

WPDES PERMIT

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM

CITY OF WASHBURN

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

10th AVENUE WEST, WASHBURN, WISCONSIN

to

LAKE SUPERIOR WITHIN THE BAYFIELD PENINSULA SOUTHEAST WATERSHED (LAKE SUPERIOR DRAINAGE BASIN, BAYFIELD COUNTY)

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

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

| ecretary | | | |
|--------------------------------------|---|--|--|
| Michelle BalkLud Wastewater Field | • | | |
| | | | |

PERMIT TERM: EFFECTIVE DATE - October 01, 2025 EXPIRATION DATE - September 30, 2030

TABLE OF CONTENTS

| 1 INFLUENT REQUIREMENTS | 1 |
|---|---|
| 1.1 Sampling Point(s) 1.2 Monitoring Requirements 1.2.1 Sampling Point 701 - INFLUENT TO PLANT | 1 1 <i>1</i> |
| 2 SURFACE WATER REQUIREMENTS | 2 |
| 2.1 Sampling Point(s) 2.2 Monitoring Requirements and Effluent Limitations 2.2.1 Sampling Point (Outfall) 001 - EFFLUENT | 2 2 2 |
| 3 LAND APPLICATION REQUIREMENTS | 6 |
| 3.1 Sampling Point(s) 3.2 Monitoring Requirements and Limitations 3.2.1 Sampling Point (Outfall) 002 - REED BED CAKE; (Outfall) 003- LIQUID SLUDGE and (Outfall) 004 – AEI BASIN SOLIDS | 6 RATION 6 |
| 4 SCHEDULES | 16 |
| 4.1 Phosphorus 4.2 PFOS/PFOA Minimization Plan Determination of Need 4.3 Reed Bed Phragmites Survey 4.4 Reed Bed Sludge Management Plan (SMP) | 16 16 17 17 |
| 5 STANDARD REQUIREMENTS | 19 |
| 5.1 REPORTING AND MONITORING REQUIREMENTS 5.1.1 Monitoring Results 5.1.2 Sampling and Testing Procedures 5.1.3 Recording of Results 5.1.4 Reporting of Monitoring Results 5.1.5 Compliance Maintenance Annual Reports 5.1.6 Records Retention 5.1.7 Other Information 5.1.8 Reporting Requirements – Alterations or Additions 5.2 SYSTEM OPERATING REQUIREMENTS 5.2.1 Noncompliance Reporting 5.2.2 Flow Meters 5.2.3 Raw Grit and Screenings 5.2.4 Sludge Management 5.2.5 Prohibited Wastes 5.2.6 Bypass 5.2.7 Scheduled Bypass 5.2.8 Controlled Diversions 5.2.9 Proper Operation and Maintenance 5.2.10 Operator Certification 5.3 SEWAGE COLLECTION SYSTEMS 5.3.1 Sanitary Sewage Overflows and Sewage Treatment Facility Overflows 5.3.2 Capacity, Management, Operation and Maintenance (CMOM) Program 5.3.3 Sewer Cleaning Debris and Materials | 19 19 19 19 20 20 20 20 21 21 21 21 22 22 22 23 23 23 23 23 25 25 |
| 5.4 Surface Water Requirements 5.4.1 Permittee-Determined Limit of Quantitation Incorporated into this Permit 5.4.2 Appropriate Formulas for Effluent Calculations 5.4.3 Effluent Temperature Requirements 5.4.4 Visible Foam or Floating Solids 5.4.5 Surface Water Uses and Criteria | 25 26 26 26 26 26 |

WPDES Permit No. WI-0022675-11-0 CITY OF WASHBURN

| 5.4.6 Percent Removal | 27 |
|---|----|
| 5.4.7 E. coli | 27 |
| 5.4.8 Year-Round Disinfection (E. coli Only) | 27 |
| 5.4.9 Whole Effluent Toxicity (WET) Monitoring Requirements | 27 |
| 5.4.10 Whole Effluent Toxicity (WET) Identification and Reduction | 27 |
| 5.5 LAND APPLICATION REQUIREMENTS | 28 |
| 5.5.1 Sludge Management Program Standards And Requirements Based Upon Federally Promulgated Regulations | 28 |
| 5.5.2 General Sludge Management Information | 28 |
| 5.5.3 Sludge Samples | 28 |
| 5.5.4 Land Application Characteristic Report | 28 |
| 5.5.5 Calculation of Water Extractable Phosphorus | 29 |
| 5.5.6 Monitoring and Calculating PCB Concentrations in Sludge | 29 |
| 5.5.7 Annual Land Application Report | 29 |
| 5.5.8 Other Methods of Disposal or Distribution Report | 29 |
| 5.5.9 Approval to Land Apply | 29 |
| 5.5.10 Soil Analysis Requirements | 30 |
| 5.5.11 Land Application Site Evaluation | 30 |
| 5.5.12 Class B Sludge: Aerobic Digestion | 30 |
| 6 SUMMARY OF REPORTS DUE | 31 |

1 Influent Requirements

1.1 Sampling Point(s)

| | Sampling Point Designation | | | | |
|----------|--|--|--|--|--|
| Sampling | Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as | | | | |
| Point | applicable) | | | | |
| Number | | | | | |
| 701 | Representative influent samples shall be collected immediately after the fine screen in the pretreatment | | | | |
| | building. | | | | |

1.2 Monitoring Requirements

The permittee shall comply with the following monitoring requirements.

1.2.1 Sampling Point 701 - INFLUENT TO PLANT

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

2 Surface Water Requirements

2.1 Sampling Point(s)

| | Sampling Point Designation | | | | |
|-----------------------------|---|--|--|--|--|
| Sampling Point Number | Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable) | | | | |
| - 102 | | | | | |
| 001 | Representative samples shall be collected after the ultraviolet disinfection unit. | | | | |

2.2 Monitoring Requirements and Effluent Limitations

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

2.2.1 Sampling Point (Outfall) 001 - EFFLUENT

| Monitoring Requirements and Effluent Limitations | | | | | |
|--|--------------------------------|--------------------|----------------------|-------------------------|---|
| Parameter | Limit Type | Limit and Units | Sample Frequency | Sample Type | Notes |
| Flow Rate | | MGD | Daily | Total Daily | |
| BOD ₅ , Total | Monthly Avg | 30 mg/L | 3/Week | 24-Hr Flow Prop Comp | |
| BOD ₅ , Total | Weekly Avg | 45 mg/L | 3/Week | 24-Hr Flow Prop Comp | |
| Suspended Solids, Total | Monthly Avg | 30 mg/L | 3/Week | 24-Hr Flow Prop Comp | |
| Suspended Solids, Total | Weekly Avg | 45 mg/L | 3/Week | 24-Hr Flow Prop Comp | |
| pH Field | Daily Max | 9.0 su | 3/Week | Grab | |
| pH Field | Daily Min | 6.0 su | 3/Week | Grab | |
| Phosphorus, Total | Monthly Avg | 1.0 mg/L | Weekly | 24-Hr Flow Prop Comp | |
| E. coli | Geometric Mean - Monthly | 126 #/100 ml | Weekly | Grab | |
| E. coli | % Exceedance | 10 Percent | Monthly | Calculated | |
| Nitrogen, Ammonia (NH ₃ -N) Total | | mg/L | Monthly | 24-Hr Flow Prop Comp | Sampling is required during the 2028 calendar year. |
| Chloride | | mg/L | Monthly | 24-Hr Flow Prop Comp | Sampling is required during the 2028 calendar year. |
| Nitrogen, Total Kjeldahl | | mg/L | See Listed Qtr(s) | 24-Hr Flow Prop Comp | See the Nitrogen Series Monitoring permit section for testing schedule. |
| Nitrogen, Nitrite + Nitrate Total | | mg/L | See Listed Qtr(s) | 24-Hr Flow Prop Comp | See the Nitrogen Series Monitoring permit section for testing schedule. |

| | Monitoring Requirements and Effluent Limitations | | | | |
|-----------------|--|--------------------|----------------------|-------------------------|--|
| Parameter | Limit Type | Limit and Units | Sample Frequency | Sample Type | Notes |
| Nitrogen, Total | | mg/L | See Listed Qtr(s) | Calculated | Total Nitrogen = Total Nitrogen Kjeldahl (mg/L) + Nitrite + Nitrate Nitrogen (mg/L). See the Nitrogen Series Monitoring permit section for testing schedule. |
| PFOS | | ng/L | 1/2 Months | Grab | Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need permit schedule. |
| PFOA | | ng/L | 1/2 Months | Grab | Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need permit schedule. |
| Acute WET | | TUa | See Listed Qtr(s) | 24-Hr Flow Prop Comp | Two tests are required during the permit term. See the Whole Effluent Toxicity Testing permit section for the monitoring schedule. |
| Chronic WET | | TUc | See Listed Qtr(s) | 24-Hr Flow Prop Comp | Two tests are required during the permit term. See the Whole Effluent Toxicity Testing permit section for the monitoring schedule. |

2.2.1.1 Annual Average Design Flow

The annual average design flow of the permittee's wastewater treatment facility is 0.38 MGD.

2.2.1.2 Phosphorus Limitation(s)

See the Schedules section of this permit for more information on phosphorus planning.

Final Phosphorus Effluent Limitation: The final calculated effluent limit(s) for phosphorus is not known at this time. The final effluent limit will be determined when a Lake Superior nearshore or whole lake model is approved. This final effluent limitation may be finalized during this permit term, if so the permit may be modified or reissued.

Interim Phosphorus Limitation: The interim effluent limitation for phosphorus will be the Technology Based Limit (TBL) of 1 mg/L.

2.2.1.3 E. coli Percent Limit

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

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

2.2.1.4 Nitrogen Series Monitoring

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

- July September 2026
- October December 2027
- January March 2028
- April June 2029
- July September 2030

Nitrogen Series monitoring shall continue after the permit expiration date (until the permit is reissued) in accordance with the monitoring requirements specified in the last full calendar year of this permit. For example, the next test would be required in April – June 2031.

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

2.2.1.5 PFOS/PFOA Sampling and Reporting Requirements

For grab samples, as defined per s. NR 218.04(10), Wis. Adm. Code, a single sample at a location as defined by the sample point description shall be taken during the time of the day most representative to capture all potential discharges. If extra equipment besides the sample bottle is used to collect the sample, it is recommended that a one-time equipment blank is collected with the first sample. An equipment blank would be collected by passing laboratory-verified PFAS-free water over or through field sampling equipment before the collection of a grab sample to evaluate potential contamination from the equipment used during sample.

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

2.2.1.6 PFOS/PFOA Minimization Plan Determination of Need

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

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

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

may be modified in accordance with public notice procedures under ch. 283, Wis. Stats., and ch. NR 203, Wis. Adm. Code, to incorporate this change.

2.2.1.7 Whole Effluent Toxicity (WET) Testing

Primary Control Water for Acute Tests: a synthetic (standard) laboratory water may be used as the dilution water and primary control in acute WET tests, unless the use of different dilution water is approved by the Department prior to use

Primary Control Water for Chronic Tests: Lake Superior

Instream Waste Concentration (IWC): 9%

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, 30, 10, 3, 1% and any additional selected by the permittee.

WET Testing Frequency:

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

- April June 2029
- July September 2030

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

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

Determination of Positive Results: An acute toxicity test shall be considered positive if the Toxic Unit - Acute (TU_a) is greater than 1.0 for either species (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 11.1 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) | | | | |
| 002 | Representative samples of the sludge shall be collected from the reed beds at various logations and depths that are composted for analysis. | | | | |
| 003 | Representative liquid sludge samples shall be collected from the aerobic digestors prior to the reed beds. Sludge removal is only expected during periods of maintenance or emergency and is not anticipated this permit term. | | | | |
| 004 | Solids are pumped from aeration basin to filtering storage bags, where dewatering and composting takes place for no more than 2 years before being landfilled. Sludge handling and disposal during basin maintenance is performed in accordance with department approved SMP but is not anticipated this permit term. | | | | |

3.2 Monitoring Requirements and Limitations

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

3.2.1 Sampling Point (Outfall) 002 - REED BED CAKE; (Outfall) 003- LIQUID SLUDGE and (Outfall) 004 - AERATION BASIN SOLIDS

Sludge Management: The permittee shall contact the Department prior to recycling/disposing of any sludge. The permittee shall monitor for the following parameters during the second year of the permit, (2027). Analysis shall be submitted by **January 31, 2028**.

| Monitoring Requirements and Limitations | | | | | |
|---|--------------|--------------------|---------------------|----------------|-------|
| Parameter | Limit Type | Limit and Units | Sample Frequency | Sample Type | Notes |
| Solids, Total | | Percent | Once | Composite | |
| Arsenic Dry Wt | Ceiling | 75 mg/kg | Once | Composite | |
| Arsenic Dry Wt | High Quality | 41 mg/kg | Once | Composite | |
| Cadmium Dry Wt | Ceiling | 85 mg/kg | Once | Composite | |
| Cadmium Dry Wt | High Quality | 39 mg/kg | Once | Composite | |
| Copper Dry Wt | Ceiling | 4,300 mg/kg | Once | Composite | |
| Copper Dry Wt | High Quality | 1,500 mg/kg | Once | Composite | |
| Lead Dry Wt | Ceiling | 840 mg/kg | Once | Composite | |
| Lead Dry Wt | High Quality | 300 mg/kg | Once | Composite | |

| Monitoring Requirements and Limitations | | | | | | |
|---|--------------|--------------------|---------------------|----------------|--|--|
| Parameter | Limit Type | Limit and Units | Sample Frequency | Sample Type | Notes | |
| Mercury Dry Wt | Ceiling | 57 mg/kg | Once | Composite | | |
| Mercury Dry Wt | High Quality | 17 mg/kg | Once | Composite | | |
| Molybdenum Dry Wt | Ceiling | 75 mg/kg | Once | Composite | | |
| Nickel Dry Wt | Ceiling | 420 mg/kg | Once | Composite | | |
| Nickel Dry Wt | High Quality | 420 mg/kg | Once | Composite | | |
| Selenium Dry Wt | Ceiling | 100 mg/kg | Once | Composite | | |
| Selenium Dry Wt | High Quality | 100 mg/kg | Once | Composite | | |
| Zinc Dry Wt | Ceiling | 7,500 mg/kg | Once | Composite | | |
| Zinc Dry Wt | High Quality | 2,800 mg/kg | Once | Composite | | |
| Nitrogen, Total Kjeldahl | | Percent | Per Application | Composite | | |
| Nitrogen, Ammonia (NH ₃ -N) Total | | Percent | Per Application | Composite | | |
| Phosphorus, Total | | Percent | Per Application | Composite | | |
| Phosphorus, Water Extractable | | % of Tot P | Per Application | Composite | | |
| Potassium, Total Recoverable | | Percent | Per Application | Composite | | |
| PCB Total Dry Wt | Ceiling | 50 mg/kg | Once | Composite | See the Sludge Analysis for PCBs permit section. | |
| PCB Total Dry Wt | High Quality | 10 mg/kg | Once | Composite | See the Sludge Analysis for PCBs permit section. | |
| PFOA + PFOS | | μg/kg | Once | Calculated | Report the sum of PFOA and PFOS. See PFAS permit sections for more information. | |
| PFAS Dry Wt | , | • | Once | Grab | Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information. | |

| Other Sludge Requirements | | | | | |
|---|---|--|--|--|--|
| Sludge Requirements | Sample Frequency | | | | |
| List 3 Requirements – Pathogen Control: The requirements in List 3 (See below) shall be met prior to land application of sludge. | Required only when sludge is land applied | | | | |
| List 4 Requirements – Vector Attraction Reduction: The vector attraction reduction shall be satisfied prior to, or at the time of land application as specified in List 4 (see below). | Required only when sludge is land applied | | | | |

3.2.1.1 Requirements for Potential and/or Unscheduled Land Application of Sludge

Monitoring of **Outfall 002** for List 1 (see below), PCBs, and PFAS shall occur in the **2027** calendar year unless a sludge removal date has been established which would occur within the permit term, but in a different year. Monitoring for List 2 (see below) is highly recommended during the same sampling event to determine acreage needs for land application of sludge should it be necessary at a future date.

If a sludge removal date for Outfall 002 has been established other than in the 2027 calendar year, monitoring for Lists 1, 2, 3 & 4, PCBs and PFAS shall occur in the year of, but prior to, land application of the removed sludge. Monitoring must be done, and compliance assured, prior to land application, in addition to all other requirements specified herein and in ch. NR 204, Wis. Adm. Code. The permittee shall notify the Department prior to such land application. If sludge removal and land application are necessary after the monitoring for List 1, PCBs and PFAS in year two of the permit or monitoring of Outfall 003 has occurred, monitoring for Lists 2, 3 & 4 shall be done in the year of and prior to land application.

Monitoring of **Outfall 003** and **Outfall 004** is only required if sludge removal will occur. List 1, 3, and 4 and PCBs need only be analyzed on a single sludge type, at the specified frequency. If removal occurs before the monitoring for Outfall 002, monitoring for List 1, List 2, PCBs, and PFAS shall be done in the year of and prior to land application. If removal occurs after the monitoring for Outfall 002, monitoring for List 2 shall be done in the year of an prior to land application. Monitoring must be done, and compliance assured, prior to land application, in addition to all other requirements specified herein and in ch. NR 204, Wis. Adm. Code. The permittee shall notify the Department prior to such land application.

3.2.1.2 Changes in Feed Sludge Characteristics

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

3.2.1.3 Sludge Which Exceeds the High Quality Limit

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

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

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

3.2.1.4 Sludge Analysis for PCBs

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

3.2.1.5 Requirements for Reed Bed Systems

Prior to recycling and/or disposal of any sludge the permittee shall contact the department and perform all required monitoring for Outfall 002.

The permittee has elected to plant native *Phragmites australis americanus* replacing non-native *Phragmites australis australis* in the designed reed beds to facilitate sludge dewatering. In the optimal growing conditions of the beds, the seeds and rhizomes of the native variety may outperform other localized vegetation when allowed to disseminate outside of the wastewater treatment facility especially on disturbed or exposed soils.

The reed bed systems shall be operated and maintained to function properly and to reduce the potential of dissemination of Phragmites outside of the system.

<u>Recordkeeping</u> - The permittee shall record events as required below. Additional information such as observation details, how logs are completed, and results maintained shall be included into the sludge management plan.

- A daily log of the sludge volume applied to each cell of the reed bed shall be maintained and available for department inspection.
- All sludge removal activities shall be logged. The sludge removal log shall include removal and disposal dates, times, locations, equipment used to remove, transport, and dispose of the sludge, daily volume disposed, description of each day's activities, decontamination procedures implemented daily, transportation routes, and any modification from the sludge management plan.
- Record keeping shall include dates of surveys, the location of any areas of *Phragmites australis australis* and *Phragmites australis americanus* found outside the reed bed cells and procedures used for reducing any Phragmites infestation including any follow up actions taken.
- All daily activities used for reed harvesting and disposal.
- Log all deviations from the sludge management plan and a log of communication with department compliance engineers relating to the reed beds.

<u>Reed Harvesting</u> - Near sensitive areas such as wetlands and surface waters there is an increased opportunity for unintentional spreading of *Phragmites australis americanus* via seed dispersal. Because of the potential risks the department suggests the following measures:

- As practical, the seed heads on each reed within the reed bed beds should be cut prior to the seeds developing
 on the head. Cutting should be completed as often as needed during the growing season to reduce the
 flowering bodies from forming seeds. The clipped reed flower heads should be dropped into the bed and
 allowed to decay. Equipment used to harvest heads should be cleaned, any debris removed disposed into the
 bed. Additional equipment inspections should be made.
- Burning any standing Phragmite reeds in place has risks of spreading seeds long distances via rapid upward flow of air that can cause a fire to burn hotter and faster in a process called the "chimney effect". If burning is utilized BMPs must be implemented, and caution must be exercised to protect the liner, piping, and other infrastructure.

WPDES Permit No. WI-0022675-11-0 CITY OF WASHBURN

- Leaving the reeds stand within beds (without cutting) is allowed. However, this practice may be discouraged by the treatment system designer to allow for additional reed growth in subsequent years.
- Other methods may be investigated and implemented with department approval. Discuss proposals for alternative methods with your department compliance engineer. All proposals shall include safeguards to eliminate potential uncontrolled releases of plant material from the reed beds.

<u>Biosolids Removal</u> - Prior to sludge removal from the reed bed system, the permittee shall notify the department compliance engineer. A written sludge management plan (SMP) shall be submitted to and approved by the department prior to any sludge removal. The SMP shall detail removal procedures, transportation, disposal, and equipment decontamination procedures.

- Landfilling of the sludge is recommended to minimize impacts from seeds and rhizomes within the sludge. Transportation should be by enclosed or covered vehicle to prevent potential dissemination of seeds.
- If land application is utilized when sludge is removed, all sludge removed from the reed beds shall be processed to remove viable roots and/or rhizomes to prevent propagation of Phragmites. The viable roots and/or rhizomes removed from the sludge shall be disposed of at a sanitary landfill.
- Other disposal options may be investigated and implemented with department approval. Discuss proposals for alternative disposal methods with your department compliance engineer.

<u>Survey</u> - The permittee shall conduct surveys during the first and third years of the permit term. If new areas of *Phragmites australis australis australis australis australis australis americanus* are identified, annual surveys of the area are required after eradication of the new areas. After three years of no new areas identified, the schedule may revert to twice during the permit term.

Surveys shall be conducted at a time of the year when Phragmites species are biologically active and when the different Phragmites varieties are discernable from each other. The survey reports shall include:

- The name and qualifications of the person(s) completing the inspection.
- The date of the survey.
- Maps and descriptions of the area(s) inspected, land uses(s), dominant plant community and geo-spatial
 locations of existing native and non-native Phragmites stands as well as any areas of potential concern or
 newly discovered non-native Phragmites growth.
- Follow-up inspection of any infestations discovered in previous surveys.
- Follow-up inspection of any locations in the survey area where eradication efforts were conducted by the permittee in past years.
- Photographic documentation of the survey area(s) is also recommended.
- The survey area should be as large as practicable and include any area potentially susceptible to *Phragmites australis australis* and *Phragmites australis americanus* growth. On a map identify wetland and shoreland areas monitored within a baseline perimeter of 1-mile radius around the wastewater treatment facility and any current or former land application sites. As needed, include the locations of additional survey areas. The survey area should be expanded by an additional 1-mile radius from any *Phragmites australis australis* and 500 feet from *Phragmites australis americanus* areas discovered outside of facility boundaries, up to an outside radius of 6 miles from the wastewater treatment plant site. The survey should also identify and include any areas where past eradication efforts occurred.
- Survey results shall be submitted to your local department compliance engineer by October 31st or within 60 days of survey completion, whichever is shorter.

• Additionally, to determine success of control and reduce growth from established seed banks, after the discontinuation of reed bed use, searches will be conducted annually for 3 years following eradication of the last infestation. Surveys will be limited to a 5,000-foot radius.

Reporting New Phragmites Growth - Any Phragmites australis australis or Phragmites australis americanus plants identified during the surveys will require verbal notification to the department wastewater compliance engineer within 24 hours. Written notification (including maps of locations) must be sent to the wastewater compliance engineer within 72 hours of identification. The department will work with the facility staff and other local agencies on any needed eradication plan(s).

List 1

3.2.1.6 Lists 1, 2, 3, and 4

Molybdenum, mg/kg (dry weight)

| TOTAL SOLIDS AND METALS |
|--|
| See the Monitoring Requirements and Limitations table above for monitoring frequency and limitations for the |
| List 1 parameters |
| Solids, Total (percent) |
| Arsenic, mg/kg (dry weight) |
| Cadmium, mg/kg (dry weight) |
| Copper, mg/kg (dry weight) |
| Lead, mg/kg (dry weight) |
| Mercury, mg/kg (dry weight) |

Nickel, mg/kg (dry weight)
Selenium, mg/kg (dry weight)
Zinc, mg/kg (dry weight)

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

Potassium Total Recoverable (percent)

List 3 PATHOGEN CONTROL FOR CLASS B SLUDGE

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

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

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

List 4 VECTOR ATTRACTION REDUCTION

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

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

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

3.2.1.7 Daily Land Application Log

Daily Land Application Log

Discharge Monitoring Requirements and Limitations

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

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

^{*}gallons, cubic yards, dry US Tons or dry Metric Tons

3.2.1.8 Sludge Monitoring for PFAS

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

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

| PFOS | Perfluorooctane sulfonic acid | |
|--------------------------------|--|--|
| PFNS | Perfluorononane sulfonic acid | |
| PFDS | Perfluorodecane sulfonic acid | |
| PFDoS | Perfluorododecane sulfonic acid | |
| | TELOMER SULFONIC Acids | |
| 4:2FTSA | 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 | |
| PEI | RFLUOROOCTANCESULFONAMIDES (FOSAs) | |
| PFOSA | Perfluroroctane sulfonamide | |
| NMeFOSA | N-Methyl perfluoroocatane sulfonamide | |
| NEtFOSA | N-Ethyl perfluorooctane sulfonamide | |
| PERF | LUOROOCTANCESULFONAMIDOACETIC Acids | |
| NMeFOSAA | N-Methyl perfluoroocatane sulfonamidoacetic acid | |
| NEtFOSAA | N-Ethyl perfluorooctane sulfonamidoacetic acid | |
| NATIVE PER | FLUOROOCTANCESULFONAMIDOETHANOLS (FOSEs) | |
| NMeFOSE | N-Methyl perfluorooctane sulfonamideoethanol | |
| NEtFOSE | N-Ethyl perfluorooctane sulfonamidoethanol | |
| PERFLU | JOROALKYLETHERCARBOXYLIC Acids (PFECAs) | |
| 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-dioxaheptaoic acid | |
| CHLORO-PERFLUOROALKYLSULFONATE | | |
| 9C1-PF3ONS | 9-chloroehexadecafluoro-3-oxanone-1-sulfonic acid | |
| 11Cl-PF3OUdS | 11-chloroelcosafluoro-3-oxaundecane-1-sulfonic acid | |
| PFEESA | Perfluroro(2-ethoxyethane)sulfonic acid | |
| TELOMER SULFONIC Acids | | |
| | | |
| 3:3FTCA | 3-Perfluoropropyl propanoic acid | |
| 3:3FTCA 5:3FTCA 7:3FTCA | 3-Perfluoropropyl propanoic acid 2H,2H,3H,3H-Perfluorooctanoic acid 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.

3.2.1.9 Sampling and Reporting Sludge Samples for PFAS

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

Note: If additional equipment is used for collecting sludge samples (i.e., shovels, compositing buckets, bottles, etc.), then a one-time equipment blank is recommended to be collected with the first sample. An equipment blank sample is

collected by passing laboratory verified PFAS-free water over or through field sampling equipment before the collection of a representative sludge sample. The equipment blank result shall be reported on the annual Sludge Characteristics Form (3400-049) in the comment section when reporting PFAS concentrations in the sludge.

The permittee shall report each of the PFAS sludge monitoring results on the annual Sludge Characteristics and Monitoring Form (3400-049) as provided by the department. The permittee shall also report the summation of PFOS and PFOA on this same form. All results shall be reported in dry weight. The annual Sludge Characteristics and Monitoring Form (3400-049) are due January 31, of the year following the collection of the sludge samples.

The laboratory performing the analysis on any samples shall be certified for the applicable PFAS compounds in the solids matrix by the Wisconsin Laboratory Certification Program established under s. 299.11, Wis. Stats., and in accordance with s. NR 149.41, Wis. Adm. Code. The department may reject any sample results if results are produced by a laboratory that is not in compliance with certification requirements under ch. NR 149, Wis. Adm. Code.

3.2.1.10 PFAS Land Application Requirements

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

4 Schedules

4.1 Phosphorus

| Required Action | Due Date |
|---|-----------------|
| Progress Report: Submit an update on the progress of any phosphorus optimization, including any implementation schedules identified in the previous progress reports. | 09/30/2026 |
| Progress Report: Submit an update on the progress of any phosphorus optimization, including any implementation schedules identified in the previous progress reports. | 09/30/2027 |
| Progress Report: Submit an update on the progress of any phosphorus optimization, including any implementation schedules identified in the previous progress reports. | 09/30/2028 |
| Progress Report: Submit an update on the progress of any phosphorus optimization, including any implementation schedules identified in the previous progress reports. | 09/30/2029 |
| Updated Draft Report: Submit an update to the draft Comprehensive Facility Plan, include any new findings and conclusions from the progress reports. | 09/30/2030 |
| The updated draft plan shall be used to provide an outline of all the items necessary for completion of a Final Comprehensive Facility Plan. It shall address the identified technology-based level for phosphorus removal of the existing plant and potential use of Adaptive Management Plan options/alternatives, including Water Quality Trading for achieving compliance with a final WQBEL for phosphorus. It is recognized submittal of a final comprehensive facility plan will not be required until such time the WQBEL limit for phosphorus has been determined by the Department for subsequent permit re-issuance or modification. | |

4.2 PFOS/PFOA Minimization Plan Determination of Need

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

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

4.3 Reed Bed Phragmites Survey

Surveys of adjacent lands for phragmites is required during years one and three of the permit term. If new areas are identified annual surveys are required. After three years of no new areas, the schedule reverts to twice a permit term.

| Required Action | Due Date |
|---|-----------------|
| Phragmites Survey - Year 1: The permittee shall conduct a survey of adjacent lands for new Phragmites growth. The survey shall follow the conditions for contents and assessment area found in the "Requirements for Reed Bed Systems" section of the permit. | 10/31/2026 |
| Phragmites Survey - Year 2: The permittee shall submit a Phragmites Survey if new areas of Phragmites were found outside of the reed beds as part of the previous survey. | 10/31/2027 |
| Phragmites Survey - Year 3: The permittee shall conduct a survey of adjacent lands for new Phragmites growth. The survey shall follow the conditions for contents and assessment area found in the "Requirements for Reed Bed Systems" section of the permit. | 10/31/2028 |
| Phragmites Survey - Year 4: The permittee shall submit a Phragmites Survey if new areas of Phragmites were found outside of the reed beds as part of a previous survey. | 10/31/2029 |
| Phragmites Surveys After Permit Expiration: In the event that this permit is not reissued on time, the permittee shall continue to conduct surveys as necessary per permit requirements, submitting reports no later than October 31. | |

4.4 Reed Bed Sludge Management Plan (SMP)

| Required Action | Due Date |
|---|-----------------|
| Submit Sludge Management Plan: The permittee shall submit a revised sludge management plan | |
| for approval if removal of sludge will occur during this permit term. The plan shall demonstrate | |
| compliance with Ch. NR 204 Wis. Adm. Code and at minimum address: | |
| • Describe how and where is sludge is sampled providing details if samples are commingled or are | |
| discrete. Collect samples from each bed to better characterize potential issues with the sludge in | |
| each bed. | |
| • Provide information relating to sludge storage. State if beds will be taken offline to allow reed | |
| sludge to dry and condense. State if the beds will be reactivated. State if the sludge from | |
| individual cells will be commingled into other beds for drying purposes. | |
| • Describe how will the sludge be removed providing details on volume, characterization and how | |
| will the treatment plant continue to function during the drawdown; | |
| Describe how will the sludge be prepared to eliminate opportunities for uncontrolled | |

- dissemination of Phragmites outside of the facility prior to landfilling, land application and/or other approved disposal method. Examples include but are not limited to screening methods to remove rhizomes, and onsite storage including transferring sludge into other offline beds, temporary storage on lined areas at the facility (collecting any liquid) and potential composting protocols.
- Describe the type of transportation and spreading vehicles and loading and unloading practices.
 Include methods to protect the loss of sludge, seeds and rhizomes during transport. Also include information relating to washdown of vehicles leaving the site;
- Identify disposal locations. If the proposal is for applying the sludge to lands for beneficial use, then apply to the department by submitting completed land application site requests and show acreage approved subtracting areas with site limitations, demonstrate total acres needed and provide details associated with developing vegetative cover management practices. Nitrogen calculations should be included as well as potential pollutant (metals) loadings. If landfilling, provide approval from licensed landfill for acceptance at the landfill. Also communicate that the sludge may be susceptible for phragmite infestations if not handled properly by placing sludge into the cell of the landfill;
- Include Wetland Invasive BMPs
 (<u>https://dnr.wisconsin.gov/sites/default/files/topic/Invasives/bmp_WetlandInvasive.pdf</u>) into the SMP
- Specify record keeping procedures including site loading decontamination of vehicles, equipment, tools and other personal protective equipment;
- Address contingency plans for adverse weather and odor/nuisance abatement;
- Identify the preparations which will be implemented to stop the "chimney effect" during burning of reeds, protecting facility infrastructure and general burning practices such as obtaining a burning permit or public notification. The chimney effect is the rapid upward flow of air that can cause a fire to burn hotter and faster. Practices may include but are not limited to:
 - Reduce pile height: A smaller, flatter brush pile will minimize the chimney effect by reducing the vertical space for air to rise through.
 - O Distribute fuel evenly: Avoid stacking large branches in a single direction, instead, mix smaller twigs and branches throughout the pile to create a more even fuel distribution.
 - Use barriers within the pile: Place larger logs or rocks strategically within the pile to disrupt the airflow and prevent hot air from rising too quickly in one spot.
 - Consider moisture content: Slightly damp brush will burn slower and produce less intense heat, helping to control the chimney effect.
 - Burn in small batches: If you have a large amount of brush to burn, divide it into smaller piles and burn them one at a time to better manage the fire.
 - Weather: Brush piles should be burned when wind speeds are less than 15 mph and not gusty. Also, wind direction should be considered to keep embers and smoke from becoming a problem downwind. Burning brush piles when relative humidity remains greater than 40 percent can slow down the burning process.
- Include any other pertinent information such as other disposal options that may be used or specifications of any pretreatment processes.

5 Standard Requirements

Chapter NR 205, Wisconsin Administrative Code: The conditions in ss. NR 205.07(1) and NR 205.07(2), Wis. Adm. Code, are included by reference in this permit. The permittee shall comply with all of these requirements. Some of these requirements are outlined in the Standard Requirements section of this permit. Requirements not specifically outlined in the Standard Requirement section of this permit can be found in ss. NR 205.07(1) and NR 205.07(2), 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 municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

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

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

5.1.2 Sampling and Testing Procedures

Sampling and laboratory testing procedures shall be performed in accordance with Chapters NR 218 and NR 219, Wis. Adm. Code, and 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 BOD₅ and 2.5 mg/L Total Suspended Solids shall be considered to be limits of quantitation.
- For the purposes of reporting a calculated result, average or a mass discharge value, the permittee may substitute a "0" (zero) for any pollutant concentration that is less than the limit of detection. However, if the effluent limitation is less than the limit of detection, the department may substitute a value other than zero for results less than the limit of detection, after considering the number of monitoring results that are greater than the limit of detection and if warranted when applying appropriate statistical techniques.
- If no discharge occurs through an outfall, flow related parameters (e.g. flow rate, hydraulic application rate, volume, etc.) should be reported as "0" (zero) at the required sample frequency specified for the outfall. For example: if the sample frequency is daily, "0" would be reported for any day during the month that no discharge occurred.

5.1.5 Compliance Maintenance Annual Reports

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

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

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

5.1.6 Records Retention

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

5.1.7 Other Information

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

5.1.8 Reporting Requirements – Alterations or Additions

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

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

5.2 System Operating Requirements

5.2.1 Noncompliance Reporting

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

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

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

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

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

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

5.2.2 Flow Meters

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

5.2.3 Raw Grit and Screenings

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

5.2.4 Sludge Management

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

5.2.5 Prohibited Wastes

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

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

5.2.6 Bypass

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

- The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage:
- There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities or adequate back-up equipment, retention of untreated wastes, reduction of inflow and infiltration, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or 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.

5.2.7 Scheduled Bypass

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

determined there is significant public interest in the proposed action and may recommend mitigation measures to minimize the impact of such bypass.

5.2.8 Controlled Diversions

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

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

5.2.9 Proper Operation and Maintenance

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

5.2.10 Operator Certification

The wastewater treatment facility shall be under the direct supervision of a state certified operator. In accordance with s. NR 114.53, Wis. Adm. Code, every WPDES permitted treatment plant shall have a designated operator-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).

5.3 Sewage Collection Systems

5.3.1 Sanitary Sewage Overflows and Sewage Treatment Facility Overflows

5.3.1.1 Overflows Prohibited

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

• The sanitary sewer overflow or sewage treatment facility overflow was unavoidable to prevent loss of life, personal injury or severe property damage;

- There were no feasible alternatives to the sanitary sewer overflow or sewage treatment facility overflow such as the use of auxiliary treatment facilities or adequate back-up equipment, retention of untreated wastes, reduction of inflow and infiltration, or preventive maintenance activities;
- The sanitary sewer overflow or the sewage treatment facility overflow was caused by unusual or severe
 weather-related conditions such as large or successive precipitation events, snowmelt, saturated soil
 conditions, or severe weather occurring in the area served by the sewage collection system or sewage
 treatment facility; and
- The sanitary sewer overflow or the sewage treatment facility overflow was unintentional, temporary, and caused by an accident or other factors beyond the reasonable control of the permittee.

5.3.1.2 Permittee Response to Overflows

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

5.3.1.3 Permittee Reporting

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

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

unavoidable to prevent loss of life, personal injury, or severe property damage and whether there were feasible alternatives to the overflow.

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

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

5.3.1.4 Public Notification

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

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

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

5.3.3 Sewer Cleaning Debris and Materials

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

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

5.4 Surface Water Requirements

5.4.1 Permittee-Determined Limit of Quantitation Incorporated into this Permit

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

5.4.2 Appropriate Formulas for Effluent Calculations

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

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

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

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

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

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

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

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

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

5.4.3 Effluent Temperature Requirements

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

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

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

5.4.4 Visible Foam or Floating Solids

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

5.4.5 Surface Water Uses and Criteria

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

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

5.4.6 Percent Removal

During any 30 consecutive days, the average effluent concentrations of BOD₅ and of total suspended solids shall not exceed 15% of the average influent concentrations, respectively. This requirement does not apply to removal of total suspended solids if the permittee operates a lagoon system and has received a variance for suspended solids granted under NR 210.07(2), Wis. Adm. Code.

5.4.7 E. coli

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

5.4.8 Year-Round Disinfection (E. coli Only)

Disinfection shall be provided year-round. Monitoring requirements and the limitations for *E. coli* apply during the period in which disinfection is required. Whenever chlorine is used for disinfection or other effluent uses, the limitations and monitoring requirements for residual chlorine shall apply. A dechlorination process shall be in operation whenever chlorine is used for disinfection or other effluent uses.

5.4.9 Whole Effluent Toxicity (WET) Monitoring Requirements

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

5.4.10 Whole Effluent Toxicity (WET) Identification and Reduction

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

- A description of actions the permittee has taken or will take to remove toxicity and to prevent the recurrence of toxicity;
- A description of toxicity reduction evaluation (TRE) investigations that have been or will be done to identify potential sources of toxicity, including the following actions:

- a) Evaluate the performance of the treatment system to identify deficiencies contributing to effluent toxicity (e.g., operational problems, chemical additives, incomplete treatment)
- b) Identify the compound(s) causing toxicity. Conduct toxicity screening tests on the effluent at a minimum of once per month for six months to determine if toxicity recurs. Screening tests are WET tests using fewer effluent concentrations conducted on the most sensitive species. If any of the 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.

5.5 Land Application Requirements

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

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

5.5.2 General Sludge Management Information

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

5.5.3 Sludge Samples

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

5.5.4 Land Application Characteristic Report

Each report shall consist of a Characteristic Form 3400-49 and Lab Report. The Characteristic Report Form 3400-49 shall be submitted electronically by January 31 following each year whether or not samples are analyzed. In years in which monitoring does not occur, the report shall be completed by checking on the form that monitoring/land application did not occur.

Following submittal of the electronic Characteristic Report Form 3400-49, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report is true, accurate and complete. The Lab Report must be sent directly to the facility's DNR sludge representative or basin engineer unless approval for not submitting the lab reports has been given.

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

All results shall be reported on a dry weight basis.

5.5.5 Calculation of Water Extractable Phosphorus

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

Water Extractable Phosphorus (% of Total P) =

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

5.5.6 Monitoring and Calculating PCB Concentrations in Sludge

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

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

5.5.7 Annual Land Application Report

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

5.5.8 Other Methods of Disposal or Distribution Report

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

5.5.9 Approval to Land Apply

Bulk non-exceptional quality sludge as defined in s. NR 204.07(4), Wis. Adm. Code, may not be applied to land without a written approval letter or Form 3400-122 from the Department unless the Permittee has obtained permission

from the Department to self-approve sites in accordance with s. NR 204.06(6), Wis. Adm. Code. Analysis of sludge characteristics is required prior to land application. Application on frozen or snow-covered ground is restricted to the extent specified in s. NR 204.07(3)(1), Wis. Adm. Code.

5.5.10 Soil Analysis Requirements

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

5.5.11 Land Application Site Evaluation

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

5.5.12 Class B Sludge: Aerobic Digestion

Agitate the sludge with air or oxygen to maintain an aerobic condition for a mean cell residence time and temperature between 40 days at 20° C and 60 days at 15° C.

6 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

| Description | Date | Page |
|--|---|------|
| Phosphorus -Progress Report | September 30, 2026 | 15 |
| Phosphorus -Progress Report | September 30, 2027 | 15 |
| Phosphorus -Progress Report | September 30, 2028 | 15 |
| Phosphorus -Progress Report | September 30, 2029 | 15 |
| Phosphorus -Updated Draft Report | September 30, 2030 | 15 |
| PFOS/PFOA Minimization Plan Determination of Need -Report on Effluent Discharge | September 30, 2026 | 15 |
| PFOS/PFOA Minimization Plan Determination of Need -Report on Effluent Discharge and Evaluation of Need | September 30, 2027 | 15 |
| Reed Bed Phragmites Survey - Phragmites Survey - Year 1 | October 31, 2026 | 16 |
| Reed Bed Phragmites Survey - Phragmites Survey - Year 2 | October 31, 2027 | 16 |
| Reed Bed Phragmites Survey - Phragmites Survey - Year 3 | October 31, 2028 | 16 |
| Reed Bed Phragmites Survey - Phragmites Survey - Year 4 | October 31, 2029 | 16 |
| Reed Bed Phragmites Survey -Phragmites Surveys After Permit Expiration | See Permit | 16 |
| Reed Bed Sludge Management Plan (SMP) -Submit Sludge Management Plan | See Permit | 16 |
| Compliance Maintenance Annual Reports (CMAR) | by June 30, each year | 20 |
| General Sludge Management Form 3400-48 | prior to any significant sludge management changes | 28 |
| Characteristic Form 3400-49 and Lab Report | by January 31 following each year whether or not samples are analyzed | 28 |
| Land Application Report Form 3400-55 | by January 31, each year whether or not non-exceptional quality sludge is land applied | 29 |
| Other Methods of Disposal or Distribution Report Form 3400-52 | by January 31, each year whether or not sludge is hauled, landfilled, incinerated, or exceptional quality sludge is distributed or land applied | 29 |
| Wastewater Discharge Monitoring Report | no later than the date | 19 |

WPDES Permit No. WI-0022675-11-0 CITY OF WASHBURN

indicated on the form

Report forms shall be submitted electronically in accordance with the reporting requirements herein. Any facility plans or plans and specifications for municipal, industrial, industrial pretreatment and non industrial wastewater systems shall be submitted to the Bureau of Water Quality, P.O. Box 7921, Madison, WI 53707-7921. All other submittals required by this permit shall be submitted to:

Northern Region - Spooner, 810 W. Maple St, Spooner, WI 54801-1255