Permit Modification Fact Sheet

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

General Information

Permit Number:	WI-0025348-11-1	
Permittee Name:	Village of Chaseburg	
Address:	400 Depot Street (PO Box 156), Chaseburg, WI 54621	
Discharge Location:	West bank of Coon Creek located one mile west and downstream of the North Main Street bridge (approximate outfall coordinates: 43.66228, -91.10033)	
Receiving Water:	Coon Creek in the Coon Creek Watershed (Mississippi River Basin), Vernon County	
StreamFlow ($Q_{7,10}$):	34.0 cfs (cubic feet per second)	
Stream Classification:	Cold Water (Category 5), Class III trout stream, non-public water supply	
Discharge Type:	Existing, Continuous	
Design Flow(s):	Monthly Maximum	0.072 MGD (Million Gallons per Day)
	Annual Average	0.067 MGD
Significant Industrial Loading?	Yes. Organic Valley Creamery (FID 663025000) contributes on average 0.03 MGD of process wastewater resulting from butter production and milk skimming.	
Operator at Proper Grade?	Yes. Chaseburg is a basic plant requiring subclass certifications in Ponds, Lagoons, and Natural Systems (A4) and Sanitary Sewer Collection System (SS).	
Approved Pretreatment Program?	N/A	

Facility Description

The Village of Chaseburg owns and operates a 3-cell lagoon type wastewater treatment facility that discharges to Coon Creek. The annual average design flow for this facility is 0.067 MGD. This facility serves a population of approximately 290 residents and receives industrial loading from Organic Valley Creamery (FID 663025000) which discharges pretreated process wastewater to the plant by direct public sanitary main. Chlorine disinfection of the effluent has ceased and all pumps and equipment have been removed. Sludge collected in the lagoon system was last removed in 2001.

Fact Sheet Organization

This fact sheet identifies changes in permit conditions that the department has made when reissuing the Village of Chaseburg WPDES permit. This fact sheet contains all content required under s. NR 201, Wis. Adm. Code, as applicable. The permit remains in effect until the permit is either revoked and reissued, modified, or reissued. The tables and sections that follow were taken from the permit and are numbered in this fact sheet as they are numbered in the permit. For complete explanations of derived effluent limitations please refer to the attached technical memorandum: Water Quality-Based Effluent Limitations for the Chaseburg Wastewater Treatment Facility WPDES Permit No. WI-0025348-11-0 dated June 14, 2024.

Substantial Compliance Determination

Enforcement During Last Permit:

TSS limit exceedances reported in Sept 2019, July 2020, and March 2023; CBOD limit exceedances in May 2020; and Fecal Coliform limit exceedances in Aug 2020, Aug 2021. No formal enforcement action taken.

After a desk top review of all discharge monitoring reports, Compliance Maintenance Annual Reports (CMARs), the Capacity, Management, Operations and Maintenance (CMOM) Program, and a site visit on **December 5, 2023**, this facility has been found to be in substantial compliance with their current permit.

Compliance determination entered by Katie Jo Jerzak, wastewater compliance engineer, on January 10, 2024.

Sample Point Designation		
Sample Point Number	**Discharge Flow, Units, and Averaging Period**	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**
701	0.050 MGD annual average (May 2019 – May 2024 reported data)	COMBINED TOTAL INFLUENT: 24-hr flow proportional composite samples shall be collected from the diversion box at the primary pond. This is the total influent including the direct-piped dairy product processing influent (Sample Point 702).
702	0.030 MGD annual average (May 2019 – May 2024 reported data)	DAIRY PROCESSING INFLUENT: 24-hr flow proportional composite samples shall be collected from the dairy product processing facility sanitary main connection manhole after the dissolved air floatation unit.
001	0.060 MGD annual average (May 2019 – May 2024 reported data) 0.067 MGD annual average design flow	EFFLUENT: Representative samples shall be collected from the chlorine contact tank after the final stabilization pond and prior to discharge to Coon Creek.
002	N/A No discharge/final disposition of sludge	MUNICIPAL SLUDGE (LAGOON): Representative sludge samples shall be collected from the bottom of the primary aerated, facultative lagoon and analyzed for List 1 Total Solids and Metals, PCBs, and PFAS once during the year specified in the permit. List 2 Nutrients shall be analyzed prior to removal and land application of sludge under an approved management plan.

1 Influent – Monitoring Requirements

Sample Point Number: 701- COMBINED TOTAL 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	Monthly	24-Hr Flow Prop Comp	

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
CBOD5		mg/L	2/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	2/Week	24-Hr Flow Prop Comp	

Changes from Previous Permit:

Influent monitoring requirements were re-evaluated for the proposed permit term. Monitoring for BOD5 was reduced from 3/Week to monthly. Monitoring for CBOD5 and Total Suspended Solids was reduced from 3/Week to 2/Week.

Explanation of Limits and Monitoring Requirements

CBOD5 and Total Suspended Solids: Tracking of CBOD5, and Suspended Solids are required for percent removal requirements found in s. NR 210.05, Wis. Adm. Code. Monitoring frequencies were reduced based on treatment performance and consistency of the influent data collected to date.

Sample Point Number: 702- DAIRY PROCESSING 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	3/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	3/Week	24-Hr Flow Prop Comp	

Changes from Previous Permit:

Influent monitoring requirements were re-evaluated for the proposed permit term. Daily maximum and daily minimum pH limits and monitoring were removed. Monitoring for BOD5 and Total Suspended Solids was reduced from 5/Week to 3/Week.

Explanation of Limits and Monitoring Requirements

Sample Point 702 monitoring quantifies the flow and loading from the main industrial contributor. Percent removal requirements of s. NR 210.05, Wis. Adm. Code for BOD5 and Total Suspended Solids are demonstrated with the combined influent sample point 701. Outfall effluent (Sample Point 001) must meet the pH daily maximum and daily minimum limitations at all times. pH monitoring of the industrial influent will continue to inform operational needs of the treatment facility. Monitoring frequencies were reduced based on treatment performance and consistency of the influent data collected to date.

2 Surface Water - 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	
pH Field	Daily Max	9.0 su	5/Week	Grab	
pH Field	Daily Min	6.0 su	5/Week	Grab	
CBOD5	Monthly Avg	25 mg/L	2/Week	24-Hr Flow Prop Comp	See
CBOD5	Weekly Avg	40 mg/L	2/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	30 mg/L	2/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Weekly Avg	45 mg/L	2/Week	24-Hr Flow Prop Comp	
E. coli	Geometric Mean - Monthly	126 #/100 ml	Weekly	Grab	Limit effective immediately May through September annually.
E. coli	% Exceedance	10 Percent	Monthly	Calculated	Limit effective immediately May through September annually. See the 'E. coli Percent Limit' section below. Enter the result in the DMR on the last day of the month.
Phosphorus, Total		mg/L	Monthly	24-Hr Flow Prop Comp	
Nitrogen, Total Kjeldahl		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	See ‘Automatic Sampler Installation’ section, ‘Schedules’ section, and 'Nitrogen Series Monitoring' section.
Nitrogen, Nitrite + Nitrate Total		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	See ‘Automatic Sampler Installation’ section, ‘Schedules’ section, and 'Nitrogen Series Monitoring' section.
Nitrogen, Total		mg/L	See Listed Qtr(s)	Calculated	See permit subsection 'Nitrogen Series Monitoring'. Total Nitrogen

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
					= Total Kjeldahl N (mg/L) + (Nitrite + Nitrate Nitrogen) (mg/L)
Acute WET		TUa	See Listed Qtr(s)	24-Hr Flow Prop Comp	Twice during permit term. See permit subsection 'Whole Effluent Toxicity (WET) Testing' for listed quarters.
PFOS		ng/L	Annual	Grab	Monitoring only. See permit subsections 'PFOS/PFOA Sampling and Reporting Requirements' and 'PFOS/PFOA Minimization Plan Determination of Need' and permit schedule 'PFOS/PFOA Minimization Plan Determination of Need'.
PFOA		ng/L	Annual	Grab	Monitoring only. See permit subsections 'PFOS/PFOA Sampling and Reporting Requirements' and 'PFOS/PFOA Minimization Plan Determination of Need' and permit schedule 'PFOS/PFOA Minimization Plan Determination of Need'.

Changes from Previous Permit

Effluent monitoring requirements and limitations were re-evaluated for the proposed permit term. Monitoring and limits for Chlorine and Fecal Coliform were removed. Monitoring for the Total Nitrogen series and PFOS and PFOA was added. Acute WET testing was added. Fecal coliform monitoring and limits have been replaced with Escherichia coli (E. coli) monitoring and limits. Monitoring for CBOD5 and Total Suspended Solids was increased from Weekly to 2/Week. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

The sample point location has been changed from the manhole following the chlorine contact tank to the chlorine contact tank directly.

The monitoring frequency for PFOS and PFOA has been reduced from 1/ 2 Months to Annual.

Explanation of Limits and Monitoring Requirements

Refer to the Water-Quality Based Effluent Limits technical memo for the detailed calculations, prepared by the Water Quality Bureau dated June 14, 2024 used for this reissuance.

Monitoring frequencies: Taking into consideration guidance and requirements in Wisconsin Administrative Code, effluent monitoring frequencies for Chaseburg Wastewater Treatment Facility's permit were determined to be appropriate for pollutants that have final effluent limits in effect during this permit term. Beginning in 2026, effluent sample types shall be collected as a 24 hr flow proportional composite sample. A schedule is included in the permit to submit plans and specs and install an automatic sampler.

Technology Based Effluent Limits (Total Suspended Solids, CBOD5, and pH): Standard municipal wastewater requirements for total suspended solids, and pH are included based on ch. NR 210, Wis. Adm. Code, 'Sewage Treatment Works' requirements for discharges to fish and aquatic life streams. Chapter NR 102, Wis. Adm. Code, 'Water Quality Standards for Surface Waters' also specifies requirements for pH for fish and aquatic life streams.

Total Nitrogen Monitoring (NO2+NO3, TKN and Total Nitrogen): 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 rotating quarters as specified in the permit.

E. Coli: Revisions to bacteria surface water quality criteria to protect recreational uses and accompanying E. coli WPDES permit implementation procedures became effective May 1, 2020. The administrative code rule changes included the following actions: revised the bacteria water quality criteria from fecal coliform to E. coli to protect recreation in ch. NR 102, Wis. Adm. Code.; removed fecal coliform criteria for certain individual waters from ch. NR 104, Wis. Adm. Code.; revised permit requirements for publicly and privately owned sewage treatment works in ch. NR 210, Wis. Adm. Code.; and, updated approved analytical methods for bacteria in ch. NR 219, Wis. Adm. Code.

Seasonal E. coli monitoring and limits are required at the permit effective date. An interim limit for fecal coliform or schedule is not necessary as the facility has been monitoring for E. coli and has demonstrated that the effluent can consistently meet the final E. coli limits without disinfection. E. coli limits of 126 #/100 ml as a monthly geometric mean may not be exceeded and 410 #/100 ml as a daily maximum that may not be exceeded more than 10 percent of the time in any calendar month.

Chlorine: Chlorine disinfection has ceased and all equipment and pumps have been removed from the facility. The discharge consistently meets bacteria limits without the need for disinfecting the effluent. Should disinfection be necessary in the future, a permit modification can be requested by the facility to reinstitute chlorine limits in the permit.

Phosphorus: The facility discharges 34.4 pounds of phosphorus per month on average. Since this is less than 150 pounds, a Technology Based Effluent Limit (TBEL) for phosphorus is not needed pursuant to s. NR 217.04(1)(a), Wis. Adm. Code. Additionally, the facility was determined to not have reasonable potential to exceed the calculated Water Quality-Based Effluent Limit (WQBEL). The calculated 30-day P99 of representative data is 2.63 mg/L as compared to the WQBEL of 4.9 mg/L.

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 is required in rotating quarters as specified in the permit.

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 source water has known levels of PFOS/PFOA.

Therefore, monitoring once every two months is included. A sample frequency of 1/2 months means one sample is taken during any two-month period. Examples of 1/2 month sample would be every other month (Jan, March, May, etc.) or back-to-back months with a break in between (February & March, May & June, Aug & Sept, etc.). DMR Short Forms will be generated for the following time periods: January-February, March-April, May-June, July-August, September-October, and November-December. At a minimum one sample result will be present on each form.

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.

Pursuant to s. NR 205.066, Wis. Adm. Code, the department may specify the monitoring frequency for PFOS and PFOA on a case-by-case basis after the initial 24 months of sampling.

After a review of the data submitted with the Year 2 Report on Effluent Discharges, the department has determined that it is warranted to reduce the sampling frequency in this case. The department is requiring continued monitoring of these compounds to complete the permit term to ensure that the current effluent quality is maintained. At the next permit reissuance, the department will make another determination as to whether further reduction or removal of monitoring is warranted, based on the continued sampling results.

3 Land Application - 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)**
002	B	Liquid	To be evaluated with submittal of sludge management plan (should there be a need to desludge the lagoon during the permit term)			
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? No. 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? No. Priority pollutant scans are required once every 10 years at facilities with design flows between 5 MGD and 40 MGD, and once every 5 years if design flow is greater than 40 MGD.						

Sample Point Number: 002- MUNICIPAL SLUDGE

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

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Arsenic Dry Wt	High Quality	41 mg/kg	Once	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Once	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Once	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Once	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Once	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Once	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Once	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Once	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Once	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Once	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Once	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Once	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Once	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Once	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Once	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Once	Composite	
Nitrogen, Total Kjeldahl		Percent	Per Application	Composite	Complete List 2 Analysis prior to land application.
Nitrogen, Ammonia (NH3-N) Total		Percent	Per Application	Composite	Complete List 2 Analysis prior to land application.
Phosphorus, Total		Percent	Per Application	Composite	Complete List 2 Analysis prior to land application.
Phosphorus, Water Extractable		% of Tot P	Per Application	Composite	Complete List 2 Analysis prior to land application.
Potassium, Total Recoverable		Percent	Per Application	Composite	Complete List 2 Analysis prior to land application.
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	Sample once in calendar year 2025. See 'Sludge Analysis for PCBs' subsection in permit.
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	Sample once in calendar year 2025. See 'Sludge Analysis for PCBs' subsection in permit.

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
PFOA + PFOS		ug/kg	Once	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.

Changes from Previous Permit:

Sludge monitoring requirements and limitations were re-evaluated for the proposed permit term. List 2 analysis for nutrients prior to land application has been added. PFAS monitoring once during the permit term is included in the permit pursuant to 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), Wis. Adm. Code. Requirements for pathogens are specified in ss. NR 204.07(6) and (7), Wis. Adm. Code for vector attraction requirements. Limitations for PCBs are addressed in s. NR 204.07(3)(k), Wis. Adm. Code. Radium requirements are addressed in s. NR 204.07(3)(n), Wis. Adm. Code.

List 2 Analysis for Nutrients – Monitoring for nutrients has been added to facilitate land application of removed sludge should this occur during the permit term. Sample collection shall occur prior to land application.

Water Extractable Phosphorus- Water extractable phosphorus (WEP) is the coefficient for determining plant available phosphorus from measured total phosphorus. In Wisconsin, the Penn State Method is utilized and is expressed in percent. While a total P may be significant, the WEP may show that only a small percentage of the P is available to plants because of factors such as treatment processes and chemical addition that "tie-up" phosphorus limiting the amount of phosphorus that is plant available. As part of the Wisconsin's nutrient management plan (NMP) requirements, the accounting of all fertilizers must be included over the NMP cycle. The fertilizer value of the waste needs to be communicated to the farmer and accounted for in the NMP.

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.

4 Schedules

4.1 Automatic Sampler Installation

The permittee shall install an automatic sampler to begin collecting 24-hr flow proportional composite samples of the effluent by January 1, 2026.

Required Action	Due Date
Final Plans and Specifications: The permittee shall submit final construction plans to the Department for approval pursuant to ch. NR 108, Wis. Adm. Code,	03/31/2025
Complete Installation: The permittee shall complete installation of the automatic sampler.	09/30/2025
Achieve Compliance: The permittee shall begin collecting 24-hr flow proportional composite samples using the automatic sampler.	01/01/2026

4.2 Sludge Management Plan

A sludge management plan is required for the removal of sludge and land application.

Required Action	Due Date
Sludge Management Plan: The permittee shall submit an updated land management plan for approval if removal of sludge will occur during this permit term. The plan shall demonstrate compliance with ch. NR 204, Wis. Adm. Code and at minimum address 1) How and where is sludge sampled; 2) Available sludge storage details and location(s); 3)How will the sludge be removed with details on volume, characterization and how will the treatment plant continue to function during the drawdown; 4) describe the type of transportation and spreading vehicles and loading and unloading practices; 5) identify approved land application sites, apply for needed sites, site limitations, total acres needed and vegetative cover management; 6) specify record keeping procedures including site loading; 7) address contingency plans for adverse weather and odor/nuisance abatement; and 8) include any other pertinent information such as other disposal options that may be used or specifications of any pretreatment processes Once approved, all sludge management 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. No desludging may occur unless approval from the Department is obtained. Daily logs shall be kept that record where the sludge has been disposed. The plan is due at least 60 days prior to desludging.	

4.3 PFOS/PFOA Minimization Plan Determination of Need

Required Action	Due Date
Report on Effluent Discharge: Submit a report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations. This analysis should also include a comparison to the applicable narrative standard in s. NR 102.04(8)(d), Wis. Adm. Code. This report shall include all additional PFOS and PFOA data that may be collected including any influent, intake, in-plant, collection system sampling, and blank sample results.	09/30/2026
Report on Effluent Discharge and Evaluation of Need: Submit a final report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations of data collected over the last 24 months. The report shall also provide a comparison on the likelihood of the facility needing to develop a PFOS/PFOA minimization plan. This report shall include all additional PFOS and PFOA data that may be collected including any influent, intake, in-plant, collection system sampling, and blank sample results.	09/30/2027

The permittee shall also submit a request to the department to evaluate the need for a PFOS/PFOA minimization plan. If the Department determines a PFOS/PFOA minimization plan is needed based on a reasonable potential evaluation, the permittee will be required to develop a minimization plan for Department approval no later than 90 days after written notification was sent from the Department. The Department will modify or revoke and reissue the permit to include PFOS/PFOA minimization plan reporting requirements along with a schedule of compliance to meet WQBELs. Effluent monitoring of PFOS and PFOA shall continue as specified in the permit until the modified permit is issued. If, however, the Department determines there is no reasonable potential for the facility to discharge PFOS or PFOA above the narrative standard in s. NR 102.04(8)(d), Wis. Adm. Code, no further action is required and effluent monitoring of PFOS and PFOA shall continue as specified in the permit.	

Explanation of Schedules

Automatic Sampler Installation – s. NR 210.04(4), Wis. Adm. Code. requires the use of 24-hour flow proportional composite samplers for monitoring influent and effluent wastewater quality except where the department determines that the quality can be adequately characterized through another sample type. By including this schedule, the department is not making the determination that the effluent is not already adequately characterized. However, it has been identified through the last compliance inspection that there is desire and an opportunity to update to an effluent flow proportional sampler. The schedule is included to ensure that the sampler is installed as soon as practicable following plan and spec approval.

Sludge Management Plan - If the lagoons are to be de-sludged during this permit term a management plan is needed to explain how the sludge will be safely removed, what contingencies are in place, the type of equipment that will be used and how the sludge will be land applied to ensure the proper precautions are in place to prevent any negative impacts to surface water or groundwater. The 60 days allows the department adequate time to review the sludge management plan and approve sites for land application of sludge should the facility select this as the means for final disposition. This timeframe presumes that the sludge management plan and site request packages are complete.

PFOS/PFOA Minimization Plan Determination of Need - As stated above, NR 106 Subchapter VIII – Permit Requirements for PFOS and PFOA Dischargers became effective on August 1, 2022. S. NR 106.98, Wis. Adm. Code, specifies steps to generate data in order to determine the need for reducing PFOS and PFOA in the discharge. Data generated per the effluent monitoring requirements will be used to determine the need for developing a PFOS/PFOA minimization plan. As part of the schedule, the permittee is required to submit two annual Reports on Effluent Discharge.

If the Department determines that a minimization plan is needed, the permit will be modified or revoked/reissued to include additional requirements.

Special Reporting Requirements

There are no special reporting requirements considered or included in this permit.

Other Comments:

Typos were corrected for E. coli % exceedance sample frequency from weekly to monthly, Total Nitrogen Series sample frequency from Quarterly to See Listed Qtr(s), and Total Suspended Solids weekly and monthly average limits changed to 45 and 30 mg/L, respectively.

Attachments:

PFOS and PFOA Water Quality-Based Effluent Limitations for the Chaseburg Wastewater Treatment Facility -WPDES Permit No. (WI-0025348) in Vernon County, by Amy Garbe, PE, Wastewater Engineer, dated October 22, 2026

Expiration Date:

September 30, 2029

Justification Of Any Waivers From Permit Application Requirements

There were no waivers requested, considered, nor granted with the permit application.

Prepared By: Bryan Hartsook, Wastewater Field Supervisor

Date: September 23, 2024

Typographical Errors mentioned above done by Bryan Hartsook (October 4, 2024), Bryan Hartsook (November 13, 2024), and Angela Parkhurst (March 18, 2026).

Revised By: Sarah Donoughe, Wastewater Specialist-Adv **Date:** October 23, 2026

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: October 22, 2026

TO: Sarah Donoughe – NER

FROM: Kari Fleming – WY/3

SUBJECT: PFOS and PFOA Water Quality-Based Effluent Limitations for the Chaseburg Wastewater Treatment Facility -WPDES Permit No. (WI-0025348) in Vernon County

This is in response to your request for an evaluation of the need for PFOS and PFOA limitations for the Chaseburg Wastewater Treatment Facility. This municipal wastewater treatment facility (WWTF) discharges to Coon Creek, located in the Coon Creek Watershed in the Bad Axe - La Crosse River Basin (Mississippi River Basin).

The current permit, effective since October 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: Coon Creek
- Classification: Cold Water (Category 5), Class III trout stream, non-public water supply.
- Flow: The following 7-Q_{10} and 7-Q_2 values are from USGS Station 05386850 at the bridge on County Trunk KK, 0.4 miles east of Chaseburg:
  7-Q_{10} = 34 cfs (cubic feet per second)
  7-Q_2 = 39 cfs
  Harmonic Mean Flow = 51.4 cfs using a drainage area of 77.2 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 = 0.067 MGD (million gallons per day)
  For reference, the actual average flow from January 2024 to August 2026 was 0.066 MGD.
- Effluent characterization: This facility is categorized as a minor municipality.

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

	PFOS ng/L	PFOA ng/L
1-day P_{99}	N/A	N/A
4-day P_{99}	N/A	N/A
30-day P_{99}	N/A	N/A
Mean*	0.8	0.86
Std	0.56	0.81
Sample Size	11	11

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Range	<0.32-2.7	<1.4-3.3

*Results below the level of detection (LOD) were included as zeroes in calculation of average.

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 Coon Creek
Qs = 25% of the harmonic mean pursuant s. NR 106.06(4)(c)10., Wis. Adm. Code = 12.85 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 = 0.067 MGD = 0.099 cfs
f = the fraction of effluent withdrawn from the receiving water = 0

After substituting the appropriate variables, the calculated PFOA limit is 12,422 ng/L.

Reasonable Potential Determination

In accordance with s. NR 106.98(4)(b), Wis. Adm. Code, **the discharge does not have reasonable potential to cause or contribute to an exceedance of the water quality criterion for PFOS** because the arithmetic average of reported effluent PFOS data is less than 1/5th the calculated WQBEL (8 ng/L). Therefore, **a WQBEL is not required.**

In accordance with s. NR 106.98(4)(a), Wis. Adm. Code, **the discharge does not have reasonable potential to cause or contribute to an exceedance of the water quality criterion for PFOA** because because the arithmetic average of reported effluent PFOA data is less than 1/5th the calculated WQBEL (12,422 ng/L). Therefore, **a WQBEL is not required.**

Conclusions

The discharge has no reasonable potential to cause or contribute to an exceedance of the water quality criterion for PFOS nor PFOA. Therefore, no WQBELs are required.

Pursuant to s. NR 205.066, Wis. Adm. Code, the department may specify the monitoring frequency for

PFOS and PFOA on a case-by-case basis after the initial 24 months of sampling. **After a review of the available data, the department has determined that it is warranted to reduce the sampling frequency in this case to annually.**

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.

Attachment (1) – PFOS and PFOA Data

PREPARED BY: _____ date: 10/22/26
Amy Garbe, P.E., Wastewater Engineer

cc: Katie Jo Jerzak, P.E., Basin Engineer – WCR/Eau Claire
Nate Willis, P.E., PFAS Implementation Coordinator – CO

Attachment 1 – PFOS & PFOA Data

Sample Date	PFOS Effluent Result [ng/L]	PFOA Effluent Result [ng/L]
Dec-24	<0.32	1.2
Mar-25	<1.4	<1.3
May-25	2	1.6
Jul-25	<1.4	<1.3
Sep-25	1.5	1.7
Nov-25	2.7	3.3
Jan-26	<1.5	<1.4
Mar-26	<1.6	<1.4
May-26	2.6	1.7
Jul-26	<1.5	<1.4
Sep-26	<1.5	<1.4