

# WPDES PERMIT

# STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE

#### **US Army Headquarters, Fort McCoy**

**ELIMINATION SYSTEM** 

is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from a facility located at

2280 Treatment Drive, Fort McCoy, WI

to

#### the La Crosse River in the Upper La Crosse River Watershed of the Bad Axe-La Crosse River Basin in Monroe County

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit, according to Chapter NR 200, Wis. Adm. Code, at least 180 days prior to the expiration date given below.

f Wisconsin Department of Natur Secretary	ral Resources		
Geisa Thielen			
Wastewater Field Supervisor			
Data Parmit Signad/Issuad			
Date Permit Signed/Issued			

PERMIT TERM: EFFECTIVE DATE - September 01, 2024 EXPIRATION DATE - June 30, 2029

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# 1 Influent Requirements

# 1.1 Sampling Point(s)

	Sampling Point Designation						
Sampling Point Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)						
701	Representative influent samples shall be collected after the fine screen and prior to the Parshall Flume.						

# **1.2 Monitoring Requirements**

The permittee shall comply with the following monitoring requirements.

# 1.2.1 Sampling Point 701 - INFLUENT AFTER FINE SCREEN

Monitoring Requirements and Limitations							
Parameter	Limit Type	Limit and	Sample	Sample	Notes		
		Units	Frequency	Type			
Flow Rate		MGD	Daily	Continuous			
BOD <sub>5</sub> , Total		mg/L	3/Week	24-Hr Flow			
				Prop Comp			
Suspended Solids,		mg/L	3/Week	24-Hr Flow			
Total				Prop Comp			

# **2 Surface Water Requirements**

# 2.1 Sampling Point(s)

	Sampling Point Designation							
Sampling Point Number	Point applicable)							
001	Representative composite effluent samples shall be collected prior to UV disinfection; grab samples shall be collected at the Parshall flume after UV disinfection.							
601	Representative samples shall be collected from the La Crosse River downstream of the Fort McCoy WWTF Outfall, located at the CTH BB Bridge (Lat. 44.000278 Long90.724444). Sample point 601 correlates with the sample location 01, described in the approved AM Plan No. WQT-2024-0006 (January 2024).							
602	Representative samples shall be collected from the La Crosse River upstream of the Fort McCoy WWTF Outfall, located at the W J Street Bridge (Lat. 44.035198 Long90.712375). Sample point 602 correlates with the sample location 16 described in the approved AM Plan No. WQT-2024-0006 (January 2024).							

# 2.2 Monitoring Requirements and Effluent Limitations

The permittee shall comply with the following monitoring requirements and limitations.

# 2.2.1 Sampling Point (Outfall) 001 - EFFLUENT TO LA CROSSE RIVER

Monitoring Requirements and Effluent Limitations							
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes		
Flow Rate		MGD	Daily	Continuous			
BOD <sub>5</sub> , Total	Weekly Avg	45 mg/L	3/Week	24-Hr Flow Prop Comp			
BOD <sub>5</sub> , Total	Monthly Avg	30 mg/L	3/Week	24-Hr Flow Prop Comp			
BOD <sub>5</sub> , Total	Weekly Avg	438 lbs/day	3/Week	Calculated	Limit applies May - Oct		
BOD <sub>5</sub> , Total	Weekly Avg	855 lbs/day	3/Week	Calculated	Limit applies Nov - April		
Suspended Solids, Total	Weekly Avg	45 mg/L	3/Week	24-Hr Flow Prop Comp			
Suspended Solids, Total	Monthly Avg	30 mg/L	3/Week	24-Hr Flow Prop Comp			
Suspended Solids, Total	Weekly Avg	438 lbs/day	3/Week	Calculated	Limit applies May - Oct		
Suspended Solids, Total	Weekly Avg	855 lbs/day	3/Week	Calculated	Limit applies Nov - April		
pH Field	Daily Max	9.0 su	Daily	Grab			
pH Field	Daily Min	6.0 su	Daily	Grab			
Dissolved Oxygen	Daily Min	7.0 mg/L	Daily	Grab			

Monitoring Requirements and Effluent Limitations							
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes		
Nitrogen, Ammonia Variable Limit		mg/L	3/Week	24-Hr Flow Prop Comp	Daily max limit varies with		
Nitrogen, Ammonia (NH <sub>3</sub> -N) Total	Daily Max - Variable	mg/L	3/Week	24-Hr Flow Prop Comp	effluent pH. See ammonia section below for limits.		
Nitrogen, Ammonia (NH <sub>3</sub> -N) Total	Weekly Avg	20 mg/L	3/Week	24-Hr Flow Prop Comp	Limit applies year-round		
Nitrogen, Ammonia (NH <sub>3</sub> -N) Total	Monthly Avg	18 mg/L	3/Week	24-Hr Flow Prop Comp	Limit applies Jan - Sept		
Nitrogen, Ammonia (NH <sub>3</sub> -N) Total	Monthly Avg	14 mg/L	3/Week	24-Hr Flow Prop Comp	Limit applies Oct - Dec		
E. coli	Geometric Mean - Monthly	126 #/100 ml	2/Week	Grab	Limit & monitoring effective May - Sept		
E. coli	% Exceedance	10 Percent	Monthly	Calculated	Limit & monitoring effective May - Sept. See the E. coli Percent Limit section below. Enter the result in the DMR on the last day of the month.		
PFOS		ng/L	Monthly	Grab	Monitoring only. See		
PFOA		ng/L	Monthly	Grab	PFOS/PFOA Minimization Plan Determination of Need schedule.		
Phosphorus, Total	Monthly Avg	1.0 mg/L	3/Week	24-Hr Flow Prop Comp			
Phosphorus, Total	6-Month Avg	0.6 mg/L	3/Week	24-Hr Flow Prop Comp	This is an Adaptive Management interim limit effective through 04/30/2025.		
Phosphorus, Total	6-Month Avg	0.5 mg/L	3/Week	24-Hr Flow Prop Comp	This is an Adaptive Management interim limit that will go into effect 05/01/2025. See schedules and effluent requirements below.		
Phosphorus, Total		lbs/day	3/Week	Calculated	Calculate the daily mass discharge of phosphorus in lbs/day on the same days phosphorus sampling occurs.		
Nitrogen, Total Kjeldahl		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	Monitoring required		
Nitrogen, Nitrite + Nitrate Total		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	annually in specific quarters. See Nitrogen		
Nitrogen, Total		mg/L	See Listed Qtr(s)	Calculated	Series Monitoring section below for more info.		

Monitoring Requirements and Effluent Limitations						
Parameter	Parameter Limit Type Limit and Sample Sample			Notes		
		Units	Frequency	Type		
Acute WET		TUa	See Listed	24-Hr Flow		
			Qtr(s)	Prop Comp	See WET testing section	
Chronic WET		TUa	See Listed	24-Hr Flow	below	
			Qtr(s)	Prop Comp		

#### 2.2.1.1 Annual Average Design Flow

The annual average design flow of the permittee's wastewater treatment facility is 1.320 MGD.

#### 2.2.1.2 Variable Daily Maximum Ammonia Limits

Ammonia nitrogen sampling shall occur on a day when pH monitoring is performed. The daily maximum (acute) ammonia limit is based on effluent pH at the time of discharge. The table of daily maximum ammonia limitations corresponding to various effluent pH values is presented below. Report the ammonia discharge concentration and applicable variable limit from the table below on the eDMR in the Total Ammonia column and Ammonia Variable Limit column, respectively. Note that pH values should be rounded to the 0.1 s.u. before using the table below. For example, if the pH field reading is 8.04, the value of 8.0 should be used. If the pH field reading is 8.06, the value of 8.1 should be used.

Effluent pH	Limit	Effluent pH	Limit	Effluent pH	Limit
s.u.	mg/L	s.u.	mg/L	s.u.	mg/L
$6.0 \le \mathrm{pH} \le 6.1$	72	$7.0 < pH \le 7.1$	44	$8.0 < pH \le 8.1$	9.3
$6.1 < pH \le 6.2$	71	$7.1 < pH \le 7.2$	39	$8.1 < pH \le 8.2$	7.7
$6.2 < pH \le 6.3$	69	$7.2 < pH \le 7.3$	35	$8.2 < pH \le 8.3$	6.3
$6.3 < pH \le 6.4$	67	$7.3 < pH \le 7.4$	31	$8.3 < pH \le 8.4$	5.2
$6.4 < pH \le 6.5$	65	$7.4 < pH \le 7.5$	27	$8.4 < pH \le 8.5$	4.3
$6.5 < pH \le 6.6$	63	$7.5 < pH \le 7.6$	23	$8.5 < pH \le 8.6$	3.5
$6.6 < pH \le 6.7$	60	$7.6 < pH \le 7.7$	19	$8.6 < pH \le 8.7$	2.9
$6.7 < pH \le 6.8$	56	$7.7 < pH \le 7.8$	16	$8.7 < pH \le 8.8$	2.5
$6.8 < pH \le 6.9$	52	$7.8 < pH \le 7.9$	14	$8.8 < pH \le 8.9$	2.1
$6.9 < pH \le 7.0$	48	$7.9 < pH \le 8.0$	11	$8.9 < pH \le 9.0$	1.8

#### 2.2.1.3 E. coli Percent Limit

No more than 10 percent of *E. coli* bacteria samples collected in any calendar month may exceed 410 #/100 ml. Bacteria samples may be collected more frequently than required. All samples shall be reported on the monthly discharge monitoring reports (DMRs). The following calculation should be used to calculate percent exceedances.

$$\frac{\# \ of \ Samples \ greater \ than \ 410 \ \#/100}{Total \ \# \ of \ samples} \times 100 \ = \ \% \ Exceedance$$

#### 2.2.1.4 PFOS/PFOA Sampling and Reporting Requirements

For <u>grab</u> samples, as defined per s. NR 218.04(10), Wis. Adm. Code, a single sample at a location as defined by the sample point description shall be taken during the time of the day most representative to capture all potential discharges. If extra equipment besides the sample bottle is used to collect the sample, it is recommended that a one-time equipment blank is collected with the first sample. An equipment blank would be collected by passing

laboratory-verified PFAS-free water over or through field sampling equipment before the collection of a grab sample to evaluate potential contamination from the equipment used during sample.

If any equipment blanks are performed, these results shall be reported in the comments section of the eDMR and shall also documented in the reports submitted as part of the PFOS/PFOA Minimization Plan Determination of Need schedule of the permit.

#### 2.2.1.5 PFOS/PFOA Minimization Plan Determination of Need

The permittee shall monitor PFOS and PFOA as specified in the table above and report on the effluent concentrations including trends in monthly and annual average PFOS and PFOA concentrations as specified in the PFOS/PFOA Minimization Plan Determination of Need Schedule.

If, after reviewing the data, the Department determines that a minimization plan for PFOS and PFOA is necessary based on the procedures in s. NR 106.98(4), Wis. Adm. Code, the Department will notify the permittee in writing that a PFOS and PFOA minimization plan that satisfies the requirements in s. NR 106.99, Wis. Adm. Code, is required. The permittee shall submit an initial plan for Department approval no later than 90 days after written notification was sent from the Department in accordance with s. NR 106.985(2)(a), Wis. Adm. Code. Pursuant to s. NR 106.985(2)(b), Wis. Adm. Code, as soon as possible after Department approval of the PFOS and PFOA minimization plan, the Department will modify or revoke and reissue the permit in accordance with public notice procedures under ch. 283, Wis. Stats., and ch. NR 203, Wis. Adm. Code, to include the PFOS and PFOA minimization plan and other related terms and condition.

If, however, the Department determines that a PFOS and PFOA minimization plan is <u>unnecessary</u> based on the procedures in s. NR 106.98(4), Wis. Adm. Code, the Department shall notify the permittee that no further action is required. Per s. NR 106.98(3)(a), Wis. Adm. Code, the Department may reduce monitoring frequency to once every 3 months (quarterly) on a case-by-case basis, but only after at least 12 representative results have been generated. If the permittee requests a reduction in monitoring and the Department agrees a reduction would be appropriate, the permit may be modified in accordance with public notice procedures under ch. 283, Wis. Stats., and ch. NR 203, Wis. Adm. Code, to incorporate this change.

#### 2.2.1.1 Total Phosphorus Interim Limit, Averaging Periods and Compliance Determination

The adaptive management total phosphorus interim limit of 0.5 mg/L goes into effect May 1, 2025 beginning the averaging period from May 1, 2025 through October 31, 2025. The averaging periods are May through October and November through April. Compliance with the 6-month average limit is evaluated at the end of each 6-month period on April 30<sup>th</sup> and October 31<sup>st</sup> annually.

#### 2.2.1.2 Phosphorus Limitation(s) and Adaptive Management Requirements

Ft. McCoy has requested and the Department has approved a plan to implement a watershed adaptive management approach under s. NR 217.18, Wis. Adm. Code and s. 283.13(7) Wis. Stats. as a means for the waterbodies listed in the plan to attain the applicable phosphorus water quality standard in s. NR 102.06, Wis. Adm. Code. The phosphorus limitations and conditions in this permit reflect the approved adaptive management plan WQT-2024-0006 (January 2024). Failure to implement terms and conditions of this section is a violation of this permit. The permittee shall design and implement the actions identified in AM Plan No. WQT-2024-0006 (January 2024) in accordance with the goals and measures identified in the approved plan. If total phosphorus loadings within Upper La Crosse River Watershed action area, as identified in WQT-2024-0006 (January 2024) are not reduced by at least 975 pounds per year by September 30, 2029 the watershed adaptive management option may not be available to the permittee upon permit reissuance.

Pursuant to s. NR 217.18(3)(e)2, Wis. Adm. Code, the current adaptive management interim limitation is 0.6 mg/L, expressed as a six-month average. The permittee must meet an interim adaptive management limitation of 0.5 mg/L as a six-month average per the associated schedule. Additionally, a 1.0 mg/L limitation expressed as a monthly average is required. The final calculated water quality based effluent limitations for phosphorus are a six-month seasonal average limitation of 0.075 mg/L and a monthly average limitation of 0.225 mg/L based on current in-stream phosphorus data. These limitations may be recalculated based on changes in the in-stream data at the time of permit

reissuance. These limits will become effective at the end of two permit terms unless the adaptive management project is terminated per s. NR 217.18(3)(g), Wis. Adm. Code, in which case the limits may be imposed at an earlier date, or the phosphorus reductions specified in the adaptive management plan have been achieved.

#### 2.2.1.3 Adaptive Management Reopener Clause

Per s. NR 217.18(3)(g), Wis. Adm. Code, the Department may terminate the adaptive management option for a permittee through permit modification or at permit reissuance and require compliance with a phosphorus effluent limitation calculated under s. NR 217.13, Wis. Adm. Code, or a US EPA approved TMDL based on any of the following reasons:

- 1. Failure to implement the adaptive management actions in accordance with the approved adaptive management plan and compliance schedule established in the permit.
- 2. New information becomes available that changes the Department's determinations made under s. NR 217.18(2), Wis. Adm. Code.
- 3. Circumstances beyond the permittee's control have made compliance with the applicable phosphorus criterion in s. NR 102.06, Wis. Adm. Code, pursuant to the plan's goals and measures infeasible.
- 4. A determination by the Department that sufficient reductions have not been achieved to timely reduce the amount of total phosphorus to meet the criteria in s. NR 102.06, Wis. Adm. Code.

#### 2.2.1.4 Adaptive Management Requirements - Optimization

The permittee shall continue to optimize performance to control phosphorus discharges in accordance with s. NR 217.18(3)(c), Wis Adm. Code.

#### 2.2.1.5 Nitrogen Series Monitoring

Monitoring for Total Kjeldahl Nitrogen (TKN), Nitrite + Nitrate Nitrogen, and Total Nitrogen shall be conducted once each year in rotating quarters in order to collect seasonal information about the discharge. Tests are required during the following quarters:

- 4th quarter (Oct Dec) 2024
- 3rd quarter (July Sept) 2025
- 1st quarter (Jan March) 2026
- 2nd quarter (April June) 2027
- 4th quarter (Oct Dec) 2028

Nitrogen Series monitoring shall continue after the permit expiration date (until the permit is reissued) in accordance with the monitoring requirements specified in the last full calendar year of this permit. For example, the next test would be required in 4th quarter (Oct – Dec) 2029.

**Testing:** Monitoring shall be performed during normal operating conditions. Permittees are not allowed to turn off or otherwise modify treatment systems, production processes, or change other operating or treatment conditions during testing.

#### 2.2.1.6 Whole Effluent Toxicity (WET) Testing

**Primary Control Water:** La Crosse River **Instream Waste Concentration (IWC):** 20%

**Dilution series:** At least five effluent concentrations and dual controls must be included in each test.

• Acute: 100, 50, 25, 12.5, 6.25% and any additional selected by the permittee.

• Chronic: 100, 30, 10, 3, 1% and any additional selected by the permittee.

#### **WET Testing Frequency:**

Acute & Chronic WET tests are required during the following quarters:

- 3<sup>rd</sup> quarter (July September) 2025
- 4<sup>th</sup> quarter (October December) 2028

Acute & chronic WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the last full calendar year of this permit. For example, the next test would be required in (October – December) 2029.

**Testing:** WET testing shall be performed during normal operating conditions. Permittees are not allowed to turn off or otherwise modify treatment systems, production processes, or change other operating or treatment conditions during WET tests.

**Reporting:** The permittee shall report test results on the Discharge Monitoring Report form, and also complete the "Whole Effluent Toxicity Test Report Form" (Section 6, "*State of Wisconsin Aquatic Life Toxicity Testing Methods Manual, 2<sup>nd</sup> Edition*"), for each test. The original, complete, signed version of the Whole Effluent Toxicity Test Report Form shall be sent to the Biomonitoring Coordinator, Bureau of Water Quality, 101 S. Webster St., P.O. Box 7921, Madison, WI 53707-7921, within 45 days of test completion. The Discharge Monitoring Report (DMR) form shall be submitted electronically by the required deadline.

**Determination of Positive Results:** An acute toxicity test shall be considered positive if the Toxic Unit - Acute ( $TU_a$ ) is greater than 1.0 for either species. The  $TU_a$  shall be calculated as follows:  $TU_a = 100 \div LC_{50}$ . A chronic toxicity test shall be considered positive if the Toxic Unit - Chronic ( $TU_c$ ) is greater than 5.0 for either species. The  $TU_c$  shall be calculated as follows:  $TU_c = 100 \div IC_{25}$ .

**Additional Testing Requirements:** Within 90 days of a test which showed positive results, the permittee shall submit the results of at least 2 retests to the Biomonitoring Coordinator on "Whole Effluent Toxicity Test Report Forms". The 90-day reporting period shall begin the day after the test which showed a positive result. The retests shall be completed using the same species and test methods specified for the original test (see the Standard Requirements section herein).

# 2.2.2 Sampling Point 601 - Instream Monitoring-downstream and Sampling Point 602 - Instream Monitoring-upstream

	Monitoring Requirements and Effluent Limitations							
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes			
Flow River		cfs	Monthly	Measure	Provide an estimate of river flow for each day that instream phosphorus monitoring is performed May 1 through October 31 annually.			
Flow River		cfs	Per Occurrence	Measure	Voluntary river flow estimates for each day that in-stream phosphorus monitoring is performed November 1 through April 30 annually.			

Monitoring Requirements and Effluent Limitations							
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes		
Phosphorus, Total		mg/L	Monthly	Grab	Collect samples monthly May 1 through October 31 annually. See permit subsections for sampling and reporting requirements.		
Phosphorus, Total		mg/L	Per Occurrence	Grab	Voluntary monitoring November 1 through April 30 annually. See permit subsections for sampling and reporting requirements.		
Phosphorus, Total		lbs/month	Monthly	Calculated	Calculate and report total monthly phosphorus loads for the months of May through October annually. See permit subsection for calculation of total monthly loads.		
Phosphorus, Total		lbs/month	Per Occurrence	Calculated	Calculated total phosphorus loads may also be reported for the months of November through April, as data is available. See permit subsection for calculation of total monthly loads.		

#### 2.2.2.1 Surface Water Sampling for Total Phosphorus

Surface water sampling shall be performed in accordance with Adaptive Management Plan No. WQT-2024-0006 (January 2024). When sampling surface waters for total phosphorus, sample collection and handling protocol as specified in Chapter 4 of the "Guidance for Implementing Wisconsin's Phosphorus Water Quality Standards for Point Source Discharges" shall be followed. (Available at dnr.wi.gov; search for "phosphorus guidance").

When testing for total phosphorus in surface water samples, use the test procedures specified by Standard Requirements permit section. Analytical methods used shall enable the laboratory to quantitate total phosphorus at levels below the water quality criterion of 0.075 mg/L. If the required level of quantitation cannot be met by any of the methods available in ch. NR 219, Wis. Adm. Code, then the method with the lowest limit of detection shall be selected.

When surface water samples are collected by Water Action Volunteers, the "The Volunteer Monitor's Guide to Quality Assurance Project Plans" shall be implemented. (Available at www.epa.gov; search for "The Volunteer Monitor's Guide to Quality Assurance Project Plans").

## 2.2.2.2 Voluntary Surface Water Sampling for Total Phosphorus

River flow and total phosphorus monitoring may voluntarily be performed from November 1 through April 30 annually. When voluntary in-stream monitoring is completed monitoring results shall be reported on the monthly eDMR. If voluntary in-stream monitoring is not completed, permittee shall indicate the instream sample point is not active when completing the eDMRs. Report river flow measurements for each day phosphorus monitoring is performed.

#### 2.2.2.3 Reporting Surface Water Sampling Results for Total Phosphorus and Flow

The permittee shall report total phosphorus monitoring and river flow measurements results for surface waters samples collected at both Sampling Point 601 and 602 along with the river flow measurements at Sampling Point 601 and 602 on monthly eDMRs. The monitoring results shall be submitted by the date specified on the eDMR. In addition, all total phosphorus test results for surface water samples collected at Sampling Point 601, 602 and all other surface water sampling points identified in Adaptive Management Plan No. WQT-2024-0006 (January 2024) shall be reported to the Department using the Department's Laboratory Data Entry System (LDES). Test results for the year shall be submitted by January 21<sup>st</sup> of the following year. (Available at dnr.wi.gov; search "Laboratory Data Entry System").

#### 2.2.2.4 Total Monthly Total Phosphorus (TP) Loads

Use the following methods to calculate the total monthly phosphorus loading in the receiving stream expressed as a mass in lbs/month:

1) Convert mg/L to lbs/day using the following equation:

Daily TP loading (lbs/day) = TP concentration (mg/L)  $\times$  [Daily Flow (cfs)  $\div$  1.55]  $\times$  8.34

2) On a monthly basis, average the reported daily TP loading, then multiply the average by the number of days during the month and report the product as "Phosphorus, Total" (in lbs/month) for the last day of the month on the eDMR.

Phosphorus, Total (lbs/month) = Average of daily TP loading (lbs/day) × Number of days/month

# 3 Land Application Requirements

# 3.1 Sampling Point(s)

The discharge(s) shall be limited to land application of the waste type(s) designated for the listed sampling point(s) on Department approved land spreading sites or by hauling to another facility.

	Sampling Point Designation				
Sampling Point	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)				
Number					
002	Representative samples of cake sludge shall be collected quarterly and monitored for Lists 1, 2, 3, & 4, annually for PFOA + PFOS and once in 2025 for PCBs.				
003	Representative samples of liquid sludge shall be monitored annually for Lists 1, 2, 3, & 4 or each time it is removed from the digestor. Liquid sludge shall be monitored annually for PFOA + PFOS.				

# 3.2 Monitoring Requirements and Limitations

The permittee shall comply with the following monitoring requirements and limitations.

# 3.2.1 Sampling Point (Outfall) 002 - CAKE SLUDGE

	Monitoring Requirements and Limitations				
Parameter	Limit Type	Limit and	Sample	Sample	Notes
		Units	Frequency	Type	
Solids, Total		Percent	Quarterly	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Quarterly	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Quarterly	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Quarterly	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Quarterly	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Quarterly	Composite	
Nitrogen, Total	Ceiling	57 mg/kg	Quarterly	Composite	
Kjeldahl					
Nitrogen, Total Kjeldahl	High Quality	17 mg/kg	Quarterly	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Quarterly	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Quarterly	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Quarterly	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Quarterly	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Quarterly	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Quarterly	Composite	
Nitrogen, Total Kjeldahl		Percent	Quarterly	Composite	

	Monitoring Requirements and Limitations				
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Ammonium (NH <sub>4</sub> -N) Total		Percent	Quarterly	Composite	
Phosphorus, Total		Percent	Quarterly	Composite	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Composite	
Potassium, Total Recoverable		Percent	Quarterly	Composite	
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	Once in 2025
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	Once in 2025
PFOA + PFOS		μg/kg	Annual	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.
PFAS Dry Wt			Annual	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.

Other Sludge Requirements				
Sludge Requirements	Sample Frequency			
<b>List 3 Requirements – Pathogen Control:</b> The requirements in List 3 shall be met prior to land application of sludge.	Quarterly			
<b>List 4 Requirements – Vector Attraction Reduction:</b> The vector attraction reduction shall be satisfied prior to, or at the time of land application as specified in List 4.	Quarterly			

#### 3.2.1.1 List 2 Analysis

If the monitoring frequency for List 2 parameters is more frequent than "Annual" then the sludge may be analyzed for the List 2 parameters just prior to each land application season rather than at the more frequent interval specified.

#### 3.2.1.2 Changes in Feed Sludge Characteristics

If a change in feed sludge characteristics, treatment process, or operational procedures occurs which may result in a significant shift in sludge characteristics, the permittee shall reanalyze the sludge for List 1, 2, 3 and 4 parameters each time such change occurs.

## 3.2.1.3 Multiple Sludge Sample Points (Outfalls)

If there are multiple sludge sample points (outfalls), but the sludges are not subject to different sludge treatment processes, then a separate List 2 analysis shall be conducted for each sludge type which is land applied, just prior to land application, and the application rate shall be calculated for each sludge type. In this case, List 1, 3, and 4 and PCBs need only be analyzed on a single sludge type, at the specified frequency. If there are multiple sludge sample

points (outfalls), due to multiple treatment processes, List 1, 2, 3 and 4 and PCBs shall be analyzed for each sludge type at the specified frequency.

# 3.2.1.4 Sludge Which Exceeds the High Quality Limit

Cumulative pollutant loading records shall be kept for all bulk land application of sludge which does not meet the high quality limit for any parameter. This requirement applies for the entire calendar year in which any exceedance of Table 3 of s. NR 204.07(5)(c), is experienced. Such loading records shall be kept for all List 1 parameters for each site land applied in that calendar year. The formula to be used for calculating cumulative loading is as follows:

[(Pollutant concentration (mg/kg) x dry tons applied/ac)  $\div$  500] + previous loading (lbs/acre) = cumulative lbs pollutant per acre

When a site reaches 90% of the allowable cumulative loading for any metal established in Table 2 of s. NR 204.07(5)(b), the Department shall be so notified through letter or in the comment section of the annual land application report (3400-55).

# 3.2.1.5 Sludge Analysis for PCBs

The permittee shall analyze the sludge for Total PCBs one time during 2025. The results shall be reported as "PCB Total Dry Wt". Either congener-specific analysis or Aroclor analysis shall be used to determine the PCB concentration. The permittee may determine whether Aroclor or congener specific analysis is performed. Analyses shall be performed in accordance with Table EM in s. NR 219.04, Wis. Adm. Code and the conditions specified in Standard Requirements of this permit. PCB results shall be submitted by January 31, following the specified year of analysis.

#### 3.2.1.6 Lists 1, 2, 3, and 4

# List 1 TOTAL SOLIDS AND METALS

See the Monitoring Requirements and Limitations table above for monitoring frequency and limitations for the List 1 parameters

Solids, Total (percent)

Arsenic, mg/kg (dry weight)

Cadmium, mg/kg (dry weight)

Copper, mg/kg (dry weight)

Lead, mg/kg (dry weight)

Mercury, mg/kg (dry weight)

Molybdenum, mg/kg (dry weight)

Nickel, mg/kg (dry weight)

Selenium, mg/kg (dry weight)

Zinc, mg/kg (dry weight)

#### List 2 NUTRIENTS

See the Monitoring Requirements and Limitations table above for monitoring frequency for the List 2 parameters

Solids, Total (percent)

Nitrogen Total Kjeldahl (percent)

Nitrogen Ammonium (NH4-N) Total (percent)

Phosphorus Total as P (percent)

Phosphorus, Water Extractable (as percent of Total P)

#### List 2 NUTRIENTS

See the Monitoring Requirements and Limitations table above for monitoring frequency for the List 2 parameters Potassium Total Recoverable (percent)

# List 3 PATHOGEN CONTROL FOR CLASS B SLUDGE

The permittee shall implement pathogen control as listed in List 3. The Department shall be notified of the pathogen control utilized and shall be notified when the permittee decides to utilize alternative pathogen control.

The following requirements shall be met prior to land application of sludge.

Parameter	Unit	Limit	
	MPN/gTS or		
Fecal Coliform*	CFU/gTS	2,000,000	
OR, ONE (	OF THE FOLLOW	NG PROCESS OPTIONS	
Aerobic Digestion	Air Drying		
Anaerobic Digestion		Composting	
Alkaline Stabilization	PSRP Equivalent Process		
* The Fecal Coliform limit shall be reported as the geometric mean of 7 discrete samples on a dry weight basis.			

# List 4 VECTOR ATTRACTION REDUCTION

The permittee shall implement any one of the vector attraction reduction options specified in List 4. The Department shall be notified of the option utilized and shall be notified when the permittee decides to utilize an alternative option.

One of the following shall be satisfied prior to, or at the time of land application as specified in List 4.

Option	Limit	Where/When it Shall be Met
Volatile Solids Reduction	≥38%	Across the process
Specific Oxygen Uptake Rate	$\leq 1.5 \text{ mg O}_2/\text{hr/g TS}$	On aerobic stabilized sludge
Anaerobic bench-scale test	<17 % VS reduction	On anaerobic digested sludge
Aerobic bench-scale test	<15 % VS reduction	On aerobic digested sludge
Aerobic Process	>14 days, Temp >40°C and	On composted sludge
	Avg. Temp > 45°C	
pH adjustment	>12 S.U. (for 2 hours)	During the process
	and >11.5	
	(for an additional 22 hours)	
Drying without primary solids	>75 % TS	When applied or bagged
Drying with primary solids	>90 % TS	When applied or bagged
Equivalent	Approved by the Department	Varies with process
Process		_
Injection	-	When applied
Incorporation	-	Within 6 hours of application

## 3.2.1.7 Daily Land Application Log

#### **Daily Land Application Log**

#### **Discharge Monitoring Requirements and Limitations**

The permittee shall maintain a daily land application log for biosolids land applied each day when land application occurs. The following minimum records must be kept, in addition to all analytical results for the biosolids land applied. The log book records shall form the basis for the annual land application report requirements.

Parameters	Units	Sample Frequency
DNR Site Number(s)	Number	Daily as used
Outfall number applied	Number	Daily as used
Acres applied	Acres	Daily as used
Amount applied	As appropriate * /day	Daily as used
Application rate per acre	unit */acre	Daily as used
Nitrogen applied per acre	lb/acre	Daily as used
Method of Application	Injection, Incorporation, or surface applied	Daily as used

<sup>\*</sup>gallons, cubic yards, dry US Tons or dry Metric Tons

# 3.2.1.8 Sludge Monitoring for PFAS

Sampling shall occur for perfluoroalkyl and polyfluoroalkyl compounds (PFAS) listed in the table below and as indicated in sampling point sections above. Monitoring shall occur at each sample point when sludge is generated regardless of the end use (i.e. land applied, hauled to another facility, landfilled).

	PERFLUOROALKYLCARBOXILIC Acids (PFCAs)				
PFBA	Perfluorobutanoic acid				
PFPeA	Perfluroropentanoic acid				
PFHxA	Perfluorohexanoic acid				
PFHpA	Perfluoroheptanoic acid				
PFOA	Perfluorooctanoic acid				
PFNA	Perfluorononanoic acid				
PFDA	Perfluorodecanoic acid				
PFUnA	Perfluroroundecanoic acid				
PFDoA	Perfluorododecanoic acid				
PFTriA	Perfluorotridecanoic acid				
PFTeDA	Perfluorotetradecanoic acid				
	PERFLUOROALKYLSULFONIC Acids (PFSAs)				
PFBS	Perfluorobutane sulfonic acid				
PFPeS	Perfluroropentane sulfonic acid				
PFHxS	Perfluorohexane sulfonic acid				
PFHpS	Perfluoroheptane sulfonic acid				
PFOS	Perfluorooctane sulfonic acid				

PFNS	Perfluorononane sulfonic acid					
PFDS	Perfluorodecane sulfonic acid					
PFDoS	Perfluorododecane sulfonic acid					
	TELOMER SULFONIC Acids					
4:2 FTSA	4:2 fluorotelomersulfonic acid					
6:2 FTSA	6:2 fluorotelomersulfonic acid					
8:2 FTSA	8:2 fluorotelomersulfonic acid					
	PERFLUOROOCTANCESULFONAMIDES (FOSAs)					
PFOSA	Perfluroroctane sulfonamide					
N-MeFOSA	N-Methyl perfluoroocatane sulfonamide					
N-EtFOSA	N-Ethyl perfluorooctane sulfonamide					
PI	ERFLUOROOCTANCESULFONAMIDOACETIC Acids					
N-MeFOSAA	N-Methyl perfluoroocatane sulfonamidoacetic acid					
N-EtFOSAA	N-Ethyl perfluorooctane sulfonamidoacetic acid					
NATIVE I	PERFLUOROOCTANCESULFONAMIDOETHANOLS (FOSEs)					
N-MeFOSE	N-Methyl perfluorooctane sulfonamideoethanol					
N-EtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol					
PER	PERFLUOROALKYLETHERCARBOXYLIC Acids (PFECAs)					
HFPO-DA	Hexafluoropropylene oxide dimer acid					
DONA	4,8-dioxa-3H-perfluorononanoic acid					
	CHLORO-PERFLUOROALKYLSULFONATE					
F-53B Major	9-chloroehexadecafluoro-3-oxanone-1-sulfonic acid					
F-53B Minor	11-chloroelcosafluoro-3-oxaundecane-1-sulfonic acid					

Note: If WDNR Lab Certification removes a particular compound from the reporting list above and upon receiving written communication from the department, reporting for that compound is no longer required.

## 3.2.1.9 Sampling and Reporting Sludge Samples for PFAS

Representative sludge samples shall be collected at each sample point as listed. At minimum, liquid sludge storage/digesters should be thoroughly mixed prior to sampling. Cake sludge samples should consist of seven equal size discrete samples and be collected from different areas and depths then composited into one sample for laboratory analysis.

Note: If additional equipment is used for collecting sludge samples (i.e., shovels, compositing buckets, bottles, etc.), then a one-time equipment blank is recommended to be collected with the first sample. An equipment blank sample is collected by passing laboratory verified PFAS-free water over or through field sampling equipment before the collection of a representative sludge sample. The equipment blank result shall be reported on the annual Sludge Characteristics Form (3400-049) in the comment section when reporting PFAS concentrations in the sludge. The permittee shall report each of the PFAS sludge monitoring results on the annual Sludge Characteristics and Monitoring Form (3400-049) as provided by the department. The permittee shall also report the summation of PFOS and PFOA on this same form. All results shall be reported in dry weight. The annual Sludge Characteristics and Monitoring Form (3400-049) are due January 31, of the year following the collection of the sludge samples. The laboratory performing the analysis on any samples shall be certified for the applicable PFAS compounds in the solids matrix by the Wisconsin Laboratory Certification Program established under s. 299.11, Wis. Stats., and in accordance with s. NR 149.41, Wis. Adm. Code. If the EPA Office of Water publishes a 1600 series isotope dilution method for the analysis of PFAS in solids, the department recommends the use of the EPA method. The department

may reject any sample results if results are produced by a laboratory that is not in compliance with certification requirements under ch. NR 149, Wis. Adm. Code.

# 3.2.1.10 PFAS Land Application Requirements

The department recommends the landspreading and/or land application of sludge be done in a manner consistent with the most recent version of the "Interim Strategy for Land Application of Biosolids and Industrial Sludges containing PFAS".

# 3.2.2 Sampling Point (Outfall) 003 - LIQUID SLUDGE FROM DIGESTER

	Monitoring Requirements and Limitations				
Parameter	Limit Type	Limit and	Sample	Sample	Notes
		Units	Frequency	Type	
Solids, Total		Percent	Annual	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Annual	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Annual	Composite	
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	
Nitrogen, Total Kjeldahl	Ceiling	57 mg/kg	Annual	Composite	
Nitrogen, Total Kjeldahl	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	
Nitrogen, Total Kjeldahl		Percent	Annual	Composite	
Nitrogen, Ammonium (NH <sub>4</sub> -N) Total		Percent	Annual	Composite	
Phosphorus, Total		Percent	Annual	Composite	
Phosphorus, Water Extractable		% of Tot P	Annual	Composite	
Potassium, Total Recoverable		Percent	Annual	Composite	
PFOA + PFOS		μg/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.

Other Sludge Requirements					
Sludge Requirements	Sample Frequency				
<b>List 3 Requirements – Pathogen Control:</b> The requirements in List 3 shall be met prior to land application of sludge.	Annual				
<b>List 4 Requirements – Vector Attraction Reduction:</b> The vector attraction reduction shall be satisfied prior to, or at the time of land application as specified in List 4.	Annual				

#### 3.2.2.1 List 2 Analysis

If the monitoring frequency for List 2 parameters is more frequent than "Annual" then the sludge may be analyzed for the List 2 parameters just prior to each land application season rather than at the more frequent interval specified.

# 3.2.2.2 Changes in Feed Sludge Characteristics

If a change in feed sludge characteristics, treatment process, or operational procedures occurs which may result in a significant shift in sludge characteristics, the permittee shall reanalyze the sludge for List 1, 2, 3 and 4 parameters each time such change occurs.

## 3.2.2.3 Multiple Sludge Sample Points (Outfalls)

If there are multiple sludge sample points (outfalls), but the sludges are not subject to different sludge treatment processes, then a separate List 2 analysis shall be conducted for each sludge type which is land applied, just prior to land application, and the application rate shall be calculated for each sludge type. In this case, List 1, 3, and 4 and PCBs need only be analyzed on a single sludge type, at the specified frequency. If there are multiple sludge sample points (outfalls), due to multiple treatment processes, List 1, 2, 3 and 4 and PCBs shall be analyzed for each sludge type at the specified frequency.

# 3.2.2.4 Sludge Which Exceeds the High Quality Limit

Cumulative pollutant loading records shall be kept for all bulk land application of sludge which does not meet the high quality limit for any parameter. This requirement applies for the entire calendar year in which any exceedance of Table 3 of s. NR 204.07(5)(c), is experienced. Such loading records shall be kept for all List 1 parameters for each site land applied in that calendar year. The formula to be used for calculating cumulative loading is as follows:

[(Pollutant concentration (mg/kg) x dry tons applied/ac)  $\div$  500] + previous loading (lbs/acre) = cumulative lbs pollutant per acre

When a site reaches 90% of the allowable cumulative loading for any metal established in Table 2 of s. NR 204.07(5)(b), the Department shall be so notified through letter or in the comment section of the annual land application report (3400-55).

#### 3.2.2.5 Lists 1, 2, 3, and 4

List 1	
TOTAL SOLIDS AND METALS	
See the Monitoring Requirements and Limitations table above for monitoring frequency and limitations	for the
List 1 parameters	
olids, Total (percent)	
rsenic, mg/kg (dry weight)	
admium, mg/kg (dry weight)	
opper, mg/kg (dry weight)	
ead, mg/kg (dry weight)	
ercury, mg/kg (dry weight)	
olybdenum, mg/kg (dry weight)	
ickel, mg/kg (dry weight)	
elenium, mg/kg (dry weight)	
nc, mg/kg (dry weight)	

List 2
NUTRIENTS
See the Monitoring Requirements and Limitations table above for monitoring frequency for the List 2 parameters
Solids, Total (percent)
Nitrogen Total Kjeldahl (percent)
Nitrogen Ammonium (NH4-N) Total (percent)
Phosphorus Total as P (percent)
Phosphorus, Water Extractable (as percent of Total P)
Potassium Total Recoverable (percent)

# List 3 PATHOGEN CONTROL FOR CLASS B SLUDGE

The permittee shall implement pathogen control as listed in List 3. The Department shall be notified of the pathogen control utilized and shall be notified when the permittee decides to utilize alternative pathogen control.

The following requirements shall be met prior to land application of sludge.

Parameter	Unit	Limit
	MPN/gTS or	
Fecal Coliform*	CFU/gTS	2,000,000
OR, ONE OF THE FOLLOWING PROCESS OPTIONS		
Aerobic Digestion	Air Drying	
Anaerobic Digestion	Composting	
Alkaline Stabilization	PSRP Equivalent Process	
* The Fecal Coliform limit shall be reported as the geometric mean of 7 discrete samples on a dry weight basis.		

# List 4 VECTOR ATTRACTION REDUCTION

The permittee shall implement any one of the vector attraction reduction options specified in List 4. The Department shall be notified of the option utilized and shall be notified when the permittee decides to utilize an alternative option.

One of the following shall be satisfied prior to, or at the time of land application as specified in List 4.

Option	Limit	Where/When it Shall be Met
Volatile Solids Reduction	≥38%	Across the process
Specific Oxygen Uptake Rate	≤1.5 mg O <sub>2</sub> /hr/g TS	On aerobic stabilized sludge
Anaerobic bench-scale test	<17 % VS reduction	On anaerobic digested sludge
Aerobic bench-scale test	<15 % VS reduction	On aerobic digested sludge
Aerobic Process	>14 days, Temp >40°C and	On composted sludge
	Avg. Temp > 45°C	
pH adjustment	>12 S.U. (for 2 hours)	During the process
	and >11.5	
	(for an additional 22 hours)	
Drying without primary solids	>75 % TS	When applied or bagged
Drying with primary solids	>90 % TS	When applied or bagged
Equivalent	Approved by the Department	Varies with process
Process		_
Injection	-	When applied
Incorporation	-	Within 6 hours of application

# 3.2.2.6 Daily Land Application Log

#### **Daily Land Application Log**

#### **Discharge Monitoring Requirements and Limitations**

The permittee shall maintain a daily land application log for biosolids land applied each day when land application occurs. The following minimum records must be kept, in addition to all analytical results for the biosolids land applied. The log book records shall form the basis for the annual land application report requirements.

Parameters	Units	Sample Frequency
DNR Site Number(s)	Number	Daily as used
Outfall number applied	Number	Daily as used
Acres applied	Acres	Daily as used
Amount applied	As appropriate * /day	Daily as used
Application rate per acre	unit */acre	Daily as used
Nitrogen applied per acre	lb/acre	Daily as used
Method of Application	Injection, Incorporation, or surface applied	Daily as used

<sup>\*</sup>gallons, cubic yards, dry US Tons or dry Metric Tons

# 3.2.2.7 Sludge Monitoring for PFAS

Sampling shall occur for perfluoroalkyl and polyfluoroalkyl compounds (PFAS) listed in the table below and as indicated in sampling point sections above. Monitoring shall occur at each sample point when sludge is generated regardless of the end use (i.e. land applied, hauled to another facility, landfilled).

regardless of the end use (i.e. land applied, hauled to another facility, landfilled).			
PERFLUOROALKYLCARBOXILIC Acids (PFCAs)			
PFBA	Perfluorobutanoic acid		
PFPeA	Perfluroropentanoic acid		
PFHxA	Perfluorohexanoic acid		
PFHpA	Perfluoroheptanoic acid		
PFOA	Perfluorooctanoic acid		
PFNA	Perfluorononanoic acid		
PFDA	Perfluorodecanoic acid		
PFUnA	Perfluroroundecanoic acid		
PFDoA	Perfluorododecanoic acid		
PFTriA	Perfluorotridecanoic acid		
PFTeDA	Perfluorotetradecanoic acid		
	PERFLUOROALKYLSULFONIC Acids (PFSAs)		
PFBS	Perfluorobutane sulfonic acid		
PFPeS	Perfluroropentane sulfonic acid		
PFHxS	Perfluorohexane sulfonic acid		
PFHpS	Perfluoroheptane sulfonic acid		
PFOS	Perfluorooctane sulfonic acid		
PFNS	Perfluorononane sulfonic acid		
PFDS	Perfluorodecane sulfonic acid		
PFDoS	Perfluorododecane sulfonic acid		
	TELOMER SULFONIC Acids		
4:2 FTSA	4:2 fluorotelomersulfonic acid		
6:2 FTSA	6:2 fluorotelomersulfonic acid		
8:2 FTSA	8:2 fluorotelomersulfonic acid		
	PERFLUOROOCTANCESULFONAMIDES (FOSAs)		
PFOSA	Perfluroroctane sulfonamide		
N-MeFOSA	N-Methyl perfluoroocatane sulfonamide		
N-EtFOSA	N-Ethyl perfluorooctane sulfonamide		
PERFLUOROOCTANCESULFONAMIDOACETIC Acids			
N-MeFOSAA	N-Methyl perfluoroocatane sulfonamidoacetic acid		
N-EtFOSAA	N-Ethyl perfluorooctane sulfonamidoacetic acid		
NATIVE PERFLUOROOCTANCESULFONAMIDOETHANOLS (FOSEs)			
N-MeFOSE	N-Methyl perfluorooctane sulfonamideoethanol		
N-EtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol		
PERFLUOROALKYLETHERCARBOXYLIC Acids (PFECAs)			
HFPO-DA	Hexafluoropropylene oxide dimer acid		
DONA	4,8-dioxa-3H-perfluorononanoic acid		

CHLORO-PERFLUOROALKYLSULFONATE		
F-53B Major	9-chloroehexadecafluoro-3-oxanone-1-sulfonic acid	
F-53B Minor	11-chloroelcosafluoro-3-oxaundecane-1-sulfonic acid	

Note: If WDNR Lab Certification removes a particular compound from the reporting list above and upon receiving written communication from the department, reporting for that compound is no longer required.

#### 3.2.2.8 Sampling and Reporting Sludge Samples for PFAS

Representative sludge samples shall be collected at each sample point as listed. At minimum, liquid sludge storage/digesters should be thoroughly mixed prior to sampling. Cake sludge samples should consist of seven equal size discrete samples and be collected from different areas and depths then composited into one sample for laboratory analysis.

Note: If additional equipment is used for collecting sludge samples (i.e., shovels, compositing buckets, bottles, etc.), then a one-time equipment blank is recommended to be collected with the first sample. An equipment blank sample is collected by passing laboratory verified PFAS-free water over or through field sampling equipment before the collection of a representative sludge sample. The equipment blank result shall be reported on the annual Sludge Characteristics Form (3400-049) in the comment section when reporting PFAS concentrations in the sludge. The permittee shall report each of the PFAS sludge monitoring results on the annual Sludge Characteristics and Monitoring Form (3400-049) as provided by the department. The permittee shall also report the summation of PFOS and PFOA on this same form. All results shall be reported in dry weight. The annual Sludge Characteristics and Monitoring Form (3400-049) are due January 31, of the year following the collection of the sludge samples. The laboratory performing the analysis on any samples shall be certified for the applicable PFAS compounds in the solids matrix by the Wisconsin Laboratory Certification Program established under s. 299.11, Wis. Stats., and in accordance with s. NR 149.41, Wis. Adm. Code. If the EPA Office of Water publishes a 1600 series isotope dilution method for the analysis of PFAS in solids, the department recommends the use of the EPA method. The department may reject any sample results if results are produced by a laboratory that is not in compliance with certification requirements under ch. NR 149, Wis. Adm. Code.

## 3.2.2.9 PFAS Land Application Requirements

The department recommends the landspreading and/or land application of sludge be done in a manner consistent with the most recent version of the "Interim Strategy for Land Application of Biosolids and Industrial Sludges containing PFAS".

# 4 Schedules

# 4.1 PFOS/PFOA Minimization Plan Determination of Need

Required Action	<b>Due Date</b>
<b>Report on Effluent Discharge:</b> 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.	09/30/2025
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.	
<b>Report on Effluent Discharge and Evaluation of Need:</b> 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.	09/30/2026
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.	
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.	

# 4.2 Watershed Adaptive Management Option Annual Report Submittals

The permittee shall submit annual reports on the implementation of AM Plan No. WQT-2024-0006 as specified in the "Phosphorus Limitation(s) and Adaptive Management Requirements" permit section and the following schedule.

Required Action	Due Date
<b>Annual Adaptive Management Report:</b> Submit an annual adaptive management report. The annual adaptive management report shall:	03/31/2025
o Identify those actions from Sections 3 & 5 of the approved adaptive management plan that were completed during the previous calendar year and those actions that are in progress;	
o Evaluate collected monitoring data;	
o Document progress in achieving the goals and measures identified in the approved adaptive management plan;	

o Describe the outreach and education efforts that occurred during the past calendar year;	
o Identify any corrections or adjustments to the adaptive management plan that are needed to achieve compliance with the phosphorus water quality standards specified in s. NR 102.06, Wis. Adm. Code;	
o Describe any updates needed to Fort McCoy's approved phosphorus optimization plan;	
and	
o Submit results from all sample points outlined in AM plan No. WQT-2024-0006 (January 2024) to the Department using the Department's Laboratory Data Entry System (LDES)	
<b>Comply with Adaptive Management Interim Limit:</b> For the second permit term under Adaptive Management the permittee shall comply with an Adaptive Management total phosphorus interim of 0.5 mg/L as a 6-month average, in addition to the 1.0 mg/L monthly avg already effective.	05/01/2025
<b>Annual Adaptive Management Report #2:</b> Submit an Adaptive Management report with the required information described in this section (see above).	03/31/2026
<b>Annual Adaptive Management Report #3:</b> Submit an Adaptive Management report with the required information described in this section (see above).	03/31/2027
<b>Annual Adaptive Management Report #4:</b> Submit an Adaptive Management report with the required information described in this section (see above).	03/31/2028
Final Adaptive Management Report for 2nd Permit Term: Submit the final Adaptive Management (AM) report documenting progress made during the second permit term under AM in meeting the watershed phosphorus reduction target of 975 lbs/yr, as well as the anticipated future reductions in phosphorus sources and phosphorus effluent concentrations, which shall be measured in accordance with the AM Plan protocols. The report shall summarize AM activities that have been implemented during the current permit term and state which, if any, actions from the approved AM plan No. WQT-2024-0006 (January 2024) were not pursued and why. The report shall include an analysis of trends on both a monthly and six-month average basis for concentrations and mass effluent discharged. Additionally, there shall be an analysis of any improvements to the quality of surface waters in the Adaptive Management Action Area focusing on phosphorus and flow results collected during the permit term. The surface water analysis shall evaluate how the in-stream loadings have changed over the permit term in comparison to implemented AM actions.	03/31/2029
Renewal of Adaptive Management Plan for Permit Reissuance: If the permittee intends to seek renewal of AM plan No. WQT-2024-0006 (January 2024) per s. NR 217.18, Wis. Adm. Code, for the reissued permit term, proposed AM goals and actions based on an updated AM plan shall be submitted to the Department for review and approval. The permittee may propose to adjust load reductions required by AM plan No. WQT-2024-0006 (January 2024) either up or down at the beginning of each WPDES permit term to reflect changes in loads associated with point and non-point sources. This schedule may be modified to incorporate any changes in AM goals and actions, removed if the AM program is terminated per the "Adaptive Management Reopener Clause" permit section, or removed if the adaptive management plan has achieved water quality standards as determined by the Department within the AM action area.	03/31/2029
Achieve Water Quality Standards and Adaptive Management Plan Success: All the receiving waters identified within the AM plan WQT-2024-0006 (January 2024) shall comply with water quality standards specified in s. NR 102.06, Wis. Adm. Code. The permittee shall continue to comply with applicable effluent limits (required under s. 217.18(3)(e)3. expressed as a 6-month avg and 1.0 mg/L monthly avg) and continue monitoring surface waters WQT-2024-0006 (January 2024) at a minimum of monthly May through October for total phosphorus.	09/30/2029

# **4.3 Operator Certification**

Required Action	<b>Due Date</b>
<b>Operator Certification- SS Subclass:</b> Per s. NR 114.53 Wis. Adm. Code, the permittee shall have an operator in charge certified in the SS Subclass (Sanitary Sewage Collection System) by the due date. Within 30 days of receiving certification, the permittee shall notify the department in writing of the certified operator's name and certification number with the SS Subclass certification.	03/31/2025
<b>Operator Certification- Advanced:</b> Per s. NR 114.53 Wis. Adm. Code, the permittee shall have an operator in charge with Advanced Certification by the due date. Within 30 days of receiving certification, the permittee shall notify the department in writing of the certified operator's name and certification number with the Advanced Certification.	

# **5 Standard Requirements**

NR 205, Wisconsin Administrative Code: The conditions in ss. NR 205.07(1) and NR 205.07(2), Wis. Adm. Code, are included by reference in this permit. The permittee shall comply with all of these requirements. Some of these requirements are outlined in the Standard Requirements section of this permit. Requirements not specifically outlined in the Standard Requirement section of this permit can be found in ss. NR 205.07(1) and NR 205.07(2).

# 5.1 Reporting and Monitoring Requirements

# **5.1.1 Monitoring Results**

Monitoring results obtained during the previous month shall be summarized and reported on a Department Wastewater Discharge Monitoring Report. The report may require reporting of any or all of the information specified below under 'Recording of Results'. This report is to be returned to the Department no later than the date indicated on the form. A copy of the Wastewater Discharge Monitoring Report Form or an electronic file of the report shall be retained by the permittee.

Monitoring results shall be reported on an electronic discharge monitoring report (eDMR). The eDMR shall be certified electronically by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be included on the Wastewater Discharge Monitoring Report.

The permittee shall comply with all limits for each parameter regardless of monitoring frequency. For example, monthly, weekly, and/or daily limits shall be met even with monthly monitoring. The permittee may monitor more frequently than required for any parameter.

# 5.1.2 Sampling and Testing Procedures

Sampling and laboratory testing procedures shall be performed in accordance with Chapters NR 218 and NR 219, Wis. Adm. Code and shall be performed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code. Groundwater sample collection and analysis shall be performed in accordance with ch. NR 140, Wis. Adm. Code. The analytical methodologies used shall enable the laboratory to quantitate all substances for which monitoring is required at levels below the effluent limitation. If the required level cannot be met by any of the methods available in NR 219, Wis. Adm. Code, then the method with the lowest limit of detection shall be selected. Additional test procedures may be specified in this permit.

# 5.1.3 Recording of Results

The permittee shall maintain records which provide the following information for each effluent measurement or sample taken:

- the date, exact place, method and time of sampling or measurements;
- the individual who performed the sampling or measurements;
- the date the analysis was performed;
- the individual who performed the analysis;
- the analytical techniques or methods used; and
- the results of the analysis.

# 5.1.4 Reporting of Monitoring Results

The permittee shall use the following conventions when reporting effluent monitoring results:

- Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 0.1 mg/L, report the pollutant concentration as < 0.1 mg/L.
- Pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified.
- For purposes of calculating NR 101 fees, a reporting limit of 2.0 mg/L for BOD<sub>5</sub> and 2.5 mg/L Total Suspended Solids shall be considered to be limits of quantitation.
- For the purposes of reporting a calculated result, average or a mass discharge value, the permittee may substitute a "0" (zero) for any pollutant concentration that is less than the limit of detection. However, if the effluent limitation is less than the limit of detection, the department may substitute a value other than zero for results less than the limit of detection, after considering the number of monitoring results that are greater than the limit of detection and if warranted when applying appropriate statistical techniques.
- If no discharge occurs through an outfall, flow related parameters (e.g. flow rate, hydraulic application rate, volume, etc.) should be reported as "0" (zero) at the required sample frequency specified for the outfall. For example: if the sample frequency is daily, "0" would be reported for any day during the month that no discharge occurred.

#### 5.1.5 Compliance Maintenance Annual Reports

Compliance Maintenance Annual Reports (CMAR) shall be completed using information obtained over each calendar year regarding the wastewater conveyance and treatment system. The CMAR shall be submitted and certified by the permittee in accordance with ch. NR 208, Wis. Adm. Code, by June 30, each year on an electronic report form provided by the Department.

In the case of a publicly owned treatment works, a resolution shall be passed by the governing body and submitted as part of the CMAR, verifying its review of the report and providing responses as required. Private owners of wastewater treatment works are not required to pass a resolution; but they must provide an Owner Statement and responses as required, as part of the CMAR submittal.

The CMAR shall be certified electronically by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The certification verifies that the electronic report is true, accurate and complete.

#### 5.1.6 Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings or electronic data records for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit for a period of at least 3 years from the date of the sample, measurement, report or application. All pertinent sludge information, including permit application information and other documents specified in this permit or s. NR 204.06(9), Wis. Adm. Code shall be retained for a minimum of 5 years.

#### 5.1.7 Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or correct information to the Department.

# 5.1.8 Reporting Requirements – Alterations or Additions

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is only required when:

- The alteration or addition to the permitted facility may meet one of the criteria for determining whether a facility is a new source.
- The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification requirement applies to pollutants which are not subject to effluent limitations in the existing permit.
- The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use of disposal sites not reported during the permit application process nor reported pursuant to an approved land application plan. Additional sites may not be used for the land application of sludge until department approval is received.

# 5.2 System Operating Requirements

# 5.2.1 Noncompliance Reporting

Sanitary sewer overflows and sewage treatment facility overflows shall be reported according to the 'Sanitary Sewer Overflows and Sewage Treatment Facility Overflows' section of this permit.

The permittee shall report the following types of noncompliance by a telephone call to the Department's regional office within 24 hours after becoming aware of the noncompliance:

- any noncompliance which may endanger health or the environment;
- any violation of an effluent limitation resulting from a bypass;
- any violation of an effluent limitation resulting from an upset; and
- any violation of a maximum discharge limitation for any of the pollutants listed by the Department in the permit, either for effluent or sludge.

A written report describing the noncompliance shall also be submitted to the Department's regional office within 5 days after the permittee becomes aware of the noncompliance. On a case-by-case basis, the Department may waive the requirement for submittal of a written report within 5 days and instruct the permittee to submit the written report with the next regularly scheduled monitoring report. In either case, the written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.

A scheduled bypass approved by the Department under the 'Scheduled Bypass' section of this permit shall not be subject to the reporting required under this section.

NOTE: Section 292.11(2)(a), Wisconsin Statutes, requires any person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance to notify the Department of Natural Resources immediately of any discharge not authorized by the permit. The discharge of a hazardous substance that is not authorized by this permit or that violates this permit may be a hazardous substance spill. To report a hazardous substance spill, call DNR's 24-hour HOTLINE at 1-800-943-0003.

#### 5.2.2 Flow Meters

Flow meters shall be calibrated annually, as per s. NR 218.06, Wis. Adm. Code.

# 5.2.3 Raw Grit and Screenings

All raw grit and screenings shall be disposed of at a properly licensed solid waste facility or picked up by a licensed waste hauler. If the facility or hauler are located in Wisconsin, then they shall be licensed under chs. NR 500-555, Wis. Adm. Code.

# 5.2.4 Sludge Management

All sludge management activities shall be conducted in compliance with ch. NR 204 "Domestic Sewage Sludge Management", Wis. Adm. Code.

#### 5.2.5 Prohibited Wastes

Under no circumstances may the introduction of wastes prohibited by s. NR 211.10, Wis. Adm. Code, be allowed into the waste treatment system. Prohibited wastes include those:

- which create a fire or explosion hazard in the treatment work;
- which will cause corrosive structural damage to the treatment work;
- solid or viscous substances in amounts which cause obstructions to the flow in sewers or interference with the proper operation of the treatment work;
- wastewaters at a flow rate or pollutant loading which are excessive over relatively short time periods so as to cause a loss of treatment efficiency; and
- changes in discharge volume or composition from contributing industries which overload the treatment works
  or cause a loss of treatment efficiency.

# 5.2.6 Bypass

This condition applies only to bypassing at a sewage treatment facility that is not a scheduled bypass, approved blending as a specific condition of this permit, a sewage treatment facility overflow or a controlled diversion as provided in the sections titled 'Scheduled Bypass', 'Blending' (if approved), 'SSO's and Sewage Treatment Facility Overflows' and 'Controlled Diversions' of this permit. Any other bypass at the sewage treatment facility is prohibited and the Department may take enforcement action against a permittee for such occurrences under s. 283.89, Wis. Stats. The Department may approve a bypass if the permittee demonstrates all the following conditions apply:

- The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities or adequate back-up equipment, retention of untreated wastes, reduction of inflow and infiltration, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance. When evaluating feasibility of alternatives, the department may consider factors such as technical achievability, costs and affordability of implementation and risks to public health, the environment and, where the permittee is a municipality, the welfare of the community served; and
- The bypass was reported in accordance with the Noncompliance Reporting section of this permit.

# 5.2.7 Scheduled Bypass

Whenever the permittee anticipates the need to bypass for purposes of efficient operations and maintenance and the permittee may not meet the conditions for controlled diversions in the 'Controlled Diversions' section of this permit, the permittee shall obtain prior written approval from the Department for the scheduled bypass. A permittee's written request for Department approval of a scheduled bypass shall demonstrate that the conditions for bypassing specified in the above section titled 'Bypass' are met and include the proposed date and reason for the bypass, estimated volume and duration of the bypass, alternatives to bypassing and measures to mitigate environmental harm caused by the bypass. The department may require the permittee to provide public notification for a scheduled bypass if it is determined there is significant public interest in the proposed action and may recommend mitigation measures to minimize the impact of such bypass.

#### 5.2.8 Controlled Diversions

Controlled diversions are allowed only when necessary for essential maintenance to assure efficient operation. Sewage treatment facilities that have multiple treatment units to treat variable or seasonal loading conditions may shut down redundant treatment units when necessary for efficient operation. The following requirements shall be met during controlled diversions:

- Effluent from the sewage treatment facility shall meet the effluent limitations established in the permit.
   Wastewater that is diverted around a treatment unit or treatment process during a controlled diversion shall be recombined with wastewater that is not diverted prior to the effluent sampling location and prior to effluent discharge;
- A controlled diversion does not include blending as defined in s. NR 210.03(2e), Wis. Adm. Code, and as
  may only be approved under s. NR 210.12. A controlled diversion may not occur during periods of excessive
  flow or other abnormal wastewater characteristics;
- A controlled diversion may not result in a wastewater treatment facility overflow; and
- All instances of controlled diversions shall be documented in sewage treatment facility records and such records shall be available to the department on request.

### **5.2.9 Proper Operation and Maintenance**

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training as required in ch. NR 114, Wis. Adm. Code, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

# 5.2.10 Operator Certification

The wastewater treatment facility shall be under the direct supervision of a state certified operator. In accordance with s. NR 114.53, Wis. Adm. Code, every WPDES permitted treatment plant shall have a designated operator-incharge holding a current and valid certificate. The designated operator-in-charge shall be certified at the level and in all subclasses of the treatment plant, except laboratory. Treatment plant owners shall notify the department of any changes in the operator-in-charge within 30 days. Note that s. NR 114.52(22), Wis. Adm. Code, lists types of facilities that are excluded from operator certification requirements (i.e. private sewage systems, pretreatment facilities discharging to public sewers, industrial wastewater treatment that consists solely of land disposal, agricultural digesters and concentrated aquatic production facilities with no biological treatment).

# 5.3 Sewage Collection Systems

# 5.3.1 Sanitary Sewage Overflows and Sewage Treatment Facility Overflows

#### 5.3.1.1 Overflows Prohibited

Any overflow or discharge of wastewater from the sewage collection system or at the sewage treatment facility, other than from permitted outfalls, is prohibited. The permittee shall provide information on whether any of the following conditions existed when an overflow occurred:

- The sanitary sewer overflow or sewage treatment facility overflow was unavoidable to prevent loss of life, personal injury or severe property damage;
- There were no feasible alternatives to the sanitary sewer overflow or sewage treatment facility overflow such as the use of auxiliary treatment facilities or adequate back-up equipment, retention of untreated wastes, reduction of inflow and infiltration, or preventative maintenance activities;
- The sanitary sewer overflow or the sewage treatment facility overflow was caused by unusual or severe weather related conditions such as large or successive precipitation events, snowmelt, saturated soil

conditions, or severe weather occurring in the area served by the sewage collection system or sewage treatment facility; and

• The sanitary sewer overflow or the sewage treatment facility overflow was unintentional, temporary, and caused by an accident or other factors beyond the reasonable control of the permittee.

#### 5.3.1.2 Permittee Response to Overflows

Whenever a sanitary sewer overflow or sewage treatment facility overflow occurs, the permittee shall take all feasible steps to control or limit the volume of untreated or partially treated wastewater discharged, and terminate the discharge as soon as practicable. Remedial actions, including those in NR 210.21 (3), Wis. Adm. Code, shall be implemented consistent with an emergency response plan developed under the CMOM program.

#### 5.3.1.3 Permittee Reporting

Permittees shall report all sanitary sewer overflows and sewage treatment overflows as follows:

- The permittee shall notify the department by telephone, fax or email as soon as practicable, but no later than 24 hours from the time the permittee becomes aware of the overflow;
- The permittee shall, no later than five days from the time the permittee becomes aware of the overflow, provide to the department the information identified in this paragraph using department form number 3400-184. If an overflow lasts for more than five days, an initial report shall be submitted within 5 days as required in this paragraph and an updated report submitted following cessation of the overflow. At a minimum, the following information shall be included in the report:
  - o The date and location of the overflow;
  - The surface water to which the discharge occurred, if any;
  - o The duration of the overflow and an estimate of the volume of the overflow;
  - A description of the sewer system or treatment facility component from which the discharge occurred such as manhole, lift station, constructed overflow pipe, or crack or other opening in a pipe;
  - The estimated date and time when the overflow began and stopped or will be stopped;
  - o The cause or suspected cause of the overflow including, if appropriate, precipitation, runoff conditions, areas of flooding, soil moisture and other relevant information;
  - Steps taken or planned to reduce, eliminate and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
  - A description of the actual or potential for human exposure and contact with the wastewater from the overflow;
  - Steps taken or planned to mitigate the impacts of the overflow and a schedule of major milestones for those steps;
  - To the extent known at the time of reporting, the number and location of building backups caused by
    excessive flow or other hydraulic constraints in the sewage collection system that occurred
    concurrently with the sanitary sewer overflow and that were within the same area of the sewage
    collection system as the sanitary sewer overflow; and
  - The reason the overflow occurred or explanation of other contributing circumstances that resulted in the overflow event. This includes any information available including whether the overflow was unavoidable to prevent loss of life, personal injury, or severe property damage and whether there were feasible alternatives to the overflow.

**NOTE:** A copy of form 3400-184 for reporting sanitary sewer overflows and sewage treatment facility overflows may be obtained from the department or accessed on the department's web site at http://dnr.wi.gov/topic/wastewater/SSOreport.html. As indicated on the form, additional information may be submitted to supplement the information required by the form.

- The permittee shall identify each specific location and each day on which a sanitary sewer overflow or sewage treatment facility overflow occurs as a discrete sanitary sewer overflow or sewage treatment facility overflow occurrence. An occurrence may be more than one day if the circumstances causing the sanitary sewer overflow or sewage treatment facility overflow results in a discharge duration of greater than 24 hours. If there is a stop and restart of the overflow at the same location within 24 hours and the overflow is caused by the same circumstance, it may be reported as one occurrence. Sanitary sewer overflow occurrences at a specific location that are separated by more than 24 hours shall be reported as separate occurrences; and
- A permittee that is required to submit wastewater discharge monitoring reports under NR 205.07 (1) (r) shall also report all sanitary sewer overflows and sewage treatment facility overflows on that report.

#### 5.3.1.4 Public Notification

The permittee shall notify the public of any sanitary sewer and sewage treatment facility overflows consistent with its emergency response plan required under the CMOM (Capacity, Management, Operation and Maintenance) section of this permit and s. NR 210.23 (4) (f), Wis. Adm. Code. Such public notification shall occur promptly following any overflow event using the most effective and efficient communications available in the community. At minimum, a daily newspaper of general circulation in the county(s) and municipality whose waters may be affected by the overflow shall be notified by written or electronic communication.

# 5.3.2 Capacity, Management, Operation and Maintenance (CMOM) Program

- The permittee shall have written documentation of the Capacity, Management, Operation and Maintenance (CMOM) program components in accordance with s. NR 210.23(4), Wis. Adm. Code. Such documentation shall be available for Department review upon request. The Department may request that the permittee provide this documentation or prepare a summary of the permittee's CMOM program at the time of application for reissuance of the WPDES permit.
- The permittee shall implement a CMOM program in accordance with s. NR 210.23, Wis. Adm. Code.
- The permittee shall at least annually conduct a self-audit of activities conducted under the permittee's CMOM program to ensure CMOM components are being implemented as necessary to meet the general standards of s. NR 210.23(3), Wis. Adm. Code.

# 5.3.3 Sewer Cleaning Debris and Materials

All debris and material removed from cleaning sanitary sewers shall be managed to prevent nuisances, run-off, ground infiltration or prohibited discharges.

- Debris and solid waste shall be dewatered, dried and then disposed of at a licensed solid waste facility.
- Liquid waste from the cleaning and dewatering operations shall be collected and disposed of at a permitted wastewater treatment facility.
- Combination waste including liquid waste along with debris and solid waste may be disposed of at a licensed solid waste facility or wastewater treatment facility willing to accept the waste.

# 5.4 Surface Water Requirements

# 5.4.1 Permittee-Determined Limit of Quantitation Incorporated into this Permit

For pollutants with water quality-based effluent limits below the Limit of Quantitation (LOQ) in this permit, the LOQ calculated by the permittee and reported on the Discharge Monitoring Reports (DMRs) is incorporated by reference into this permit. The LOQ shall be reported on the DMRs, shall be the lowest quantifiable level practicable, and shall be no greater than the minimum level (ML) specified in or approved under 40 CFR Part 136 for the pollutant at the time this permit was issued, unless this permit specifies a higher LOQ.

#### 5.4.2 Appropriate Formulas for Effluent Calculations

The permittee shall use the following formulas for calculating effluent results to determine compliance with average concentration limits and mass limits and total load limits:

Weekly/Monthly/Six-Month/Annual Average Concentration = the sum of all daily results for that week/month/six-month/year, divided by the number of results during that time period. [Note: When a six-month average effluent limit is specified for Total Phosphorus the applicable periods are May through October and November through April, except in cases of Water Quality Trading, wherein the applicable periods are January through June and July through December.]

Weekly Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the week.

Monthly Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the month.

**Six-Month Average Mass Discharge (lbs/day):** Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the six-month period. [Note: When a six-month average effluent limit is specified for Total Phosphorus the applicable periods are May through October and November through April.]

Annual Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the entire year.

**Total Monthly Discharge:** = monthly average concentration (mg/L) x total flow for the month (MG/month) x 8.34.

**Total Annual Discharge:** = sum of total monthly discharges for the calendar year.

**12-Month Rolling Sum of Total Monthly Discharge:** = the sum of the most recent 12 consecutive months of Total Monthly Discharges.

# **5.4.3 Effluent Temperature Requirements**

**Weekly Average Temperature** – If temperature limits are included in this permit, Weekly Average Temperature shall be calculated as the sum of all daily maximum results for that week divided by the number of daily maximum results during that time period.

**Cold Shock Standard** – Water temperatures of the discharge shall be controlled in a manner as to protect fish and aquatic life uses from the deleterious effects of cold shock pursuant to Wis. Adm. Code, s. NR 102.28. 'Cold Shock' means exposure of aquatic organisms to a rapid decrease in temperature and a sustained exposure to low temperature that induces abnormal behavior or physiological performance and may lead to death.

**Rate of Temperature Change Standard** – Temperature of a water of the state or discharge to a water of the state may not be artificially raised or lowered at such a rate that it causes detrimental health or reproductive effects to fish or aquatic life of the water of the state pursuant to Wis. Adm. Code, s. NR 102.29.

# 5.4.4 Visible Foam or Floating Solids

There shall be no discharge of floating solids or visible foam in other than trace amounts.

#### 5.4.5 Surface Water Uses and Criteria

In accordance with NR 102.04, Wis. Adm. Code, surface water uses and criteria are established to govern water management decisions. Practices attributable to municipal, industrial, commercial, domestic, agricultural, land development or other activities shall be controlled so that all surface waters including the mixing zone meet the following conditions at all times and under all flow and water level conditions:

a) Substances that will cause objectionable deposits on the shore or in the bed of a body of water, shall not be present in such amounts as to interfere with public rights in waters of the state.

- b) Floating or submerged debris, oil, scum or other material shall not be present in such amounts as to interfere with public rights in waters of the state.
- c) Materials producing color, odor, taste or unsightliness shall not be present in such amounts as to interfere with public rights in waters of the state.
- d) Substances in concentrations or in combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance, nor shall substances be present in amounts which are acutely harmful to animal, plant or aquatic life.

#### 5.4.6 Percent Removal

During any 30 consecutive days, the average effluent concentrations of  $BOD_5$  and of total suspended solids shall not exceed 15% of the average influent concentrations, respectively. This requirement does not apply to removal of total suspended solids if the permittee operates a lagoon system and has received a variance for suspended solids granted under NR 210.07(2), Wis. Adm. Code.

#### 5.4.7 E. coli

The monthly limit for *E. coli* shall be expressed as a geometric mean. In calculating the geometric mean, a value of 1 is used for any result of 0.

#### 5.4.8 Seasonal Disinfection

Disinfection shall be provided from May 1 through September 30 of each year. Monitoring requirements and the limitations for Fecal Coliform (interim) and *E. coli* apply only during the period in which disinfection is required. Whenever chlorine is used for disinfection or other uses, the limitations and monitoring requirements for residual chlorine shall apply. A dechlorination process shall be in operation whenever chlorine is used.

# 5.4.9 Whole Effluent Toxicity (WET) Monitoring Requirements

In order to determine the potential impact of the discharge on aquatic organisms, static-renewal toxicity tests shall be performed on the effluent in accordance with the procedures specified in the "State of Wisconsin Aquatic Life Toxicity Testing Methods Manual, 2<sup>nd</sup> Edition" (PUB-WT-797, November 2004) as required by NR 219.04, Table A, Wis. Adm. Code). All of the WET tests required in this permit, including any required retests, shall be conducted on the Ceriodaphnia dubia and fathead minnow species. Receiving water samples shall not be collected from any point in contact with the permittee's mixing zone and every attempt shall be made to avoid contact with any other discharge's mixing zone.

# 5.4.10 Whole Effluent Toxicity (WET) Identification and Reduction

Within 60 days of a retest which showed positive results, the permittee shall submit a written report to the Biomonitoring Coordinator, Bureau of Water Quality, 101 S. Webster St., PO Box 7921, Madison, WI 53707-7921, which details the following:

- A description of actions the permittee has taken or will take to remove toxicity and to prevent the recurrence of toxicity;
- A description of toxicity reduction evaluation (TRE) investigations that have been or will be done to identify
  potential sources of toxicity, including the following actions:
  - a) Evaluate the performance of the treatment system to identify deficiencies contributing to effluent toxicity (e.g., operational problems, chemical additives, incomplete treatment)
  - b) Identify the compound(s) causing toxicity. Conduct toxicity screening tests on the effluent at a minimum of once per month for six months to determine if toxicity recurs. Screening tests are WET tests using fewer effluent concentrations conducted on the most sensitive species. If any of the

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screening tests contain toxicity, conduct a toxicity identification evaluation (TIE) to determine the cause. TIE methods are available from USEPA "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures (EPA/600/6-91/003) and "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F).

- c) Trace the compound(s) causing toxicity to their sources (e.g., industrial, commercial, domestic)
- d) Evaluate, select, and implement methods or technologies to control effluent toxicity (e.g., in-plant or pretreatment controls, source reduction or removal)
- Where corrective actions including a TRE have not been completed, an expeditious schedule under which corrective actions will be implemented;
- If no actions have been taken, the reason for not taking action.

The permittee may also request approval from the Department to postpone additional retests in order to investigate the source(s) of toxicity. Postponed retests must be completed after toxicity is believed to have been removed.

# 5.4.11 PFOS and PFOA Requirements

The laboratory performing the analysis on any samples shall be certified for the applicable PFAS compounds in the aqueous matrix by the Wisconsin Laboratory Certification Program established under s. 299.11, Wis. Stats., in accordance with s. NR 149.41, Wis. Adm. Code. If the EPA Office of Water publishes a 1600 series isotope dilution method for the analysis of PFAS in wastewater, the department recommends the use of the EPA method. The Department may reject any sample results if results are produced by a laboratory that is not in compliance with certification requirements under ch. NR 149, Wis. Adm. Code.

# 5.5 Land Application Requirements

# 5.5.1 Sludge Management Program Standards And Requirements Based Upon Federally Promulgated Regulations

In the event that new federal sludge standards or regulations are promulgated, the permittee shall comply with the new sludge requirements by the dates established in the regulations, if required by federal law, even if the permit has not yet been modified to incorporate the new federal regulations.

# 5.5.2 General Sludge Management Information

The General Sludge Management Form 3400-48 shall be completed and submitted prior to any significant sludge management changes.

# 5.5.3 Sludge Samples

All sludge samples shall be collected at a point and in a manner which will yield sample results which are representative of the sludge being tested, and collected at the time which is appropriate for the specific test.

# 5.5.4 Land Application Characteristic Report

Each report shall consist of a Characteristic Form 3400-49 and Lab Report. The Characteristic Report Form 3400-49 shall be submitted electronically by January 31 following each year of analysis.

Following submittal of the electronic Characteristic Report Form 3400-49, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report is true, accurate and complete. The Lab Report must be sent directly to the

facility's DNR sludge representative or basin engineer unless approval for not submitting the lab reports has been given.

The permittee shall use the following convention when reporting sludge monitoring results: Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 1.0 mg/kg, report the pollutant concentration as < 1.0 mg/kg.

All results shall be reported on a dry weight basis.

## 5.5.5 Calculation of Water Extractable Phosphorus

When sludge analysis for Water Extractable Phosphorus is required by this permit, the permittee shall use the following formula to calculate and report Water Extractable Phosphorus:

Water Extractable Phosphorus (% of Total P) =

[Water Extractable Phosphorus (mg/kg, dry wt) ÷ Total Phosphorus (mg/kg, dry wt)] x 100

# 5.5.6 Monitoring and Calculating PCB Concentrations in Sludge

When sludge analysis for "PCB, Total Dry Wt" is required by this permit, the PCB concentration in the sludge shall be determined using either congener-specific analysis or Aroclor analysis. The permittee may decide which of these analyses is performed. Analyses shall be performed in accordance with the following provisions and Table EM in s. NR 219.04, Wis. Adm. Code:

- If congener-specific analysis is employed: All PCB congeners shall be delineated. Non-detects shall be treated as zero. The values that are between the limit of detection (LOD) and the limit of quantitation shall be used when calculating the total value of all congeners. All results shall be added together and the total PCB concentration by dry weight reported.
- If Aroclor analysis is employed, reporting protocols, consistent with s. NR 106.07(6)(e), should be as follows: If all Aroclors are less than the LOD, then the Total PCB Dry Wt result should be reported as less than the highest LOD. If a single Aroclor is detected, then that is what should be reported for the Total PCB result. If multiple Aroclors are detected, they should be summed and reported as Total PCBs. If the LOD cannot be achieved after using the appropriate clean up techniques, a reporting limit that is achievable for the Aroclors or each congener for the sample shall be determined. This reporting limit shall be reported and qualified indicating the presence of an interference.

# 5.5.7 Annual Land Application Report

Land Application Report Form 3400-55 shall be submitted electronically by January 31, each year whether or not non-exceptional quality sludge is land applied. Non-exceptional quality sludge is defined in s. NR 204.07(4), Wis. Adm. Code. Following submittal of the electronic Annual Land Application Report Form 3400-55, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

# 5.5.8 Other Methods of Disposal or Distribution Report

The permittee shall submit electronically the Other Methods of Disposal or Distribution Report Form 3400-52 by January 31, each year whether or not sludge is hauled, landfilled, incinerated, or exceptional quality sludge is distributed or land applied. Following submittal of the electronic Report Form 3400-52, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

# 5.5.9 Approval to Land Apply

Bulk non-exceptional quality sludge as defined in s. NR 204.07(4), Wis. Adm. Code, may not be applied to land without a written approval letter or Form 3400-122 from the Department unless the Permittee has obtained permission from the Department to self approve sites in accordance with s. NR 204.06 (6), Wis. Adm. Code. Analysis of sludge characteristics is required prior to land application. Application on frozen or snow covered ground is restricted to the extent specified in s. NR 204.07(3) (1), Wis. Adm. Code.

## 5.5.10 Soil Analysis Requirements

Each site requested for approval for land application must have the soil tested prior to use. Each approved site used for land application must subsequently be soil tested such that there is at least one valid soil test in the four years prior to land application. All soil sampling and submittal of information to the testing laboratory shall be done in accordance with UW Extension Bulletin A-2100. The testing shall be done by the UW Soils Lab in Madison or Marshfield, WI or at a lab approved by UW. The test results including the crop recommendations shall be submitted to the DNR contact listed for this permit, as they are available. Application rates shall be determined based on the crop nitrogen recommendations and with consideration for other sources of nitrogen applied to the site.

## 5.5.11 Land Application Site Evaluation

For non-exceptional quality sludge, as defined in s. NR 204.07(4), Wis. Adm. Code, a Land Application Site Request Form 3400-053 shall be submitted to the Department for the proposed land application site. The Department will evaluate the proposed site for acceptability and will either approve or deny use of the proposed site. The permittee may obtain permission to approve their own sites in accordance with s. NR 204.06(6), Wis. Adm. Code.

# 5.5.12 Class B Sludge: Fecal Coliform Limitation

Compliance with the fecal coliform limitation for Class B sludge shall be demonstrated by calculating the geometric mean of at least 7 separate samples. (Note that a Total Solids analysis must be done on each sample). The geometric mean shall be less than 2,000,000 MPN or CFU/g TS. Calculation of the geometric mean can be done using one of the following 2 methods.

#### Method 1:

Geometric Mean =  $(X_1 \times X_2 \times X_3 \dots \times X_n)^{1/n}$ 

Where X = Coliform Density value of the sludge sample, and where n = number of samples (at least 7)

#### Method 2:

Geometric Mean = antilog[ $(X_1 + X_2 + X_3 ... + X_n) \div n$ ]

Where  $X = log_{10}$  of Coliform Density value of the sludge sample, and where n = number of samples (at least 7) Example for Method 2

Sample Number	Coliform Density of Sludge Sample	$\log_{10}$
1	$6.0 \times 10^5$	5.78
2	$4.2 \times 10^6$	6.62
3	$1.6 \times 10^6$	6.20
4	$9.0 \times 10^{5}$	5.95
5	$4.0 \times 10^5$	5.60
6	$1.0 \times 10^6$	6.00
7	$5.1 \times 10^5$	5.71

The geometric mean for the seven samples is determined by averaging the  $log_{10}$  values of the coliform density and taking the antilog of that value.

$$(5.78 + 6.62 + 6.20 + 5.95 + 5.60 + 6.00 + 5.71) \div 7 = 5.98$$

The antilog of  $5.98 = 9.5 \times 10^5$ 

#### 5.5.13 Vector Control: Volatile Solids Reduction

The mass of volatile solids in the sludge shall be reduced by a minimum of 38% between the time the sludge enters the digestion process and the time it either exits the digester or a storage facility. For calculation of volatile solids

reduction, the permittee shall use the Van Kleeck equation or one of the other methods described in "Determination of Volatile Solids Reduction in Digestion" by J.B. Farrell, which is Appendix C of EPA's *Control of Pathogens in Municipal Wastewater Sludge* (EPA/625/R-92/013). The Van Kleeck equation is:

$$VSR\% = \underbrace{VS_{IN} - VS_{OUT}}_{VS_{IN} - (VS_{OUT} X VS_{IN})} X 100$$

Where:  $VS_{IN} = Volatile Solids in Feed Sludge (g VS/g TS)$ 

VS<sub>OUT</sub> = Volatile Solids in Final Sludge (g VS/g TS)

VSR% = Volatile Solids Reduction, (Percent)

# 5.5.14 Class B Sludge - Vector Control: Injection

No significant amount of the sewage sludge shall be present on the land surface within one hour after the sludge is injected.

## 5.5.15 Class B Sludge - Vector Control: Incorporation

Class B sludge shall be incorporated within 6 hours of surface application, or as approved by the Department.

#### 5.5.16 Sludge Hauling

The permittee is required to submit Form 3400-52 to the Department. If sludge is hauled to another facility, information shall include the quantity of sludge hauled, the name, address, phone number, contact person, and permit number of the receiving facility. Form 3400-52 shall be submitted annually by January 31 each year whether or not sludge is hauled.

# **6 Summary of Reports Due**

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
PFOS/PFOA Minimization Plan Determination of Need -Report on Effluent Discharge	September 30, 2025	22
PFOS/PFOA Minimization Plan Determination of Need -Report on Effluent Discharge and Evaluation of Need	September 30, 2026	22
Watershed Adaptive Management Option Annual Report Submittals - Annual Adaptive Management Report	March 31, 2025	22
Watershed Adaptive Management Option Annual Report Submittals - Comply with Adaptive Management Interim Limit	May 1, 2025	23
Watershed Adaptive Management Option Annual Report Submittals - Annual Adaptive Management Report #2	March 31, 2026	23
Watershed Adaptive Management Option Annual Report Submittals - Annual Adaptive Management Report #3	March 31, 2027	23
Watershed Adaptive Management Option Annual Report Submittals - Annual Adaptive Management Report #4	March 31, 2028	23
Watershed Adaptive Management Option Annual Report Submittals -Final Adaptive Management Report for 2nd Permit Term	March 31, 2029	23
Watershed Adaptive Management Option Annual Report Submittals - Renewal of Adaptive Management Plan for Permit Reissuance	March 31, 2029	23
Watershed Adaptive Management Option Annual Report Submittals - Achieve Water Quality Standards and Adaptive Management Plan Success	September 30, 2029	23
Operator Certification - Operator Certification - SS Subclass	March 31, 2025	24
Operator Certification - Operator Certification - Advanced	December 31, 2025	24
Compliance Maintenance Annual Reports (CMAR)	by June 30, each year	26
General Sludge Management Form 3400-48	prior to any significant sludge management changes	34
Characteristic Form 3400-49 and Lab Report	by January 31 following each year of analysis	34
Land Application Report Form 3400-55	by January 31, each year whether or not non-exceptional quality sludge is land applied	35
Other Methods of Disposal or Distribution Report Form 3400-52	by January 31, each year whether or not sludge is hauled, landfilled, incinerated, or exceptional quality	35

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	sludge is distributed or land applied	
Wastewater Discharge Monitoring Report	no later than the date indicated on the form	

Report forms shall be submitted electronically in accordance with the reporting requirements herein. Any facility plans or plans and specifications for municipal, industrial, industrial pretreatment and non industrial wastewater systems shall be submitted to the Bureau of Water Quality, P.O. Box 7921, Madison, WI 53707-7921. All <u>other</u> submittals required by this permit shall be submitted to: West Central Region, 1300 W. Clairemont Ave, Eau Claire, WI 54701.