



# WPDES PERMIT

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

**Wisconsin Department of Natural Resources**

is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from a facility  
located at  
N5871 STATE ROAD 22, WILD ROSE, WISCONSIN  
to

**The Pine River (Pine River Willow Creek Watershed, Wolf River Basin)**

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 \_\_\_\_\_  
Heidi Schmitt Marquez  
Wastewater Field Supervisor

\_\_\_\_\_  
Date Permit Signed/Issued

**PERMIT TERM: EFFECTIVE DATE - October 01, 2025**

**EXPIRATION DATE - September 30, 2030**

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# 1 Best Management Practices Requirements

## 1.1 Best Management Practices and Reporting

### 1.1.1 Definitions

As used in Section 1.1:

- Aquatic animal containment system means a culture or rearing unit such as a raceway, pond, tank, net, or other structure used to contain, hold, or produce aquatic animals. The containment systems include structures designed to hold sediment and other materials that are part of a wastewater treatment system.
- Chemical means any substance used to maintain or restore water quality for aquatic animal production
- Drug means any substance defined as a drug in section 201(g)(1) of the Federal Food, Drug, and Cosmetic Act 21 U.S.C. Section 321.
- Extralabel drug use means a drug approved under the Federal Food, Drug, and Cosmetic Act that is not used in accordance with the approved label directions.
- Investigational new animal drug (INAD) means a drug for which there is a valid exemption in effect under section 512(j) of the Federal Food, Drug, and Cosmetic Act 21 U.S.C. 360(b)(1).
- Pesticide means any substance defined as a “pesticide” in section 2(u) of the Federal Insecticide, Fungicide, and Rodenticide Act, 7. U.S.C. § 136(u).
- Therapeutant means any substance that is used to maintain or restore aquatic animal health or to affect the structure or any function of an aquatic animal.

### 1.1.2 Best Management Practices (BMP) Plan

A BMP Plan is a description of the standard operating procedures and actions required to control solids, store materials, maintain the aquatic animal containment structures, perform recordkeeping, train employees, closely monitor feeding, collect and dispose of waste, address the transport or harvest discharge of aquatic animals, and remove dead aquatic animals. The permittee shall:

- Develop and maintain a plan on site describing how the permittee will achieve the requirements of 1.1.2.1 through 1.1.2.6;
- The plan shall be submitted to the Department for approval; and
- The permittee shall supply annual reports documenting the implementation of BMPs and any additional BMPs that will be implemented in the following year. This report shall summarize the recordkeeping in Section 1.1.2.6 including an assessment of how the BMP Plan is limiting the discharge to the greatest extent practicable.

#### 1.1.2.1 Solids Control

The permittee shall:

- Employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth in order to minimize potential discharges of uneaten feed and waste products to waters of the State;
- In order to minimize the discharge of accumulated solids from settling ponds and basins and production systems, identify and implement procedures for routine cleaning of rearing units and off-line settling basins; and

- Identify procedures to minimize any discharge of accumulated solids during the inventorying, grading and harvesting aquatic animals in the production system; and
- Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the State, except in cases where the Department authorizes such discharge in order to benefit the aquatic environment.

#### **1.1.2.2 Solids Discharge Prohibitions**

- Discharging sludge, grit, and accumulated solid residues to surface waters is prohibited.
- Practices (e.g., the removal of dam boards in raceways or ponds) that allow accumulated solids to discharge to surface waters is prohibited.
- Discharging untreated cleaning wastewater to surface waters is prohibited.
- Sweeping, raking, or intentionally discharging accumulated solids from raceways or ponds to surface water is prohibited.

#### **1.1.2.3 Materials Storage**

The permittee shall:

- Ensure proper storage of drugs, pesticides, and feed in a manner designed to prevent spills that may result in the discharge of drugs, pesticides or feed to waters of the State; and
- Implement procedures for properly containing, cleaning, and disposing of any spilled material.

#### **1.1.2.4 Structural Maintenance**

The permittee shall:

- Inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage; and
- Conduct regular maintenance of the production system and the wastewater treatment system in order to ensure that they are properly functioning.

#### **1.1.2.5 Training**

The permittee shall:

- In order to ensure the proper clean-up and disposal of spilled material adequately train all relevant facility personnel in spill prevention and how to respond in the event of a spill; and
- Train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment.

#### **1.1.2.6 Recordkeeping**

The permittee shall:

- In order to calculate representative feed conversion ratios, maintain records for aquatic animal rearing units documenting the feed amounts and estimates of the numbers and weight of aquatic animals; and
- Keep records documenting the frequency of cleaning, inspections, maintenance and repairs.
- These records shall be maintained on site and available to the Department upon request.

### **1.1.3 Additional Reporting Requirements**

#### **1.1.3.1 Additives Reporting**

- For the purpose of Section 1.1.3, an additive is defined as any chemical, drug, pesticide or therapeutic, including medicated feed, that the permittee uses to maintain or restore water quality for aquatic animal production, to maintain or restore aquatic animal health, or to affect the structure or any function of an aquatic animal.
- In its application for permit reissuance, the permittee shall identify and provide usage rates for each additive that may be discharged to waters of the State.
- In the event that the permittee wishes to commence use of an additive that may be discharged to waters of the State, or increase the usage rate of an additive greater than that indicated in the permit application, the permittee must notify the Department prior to initiating such a change. The Department may modify the permit in accordance with s. 283.53, Stats, to impose restrictions on the use of the additive.

#### **1.1.3.2 INAD and Extra Label Drug Treatment**

The permittee shall notify the Department of the use (i.e. application) of any investigational new animal drug (INAD) or any extralabel drug use (i.e. application) where such a use may lead to a discharge of the drug to waters of the State. Reporting is not required for an INAD or extralabel drug that has been previously approved by FDA for a different species or disease, if the INAD or extralabel use is at or below the approved dosage and involved similar conditions of use.

(Note: Use of a drug to treat fish in a freshwater system that was previously approved for a different freshwater species would be considered a similar condition of use. In contrast, a drug that had been previously approved for a marine setting used in a freshwater application would not be considered a similar condition of use. A drug approved to treat terrestrial animals as an INAD, used to treat aquatic animals would not be considered a similar condition of use.)

- The permittee shall provide a written report to the Department of an INADs impending use (i.e., application) within 7 days of agreeing or signing up to participate in an INAD study. The written report must identify the INAD to be used, method of use, the dosage, and the disease or condition the INAD is intended to treat.
- For INADs and extralabel drug use (i.e. applications), the permittee shall provide an oral report to the Department as soon as possible, preferably in advance of use, but no later than 7 days after initiating use of that drug. The oral report must identify the drugs used, method of application, and the reason for using that drug.
- For INADs and extralabel drug use (i.e., applications), the permittee shall provide a written report to the permitting authority within 30 days after initiating use of that drug. The written report must identify the drug used and include: the reason for treatment, date(s) and time(s) of the additional (including duration), method of application, and the amount added. All INAD use shall also be included in the additive log identified in 4.1.3.1.

#### **1.1.3.3 Unanticipated Discharge Due to a Failure in or Damage to the Structure of an Aquatic Animal Containment System**

In accordance with the following procedures, the permittee shall notify the Department when there is a reportable failure in, or damage to, the structure of an aquatic animal containment system resulting in an unanticipated material discharge of pollutants to waters of the State.

- The permittee shall provide an oral report within 24 hours of discovery of any reportable failure or damage that results in a material discharge of pollutants, describing the cause of the failure or damage in the containment system and identifying materials that have been released to the environment as a result of this failure.
- The permittee shall provide a written report within 7 days of discovery of the failure or damage documenting the cause, the estimated time elapsed until the failure or damage was repaired, an estimate of the material released as a result of the failure or damage, and steps being taken to prevent a reoccurrence.

## 2 Surface Water Requirements

### 2.1 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, Waste Type/Sample Contents and Treatment Description (as applicable)
001	Effluent: Coldwater settling pond effluent sampled prior to discharge to the Pine River, located approximately 100 yards east of Highway 22.
018	Effluent: Coolwater facilities effluent to the Pine River, time proportional samples taken from a concrete vault prior to discharge to the Pine River.
019	Combined Total: Combined Total: Representative sample of the flow weighted combined sample from Outfalls 001 and 018. Calculation of TMDL mass limits and temperature shall be flow weighted calculations. Calculations shall be on the same day sampling occurs at Outfall 001 and 018.

### 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 - COLDWATER SETTLING PONDS

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	5/Week	Total Daily	
BOD <sub>5</sub> , Total		mg/L	Quarterly	Grab	
Suspended Solids, Total		mg/L	Monthly	Grab	
Suspended Solids, Total		lbs/day	Monthly	Calculated	
Suspended Solids, Total		lbs/month	Monthly	Calculated	Calculate the Total Monthly Discharge of TSS and report on the last day of the month on the DMR. See TMDL Calculations section.
pH Field	Daily Max	9.0 su	5/Week	Grab	
pH Field	Daily Min	6.0 su	5/Week	Grab	
Phosphorus, Total		mg/L	Monthly	Grab	Narrative Limits, see Total Phosphorus Section.
Phosphorus, Total		lbs/day	Monthly	Calculated	

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Phosphorus, Total		lbs/month	Monthly	Calculated	Calculate the Total Monthly Discharge of Phosphorus and report on the last day of the month on the DMR. See TMDL Calculations section.
Temperature		deg F	Daily	Continuous	
Chloride		mg/L	Quarterly	Grab	
Halogen, Total Residual as Cl <sub>2</sub>	Daily Max	34 µg/L	Quarterly	Grab	
Halogen, Total Residual as Cl <sub>2</sub>	Weekly Avg	9.0 µg/L	Quarterly	Grab	
Halogen, Total Residual as Cl <sub>2</sub>	Monthly Avg	9.0 µg/L	Quarterly	Grab	
Nitrogen, Ammonia (NH <sub>3</sub> -N) Total		mg/L	Quarterly	Grab	

#### 2.2.1.1 Monitoring of Flow-Through Systems

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

#### 2.2.1.2 Settling Pond Monitoring

Grab samples shall be taken for BOD<sub>5</sub>, Suspended Solids, and Ammonia Nitrogen during periods of discharge from the settling pond.

#### 2.2.1.3 Total Phosphorus

The plant shall be operated such that the amount of phosphorus being discharged on an annual basis does not increase over the permit term, and that the phosphorus reductions will occur over time through optimization.

#### 2.2.1.4 Upper Fox Wolf Total Maximum Daily Load (TMDL) Calculations

**Approved TMDL:** The Upper Fox Wolf River Basin TMDL Waste Load Allocation (WLA) for total phosphorus and total suspended solids was approved by the U.S. Environmental Protection Agency on February 27, 2020. TMDL total lbs/month effluent results shall be calculated at Outfalls 001 and 018 as follows:

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

Final TMDL-based effluent limits for total phosphorus and total suspended solids are applied to the combined loads from Outfalls 001 and 018 at Sample Point 019.

#### 2.2.1.5 Effluent Temperature Monitoring

For monitoring temperature continuously, collect measurements in accordance with s. NR 218.04(13), Wis. Adm. Code. This means that discrete measurements shall be recorded at intervals of not more than 15 minutes during the 24-hour period. In either case, report the maximum temperature measured during the day on the DMR.

#### 2.2.1.6 Halogen, Total Residual as Chlorine

Acceptable test methods for determining Halogens, Total Residual as Cl<sub>2</sub> are the same as those for measuring Chlorine, Total Residual. These methods are listed for Chlorine, Total Residual in chapter NR 219, Table B,

Wisconsin Administrative Code. The preferred test methods are the Spectrophotometric, DPD; the Electrode; and the Back Titration with amperometric endpoint.

### 2.2.1.7 Sample Frequencies for Halogen

Monitoring for total residual halogen is required only during months when chlorine-based additives are used upstream of Outfall 001 and are discharged either directly from the facilities or during the draining of the detention ponds. When monitoring for total residual halogen, the permittee shall make a reasonable effort to sample the discharge when the concentration of the additive is most likely to be the greatest during the month.

### 2.2.1.8 Additives

The permittee shall maintain a record of the dosage rate of all additives used on a daily basis. The permittee shall maintain a daily log of additive use (additive name, date of use, total amount used, and location of use) for all additives that may be discharged to the Pine River and shall submit a copy of the log for the entire year with the December monthly DMR form each year. The additives may be changed during the term of the permit following procedures in the 'Additives' subsection of the Standard Requirements.

### 2.2.1.9 Monitoring of Flow-Through Systems

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

### 2.2.1.10 Settling Pond Monitoring

Grab samples shall be taken for BOD<sub>5</sub>, Suspended Solids, and Ammonia Nitrogen during periods of discharge from the settling pond.

## 2.2.2 Sampling Point (Outfall) 018 - COOLWATER FACILITY

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		mg/L	Quarterly	24-Hr Comp	
Suspended Solids, Total		mg/L	Monthly	24-Hr Comp	
Suspended Solids, Total		lbs/day	Monthly	Calculated	
Suspended Solids, Total		lbs/month	Monthly	Calculated	Calculate the Total Monthly Discharge of TSS and report on the last day of the month on the DMR. See TMDL Calculations section.
pH Field	Daily Max	9.0 su	5/Week	Grab	
pH Field	Daily Min	6.0 su	5/Week	Grab	
Phosphorus, Total	Monthly Avg	1.0 mg/L	Monthly	24-Hr Comp	
Phosphorus, Total		lbs/day	Monthly	Calculated	
Phosphorus, Total		lbs/month	Monthly	Calculated	Calculate the Total Monthly Discharge of Phosphorus and report on the last day of the month on the DMR. See TMDL Calculations section.
Temperature		deg F	Daily	Continuous	

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Chloride		mg/L	Quarterly	24-Hr Comp	
Halogen, Total Residual as Cl <sub>2</sub>	Daily Max	34 µg/L	Monthly	24-Hr Comp	Monitoring required when chlorine-based additives are used. See Halogen section.
Halogen, Total Residual as Cl <sub>2</sub>	Weekly Avg	9.0 µg/L	Monthly	24-Hr Comp	Monitoring required when chlorine-based additives are used. See Halogen section.
Halogen, Total Residual as Cl <sub>2</sub>	Monthly Avg	9.0 µg/L	Monthly	24-Hr Comp	Monitoring required when chlorine-based additives are used. See Halogen section.
Nitrogen, Ammonia (NH <sub>3</sub> -N) Total		mg/L	Quarterly	24-Hr Comp	

### 2.2.2.1 Monitoring of Flow-Through Systems

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

### 2.2.2.2 Pond Drawdown

During pond drawdown for harvesting, a composite sample for BOD<sub>5</sub>, Suspended Solids, and Ammonia Nitrogen shall be taken throughout the drawdown period, with individual samples taken at least as often as every three hours. The permittee shall indicate the drawdown period on the discharge monitoring report. Sampling during other periods shall be grab type.

### 2.2.2.3 Upper Fox Wolf Total Maximum Daily Load (TMDL) Calculations

**Approved TMDL:** The Upper Fox Wolf River Basin TMDL Waste Load Allocation (WLA) for total phosphorus and total suspended solids was approved by the U.S. Environmental Protection Agency on February 27, 2020. TMDL total lbs/month effluent results shall be calculated at Outfalls 001 and 018 as follows:

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

Final TMDL-based effluent limits for total phosphorus and total suspended solids are applied to the combined loads from Outfalls 001 and 018 at Sample Point 019.

### 2.2.2.4 Effluent Temperature Monitoring

For manually measuring effluent temperature, grab samples should be collected at 6 evenly spaced intervals during the 24-hour period. Alternative sampling intervals may be approved if the permittee can show that the maximum effluent temperature is captured during the sampling interval.

### 2.2.2.5 Halogen, Total Residual as Chlorine

Acceptable test methods for determining Halogens, Total Residual as Cl<sub>2</sub> are the same as those for measuring Chlorine, Total Residual. These methods are listed for Chlorine, Total Residual in chapter NR 219, Table B, Wisconsin Administrative Code. The preferred test methods are the Spectrophotometric, DPD; the Electrode; and the Back Titration with amperometric endpoint.

### 2.2.2.6 Additives

The permittee shall maintain a daily log of additive use (additive name, date of use, total amount used, and location of use) for all additives that may be discharged to the Pine River and shall submit a copy of the log for the entire year

with the December monthly DMR form each year. The additives may be changed during the term of the permit following procedures in the 'Additives' subsection of the Standard Requirements.

### 2.2.3 Sampling Point (Outfall) 019 - COMBINED DISCHARGE

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Suspended Solids, Total	Daily Max	1,212 lbs/day	Monthly	Calculated	See "TMDL Combined Loads" permit section.
Suspended Solids, Total	Monthly Avg	741 lbs/day	Monthly	Calculated	See "TMDL Combined Loads" permit section.
Suspended Solids, Total		lbs/month	Monthly	Calculated	Calculate the Total Monthly Discharge of TSS and report on the last day of the month on the DMR. See "TMDL Combined Loads" permit section below.
Suspended Solids, Total		lbs/yr	Monthly	Calculated	Calculate the 12-month rolling sum of total monthly mass of TSS discharged and report on the last day of the month on the DMR. See "TMDL Combined Loads" permit section below.
Phosphorus, Total	Monthly Avg	4.8 lbs/day	Monthly	Calculated	Monitoring only upon permit effective date. Final TMDL-based mass limits go into effect per the phosphorus compliance schedule. See "TMDL Combined Loads" and Phosphorus TMDL permit sections.
Phosphorus, Total	6-Month Avg	1.6 lbs/day	Monthly	Calculated	Monitoring only upon permit effective date. Final TMDL-based mass limits go into effect per the phosphorus compliance schedule. See "TMDL Combined Loads" and Phosphorus TMDL permit sections.
Phosphorus, Total		lbs/month	Monthly	Calculated	Calculate the Total Monthly Discharge of Phosphorus and report on the last day of the month on the DMR. See "TMDL Combined Loads" permit section.

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Phosphorus, Total		lbs/yr	Monthly	Calculated	Calculate the 12-month rolling sum of total monthly mass of Phosphorus discharged and report on the last day of the month on the DMR. See "TMDL Combined Loads" permit section.
Temperature	Daily Max	75 deg F	3/Week	Calculated	Effective July and August. See "Effluent Temperature Compliance" permit section for calculation.
Temperature	Weekly Avg	54 deg F	3/Week	Calculated	Effective October. See "Effluent Temperature Compliance" permit section for calculation.
Arsenic, Total Recoverable		µg/L	Once	24-Hr Comp	
Acute WET		TU <sub>a</sub>	See Listed Qtr(s)	24-Hr Comp	See the Whole Effluent Toxicity (WET) Testing Section.
Chronic WET	Monthly Avg	1.2 TUC	See Listed Qtr(s)	24-Hr Comp	2x/year in rotating quarters. See the Whole Effluent Toxicity (WET) Testing Section.

### 2.2.3.1 Monitoring of Flow-Through Systems

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

### 2.2.3.2 Pond Drawdown

During pond drawdown for harvesting, a composite sample for BOD<sub>5</sub>, Suspended Solids, and Ammonia Nitrogen shall be taken throughout the drawdown period, with individual samples taken at least as often as every three hours. The permittee shall indicate the drawdown period on the discharge monitoring report. Sampling during other periods shall be grab type.

### 2.2.3.3 Settling Pond Monitoring

Grab samples shall be taken for BOD<sub>5</sub>, Suspended Solids, and Ammonia Nitrogen during periods of discharge from the settling pond.

### 2.2.3.4 TMDL Combined Loads

TMDL total effluent results shall be calculated as follows:

**Total Daily Discharge (lbs/day):** = the sum of daily (lbs/day) loads calculated at Outfalls 001 and 018.

**Total Monthly Discharge (lbs/month):** = the sum of monthly (lbs/month) loads calculated at Outfalls 001 and 018.

**12-Month Rolling Sum of Total Monthly Discharge (lbs/yr):** = the sum of the most recent 12 consecutive months of Total Monthly Discharges reported at sample point 019.

### 2.2.3.5 TMDL Limitations for Total Phosphorus

The approved TMDL phosphorus WLA for this permittee is 446 lbs/yr, which results in calculated phosphorus mass limits of 4.8 lbs/day monthly average and 1.6 lbs/day six-month average. The 6-month average limit is expressed as a seasonal average with averaging periods occurring from 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. The 12-month rolling sum of total monthly phosphorus (lbs/yr) shall be reported at sample point 019 each month for direct comparison to the facility's WLA.

The approved TMDL phosphorus WLA for this permittee is 446 lbs/yr and results in calculated phosphorus mass limits of 4.8 lbs/day monthly average and 1.6 lbs/day six-month average which go into effect pursuant to the Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus Compliance Schedule. The 6-month average limit is expressed as a seasonal average with averaging periods occurring from 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. The 12-month rolling sum of total monthly phosphorus (lbs/yr) shall be reported each month for direct comparison to the facility's WLA.

Prior to the limit going into effect, the plant shall be operated such that the amount of phosphorus being discharged on an annual basis does not increase over the permit term, and that the phosphorus reductions will occur over time through optimization. Sampling and reporting of phosphorus concentrations and masses discharged shall begin upon the permit effective date. Final TMDL-based effluent limits for total phosphorus are applied to the combined loads from Outfalls 001 and 018 at Sample Point 019.

### 2.2.3.6 TMDL Limitations for Total Suspended Solids

The approved TMDL TSS WLA for this permittee is 142,267 lbs/yr, and results in calculated TSS mass limits of 741 lbs/day monthly average and 1,212 lbs/day daily maximum. The 12-month rolling sum of total monthly TSS (lbs/yr) shall be reported at sample point 019 each month for direct comparison to the facility's WLA. Final TMDL-based effluent limits for total phosphorus are applied to the combined loads from Outfalls 001 and 018 at Sample Point 019.

### 2.2.3.7 Submittal of Permit Application for Next Reissuance and Adaptive Management or Pollutant Trading Plan or Variance Application

The permittee shall submit the permit application for the next reissuance at least 6 months prior to expiration of this permit. If the permittee intends to pursue adaptive management to achieve compliance with the phosphorus water quality based effluent limitation, the permittee shall submit with the application for the next reissuance: a completed Watershed Adaptive Management Request Form 3200-139, the completed Adaptive Management Plan and final plans for any system upgrades necessary to meet interim limits pursuant to s. NR 217.18, Wis. Adm. Code. If the permittee intends to pursue pollutant trading to achieve compliance, the permittee shall submit an application for water quality trading with the application for the next reissuance. If system upgrades will be used in combination with pollutant trading to achieve compliance with the final water quality-based limit, the reissued permit will specify a schedule for the necessary upgrades. If the permittee intends to seek a variance, the permittee shall submit an application for a variance with the application for the next reissuance.

### 2.2.3.8 Effluent Temperature Compliance

Compliance with the daily and weekly effluent temperature limits shall consider the cumulative discharge from the facility and be assessed at Outfall 019. Compliance with the daily maximum July and August temperature limit shall be calculated as follows:

$$T_{\text{daily}} = \frac{(T_{001} * Q_{001}) + (T_{018} * Q_{018})}{(Q_{001} + Q_{018})}$$

$Q_{001}$  and  $Q_{018}$  are the most recent flow values reported at outfalls 001 and 018, respectively.  $T_{001}$  and  $T_{018}$  are the most recent temperature values reported at outfalls 001 and 018, respectively. For compliance with the weekly average October limit, the weekly average of values derived from the above equation shall be reported.

### 2.2.3.9 Effluent Temperature Monitoring

The permittee shall measure influent temperature on the same day that effluent temperature is measured.

### 2.2.3.10 Arsenic, Total Recoverable

Arsenic should be sampled once during the permit term with an LOD lower than 3.89  $\mu\text{g/L}$  so that reasonable potential can be determined.

### 2.2.3.11 Whole Effluent Toxicity (WET) Testing

**Primary Control Water for Acute Tests:** Grab sample collected from the Pine River

**Primary Control Water for Chronic Tests:** Grab sample collected from the Pine River

**Instream Waste Concentration (IWC):** 81%

**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.
- **Chronic:** 100, 75, 50, 25, 12.5% and any additional selected by the permittee.

#### WET Testing Frequency:

**Acute** tests are required during the following quarters:

- **Acute:** July – September 2026; April – June 2028; January – March 2029

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 January – March 2029.

**Chronic** tests are required during the following quarters:

- **Chronic:** April – June 2026; October – December 2026; January – March 2027; July – September 2027; April – June 2028; October – December 2028; January – March 2029; July – September 2029; January – March 2030; April – June 2030

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 tests would be required in January – March 2029; 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, 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 (fathead minnow (*Pimephales promelas*) and waterflea (*Ceriodaphnia dubia*)). 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 1.2 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).

## 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 Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
026	Sludge from the coldwater facility sludge storage tank shall be sampled prior to land application.
027	Sludge from the coolwater facility sludge storage tank (Sludge Storage #2) shall be sampled prior to land application.

### 3.2 Monitoring Requirements and Limitations

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

#### 3.2.1 Sampling Point (Outfall) 026 - COLDWATER CLARIFIER SLUDGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Quarterly	Grab	
Nitrogen, Total Kjeldahl		Percent	Quarterly	Grab	
Chloride		Percent	Quarterly	Grab	
pH Field		su	Quarterly	Grab	
Nitrogen, Ammonia (NH <sub>3</sub> -N) Total		Percent	Quarterly	Grab	
Phosphorus, Total		Percent	Quarterly	Grab	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Grab	
Potassium, Total Recoverable		Percent	Quarterly	Grab	
PFOA + PFOS		µg/kg	Annual	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.

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

<b>Daily Log – Monitoring Requirements and Limitations</b>				
All discharge and monitoring activity shall be documented on log sheets. Originals of the log sheets shall be kept by the permittee as described under “Records Retention” in the Standard Requirements section, and if requested, made available to the Department.				
<b>Parameters</b>	<b>Limit</b>	<b>Units</b>	<b>Sample Frequency</b>	<b>Sample Type</b>
DNR Site Number(s)	-	Number	Daily	Log
Acres Applied	-	Acres	Daily	Log
Application Rate	-	Tons/Acre/Day	Daily	Calculated

<b>Annual Report – Summary of Monitoring Requirements and Limitations</b>				
The Annual Report is due by January 31 <sup>st</sup> of each year for the previous calendar year. See the ‘Annual Land Application Report’ subsection in Standard Requirements.				
<b>Parameters</b>	<b>Limit</b>	<b>Units</b>	<b>Reporting Frequency</b>	<b>Sample Type</b>
DNR Site Number(s)	-	Number	-	-
Acres Land Applied	-	Acres	Annual	-
Total Amount Per Site	-	Tons	Annual	Total Annual
Total Kjeldahl Nitrogen per Site	165, or alternate approved in writing	Pounds/Acre/Year	Annual	Calculated
Total Chloride per Site	340	Pounds/Acre per 2 Years	Annual	Calculated

### 3.2.1.1 Annual Site Nitrogen Loading

For details on nitrogen loading requirements, including approval of an alternate nitrogen pounds/acre/year site loading, see the “Nitrogen Requirements for Liquid Wastes, By-Product Solids and Sludges” paragraph in the Standard Requirements section of this permit.

### 3.2.1.2 Biennial Site Chloride Loading

For details on chloride requirements see the “Chloride Requirements for Liquid Wastes and By-Product Solids” paragraph in the Standard Requirements section of this permit.

### 3.2.1.3 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).

<b>PERFLUOROALKYLCARBOXILIC Acids (PFCAs)</b>	
PFBA	Perfluorobutanoic acid
PFPeA	Perfluoropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluoroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTTrDA	Perfluorotridecanoic acid
PFTeDA	Perfluorotetradecanoic acid
<b>PERFLUOROALKYLSULFONIC Acids (PFSA)</b>	
PFBS	Perfluorobutane sulfonic acid
PFPeS	Perfluoropentane 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
<b>TELOMER SULFONIC Acids</b>	
4:2FTSA	1H,1H,2H,2H-Perfluorohexane sulfonic acid
6:2FTSA	1H,1H,2H,2H-Perfluorooctane sulfonic acid
8:2FTSA	1H,1H,2H,2H-Perfluorodecane sulfonic acid
<b>PERFLUOROOCTANCESULFONAMIDES (FOSAs)</b>	
PFOSA	Perfluorooctane sulfonamide
NMeFOSA	N-Methyl perfluorooctane sulfonamide
NEtFOSA	N-Ethyl perfluorooctane sulfonamide
<b>PERFLUOROOCTANCESULFONAMIDOACETIC Acids</b>	
NMeFOSAA	N-Methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-Ethyl perfluorooctane sulfonamidoacetic acid
<b>NATIVE PERFLUOROOCTANCESULFONAMIDOETHANOLS (FOSEs)</b>	

NMeFOSE	N-Methyl perfluorooctane sulfonamideoethanol
NEtFOSE	N-Ethyl perfluorooctane sulfonamideoethanol
<b>PERFLUOROALKYLETHERCARBOXYLIC Acids (PFECAs)</b>	
HFPO-DA	Hexafluoropropylene oxide dimer acid
ADONA	4,8-dioxa-3 <i>H</i> -perfluorononanoic acid
PFMPA	Perfluoro-3-methoxypropanoic acid
PFMBA	Perfluoro-4-methoxybutanoic acid
NFDHA	Nonafluoro-3,6-dioxaheptanoic acid
<b>CHLORO-PERFLUOROALKYLSULFONATE</b>	
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid
11Cl-PF3OUdS	11-chloroelcosafluoro-3-oxaundecane-1-sulfonic acid
PFEESA	Perfluoro(2-ethoxyethane)sulfonic acid
<b>TELOMER SULFONIC Acids</b>	
3:3FTCA	3-Perfluoropropyl propanoic acid
5:3FTCA	2 <i>H</i> ,2 <i>H</i> ,3 <i>H</i> ,3 <i>H</i> -Perfluorooctanoic acid
7:3FTCA	3-Perfluoroheptyl propanoic 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.

### 3.2.1.4 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. 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.

### 3.2.1.5 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) 027 - COOLWATER CLARIFIER SLUDGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Quarterly	Grab	
Nitrogen, Total Kjeldahl		Percent	Quarterly	Grab	
Chloride		Percent	Quarterly	Grab	
pH Field		su	Quarterly	Grab	
Nitrogen, Ammonia (NH <sub>3</sub> -N) Total		Percent	Quarterly	Grab	
Phosphorus, Total		Percent	Quarterly	Grab	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Grab	
Potassium, Total Recoverable		Percent	Quarterly	Grab	
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.

Daily Log – Monitoring Requirements and Limitations				
All discharge and monitoring activity shall be documented on log sheets. Originals of the log sheets shall be kept by the permittee as described under “Records Retention” in the Standard Requirements section, and if requested, made available to the Department.				
Parameters	Limit	Units	Sample Frequency	Sample Type
DNR Site Number(s)	-	Number	Daily	Log
Acres Applied	-	Acres	Daily	Log
Application Rate	-	Tons/Acre/Day	Daily	Calculated

<b>Annual Report – Summary of Monitoring Requirements and Limitations</b> The Annual Report is due by January 31 <sup>st</sup> of each year for the previous calendar year. See the ‘Annual Land Application Report’ subsection in Standard Requirements.				
Parameters	Limit	Units	Reporting Frequency	Sample Type
DNR Site Number(s)	-	Number	-	-
Acres Land Applied	-	Acres	Annual	-
Total Amount Per Site	-	Tons	Annual	Total Annual
Total Kjeldahl Nitrogen per Site	165, or alternate approved in writing	Pounds/Acre/Year	Annual	Calculated
Total Chloride per Site	340	Pounds/Acre per 2 Years	Annual	Calculated

### 3.2.2.1 Annual Site Nitrogen Loading

For details on nitrogen loading requirements, including approval of an alternate nitrogen pounds/acre/year site loading, see the “Nitrogen Requirements for Liquid Wastes, By-Product Solids and Sludges” paragraph in the Standard Requirements section of this permit.

### 3.2.2.2 Biennial Site Chloride Loading

For details on chloride requirements see the “Chloride Requirements for Liquid Wastes and By-Product Solids” paragraph in the Standard Requirements section of this permit.

### 3.2.2.3 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
PFTTrDA	Perfluorotridecanoic acid
PFTeDA	Perfluorotetradecanoic acid
PERFLUOROALKYLSULFONIC Acids (PFSAs)	
PFBS	Perfluorobutane sulfonic acid

PFPeS	Perfluoropentane 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
<b>TELOMER SULFONIC Acids</b>	
4:2FTSA	<i>1H,1H,2H,2H</i> -Perfluorohexane sulfonic acid
6:2FTSA	<i>1H,1H,2H,2H</i> -Perfluorooctane sulfonic acid
8:2FTSA	<i>1H,1H,2H,2H</i> -Perfluorodecane sulfonic acid
<b>PERFLUOROOCTANCESULFONAMIDES (FOSAs)</b>	
PFOSA	Perfluorooctane sulfonamide
NMeFOSA	N-Methyl perfluorooctane sulfonamide
NEtFOSA	N-Ethyl perfluorooctane sulfonamide
<b>PERFLUOROOCTANCESULFONAMIDOACETIC Acids</b>	
NMeFOSAA	N-Methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-Ethyl perfluorooctane sulfonamidoacetic acid
<b>NATIVE PERFLUOROOCTANCESULFONAMIDOETHANOLS (FOSEs)</b>	
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol
<b>PERFLUOROALKYLETHERCARBOXYLIC Acids (PFECAs)</b>	
HFPO-DA	Hexafluoropropylene oxide dimer acid
ADONA	4,8-dioxo-3H-perfluorononanoic acid
PFMPA	Perfluoro-3-methoxypropanoic acid
PFMBA	Perfluoro-4-methoxybutanoic acid
NFDHA	Nonafluoro-3,6-dioxahexanoic acid
<b>CHLORO-PERFLUOROALKYLSULFONATE</b>	
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid
11Cl-PF3OUdS	11-chloroheptafluoro-3-oxaundecane-1-sulfonic acid
PFEESA	Perfluoro(2-ethoxyethane)sulfonic acid
<b>TELOMER SULFONIC Acids</b>	
3:3FTCA	3-Perfluoropropyl propanoic acid
5:3FTCA	<i>2H,2H,3H,3H</i> -Perfluorooctanoic acid
7:3FTCA	3-Perfluoroheptyl propanoic 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.

### 3.2.2.4 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. 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.

### **3.2.2.5 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 Land Application Management Plan

A management plan is required for the land application system.

Required Action	Due Date
<b>Land Application Management Plan:</b> Submit a management plan to optimize the land application system performance and demonstrate compliance with Wisconsin Administrative Code NR 214.	01/01/2026

### 4.2 Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus

The permittee shall comply with the WQBELs for Phosphorus as specified. No later than 14 days following each compliance date, the permittee shall notify the Department in writing of its compliance or noncompliance. If a submittal is required, a timely submittal fulfills the notification requirement.

Required Action	Due Date
<p><b>Operational Evaluation Report:</b> The permittee shall prepare and submit to the Department for approval an operational evaluation report. The report shall include an evaluation of collected effluent data, possible source reduction measures, operational improvements or other minor facility modifications that will optimize reductions in phosphorus discharges from the treatment plant during the period prior to complying with final phosphorus WQBELs and, where possible, enable compliance with final phosphorus WQBELs by September 30, 2028. The report shall provide a plan and schedule for implementation of the measures, improvements, and modifications as soon as possible, but not later than September 30, 2028 and state whether the measures, improvements, and modifications will enable compliance with final phosphorus WQBELs. Regardless of whether they are expected to result in compliance, the permittee shall implement the measures, improvements, and modifications in accordance with the plan and schedule specified in the operational evaluation report.</p> <p>If the operational evaluation report concludes that the facility can achieve final phosphorus WQBELs using the existing treatment system with only source reduction measures, operational improvements, and minor facility modifications, the permittee shall comply with the final phosphorus WQBEL by September 30, 2028 and is not required to comply with the milestones identified below for years 3 through 9 of this compliance schedule ('Preliminary Compliance Alternatives Plan', 'Final Compliance Alternatives Plan', 'Final Plans and Specifications', 'Treatment Plant Upgrade to Meet WQBELs', 'Complete Construction', 'Achieve Compliance').</p> <p><b>STUDY OF FEASIBLE ALTERNATIVES</b> - If the Operational Evaluation Report concludes that the permittee cannot achieve final phosphorus WQBELs with source reduction measures, operational improvements and other minor facility modifications, the permittee shall initiate a study of feasible alternatives for meeting final phosphorus WQBELs and comply with the remaining required actions of this schedule of compliance. If the Department disagrees with the conclusion of the report, and determines that the permittee can achieve final phosphorus WQBELs using the existing treatment system with only source reduction measures, operational improvements, and minor facility modifications, the Department may reopen and modify the permit to include an implementation schedule for achieving the final phosphorus WQBELs sooner than September 30, 2030.</p>	09/30/2026
<p><b>Compliance Alternatives, Source Reduction, Improvements and Modifications Status:</b> The permittee shall submit a 'Compliance Alternatives, Source Reduction, Operational Improvements and Minor Facility Modification' status report to the Department. The report shall provide an update on the permittee's: (1) progress implementing source reduction measures, operational improvements, and minor facility modifications to optimize reductions in phosphorus discharges and, to the extent</p>	09/30/2027

that such measures, improvements, and modifications will not enable compliance with the WQBELs, (2) status evaluating feasible alternatives for meeting phosphorus WQBELs.	
<p><b>Final Compliance Alternatives Plan:</b> The permittee shall submit a final compliance alternatives plan to the Department.</p> <p>If the plan concludes upgrading of the permittee's wastewater treatment is necessary to meet final phosphorus WQBELs, the submittal shall include a final engineering design report addressing the treatment plant upgrades, and a facility plan if required pursuant to ch. NR 110, Wis. Adm. Code.</p> <p>If the plan concludes Adaptive Management will be implemented, the submittal shall include a completed Watershed Adaptive Management Request Form 3200-139 and an engineering report addressing any treatment system upgrades necessary to meet interim limits pursuant to s. NR 217.18, Wis. Adm. Code.</p> <p>If the plan concludes water quality trading will be used, the submittal shall identify potential trading partners.</p> <p>Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	09/30/2028
<p><b>Final Plans and Specifications:</b> Unless the permit has been modified, revoked and reissued, or reissued to include Adaptive Management or Water Quality Trading measures or to include a revised schedule based on factors in s. NR 217.17, Wis. Adm. Code, the permittee shall submit final construction plans to the Department for approval pursuant to s. 281.41, Stats., specifying treatment plant upgrades that must be constructed to achieve compliance with final phosphorus WQBELs, and a schedule for completing construction of the upgrades by the complete construction date specified below. (Note: Permit modification, revocation and reissuance, and reissuance are subject to s. 283.53(2), Stats.)</p> <p>Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	03/31/2029
<p><b>Treatment Plant Upgrade to Meet WQBELs:</b> The permittee shall initiate construction of the upgrades. The permittee shall obtain approval of the final construction plans and schedule from the Department pursuant to s. 281.41, Stats. Upon approval of the final construction plans and schedule by the Department pursuant to s. 281.41, Stats., the permittee shall construct the treatment plant upgrades in accordance with the approved plans and specifications. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	09/30/2029
<p><b>Construction Upgrade Progress Report #1:</b> The permittee shall submit a progress report on construction upgrades. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	09/30/2030
<p><b>Construction Upgrade Progress Report #2:</b> The permittee shall submit a progress report on construction upgrades. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	09/30/2031
<p><b>Complete Construction:</b> The permittee shall complete construction of wastewater treatment system upgrades. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	08/30/2032
<p><b>Achieve Compliance:</b> The permittee shall achieve compliance with final phosphorus WQBELs. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	09/30/2032

## 5 Standard Requirements

**Chapter 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), Wis. Adm. Code.

### 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 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 completed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code. Groundwater sampling shall be performed in accordance with procedures contained in s. NR 140.16, Wis. Adm. Code, and the WDNR publications, Groundwater Sampling Desk Reference (PUBL-DG-037-96) and Groundwater Sampling Field Manual (PUBL-DG-038-96). The analytical methodologies used shall enable the laboratory to quantitate all substances for which monitoring is required at levels below the effluent limitation and/or groundwater standard. If the required level 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. 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 fees under ch. NR 101, Wis. Adm. Code, 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 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.

#### **5.1.6 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.

#### **5.1.7 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.

### **5.2 System Operating Requirements**

### 5.2.1 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.**

### 5.2.2 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 preventive 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.

### 5.2.3 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.

#### **5.2.4 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.

#### **5.2.5 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.

#### **5.2.6 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).

#### **5.2.7 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.

#### **5.2.8 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.

### 5.2.9 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.

## 5.3 Surface Water Requirements

### 5.3.1 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.

### 5.3.2 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, 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.

### 5.3.3 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.

#### **5.3.4 Visible Foam or Floating Solids**

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

#### **5.3.5 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.

#### **5.3.6 Chloride Notification**

The permittee shall notify the Department in writing of any proposed changes which may affect the characteristics of the wastewater, which results in an increase in the concentration of chloride, under the authority of sections 283.31(4)(b) and 283.59(1), Stats. This notification shall include a description of the proposed source of chlorides and the anticipated increase in concentration. Following receipt of the notification, the Department may propose a modification to the permit.

#### **5.3.7 Total Residual Chlorine Requirements**

When total residual chlorine (TRC) limit(s) or monitoring are included in a permit, the permittee shall comply with the following conditions:

- a) The permittee shall perform TRC monitoring required in this permit using an approved method from ch. NR 219, Wis. Adm. Code, which produces a detection limit that is less than or equal to the permitted limit or produces the lowest economically feasible detection limit if the approved methods cannot meet the permit limit. If the facility cannot achieve a detection limit less than or equal to the permit limit using the approved methods, contact the laboratory accreditation program for guidance.
- b) The permittee shall determine the limit of detection (LOD) as specified in s. NR 149.48 (2)(b), Wis. Adm. Code, or the permittee shall contact the laboratory accreditation program for information on how to determine a verified detection limit allowed just for TRC. If the verified detection limit is determined using the special procedure, then the LOD and limit of quantitation (LOQ) shall be set to be equal to the verified detection limit determined from this special procedure.
- c) The permittee shall determine compliance with the TRC limit(s) as follows:

1. If the facility determines a statistical LOD as specified in s. NR 149.48 (2)(b), Wis. Adm. Code, and the measured TRC levels are less than the LOD, the permittee shall report the results as less than the LOD (<LOD). For this situation the LOQ shall be established at 3.33 times the LOD or at the concentration of the lowest standard in the calibration curve. TRC levels that are < LOD are in compliance with the TRC limit.
2. If the facility determines the verified detection limit using the laboratory accreditation program special procedure, this verified detection limit shall be reported as the LOD and LOQ. If the measured TRC levels are less than the LOD, the permittee shall report the results as < LOD. TRC levels that are < LOD are in compliance with the TRC limit.
3. If the facility determines the statistical LOD as specified in s. NR 149.48 (2)(b), Wis. Adm. Code, and the measured TRC levels are greater than the statistical LOD but less than the LOQ, TRC levels are in compliance with the TRC limit - except when the measured levels are consistently reported between the LOD and LOQ. When the measured TRC levels are consistently reported between the LOD and LOQ, the facility shall take action to determine the reliability of detected results (such as resampling and/or re-calculating dosages) and shall adjust the chemical feed system if necessary to reduce the chances of detecting levels between the statistical LOD and LOQ.
4. If the facility determines the statistical LOQ as specified in s. NR 149.48 (2)(b), Wis. Adm. Code, or determines the verified detection limit using the laboratory accreditation program special procedure, TRC measured levels that are greater than the statistical LOQ and the TRC limit, are not in compliance with the TRC limit. The permittee shall report the level as a limit exceedance.
5. If the facility determines the statistical LOD as specified in s. NR 149.48 (2)(b), Wis. Adm. Code, and the measured level is < LOD, then a "0" (zero) value may be substituted for any test result less than the statistical LOD when calculating the average or mass discharge values. Calculated values shall then be compared directly to the average or mass limits to determine compliance.
6. If the facility determines the verified detection limit using the laboratory accreditation program special procedure and the measured level is < LOD (set equal to the verified detection limit), then a "0" (zero) value may be substituted for any test result less than the LOD when calculating the average or mass discharge values. Calculated values shall then be compared directly to the average or mass limits to determine compliance.

### 5.3.8 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.

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.

### 5.3.9 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.

### 5.3.10 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.

### 5.3.11 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.

## **5.4 Land Application Requirements**

### **5.4.1 General Sludge Management Information**

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

### **5.4.2 Land Application Characteristic Report**

The analytical results from testing of liquid wastes, by-product solids and sludges that are land applied shall be reported annually on the Characteristic Report Form 3400-49. The report form shall be submitted electronically no later than the date indicated on the form. 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 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.

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 sludge results shall be reported on a dry weight basis.

### **5.4.3 Annual Land Application Report**

The annual totals for the land application loadings of liquid wastes, by-product solids and sludges to field spreading sites shall be submitted electronically on the Annual Land Application Report Form 3400-55 by January 31, each year whether or not waste is land applied. 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 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.

### **5.4.4 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 waste is hauled to another facility, landfilled, incinerated, or stored in a manure pit. Following submittal of the electronic Report Form 3400-52, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive 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.

### **5.4.5 Land Application Site Approval**

The permittee is authorized to landspread permitted liquid wastes, by-product solids and sludges on sites approved in writing by the Department in accordance with ss. NR 214.17(2) and 214.18(2), Wis. Adm. Code. Any site use restrictions or granting of case-by-case exceptions shall be identified in the approval letter. If the permittee wishes to have approval for additional sites, application shall be made using Land Application Site Request Form 3400-053. Complete information shall be submitted about each site, including location maps and soil maps, any soil analyses results and other information showing that the site complies with all application requirements and permit conditions. Spreading on a site may commence upon receipt of Department approval. If an existing spreading site is found by the Department to be environmentally unacceptable, a written notice will be issued to withdraw approval of that site.

### **5.4.6 Operating Requirements/Management Plan**

All land application sites used for treatment of liquid wastes, by-product solids and sludges shall be operated in accordance with a Department approved management plan. The management plan shall be consistent with the requirements of this permit, ss. NR 214.17 (3) and (6), and NR 214.18 (3) and (6), Wis. Adm. Code. If operational changes are needed, the land application management plan shall be amended by submitting a written request to the Department for approval. A land application management plan shall be submitted for approval at least 60 days prior to land application.

#### 5.4.7 Chloride Requirements for Liquid Wastes and By-Product Solids

The total pounds of chloride applied shall be limited to 340 pounds per acre per 2 year period. Calculate the chloride loading as follows:

$$\text{Wet Weight Solids: } \frac{\text{lbs of solids} \times \% \text{solids} \times \% \text{chloride}}{\text{acres land applied} \times 100 \times 100} = \text{lbs chloride/acre}$$

$$\text{Liquid: } \frac{\text{mg/L chloride} \times (\text{millions of gallons}) \times 8.34}{\text{acres land applied}} = \text{lbs chloride/acre}$$

#### 5.4.8 Nitrogen Requirements for Liquid Wastes and By-Product Solids and Sludges

NR 214.17(4) and NR 214.18(4) Wis. Adm. Code specify that the total pounds of nitrogen land applied per acre per year shall be limited to the nitrogen needs of the cover crop minus any other nitrogen added to the land application site, including fertilizer or manure. Nitrogen applied can be calculated on the basis of plant available nitrogen, as long as the release of nitrogen from the organic material is credited to future years. This permit requires that the Total Kjeldahl Nitrogen calendar year application amount shall not exceed 165 pounds per acre per year, except when alternate numerical nitrogen loading limits (consistent with the above sections of NR 214) are approved in writing via the Department's land application management plan approval. Calculate nitrogen loading as follows ("TKN" represents "Total Kjeldahl Nitrogen"):

$$\text{Wet Weight Solids and Sludges: } \frac{\text{lbs of solids} \times \% \text{solids} \times \% \text{TKN}}{\text{acres land applied} \times 100 \times 100} = \text{lbs TKN/acre}$$

$$\text{Liquid: } \frac{\text{mg/L TKN} \times (\text{millions of gallons}) \times 8.34}{\text{acres land applied}} = \text{lbs TKN/acre}$$

#### 5.4.9 Ponding

The volume of liquid wastes land applied shall be limited to prevent ponding, except for temporary conditions following rainfall events. If ponding occurs all land application shall cease immediately. The permittee shall land apply only the liquid wastes that are permitted.

#### 5.4.10 Runoff

The volume of liquid wastes land applied shall be limited to prevent runoff. If runoff occurs all land application shall cease immediately. The permittee shall land apply only the liquid wastes that are permitted.

#### 5.4.11 Soil Incorporation Requirements

- Liquid Sludge Requirements: The Department may require that liquid sludge be incorporated into the soil on specific land application sites when necessary to prevent surface runoff or objectionable odors. Requirements and procedures for incorporation of liquid sludge, when such incorporation may be necessary, shall be specified in the management plan or in specific site applications, subject to Department approval. The permittee shall comply with the requirements in the Department approved management plan, specific site-approval requirements and the terms and conditions of this permit.

- **Cake Sludge Requirements:** After land application, cake sludge shall be incorporated into the soil. The timing of such incorporation and other related requirements and procedures shall be specified in the management plan or in specific site applications, subject to Department approval. The permittee shall comply with the requirements in the Department approved management plan, specific site-approval requirements and the terms and conditions of this permit.
- **Liquid Wastewater Requirements:** The Department may require that liquid wastewater be incorporated or injected into the soil on specific land application sites when necessary to prevent surface runoff or objectionable odors. Requirements and procedures for injection or incorporation of liquid wastewater, when such injection or incorporation is necessary, shall be specified in the management plan or in specific site applications, subject to Department approval. The permittee shall comply with the requirements in the Department approved management plan, specific site-approval requirements and the terms and conditions of this permit.
- **By-Product Solids Requirements:** The Department may limit the volume of by-products solids that are landspread on a specific site when necessary to prevent surface runoff or leaching of contaminants to groundwater and objectionable odors. By-product solids shall, after application, be plowed, disced, or otherwise incorporated into the soil. Requirements and procedures for the incorporation of byproduct solids into the soil shall be specified in the management plan or in specific site applications, subject to Department approval. The permittee shall comply with the requirements in the Department approved management plan, specific site-approval requirements and the terms and conditions of this permit.

#### **5.4.12 Field Stockpiles**

The permittee is encouraged to landspread the by-product solids or sludges as they are transported to the fields; but if it becomes necessary to stockpile solids in the fields, the stockpiles shall be spread within 72 hours or as specified in the approved management plan.

#### **5.4.13 Additional Requirements from ch. NR 214, Wis. Adm. Code**

The requirements of s. NR 214.17 (4)(c) [pathogen prohibition for human consumption crop fields], (4)(d)1 [no adverse soil effects], (4)(d)10 [allowable whey spreading rates], and (4)(e)1-3 [by-product solids spreading within agricultural practices and not cause contamination] for landspreading of liquid wastes and by product solids and s. NR 214.18 (4)(b),(d)-(h) [application, nutrient, pH, metals, and PCB limitations] for sludge spreading systems are included by reference in this permit. The permittee shall comply with these requirements.

## 6 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
Land Application Management Plan -Land Application Management Plan	January 1, 2026	21
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Operational Evaluation Report	September 30, 2026	21
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Compliance Alternatives, Source Reduction, Improvements and Modifications Status	September 30, 2027	22
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Final Compliance Alternatives Plan	September 30, 2028	22
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Final Plans and Specifications	March 31, 2029	22
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Treatment Plant Upgrade to Meet WQBELs	September 30, 2029	22
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Construction Upgrade Progress Report #1	September 30, 2030	22
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Construction Upgrade Progress Report #2	September 30, 2031	22
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Complete Construction	August 30, 2032	22
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Achieve Compliance	September 30, 2032	22
General Sludge Management Form 3400-48	prior to any significant sludge management changes	31
Characteristic Report Form 3400-49	no later than the date indicated on the form	31
Land Application Report Form 3400-55	January 31, each year whether or not waste is land applied	31
Other Methods of Disposal or Distribution Report Form 3400-52	by January 31, each year whether or not waste is hauled to another facility, landfilled, incinerated, or stored in a manure pit	31
Wastewater Discharge Monitoring Report	no later than the date indicated on the form	23

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:

Northeast Region, 2984 Shawano Ave, Green Bay, WI 54313-6727