFOS precursors in the collection system data than in the effluent data, though the time gap between the datasets makes it difficult to determine whether this is because of biodegradation to PFOS or due to other factors.

[2] (Barisci and Suri, 2021): https://doi.org/10.2166/wst.2021.484

PLANNED ACTIONS

Minimization Plan Activities	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
1. Collection System Sampling	x						
a. West of new river crossing							
b. Upstream of east river crossing manhole							
c. East of Main Lift Station							
2. Hauled Waste	x						
Alternative A. Sampling of hauled waste							
Alternative B. Temporary suspension of hauled waste discharge + effluent PFAS testing							
3. Analysis of testing results	x						
a. Targeting of relevant areas							
b. Identify potential sources							
4. Targeted Location/Customer Collection System Sampling (based on results of Item 1 above)		x	x	x			
5. Address newly identified sources				x	x		
6. Potential Sewer Use Ordinance Revisions to Restrict PFAS Discharge						x	x
7. Public Outreach Flyers	x	x	x	x	x	x	x
8. Annual Reporting	x	x	x	x	x	x	x

PUBLIC EDUCATION AND OUTREACH

To help reduce PFOS loading from nonindustrial sources, the WWTF will take steps to educate sewer users on reducing usage and how to properly dispose of PFAS-containing products. Reducing household usage of these products will help reduce effluent concentrations by eliminating PFOS precursors and PFOS itself before they are introduced to the sewer system. To do this, the WWTF will distribute the flyers below with utility billings and provide links on their website to the WDNR's PFAS webpage, the ITRC's PFAS fact sheets, and the EPA's PFAS webpage.

Figure 5: WDNR Household PFAS Flyer

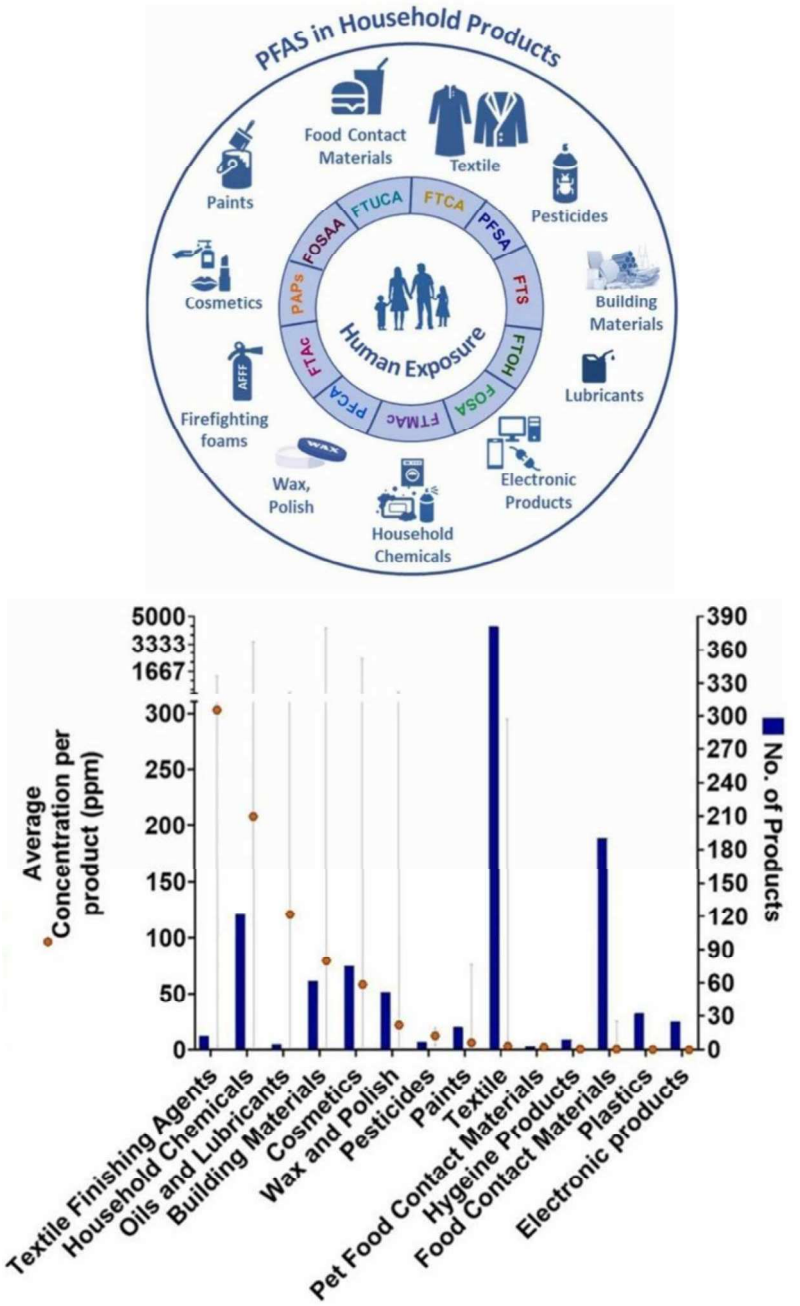


Figure 6: WDNR General PFAS Flyer



APPENDIX A – PFOS AND PFOA MINIMIZATION PLAN ANNUAL REPORT CHECKLIST

NOTE: Permittees are not required to fill out and submit this checklist with their annual report. Rather, this checklist is provided as a resource to aid facilities in completing their annual report to ensure that the proper information is reported to the department.

Section I: General Information

Permittee Name:

Pollutant:

Annual Report Year Covered (i.e., 2024): Permit Term (i.e., 10/01/2022 – 09/30/2027):

Section II: Summary of Pollutant Reduction Work Done to Date

Pollutant Source Identification

□ List and discuss sources of pollutants. The discussion should include whether the specific source is controllable. If not controllable, include details as to why not.

Actions Completed

□ Discuss the source reduction measures completed during the previous year. It should be identified if this action was to minimize or maintain a pollutant source.

□ For each of the actions, provide a detailed summary* and attach any supplemental information. This could include date/date range of action, copy of meeting minutes, inspection results, rebates, etc.

□ If any actions triggered next steps, these actions should be included along with a planned schedule.

Actions Not Completed

□ Include a list of planned actions for the year, according to the approved minimization plan, that were not completed.

□ A detailed explanation* as to why the planned actions were not completed should be included. This could have been due to operator time, funding, or additional barriers.

□ Discuss in detail the encountered barriers that prevented completion of the action items.

□ Along with a new time frame, include steps to ensure planned actions will occur in the future.

* This is the main focus of the report and should clearly reiterate the setbacks to the planned actions.

Section III: Summary of Progress

Data Analysis

□ All data collected for the previous years should be included. This data could include any influent, effluent, blanks, industry, or other sampling performed.

□ Provide data in one or more of the following formats:

☐Graphs ☐Tables, Averages ☐Raw Data

□ Include an analysis summary of the data. This could include high effluent due to seasonality, industrial loads, or unknown spikes.

Section IV: Planned Actions

Actions Planned

□ List the planned actions for the upcoming year, according to the approved minimization plan. This list should also include any follow-up/next step actions identified in Section II above.

Section V: Final Report

Only applies to the final report prior to permit expiration.

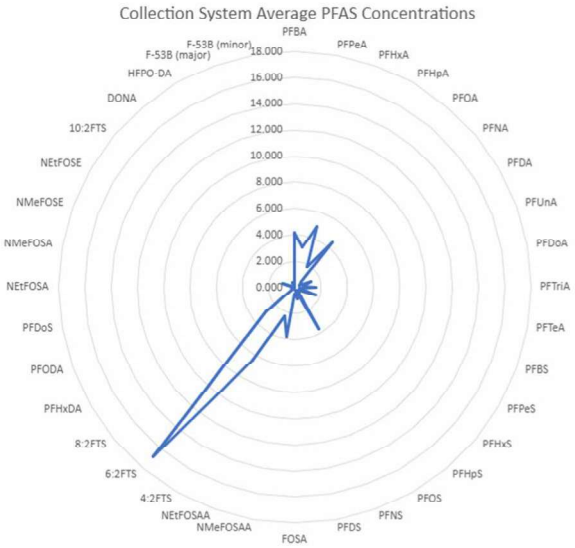
□ This should be a discussion on the ability to meet the final water quality limit and additional steps the facility can take during the next permit term to meet the final limit.

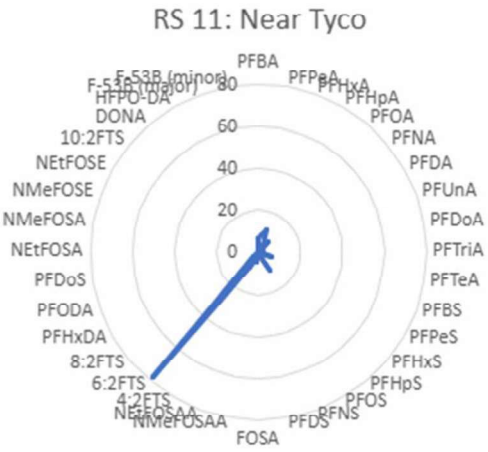
□ Submit an updated minimization plan if the facility is anticipating the need to further reduce effluent concentrations.

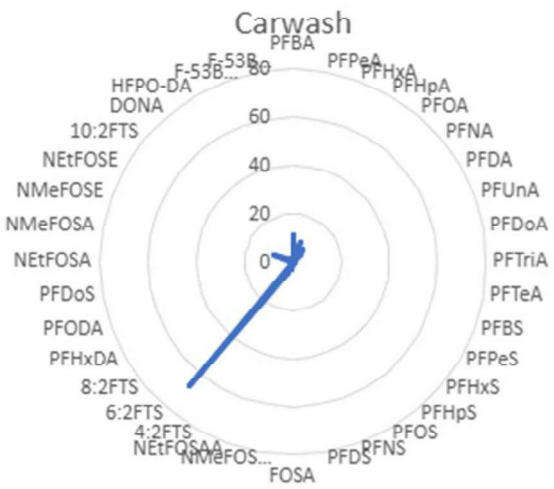
APPENDIX B – 2019 COLLECTION SYSTEM SAMPLING DATA SUMMARY AND RADAR MAPS

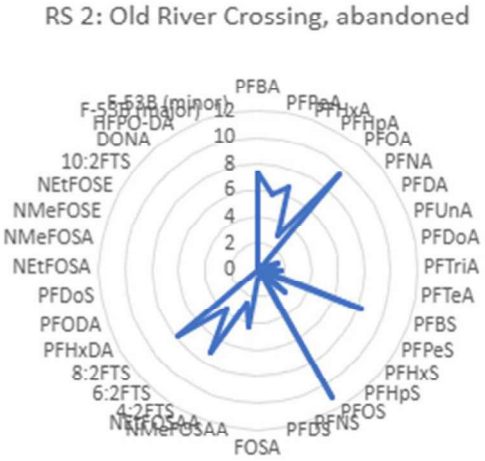
	Carwash	Raw Sewage #1	Raw Sewage #2	Raw Sewage #3	Raw Sewage #4	Raw Sewage #5	Raw Sewage #6	Raw Sewage #7	Raw Sewage #8	Raw Sewage #11	Rennes E Oak St	Rennes W 4" Sewer	Rennes W 8" Sewer	Average	Standard Deviation
	11/27/2019	8/2/2019	8/2/2019	8/2/2019	8/2/2019	8/2/2019	8/2/2019	8/2/2019	8/2/2019	8/2/2019	11/27/2019	11/27/2019	11/27/2019	Overall	Overall
PFBA	11	0.48	7.4	1.9	5.5	0.47	0.48	2.5	4.2	6.6	9	3.4	1.4	4.179	3.479
PFPeA	2.8	0.67	5.8	1.6	11	0.65	1.4	2.1	3.5	8.6	0.48	1.5	0.44	3.118	3.351
PFHxA	8.4	0.8	6.6	1.4	2.5	2.6	0.79	19	6.9	11	0.54	2	1.6	4.933	5.404
PFHpA	2.3	3.9	3	0.94	4.5	0.33	0.47	0.65	2	3.9	0.23	0.79	0.59	1.815	1.549
PFOA	6.4	14	9.4	4.2	2.8	2.1	1.3	2.8	4.3	7.1	0.79	1.9	1.2	4.484	3.851
PFNA	4	0.37	0.53	0.38	0.37	0.36	0.37	0.37	0.35	0.75	0.25	0.24	0.24	0.660	1.013
PFDA	0.29	0.43	0.43	0.44	0.42	0.41	0.42	0.41	0.51	0.47	0.29	0.28	0.28	0.391	0.078
PFUnA	1	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.4	1	1	0.99	0.99	1.306	0.258
PFDoA	0.51	0.76	0.76	0.78	0.75	0.73	0.75	0.73	0.71	0.83	0.51	0.49	0.5	0.678	0.125
PFTriA	1.2	1.8	1.8	1.8	1.8	1.7	1.8	1.7	1.7	2	1.2	1.2	1.2	1.608	0.293
PFTeA	0.27	0.4	0.4	0.41	0.4	0.39	0.4	0.39	0.37	0.44	0.27	0.26	0.26	0.358	0.067
PFBS	0.19	0.27	8.3	0.28	0.75	0.27	0.27	0.46	2.8	6.5	0.19	1.3	0.7	1.714	2.648
PFPeS	0.28	0.41	0.41	0.42	0.41	0.4	0.41	0.4	0.39	0.45	0.28	0.27	0.27	0.369	0.067
PFHxS	0.16	0.23	2.6	0.59	0.25	0.23	0.23	0.23	0.22	0.26	0.16	0.15	0.15	0.420	0.665
PFHpS	0.18	0.26	0.61	0.3	0.26	0.25	0.26	0.25	0.25	0.29	0.18	0.17	0.17	0.264	0.113
PFOS	0.5	8.2	11	7.9	0.74	2.5	0.74	0.72	3.8	10	0.5	0.48	0.49	3.659	4.081
PFNS	0.15	0.22	0.24	0.23	0.22	0.21	0.22	0.21	0.21	0.24	0.15	0.14	0.14	0.198	0.038
PFDS	0.3	0.44	0.44	0.45	0.44	7.2	0.44	0.43	0.41	0.49	0.3	0.29	0.29	0.917	1.889
FOSA	0.32	0.63	0.67	1.2	0.48	0.47	0.48	0.47	0.45	0.53	0.33	0.31	0.32	0.512	0.236
NMeFOSAA	2.9	4.3	4.3	4.4	4.2	4.1	4.2	4.1	4	4.7	2.9	2.8	2.8	3.823	0.697
NEtFOSAA	1.8	2.6	2.6	2.7	2.6	2.5	2.6	2.5	2.5	2.9	1.8	1.7	1.7	2.346	0.427
4:2FTS	4.8	7.1	7.2	7.4	7.1	6.9	7.1	6.9	6.7	7.9	4.8	4.7	4.7	6.408	1.185
6:2FTS	67	2.7	3.7	2.8	49	2.7	2.7	2.7	2.6	78	1.9	1.8	1.8	16.877	27.897
8:2FTS	1.9	2.7	7.8	2.8	2.7	2.7	2.7	2.7	2.6	3	1.9	1.8	1.8	2.854	1.547
PFHxDA	0.82	0	0	0	0	0	0	0	0	0	0.83	0.8	0.8	0.250	0.390
PFODA	0.43	0	0	0	0	0	0	0	0	0	0.43	0.41	0.41	0.129	0.202
PFDoS	0.42	0	0	0	0	0	0	0	0	0	0.42	0.4	0.41	0.127	0.198
NEtFOSA	0.81	0	0	0	0	0	0	0	0	0	0.81	0.78	0.78	0.245	0.382
NMeFOSA	0.4	0	0	0	0	0	0	0	0	0	0.4	0.39	0.39	0.122	0.190
NMeFOSE	8.9	0	0	0	0	0	0	0	0	0	1.3	1.3	1.3	0.985	2.444
NEtFOSE	0.79	0	0	0	0	0	0	0	0	0	0.79	0.76	0.77	0.239	0.374
10:2FTS	0.18	0	0	0	0	0	0	0	0	0	0.18	0.17	0.17	0.054	0.084
DONA	0.17	0	0	0	0	0	0	0	0	0	0.17	0.16	0.16	0.051	0.079
HFPO-DA	1.4	0	0	0	0	0	0	0	0	0	1.4	1.3	1.4	0.423	0.661
F-53B (major)	0.22	0	0	0	0	0	0	0	0	0	0.22	0.21	0.22	0.067	0.105
F-53B (minor)	0.3	0	0	0	0	0	0	0	0	0	0.3	0.29	0.29	0.091	0.142

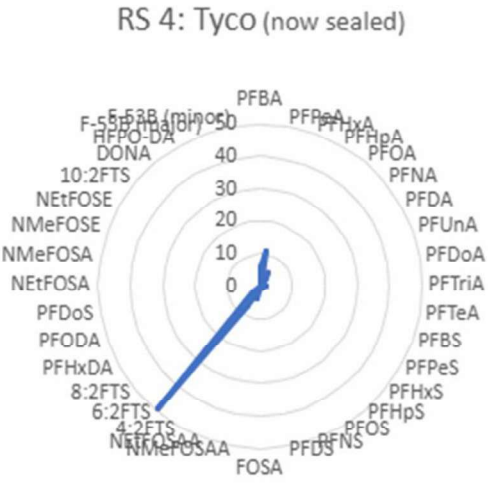
RADAR MAPS

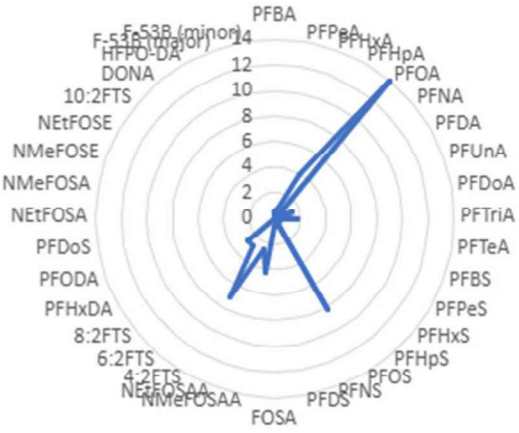

Collection System Average PFAS Concentrations
PFBA
PFPeA
PFHxA
PFHpA
PFOA
PFNA
PFDA
PFUnA
PFDoA
PFTriA
PFTeA
PFBS
PFPeS
PFHxS
PFHpS
PFOS
PFNS
PFDS
FOSA
NMeFOSAA
NEtFOSAA
4:2FTS
6:2FTS
8:2FTS
PFHxDA
PFODA
PFDoS
NEtFOSA
NMeFOSA
NMeFOSE
NEtFOSE
10:2FTS
DONA
HFPO-DA
F-53B (major)
F-53B (minor)
18.000
16.000
14.000
12.000
10.000
8.000
6.000
4.000
2.000
0.000


RS 11: Near Tyco
PFBA
PFPeA
PFHxA
PFHpA
PFOA
PFNA
PFDA
PFUnA
PFDoA
PFTriA
PFTeA
PFBS
PFPeS
PFHxS
PFHpS
PFOS
PFNS
PFDS
FOSA
NMeFOSAA
NEtFOSAA
4:2FTS
6:2FTS
8:2FTS
PFHxDA
PFODA
PFDoS
NEtFOSA
NMeFOSA
NMeFOSE
NEtFOSE
10:2FTS
DONA
HFPO-DA
F-53B (major)
F-53B (minor)
80
60
40
20
0


Carwash
PFBA
PFPeA
PFHxA
PFHpA
PFOA
PFNA
PFDA
PFUnA
PFDoA
PFTriA
PFTeA
PFBS
PFPeS
PFHxS
PFHpS
PFOS
PFNS
PFDS
FOSA
NMeFOS...
NEtFOSAA
4:2FTS
6:2FTS
8:2FTS
PFHxDA
PFODA
PFDoS
NEtFOSA
NMeFOSA
NMeFOSE
NEtFOSE
10:2FTS
DONA
HFPO-DA
F-53B...
F-53B...
80
60
40
20
0


RS 2: Old River Crossing, abandoned
PFBA
PFPeA
PFHxA
PFHpA
PFOA
PFNA
PFDA
PFUnA
PFDoA
PFTriA
PFTeA
PFBS
PFPeS
PFHxS
PFHpS
PFOS
PFNS
PFDS
FOSA
NMeFOSAA
NEtFOSAA
4:2FTS
6:2FTS
8:2FTS
PFHxDA
PFODA
PFDoS
NEtFOSA
NMeFOSA
NMeFOSE
NEtFOSE
10:2FTS
DONA
HFPO-DA
F-53B (major)
F-53B (minor)
12
10
8
6
4
2
0


RS 4: Tyco (now sealed)
PFBA
PFPeA
PFHxA
PFHpA
PFOA
PFNA
PFDA
PFUnA
PFDoA
PFTriA
PFTeA
PFBS
PFPeS
PFHxS
PFHpS
PFOS
PFNS
PFDS
FOSA
NMeFOSAA
NEtFOSAA
4:2FTS
6:2FTS
8:2FTS
PFHxDA
PFODA
PFDoS
NEtFOSA
NMeFOSA
NMeFOSE
NEtFOSE
10:2FTS
DONA
HFPO-DA
F-53B (major)
F-53B (minor)
50
40
30
20
10
0


RS 1: Sentinel
PFBA
PFPeA
PFHxA
PFHpA
PFOA
PFNA
PFDA
PFUnA
PFDoA
PFTriA
PFTeA
PFBS
PFPeS
PFHxS
PFHpS
PFOS
PFNS
PFDS
FOSA
NMeFOSAA
NEtFOSAA
4:2FTS
6:2FTS
8:2FTS
PFHxDA
PFODA
PFDoS
NEtFOSA
NMeFOSA
NMeFOSE
NEtFOSE
10:2FTS
DONA
HFPO-DA
F-53B (major)
F-53B (minor)
14
12
10
8
6
4
2
0

APPENDIX C – REFERENCES

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10/07/2026

Katie Berman, Mayor
City of Peshtigo
331 French St.
Peshtigo, WI 54157

Subject: Approval of PFOS Minimization Plan

Dear Katie Berman:

The Wisconsin Department of Natural Resources (hereafter department) is conditionally approving the PFOS minimization plan (PMP) for the PeshtigoWastewater Treatment Facility located in Webster, Wisconsin, and received for approval on 03/31/2026.

Peshtigo does not intentionally add or use PFOS or other PFAS compounds in the treatment processes at the facility, but two years of effluent sampling data shows reasonable potential to exceed the calculated water quality-based effluent limit for PFOS (8 ng/L).

In addition to the ongoing effluent and sludge monitoring, Peshtigo is proposing to take additional samples within the collection system, in addition to identification as to the mass contribution of PFAS to the WWTP. This data will provide a baseline for determining and/or confirming additional possible PFOS inputs to the treatment system.

The PMP is hereby approved in accordance with s. 283.31, Wis. Stats., and s. NR 106.985(2)(a), Wis. Adm. Code, subject to the following conditions:

1. That if modifications to the approved PMP are necessary, a revised PMP shall be submitted to the department for its approval prior to commencement of the modifications.
2. That the PMP be followed in accordance with the requirements of WPDES Permit No. WI-0030651-09-1 and subsequent approved modifications to the PMP and the permit.

Per s. NR 106.985(2)(b), Wis. Adm. Code, the department will modify Peshtigo's WPDES permit to include the PFOS minimization plan, and other related terms and conditions, including annual progress reporting requirements and a schedule of compliance to meet applicable water quality based effluent limitations. As part of the modification, the approved PMP will be available for public comment as part of the public noticed package.

This conditional approval is not to be construed as a department determination on the issuance of a WPDES permit or an opinion as to the ability of the proposed PMP to comply with effluent limitations in such a permit. Also, this letter is not to be construed as an approval for activities requiring approval under other Wisconsin administrative codes or statutes or by other federal, state or local agencies.

If you believe you have a right to challenge this decision, the Wisconsin statutes and administrative codes establish time periods which requests to review department decisions must be filed. For judicial review of a decision pursuant to ss. 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the department, to file your petition with the appropriate circuit court and serve the petition on the department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to s. 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with s. NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with s. NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing does not extend the 30-day period for filing a petition for judicial review. The filing of a request for a contested case hearing is not prerequisite for judicial review.

Please contact Nate Willis by phone (608) 535-2369 or email: nathaniel.willis@wisconsin.gov if you have any questions regarding this letter.



Nate Willis, P.E.
Wastewater Section Manager
Bureau of Water Quality

e-cc: Richard Sparks – Peshtigo
Don Heikkila – Ruekert & Mielke
Sarah Donoughe – DNR
Amy Garbe – DNR
Anya Jeninga-Nehls - DNR
Laura Gerold – DNR
Heidi Schmitt Marquez - DNR