



WPDES PERMIT

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
**PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE
ELIMINATION SYSTEM**

UWM SCHOOL OF FRESHWATER SCIENCES

is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from a facility
located at
600 E Greenfield Ave, Milwaukee, WI
to
Kinnickinnic River (Kinnickinnic River Watershed- Milwaukee River Basin)
In Milwaukee 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.

State of Wisconsin Department of Natural Resources
For the Secretary

By _____
Bryan Hartsook, P.E.
Wastewater Field Supervisor

Date Permit Signed/Issued

PERMIT TERM: EFFECTIVE DATE - January 01, 2024

EXPIRATION DATE - December 31, 2028

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1 Surface Water Requirements

1.1 Sampling Point(s)

The discharge(s) shall be limited to the waste type(s) designated for the listed sampling point(s).

| Sampling Point Designation | |
|-----------------------------------|---|
| Sampling Point Number | Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable) |
| 001 | Effluent: Wastewater from the Fisheries Research Laboratory (located in Room 173) discharged to the combined effluent pipe. Representative grab sample taken from the sample manhole immediately after leaving the laboratory prior to the combined effluent. |
| 002 | Effluent: Wastewater from the Aquaculture Laboratory (located in Room 174) discharged to the combined effluent pipe. Representative grab sample taken from the sump in the discharge trench prior to leaving Room 174. |
| 003 | Effluent: Wastewater from the Aquaculture Training Laboratory (located in Room 178) discharged to the combined effluent pipe. Representative grab sample taken in the sample manhole immediately outside the laboratory prior to the combined effluent. |
| 004 | Combined Effluent: Combined effluent calculation from all outfalls. WET test shall be a proportional 3-Hr Composite from sample point 001, 002 and 003. |

1.2 Monitoring Requirements and Effluent Limitations

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

1.2.1 Sampling Point (Outfall) 001 - Fisheries Research Laboratory; 002 - Aquaculture Research Lab; 003- Aquaculture Training Lab

| Monitoring Requirements and Effluent Limitations | | | | | |
|---|----------------------|------------------------|-------------------------|--------------------|--------------------------------------|
| Parameter | Limit Type | Limit and Units | Sample Frequency | Sample Type | Notes |
| Flow Rate | | MGD | Monthly | Calculated | See Calculated Flow. |
| BOD ₅ , Total | Daily Max | 20 mg/L | Monthly | Grab | |
| BOD ₅ , Total | Monthly Avg | 20 mg/L | Monthly | Grab | |
| Suspended Solids, Total | Daily Max | 12 mg/L | Monthly | Grab | Limit effective April - November. |
| Suspended Solids, Total | Daily Max | 20 mg/L | Monthly | Grab | Limit effective December - March. |
| Suspended Solids, Total | Monthly Avg | 12 mg/L | Monthly | Grab | |
| Suspended Solids, Total | | lbs/day | Monthly | Calculated | See mass limitations in Outfall 004. |
| pH Field | Daily Min | 6.0 su | Monthly | Grab | |
| pH Field | Daily Max | 9.0 su | Monthly | Grab | |
| Phosphorus, Total | 12-Month Rolling Avg | 1.0 mg/L | Monthly | Grab | |
| Phosphorus, Total | | lbs/day | Monthly | Calculated | See mass limitations in Outfall 004. |

| Monitoring Requirements and Effluent Limitations | | | | | |
|---|-------------------|------------------------|-------------------------|--------------------|--|
| Parameter | Limit Type | Limit and Units | Sample Frequency | Sample Type | Notes |
| PFOS | | ng/L | 1/ 2 Months | Grab | Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule. |
| PFOA | | ng/L | 1/ 2 Months | Grab | Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule. |

1.2.1.1 Additives

The permittee shall maintain a record of the dosage rate of all additives used on a monthly basis. The additives may be changed during the term of the permit following procedures in the ‘Additives’ subsection of the Standard Requirements.

1.2.1.2 Total Suspended Solids and Total Phosphorus Mass Limitations

See Section 1.2.2 for TMDL Mass Limitations applicable to the facility’s combined effluent. The permittee shall calculate the mass at Outfalls 001, 002, and 003 individually then report the combined TSS and TP effluent under Sampling Point 004 for compliance with TSS and TP mass limitations.

1.2.1.3 Monitoring of Flow-Through Systems

The permittee shall indicate cleaning period samples on the discharge monitoring report.

1.2.2 Sampling Point (Outfall) 004 - Combined Effluent

| Monitoring Requirements and Effluent Limitations | | | | | |
|---|-------------------|------------------------|-------------------------|--------------------|--|
| Parameter | Limit Type | Limit and Units | Sample Frequency | Sample Type | Notes |
| Flow Rate | | MGD | Monthly | Calculated | |
| Suspended Solids, Total | Daily Max | 98.22 lbs/day | Monthly | Calculated | Limit effective in January. |
| Suspended Solids, Total | Daily Max | 75.9 lbs/day | Monthly | Calculated | Limit effective in February. |
| Suspended Solids, Total | Daily Max | 61.38 lbs/day | Monthly | Calculated | Limit effective in March. |
| Suspended Solids, Total | Daily Max | 39.38 lbs/day | Monthly | Calculated | Limit effective in June. |
| Suspended Solids, Total | Daily Max | 61.74 lbs/day | Monthly | Calculated | Limit effective in December. |
| Suspended Solids, Total | Monthly Avg | 41.09 lbs/day | Monthly | Calculated | Limit effective in January. |
| Phosphorus, Total | Monthly Avg | 1.39 lbs/day | Monthly | Calculated | Limit effective starting January 2028 and continues annually. |
| Phosphorus, Total | Monthly Avg | 1.51 lbs/day | Monthly | Calculated | Limit effective starting February 2028 and continues annually. |

| Monitoring Requirements and Effluent Limitations | | | | | |
|---|-------------------|------------------------|-------------------------|--------------------|---|
| Parameter | Limit Type | Limit and Units | Sample Frequency | Sample Type | Notes |
| Phosphorus, Total | Monthly Avg | 1.49 lbs/day | Monthly | Calculated | Limit effective starting March 2028 and continues annually. |
| Phosphorus, Total | Monthly Avg | 1.46 lbs/day | Monthly | Calculated | Limit effective starting April 2028 and continues annually. |
| Phosphorus, Total | Monthly Avg | 1.53 lbs/day | Monthly | Calculated | Limit effective starting May 2028 and continues annually. |
| Phosphorus, Total | Monthly Avg | 1.71 lbs/day | Monthly | Calculated | Limit effective starting June 2028 and continues annually. |
| Phosphorus, Total | Monthly Avg | 1.55 lbs/day | Monthly | Calculated | Limit effective starting July 2028 and continues annually. |
| Phosphorus, Total | Monthly Avg | 1.61 lbs/day | Monthly | Calculated | Limit effective starting August 2028 and continues annually. |
| Phosphorus, Total | Monthly Avg | 1.26 lbs/day | Monthly | Calculated | Limit effective starting September 2028 and continues annually. |
| Phosphorus, Total | Monthly Avg | 1.05 lbs/day | Monthly | Calculated | Limit effective starting October 2028 and continues annually. |
| Phosphorus, Total | Monthly Avg | 1.03 lbs/day | Monthly | Calculated | Limit effective starting November 2028 and continues annually. |
| Phosphorus, Total | Monthly Avg | 1.14 lbs/day | Monthly | Calculated | Limit effective starting December 2028 and continues annually. |
| Phosphorus, Total | | lbs/day | Monthly | Calculated | See TMDL section for final total phosphorus mass limitations effective January 1, 2028. |
| Acute WET | | TU _a | See Listed Qtr(s) | 3-Hr Comp | See WET section. |

1.2.2.1 Calculated Flow

Flow shall be calculated as approved by the Department. Flow calculations as Sample Points 001, 002 and 003 shall be calculated based on the proportion of dechlorinated water going to each lab and the estimates of flow to each lab and the total of these flows reported at Sample Point 004, the combined outfall. Flow meters are not required at each lab however, the permittee shall maintain as accurate of records as possible for flow going to each lab including tracking of flow reductions due to tanks out of production. The facility shall also maintain records of wastewater discharged from the labs to sanitary sewer. These records shall be available to the Department upon request.

1.2.2.2 Additives

The permittee shall maintain a record of the dosage rate of all additives used on a monthly basis. The additives may be changed during the term of the permit following procedures in the 'Additives' subsection of the Standard Requirements.

1.2.2.3 Monitoring of Flow-Through Systems

The permittee shall indicate cleaning period samples on the discharge monitoring report.

1.2.2.4 Total Suspended Solids and Total Phosphorus Mass Limitations

See Section 1.2.45 for TMDL Mass Limitations applicable to the facility's combined effluent. The permittee shall calculate the mass at Outfalls 001, 002, and 003 individually then report the combined TSS and TP effluent under Sampling Point 004 for compliance with TSS and TP mass limitations.

1.2.2.5 Total Maximum Daily Load (TMDL) Limitations

Approved TMDL: The Milwaukee River Basin TMDL Waste Load Allocation (WLA) for Total Phosphorus (TP), Total Suspended Solids, and bacteria was approved by the U.S. Environmental Protection Agency on March 9, 2018. The approved TMDL WLA limits for School of Freshwater Sciences are:

Total Phosphorus: Compliance with monthly average TP mass limits is determined by calculating the flow weighted mass discharge per month in lbs/day and comparing the results to the monthly average mass limits.

TP mass discharge (lbs/day) = daily concentration measured (mg/L) x daily flow rate (MGD) x 8.34
Compliance with Monthly Average = Σ TP mass discharge (lbs/day) \div number of days sampled

Report calculated mass discharge results on the day that TP concentrations were measured on the monthly discharge monitoring report. The final TMDL water quality based effluent limit for phosphorus are shown in the table below. Refer to the Schedules section of the permit for the date of compliance with total phosphorus TMDL limits.

Phosphorus TMDL mass limits

| Month | Monthly Average TP Effluent Limit (lbs/day) |
|--------------|--|
| January | 1.39 |
| February | 1.51 |
| March | 1.49 |
| April | 1.46 |
| May | 1.53 |
| June | 1.71 |
| July | 1.55 |
| August | 1.61 |
| September | 1.26 |
| October | 1.05 |
| November | 1.03 |
| December | 1.14 |

Total Suspended Solids: The final TMDL water quality based effluent limits for total suspended solids are shown in the table below. According to section 6.4.1 of the Milwaukee River Basin TMDL Report, the TSS WLAs will be expressed as a concentration with a floor of 12 mg/L as a monthly average limitation. Based on the equivalent concentration limits for School of Freshwater Sciences, a 12 mg/L monthly average limit should be included for all months and a 12 mg/L daily maximum limit should be included for April – November. For informational purposes only, the approved TMDL WLA limits for TSS are shown in the table below.

Effluent TMDL TSS Limits

| | Daily Max TSS Effluent Limit (lbs/day) | Monthly Ave TSS Effluent Limit (lbs/day) | Daily Max TSS Effluent Limit (mg/L) | Monthly Ave TSS Effluent Limit (mg/L) |
|-----|--|--|-------------------------------------|---------------------------------------|
| Jan | 98.22 | 41.09 | 20* | 12* |
| Feb | 75.90 | | 20* | 12 |
| Mar | 61.38 | | 20* | 12 |
| Apr | | | 12 | 12 |
| May | | | 12 | 12 |
| Jun | 39.38 | | 12* | 12 |
| Jul | | | 12 | 12 |
| Aug | | | 12 | 12 |
| Sep | | | 12 | 12 |
| Oct | | | 12 | 12 |
| Nov | | | 12 | 12 |
| Dec | 61.74 | | 20* | 12 |

*The current permit has a daily maximum limit of 12 mg/L for April – November and a monthly average limit of 12 mg/L year-round. This varies slightly from the calculated recommendations for this permit because the maximum annual average flow has decreased during the last five years, resulting in a daily mass max limit needed for June and monthly average mass limit needed for January. The previous WQBEL memo used a flow rate of 0.52 MGD for Outfall 004 which resulted in lower equivalent concentrations (below 12 mg/L) for these months so the TMDL mass limits were not previously recommended. The current concentration limits (daily max of 12 mg/L for April – November and monthly average of 12 mg/L year-round) should be continued in the reissued permit for antibacksliding purposes in s. NR 207.12, Wis. Adm. Code.

1.2.2.6 PFOS/PFOA Sampling and Reporting Requirements

For grab 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 be documented in the reports submitted as part of the PFOS/PFOA Minimization Plan Determination of Need schedule of the permit.

1.2.2.7 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 unnecessary 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.

1.2.2.8 Whole Effluent Toxicity (WET) Testing

Primary Control Water: Kinnickinnic River

Instream Waste Concentration (IWC): n/a

Acute Mixing Zone Concentration: n/a

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.

WET Testing Frequency:

Acute tests are required 2 x during the permit term in the following quarters:

- **Acute: October – December 2025; July – September 2028**

Acute 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 **July – September 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, 2nd 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: $TU_a = 100 \div LC_{50}$.

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 Schedules

2.1 PFOS/PFOA Minimization Plan Determination of Need

| Required Action | Due Date |
|---|------------|
| <p>Report on Effluent Discharge: Submit a report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations. This analysis should also include a comparison to the applicable narrative standard in s. NR 102.04(8)(d), Wis. Adm. Code.</p> <p>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.</p> | 12/31/2024 |
| <p>Report on Effluent Discharge and Evaluation of Need: Submit a final report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations of data collected over the last 24 months. The report shall also provide a comparison on the likelihood of the facility needing to develop a PFOS/PFOA minimization plan.</p> <p>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.</p> <p>The permittee shall also submit a request to the department to evaluate the need for a PFOS/PFOA minimization plan.</p> <p>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.</p> <p>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.</p> | 12/31/2025 |

2.2 Total Maximum Daily Load (TMDL) - Based Phosphorus Effluent Limitations

This compliance schedule requires the permittee to achieve compliance by the specified date.

| Required Action | Due Date |
|--|------------|
| <p>Annual Phosphorus Progress Report: Submit an annual progress report that shall discuss which phosphorus pollutant minimization measures have been implemented during the prior calendar year. The report shall include an analysis of trends in monthly average, annual total influent and effluent phosphorus concentrations and mass loading with conclusions regarding compliance.</p> <p>The first annual phosphorus progress report is to be submitted by the Date Due.</p> | 12/31/2024 |
| <p>Annual Phosphorus Progress Report #2: Submit a phosphorus progress report as defined above for the previous calendar year.</p> | 12/31/2025 |

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| Annual Phosphorus Progress Report #3: Submit a phosphorus progress report as defined above for the previous calendar year. | 12/31/2026 |
| Final Phosphorus Report: Submit a final report documenting the success in meeting the final TMDL-based phosphorus limitations specified in permit section 1.2.4. | 06/30/2027 |
| Achieve Compliance: The permittee shall achieve compliance with the final Phosphorus limitations, expressed as monthly average mass limits according to the Milwaukee River Basin TMDL. See permit section 1.2.4.5 Total Maximum Daily Load (TMDL) Limitations for more information. | 12/31/2027 |

3 Standard Requirements

NR 205, Wisconsin Administrative Code (Conditions for Industrial Dischargers): The conditions in ss. NR 205.07(1) and NR 205.07(3), 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(3).

3.1 Reporting and Monitoring Requirements

3.1.1 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 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.

3.1.2 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.

3.1.3 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.

3.1.4 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, the 2 mg/l lower reporting limits for BOD5 and 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.

3.1.5 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, except for sludge management forms and records, which shall be kept for a period of at least 5 years.

3.1.6 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.

3.1.7 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.

3.2 System Operating Requirements

3.2.1 Noncompliance Reporting

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 as directed at the end of this permit 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.**

3.2.2 Bypass

Except for a controlled diversion as provided in the 'Controlled Diversions' section of this permit, any bypass 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.

3.2.3 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 unscheduled bypassing 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.

3.2.4 Controlled Diversions

Controlled diversions are allowed only when necessary for essential maintenance to assure efficient operation provided the following requirements are met:

- Effluent from the wastewater 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 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 wastewater treatment facility records and such records shall be available to the department on request.

3.2.5 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.

3.2.6 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-in-charge 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).

3.2.7 Spill Reporting

The permittee shall notify the Department in accordance with ch. NR 706 (formerly NR 158), Wis. Adm. Code, in the event that a spill or accidental release of any material or substance results in the discharge of pollutants to the waters of the state at a rate or concentration greater than the effluent limitations established in this permit, or the spill or accidental release of the material is unregulated in this permit, unless the spill or release of pollutants has been reported to the Department in accordance with s. NR 205.07 (1)(s), Wis. Adm. Code.

3.2.8 Planned Changes

In accordance with ss. 283.31(4)(b) and 283.59, Stats., the permittee shall report to the Department any facility expansion, production increase or process modifications which will result in new, different or increased discharges of pollutants. The report shall either be a new permit application, or if the new discharge will not violate the effluent limitations of this permit, a written notice of the new, different or increased discharge. The notice shall contain a description of the new activities, an estimate of the new, different or increased discharge of pollutants and a description of the effect of the new or increased discharge on existing waste treatment facilities. Following receipt of this report, the Department may modify this permit to specify and limit any pollutants not previously regulated in the permit.

3.2.9 Duty to Halt or Reduce Activity

Upon failure or impairment of treatment facility operation, the permittee shall, to the extent necessary to maintain compliance with its permit, curtail production or wastewater discharges or both until the treatment facility operations are restored or an alternative method of treatment is provided.

3.3 Surface Water Requirements

3.3.1 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.

3.3.2 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.]

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.

3.3.3 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.

3.3.4 Visible Foam or Floating Solids

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

3.3.5 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.

3.3.6 Compliance with Phosphorus Limitation

Compliance with the concentration limitation for phosphorus shall be determined as a rolling twelve-month average and shall be calculated as follows:

First, determine the pounds of phosphorus for an individual month by multiplying the average of all the concentration values for phosphorus (in mg/L) for that month by the total flow for the month in Million Gallons times the conversion factor of 8.34.

Then, the monthly pounds of phosphorus determined in this manner shall be summed for the most recent 12 months and inserted into the numerator of the following equation.

$$\text{Average concentration of P in mg/L} = \frac{\text{Total lbs of P discharged (most recent 12 months)}}{\text{Total flow in MG (most recent 12 months)} \times 8.34}$$

The compliance calculation shall be performed each month with a reported discharge volume after substituting data from the most recent month(s) for the oldest month(s). A calculated value in excess of the concentration limitation will be considered equivalent to a violation of a monthly average.

3.3.7 Additives

In the event that the permittee wishes to commence use of a water treatment additive, or increase the usage of the additives greater than indicated in the permit application, the permittee must get a written approval from the Department prior to initiating such changes. This written approval shall provide authority to utilize the additives at the specific rates until the permit can be either reissued or modified in accordance with s. 283.53, Stats. Restrictions on the use of the additives may be included in the authorization letter.

3.3.8 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, 2nd 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.

3.3.9 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 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.

3.3.10 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.

4 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

| Description | Date | Page |
|---|--|------|
| PFOS/PFOA Minimization Plan Determination of Need -Report on Effluent Discharge | December 31, 2024 | 8 |
| PFOS/PFOA Minimization Plan Determination of Need -Report on Effluent Discharge and Evaluation of Need | December 31, 2025 | 8 |
| Total Maximum Daily Load (TMDL) - Based Phosphorus Effluent Limitations -Annual Phosphorus Progress Report | December 31, 2024 | 8 |
| Total Maximum Daily Load (TMDL) - Based Phosphorus Effluent Limitations -Annual Phosphorus Progress Report #2 | December 31, 2025 | 8 |
| Total Maximum Daily Load (TMDL) - Based Phosphorus Effluent Limitations -Annual Phosphorus Progress Report #3 | December 31, 2026 | 9 |
| Total Maximum Daily Load (TMDL) - Based Phosphorus Effluent Limitations -Final Phosphorus Report | June 30, 2027 | 9 |
| Total Maximum Daily Load (TMDL) - Based Phosphorus Effluent Limitations -Achieve Compliance | December 31, 2027 | 9 |
| Wastewater Discharge Monitoring Report | no later than the date indicated on the form | 10 |

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 other submittals required by this permit shall be submitted to:
Southeast Region, 1027 W Saint Paul Ave, Milwaukee, WI 53233