



## AGENDA COMMITTEE OF THE WHOLE

Tuesday, October 3, 2017

6:30 p.m.

Common Council Chambers, 224 East Jefferson Street

Mayor Jeannie Hefty  
Susan Kott, Alderman, 1st District  
Edward Johnson, Alderman, 1st District  
Bob Grandi, Alderman, 2nd District  
Ruth Dawidziak, Alderman, 2nd District  
Tom Vos, Alderman, 3rd District  
Jon Schultz, Council President, Alderman, 3rd District  
Thomas Preusker, Alderman, 4th District  
Todd Bauman, Alderman, 4th District

1. Call to Order - Roll Call
2. Citizen Comments
3. Approval of Minutes (*T. Preusker*)
  - A. Approval of the September 19, 2017 Committee of the Whole Minutes.
4. **DISCUSSION:**
  - A. Discussion regarding possible Assessor Services and future contract for the City of Burlington
5. **RESOLUTIONS:** There are none.
6. **ORDINANCES:** There are none.
7. **MOTIONS:**
  - A. **Motion 17-883** - Approval of a Stipulation Agreement and acceptance of the revised permit with the Wisconsin Department of Natural Resources.
8. **Adjourn** (*T. Bauman*)

*Note: If you are disabled and have accessibility needs or need information interpreted for you, please call the City Clerk's Office at 262-342-1161 at least 24 hours prior to the meeting.*



**COMMITTEE OF THE WHOLE**

**ITEM NUMBER 3A**

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**DATE:** October 3, 2017

**SUBJECT:** Committee of the Whole Minutes for September 19, 2017.

**SUBMITTED BY:** Diahnn Halbach, City Clerk

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**BACKGROUND/HISTORY:**

The attached minutes are from the September 19, 2017 Committee of the Whole meeting.

**BUDGET/FISCAL IMPACT:**

N/A

**RECOMMENDATION:**

Staff recommends approval of the attached minutes from the September 19, 2017 Committee of the Whole meeting.

**TIMING/IMPLEMENTATION:**

This item is scheduled for final consideration at the October 3, 2017 Common Council meeting.

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**Attachments**

COW Minutes

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**CITY OF BURLINGTON**  
**Committee of the Whole Minutes**  
**Jeannie Hefty, Mayor**  
**Diahnn Halbach, City Clerk**  
**Tuesday, September 19, 2017**

1. **Call to Order - Roll Call**

Mayor Jeannie Hefty called the meeting to order at 6:34 p.m. starting with Roll Call. Present: Susan Kott, Ed Johnson, Ruth Dawidziak, Tom Vos, Jon Schultz, and Tom Preusker. Excused: Bob Grandi and Todd Bauman.

Also present: City Administrator Carina Walters, City Attorney John Bjelajac, Director of Administrative Services Megan Watkins, Fire Chief Alan Babe, Police Chief Mark Anderson, Building Inspector Gregory Guidry, and Library Director Joe Davies.

2. **Citizen Comments:**

Sheila Barnhill, 300 Falcon Ridge, commented that she feels she hasn't been able to sell her property due to a sex offender living behind her and perceives that her property has become devalued because of this. Attorney Bjelajac stated the two of them could talk privately and would look further into this with her.

3. **Approval of Minutes**

A motion was made by Alderman Kott with a second by Alderman Johnson to approve the September 5, 2017 Committee of the Whole meeting minutes. With all in favor, the motion carried.

4. **DISCUSSION**

A. A discussion item presented by Kenneth Herdeman, President, Ehlers Investment Partners.

Herdeman reviewed the City's investment portfolio, strategy, structure and performance, along with the City's investment objectives of safety, liquidity and yield. Herdeman stated that the City's portfolio was last reviewed and updated in 2008, and recommended the City revise it's investment portfolio to include language that would require a review at least every three years. Herdeman stated that safety equals risk, and although there are no "riskless" investments, the City's investments carry a high degree of safety and have minimal credit risk in which issuers are able to pay principal and interest when due.

Herdeman then explained the City's liquidity risk and market risk and feels the City could improve its overall yield by investing in maturities with longer maturities. Herdeman also stated that the City would benefit from a laddered portfolio structure, with an average weighted maturity not to exceed three years, which will allow for taking advantage of rising interest rates as maturing investments will be reinvested at higher rates and falling rates will not have a significant impact on overall portfolio performance.

Alderman Johnson asked if any monies coming due in the next year would be reinvested for a three-year period. Herdeman responded that city staff and Ehlers have reviewed cash flow needs, along with unexpected expenditures, and will base that decision on the City's financial needs at that

time.

Alderman Schultz stated that on a 1% return, the City makes about \$18,000 per year from its investments of \$1.8 million and asked what Ehlers fees are to manage the City's portfolio. Herdeman responded that the City's actual gross return is closer to \$120,000 and the average for Ehlers fees comes to about .18%.

7. **RESOLUTIONS:**

- A. **Resolution 4864(22)** - to approve wage increases for Chief Inspectors from \$8.75 to \$11.00 per hour and Election Inspectors from \$7.25 to \$9.00 per hour.

Mayor Hefty tabled Resolution 4864(22) until the October 3, 2017 Committee of the Whole meeting, as City Clerk, Diahnn Halbach was not in attendance and would otherwise be presenting.

8. **ORDINANCES:** There were none.

9. **MOTIONS:**

- A. **Motion 17-881** - to approve a Disaster Damage Aid Petition to the Wisconsin Department of Transportation for partial reimbursement of street damage to 616 Madison Street (address approximate) for sinkhole repair.

Steve DeQuaker explained that the Wisconsin Department of Transportation (WisDOT) has a disaster fund called Disaster Damage Aid (DDA) to help alleviate costs of major road work caused by disasters, in which 75% of allowed/recognized expenses can be refunded, along with 50% of mitigation of future occurrences. DeQuaker further explained that the damage which occurred on Madison Street would qualify for this fund, however, the petition must have Council approval and be submitted within 60 days of the end of the Emergency Event, which would have been August 20, but was waved due to the long process. DeQuaker also stated that there may be other areas of damage around the City that would also qualify for funding, such as the bridges.

Alderman Vos asked if the \$100,000 was included in the \$1.8 million of total damage throughout the City and what would happen in the worst case scenario if the City doesn't qualify for this relief. DeQuaker responded that the amount was included in the overall total and that if the sinkhole damage doesn't qualify, then the Wisconsin Disaster Fund also covers road repairs, but only has a 70% reimbursement.

Vos then asked what is the response timeframe for the DOT to respond with funding so that contractors can get paid in a timely manner. DeQuaker responded that the City is currently paying bills out of the Disaster Fund Allocation account through the Administration Department and has been working with Ehlers to determine possible options, which may include financing or possibly liquidating. DeQuaker stated that this information should be available in October.

10. **ADJOURNMENT**

A motion was made by Alderman Johnson with a second by Alderman Dawidziak to adjourn the meeting. With all in favor, the meeting adjourned at 7:02 p.m.

Minutes respectfully submitted by:  
Diahnn C. Halbach  
City Clerk, City of Burlington



**DATE:** October 3, 2017

**SUBJECT:** DISCUSSION - Discussion regarding possible Assessor Services and future contract for the City of Burlington.

**SUBMITTED BY:** Steven DeQuaker, Finance Director

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**BACKGROUND/HISTORY:**

In 2012, the City of Burlington entered into a five-year agreement for Assessor services with Accurate Appraisal based out of Menasha, Wisconsin. Accurate Appraisal replaced National Appraisal due to the fact that the assessor for National Appraisal was retiring after twenty plus years of service with the City of Burlington.

Several communities in the area began a new type of four-year assessment program whereby the assessing firm would assess 25% of the municipality over a four year period, bringing the equalized and assessed values as close to 100% as possible. The theory behind a four-year cycle was that the open book and board of review process would be reduced since equalized and assessed values would align. Equalized values are current market values. Assessed values are what taxes are based on.

With National Appraisal, the City of Burlington would only fully revalue property based on state statute requirements of +/- 10% in equalized versus assessed values. Yearly values were adjusted based on sales and permit pulls by the former assessor with National Appraisal. The State mandated assessor reporting format and data changes. Accurate Appraisal was able to meet these requirements. National Appraisal, due to the retirement of the assessor was not able to meet the requirements.

The agreement with Accurate Appraisal was a \$225,500 five-year contract, which included a one-year market adjustment the first year, with four consecutive years of 25% walkthroughs throughout the City. Eventually, at the end of the contract, the City would be fully revalued.

The 25% walkthroughs have been completed and the contract is ready to expire.

This evening, Wayne Koehler with Accurate Appraisal is here to answer any specific questions.

**BUDGET/FISCAL IMPACT:**

Accurate Appraisal has submitted a 4 year contract renewal quotation with 2 options. The first option is to value the City for 4 years with no walkthroughs. The second option would be to do physical inspections of specific properties for 4 years: New Construction, sales and major permits over \$15,000. The cost of these two options is \$136,800 for option 1 and \$151,200 for option 2. This is a reduction in budgetary dollars for assessor services by \$11,300 for option 1 and \$7,700 for option 2 per year over our current expenditure.

**RECOMMENDATION:**

This is an initial discussion of this item. The Council may decide to accept the new contract with Accurate Appraisal or decide to go out to RFP for Assessor services. Staff recommends option B, to continue physical inspections based on new construction, sales and major permit pulls.

**TIMING/IMPLEMENTATION:**

Should Council choose to accept the proposal from Accurate Appraisal, a Resolution would be presented to you at the October 17, 2017 Committee of the Whole meeting, with final consideration at the same night Common Council meeting. Should Council wish to go to RFP for Assessor Services, this process will need to be completed.

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*Our Process Values Your Assessments*

**Municipality:** City of Burlington

**Contract End Date:** 2017

	<b>Option A FVM No Walk</b>	<b>Option B FVM Limited Walks</b>
<b>Description of Service</b>	Full Value with No Walk Throughs	Full Value Physical Inspection of new construction, sales, major permits over \$15,000
<b>Yearly Cost</b>	\$34,200*	\$37,800*
<b>Term of Contract</b>	4 Year	4 Year
<b>Total Contract</b>	\$136,800	\$151,200

**\*Less \$1,500 per year if Personal Property is eliminated**

**Recommended Contract: Option B: Full Value with Limited Walks**

- Just completed walk throughs so there isn't a need for it in this contract term
- Physical inspection of major permits



**COMMITTEE OF THE WHOLE**

**ITEM NUMBER 7A**

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**DATE:** October 3, 2017

**SUBJECT:** **MOTION 17-883** - Approval of a Stipulation Agreement and acceptance of the revised permit with the Wisconsin Department of Natural Resources.

**SUBMITTED BY:** Carina Walters, City Administrator

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**BACKGROUND/HISTORY:**

On February 9, 2015, the City of Burlington filed a contested case with the Department of Natural Resources (DNR) regarding the phosphorus levels in the effluent the City discharges into the Fox River from the Waste Water Treatment Plant (WWTP). The DNR's Wisconsin Pollution Discharge Elimination System (WPDES) Permit requires the City's effluent level must be below 0.1 milligrams per liter to meet the criteria of the Fox River Watershed.

This settlement agreement modifies our WPDES permit to allow more time to study the phosphorous issues and preserves our right to file a contested case when the next permit is issued by the DNR. In return for preserving our right, we are required to complete several reports during this time.

The City must complete the following analyses:

- 1) Operational Evaluation and Study of Feasibility Alternatives
- 2) Preliminary Compliance Plans for Phosphorus
- 3) Final Compliance Plans for Phosphorus
- 4) WPDES Permit Reissuance Application

Upon completion of the above analyses, Baxter & Woodman will be presenting to the Common Council available alternatives for the City of Burlington in Fall of 2018.

**BUDGET/FISCAL IMPACT:**

N/A

**RECOMMENDATION:**

Staff and City Attorney John Bjelajac recommend authorizing the City Administrator to execute the Stipulation Agreement to the Wisconsin Department of Natural Resources.

**TIMING/IMPLEMENTATION:**

This item is for discussion at the October 3, 2017 Committee of the Whole meeting and scheduled for final consideration at the October 17, 2017 Common Council Meeting.

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**Attachments**

- WPDES Stipulation
  - WPDES Permit
  - DNR Letter
  - Settlement Agreement
-

## WPDES Stipulation Agreement

Summary by James E. Kleinschmidt, P.E.

The stipulation agreement and attached WPDES permit resolves the contested case filed by the City in February 2015. The agreement preserves the right of the City of Burlington to file a contested case when the next permit is issued. In return for preserving this right, the City is required to do several reports during the revised permit term all of which were required in the issued permit. The current permit expires on December 31, 2019. The following reports are required by the modified permit with the submittal dates included.

WPDES Permit Task	
<b>Operational Evaluation and Study of Feasible Alternatives</b>	<b>June 30 2018</b>
<b>Preliminary Compliance Alternatives Plan for Phosphorus</b>	<b>December 31, 2018</b>
<b>Final Compliance Alternatives Plan for Phosphorus</b>	<b>June 30, 2019</b>
<b>WPDES Permit Reissuance Application</b>	<b>June 30 2019</b>

The first report is already included in a work order and is nearing completion. The second and third reports will require work orders in 2018 and 2019. The estimated cost for the preliminary compliance plan would be \$15,000. The estimated cost for the final compliance plan would be \$10,000. A work order combining the permit application assistance and the final compliance plan would be required in 2019. The costs for providing WPDES permit assistance for the current permit were \$10,000 so the total work order for the final compliance alternatives plan and the permit assistance would be about \$20,000.

A presentation on the available alternatives for Burlington will be made prior to the submittal of the preliminary compliance alternatives plan sometime in later summer or early fall of 2018. This will outline the available options and recommend a plan of action for the City to consider when applying for the next permit in 2019.

Recommendation: The City should sign the stipulation agreement and accept the revised permit. The major reason for filing the contested case was to preserve the option for contesting the 0.100 mg/L total phosphorus limit. The stipulation agreement preserves this option. All of the reports required in the revised permit were included in the issued permit but with a change in schedule.



# WPDES PERMIT

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

**Burlington Water Pollution Control**

is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from a facility  
located at  
2100 S. Pine Street  
to  
**Fox (IL) River in Racine County**

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

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

State of Wisconsin Department of Natural Resources  
For the Secretary

By \_\_\_\_\_  
**Bryan Hartsook**  
**Wastewater Field Supervisor**

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

**PERMIT TERM: EFFECTIVE DATE - January 01, 2015**

**EXPIRATION DATE - December 31, 2019**

**PERMIT MODIFICATION EFFECTIVE DATE – January 01, 2018**

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# 1 Influent Requirements

## 1.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
701	Influent: 24-hour flow proportional composite sampler intake located after grit removal and before primary clarification - includes side stream flows.

## 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	Daily	Continuous	
BOD <sub>5</sub> , Total		mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	5/Week	24-Hr Flow Prop Comp	
Mercury, Total Recoverable		ng/L	Quarterly	24-Hr Flow Prop Comp	

#### 1.2.1.1 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wisconsin Administrative Code. The limit of quantitation (LOQ) used for the effluent and field blank shall be less than 1.3 ng/L, unless the samples are quantified at levels above 1.3 ng/L. The permittee shall collect at least one mercury field blank for each set of mercury samples (a set of samples may include combinations of intake, influent, effluent or other samples all collected on the same day). The permittee shall report results of samples and field blanks to the Department on Discharge Monitoring Reports.

## 2 In-Plant Requirements

### 2.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)
103	Mercury field blanks shall be collected using standard sample handling procedures.

### 2.2 Monitoring Requirements and Limitations

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

#### 2.2.1 Sampling Point 103 - Mercury Effluent Blanks

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Mercury, Total Recoverable		ng/L	Quarterly	Grab	See Mercury footnote

##### 2.2.1.1 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wisconsin Administrative Code. The limit of quantitation (LOQ) used for the effluent and field blank shall be less than 1.3 ng/L, unless the samples are quantified at levels above 1.3 ng/L. The permittee shall collect at least one mercury field blank for each set of mercury samples (a set of samples may include combinations of intake, influent, effluent or other samples all collected on the same day). The permittee shall report results of samples and field blanks to the Department on Discharge Monitoring Reports.

### 3 Surface Water Requirements

#### 3.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
001	Effluent: 24-hour composite sampler intake located after the ultraviolet (UV) disinfection light system, just before Parshall flume. Grab samples shall be collected at the effluent trough, after the UV disinfection.

#### 3.2 Monitoring Requirements and Effluent Limitations

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

##### 3.2.1 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	Continuous	
BOD <sub>5</sub> , Total	Monthly Avg	30 mg/L	5/Week	24-Hr Flow Prop Comp	
BOD <sub>5</sub> , Total	Weekly Avg	45 mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	30 mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Weekly Avg	45 mg/L	5/Week	24-Hr Flow Prop Comp	
pH Field	Daily Max	9.0 su	Daily	Grab	
pH Field	Daily Min	6.0 su	Daily	Grab	
Nitrogen, Ammonia (NH <sub>3</sub> -N) Total	Monthly Avg	13 mg/L	3/Week	24-Hr Flow Prop Comp	Limit effective October only. Monitoring required year round.
Nitrogen, Ammonia (NH <sub>3</sub> -N) Total	Daily Max - Variable	mg/L	3/Week	24-Hr Flow Prop Comp	Report Ammonia effluent value on DMR.
Nitrogen, Ammonia Variable Limit		mg/L	3/Week	Calculated	Report calculated variable Ammonia limit on DMR. See Maximum Ammonia Limits Table below.
Phosphorus, Total	Monthly Avg	1.0 mg/L	3/Week	24-Hr Flow Prop Comp	This is an interim limit. See phosphorus footnotes below for final limits.
Phosphorus, Total		lbs/day	3/Week	Calculated	See phosphorus footnotes below for final mass limit.
Fecal Coliform	Geometric Mean	400 #/100 ml	Weekly	Grab	May-September only

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Mercury, Total Recoverable	Daily Max	3.1 ng/L	Quarterly	Grab	See mercury footnote below.
Nitrogen, Total		mg/L	Quarterly	24-Hr Flow Prop Comp	
Nitrogen, Total Kjeldahl		mg/L	Quarterly	24-Hr Flow Prop Comp	
Nitrogen, Nitrite + Nitrate Total		mg/L	Quarterly	24-Hr Flow Prop Comp	
Acute WET		TU <sub>a</sub>	See Listed Qtr(s)	24-Hr Flow Prop Comp	See WET testing footnote below.
Chronic WET		rTU <sub>c</sub>	See Listed Qtr(s)	24-Hr Flow Prop Comp	See WET testing footnote below.

### 3.2.1.1 Average Annual Design Flow

The average annual design flow of the permittee's wastewater treatment facility is 3.5 MGD.

### 3.2.1.2 Daily Maximum Variable Limits for Nitrogen, Ammonia (NH<sub>3</sub>-N) Total

Effluent pH - s.u.	NH <sub>3</sub> -N Limit - mg/L	Effluent pH - s.u.	NH <sub>3</sub> -N Limit - mg/L
pH ≤ 7.5	No Limit	8.2 < pH ≤ 8.3	9.4
7.5 < pH ≤ 7.6	34*	8.3 < pH ≤ 8.4	7.8
7.6 < pH ≤ 7.7	29*	8.4 < pH ≤ 8.5	6.4
7.7 < pH ≤ 7.8	24*	8.5 < pH ≤ 8.6	5.3
7.8 < pH ≤ 7.9	20*	8.6 < pH ≤ 8.7	4.4
7.9 < pH ≤ 8.0	17	8.7 < pH ≤ 8.8	3.7
8.0 < pH ≤ 8.1	14	8.8 < pH ≤ 8.9	3.1
8.1 < pH ≤ 8.2	11	8.9 < pH ≤ 9.0	2.6

\* During the months of May through October if the pH is less than or equal to 7.9 there is no daily maximum limit for NH<sub>3</sub>-N. Limits shown in the table above with an asterisk\* apply from November through April only.

Report > 34 mg/L as the daily maximum variable limit when pH is ≤ 7.5 s.u. During May-October report > 20 mg/L as the daily maximum value when pH is ≤ 7.9 s.u.

### 3.2.1.3 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wisconsin Administrative Code. The limit of quantitation (LOQ) used for the effluent and field blank shall be less than 1.3 ng/L, unless the samples are quantified at levels above 1.3 ng/L. The permittee shall collect at least one mercury field blank for each set of mercury samples (a set of samples may include combinations of intake, influent, effluent or other samples all collected on the same day). The permittee shall report results of samples and field blanks to the Department on Discharge Monitoring Reports.

### **3.2.1.4 Phosphorus Water Quality Based Effluent Limitation(s)**

The final water quality based effluent limits for phosphorus are 0.1 mg/L six-month average (May-October, November-April), and 0.3 mg/L monthly average, and 3.0 lbs/day annual average effective January 1, 2024 unless:

- (A) As part of the application for the next reissuance, or prior to filing the application, the permittee submits either: 1.) a watershed adaptive management plan and a completed Watershed Adaptive Management Request Form 3200-139; or 2.) an application for water quality trading; or 3.) an application for a variance; or 4.) new information or additional data that supports a recalculation of the numeric limitation; and
- (B) The Department modifies, revokes and reissues, or reissues the permit to incorporate a revised limitation before the expiration of the compliance schedule\*.
- (C) Final limits may be revised based on possible future Fox (IL) River TMDL evaluations.

Note: The permittee may also submit an application for a variance within 60 days of this permit reissuance, as noted in the permit cover letter, in accordance with s. 283.15, Stats.

If Adaptive Management or Water Quality Trading is approved as part of the permit application for the next reissuance or as part of an application for a modification or revocation and reissuance, the plan and specifications submittal, construction, and final effective dates for compliance with the total phosphorus WQBEL may change in the reissued or modified permit. In addition, the numeric value of the water quality based effluent limit may change based on new information ( e.g. a TMDL) or additional data. If a variance is approved for the next reissuance, interim limits and conditions will be imposed in the reissued permit in accordance with s. 283.15, Stats., and applicable regulations. A permittee may apply for a variance to the phosphorus WQBEL at the next reissuance even if the permittee did not apply for a phosphorus variance as part of this permit reissuance.

Additional Requirements: If a water quality based effluent limit has taken effect in a permit, any increase in the limit is subject to s. NR 102.05(1) and ch. NR 207, Wis. Adm. Code. When a six-month average effluent limit is specified for Total Phosphorus the applicable averaging periods are May through October and November through April.

\*Note: The Department will prioritize reissuances and revocations, modifications, and reissuances of permits to allow permittees the opportunity to implement adaptive management or nutrient trading in a timely and effective manner.

### **3.2.1.5 Alternative Approaches to Phosphorus WQBEL Compliance**

Rather than upgrading its wastewater treatment facility to comply with WQBELs for total phosphorus, the permittee may use Water Quality Trading or the Watershed Adaptive Management Option, to achieve compliance under ch. NR 217, Wis. Adm. Code, provided that the permit is modified, revoked and reissued, or reissued to incorporate any such alternative approach. The permittee may also implement an upgrade to its wastewater treatment facility in combination with Water Quality Trading or the Watershed Adaptive Management Option to achieve compliance, provided that the permit is modified, revoked and reissued, or reissued to incorporate any such alternative approach. If the Final Compliance Alternatives Plan concludes that a variance will be pursued, the Plan shall provide information regarding the basis for the variance.

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

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

the necessary upgrades. If the permittee intends to seek a variance, the permittee shall submit an application for a variance with the application for the next reissuance.

### 3.2.1.7 Whole Effluent Toxicity (WET) Testing

**Primary Control Water:** Fox River upstream/out of the influence of the mixing zone and any other known discharge.

**Instream Waste Concentration (IWC):** 33%

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

- **Acute:** 100, 50, 25, 12.5, 6.25% and any additional selected by the permittee.
- **Chronic:** 100, 75, 50, 25, 12.5% (IWC >30%) and any additional selected by the permittee.

#### WET Testing Frequency:

**Acute** tests shall be conducted once each year, in rotating quarters in order to collect seasonal information about the discharge. Tests are required during the following quarters.

- **Acute:** Apr-June 2015; Oct-Dec 2016; Jan-Mar 2017; July-Sep 2018; Jan-Mar 2019

Acute WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the fourth calendar year of this permit. For example, the next test would be required in (July – Sept 2020).

**Chronic** tests shall be conducted once each year, in rotating quarters in order to collect seasonal information about the discharge. Tests are required during the following quarters.

- **Chronic:** Apr-June 2015; Oct-Dec 2016; Jan-Mar 2017; July-Sep 2018; Jan-Mar 2019

Chronic WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the fourth calendar year of this permit. For example, the next test would be required in (July – Sept 2020).

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

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

**Determination of Positive Results:** An acute toxicity test shall be considered positive if the Toxic Unit - Acute (TU<sub>a</sub>) is greater than 1.0 for either species. The TU<sub>a</sub> shall be calculated as follows: If  $LC_{50} \geq 100$ , then  $TU_a = 1.0$ . If  $LC_{50}$  is  $< 100$ , then  $TU_a = 100 \div LC_{50}$ . A chronic toxicity test shall be considered positive if the Relative Toxic Unit - Chronic (rTU<sub>c</sub>) is greater than 1.0 for either species. The rTU<sub>c</sub> shall be calculated as follows: If  $IC_{25} \geq IWC$ , then  $rTU_c = 1.0$ . If  $IC_{25} < IWC$ , then  $rTU_c = IWC \div IC_{25}$ .

**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).

## 4 Land Application Requirements

### 4.1 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)
004	Anaerobically digested liquid sludge, thickened by gravity belt. Samples shall be taken from the storage tank (with adequate prior mixing) or at the outlet pipe of storage tank during truck loading.

### 4.2 Monitoring Requirements and Limitations

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

#### 4.2.1 Sampling Point (Outfall) 004 - Liquid Sludge

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Quarterly	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Quarterly	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Quarterly	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Quarterly	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Quarterly	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Quarterly	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Quarterly	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Quarterly	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Quarterly	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Quarterly	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Quarterly	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Quarterly	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Quarterly	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Quarterly	Composite	
Nitrogen, Ammonium (NH <sub>4</sub> -N) Total		Percent	Quarterly	Composite	
Phosphorus, Total		Percent	Quarterly	Composite	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Composite	
Potassium, Total Recoverable		Percent	Quarterly	Composite	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Radium 226 Dry Wt		pCi/g	Annual	Composite	
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	Once in 2016
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	Once in 2016

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

#### 4.2.1.1 List 2 Analysis

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

#### 4.2.1.2 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.

#### 4.2.1.3 Multiple Sludge Sample Points (Outfalls)

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

#### 4.2.1.4 Sludge Which Exceeds the High Quality Limit

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

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

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

#### 4.2.1.5 Sludge Analysis for PCBs

The permittee shall analyze the sludge for Total PCBs one time during **2016**. 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.

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

<b>List 1 TOTAL SOLIDS AND METALS</b>
See the Monitoring Requirements and Limitations table above for monitoring frequency and limitations for the List 1 parameters
Solids, Total (percent)
Arsenic, mg/kg (dry weight)
Cadmium, mg/kg (dry weight)
Copper, mg/kg (dry weight)
Lead, mg/kg (dry weight)
Mercury, mg/kg (dry weight)
Molybdenum, mg/kg (dry weight)
Nickel, mg/kg (dry weight)
Selenium, mg/kg (dry weight)
Zinc, mg/kg (dry weight)
Radium-226, pCi/g (dry weight)

<b>List 2 NUTRIENTS</b>
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 (NH <sub>4</sub> -N) Total (percent)
Phosphorus Total as P (percent)
Phosphorus, Water Extractable (as percent of Total P)
Potassium Total Recoverable (percent)

**List 3**

**PATHOGEN CONTROL FOR CLASS B SLUDGE**

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

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

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

**List 4**

**VECTOR ATTRACTION REDUCTION**

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

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

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

#### 4.2.1.7 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

## 5 Schedules

### 5.1 Mercury Pollutant Minimization Program

The permittee shall implement or continue to implement a pollutant minimization program as defined in s. NR 106.145(7), Wis. Adm. Code.

Required Action	Due Date
<b>Implement the Mercury Pollutant Minimization Program:</b> The permittee shall continue to implement the PMP as approved by the Department.	
<b>Submit Annual Status Reports:</b> The permittee shall submit to the Department an annual status report on the progress of the PMP as required by s. NR 106.145(7), Wis. Adm. Code. Submittal of the first annual status report is required by the Date Due.	06/30/2015
<b>Submit Annual Status Report #2:</b> Submit second annual status report.	06/30/2016
<b>Submit Annual Status Report #3:</b> Submit third annual status report.	06/30/2017
<b>Submit Annual Status Report #4:</b> Submit fourth annual status report.	06/30/2018
<b>Submit Final Status Report:</b> Submit the final status report documenting the success of the Mercury PMP.  Note: If the permittee wishes to apply for an alternative mercury effluent limitation, that application is due with the application for permit reissuance by 6 months prior to permit expiration. The permittee should submit or reference the PMP plan as updated by the Annual Status Report or more recent developments as part of that application.	06/30/2019

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

The permittee shall comply with the WQBELs for Phosphorus as specified. No later than 30 days following each compliance date, the permittee shall notify the Department in writing of its compliance or noncompliance. If a submittal is required, a timely submittal fulfills the notification requirement.

Required Action	Due Date
<b>Operational Evaluation Report:</b> The permittee shall prepare and submit to the Department for approval an operational evaluation report. The report shall include an evaluation of collected effluent data, possible source reduction measures, operational improvements or other minor facility modifications that will optimize reductions in phosphorus discharges from the treatment plant during the period prior to complying with final phosphorus WQBELs and, where possible, enable compliance with final phosphorus WQBELs by <b>December 31, 2018</b> . The report shall provide a plan and schedule for implementation of the measures, improvements, and modifications as soon as possible, but not later than <b>December 31, 2018</b> and state whether the measures, improvements, and modifications will enable compliance with final phosphorus WQBELs. Regardless of whether they are expected to result in compliance, the permittee shall implement the measures, improvements, and modifications in accordance with the plan and schedule specified in the operational evaluation report.  If the operational evaluation report concludes that the facility can achieve final phosphorus WQBELs using the existing treatment system with only source reduction measures, operational improvements, and minor facility modifications, the permittee shall comply with the final phosphorus WQBEL by <b>December 31, 2018</b> and is not required to comply with the milestones identified below for years 3 through 9 of this compliance schedule ('Preliminary Compliance Alternatives Plan', 'Final Compliance Alternatives Plan', 'Final Plans and Specifications', 'Treatment Plant Upgrade to Meet	06/30/2018

<p>WQBELs', 'Complete Construction', 'Achieve Compliance').</p> <p><b>STUDY OF FEASIBLE ALTERNATIVES</b> - If the Operational Evaluation Report concludes that the permittee cannot achieve final phosphorus WQBELs with source reduction measures, operational improvements and other minor facility modifications, the permittee shall initiate a study of feasible alternatives for meeting final phosphorus WQBELs and comply with the remaining required actions of this schedule of compliance. If the Department disagrees with the conclusion of the report, and determines that the permittee can achieve final phosphorus WQBELs using the existing treatment system with only source reduction measures, operational improvements, and minor facility modifications, the Department may reopen and modify the permit to include an implementation schedule for achieving the final phosphorus WQBELs sooner than January 1, 2024.</p>	
<p><del><b>Compliance Alternatives, Source Reduction, Improvements and Modifications Status:</b> The permittee shall submit a 'Compliance Alternatives, Source Reduction, Operational Improvements and Minor Facility Modification' status report to the Department. The report shall provide an update on the permittee's: (1) progress implementing source reduction measures, operational improvements, and minor facility modifications to optimize reductions in phosphorus discharges and, to the extent that such measures, improvements, and modifications will not enable compliance with the WQBELs; (2) status evaluating feasible alternatives for meeting phosphorus WQBELs.</del></p>	12/31/2016
<p><b>Preliminary Compliance Alternatives Plan:</b> The permittee shall submit a preliminary compliance alternatives plan to the Department.</p> <p>If the plan concludes upgrading of the permittee's wastewater treatment facility is necessary to achieve final phosphorus WQBELs, the submittal shall include a preliminary engineering design report.</p> <p>If the plan concludes Adaptive Management will be used, the submittal shall include a completed Watershed Adaptive Management Request Form 3200-139 without the Adaptive Management Plan.</p> <p>If water quality trading will be undertaken, the plan must state that trading will be pursued.</p>	12/31/2018
<p><b>Final Compliance Alternatives Plan:</b> The permittee shall submit a final compliance alternatives plan to the Department.</p> <p>If the plan concludes upgrading of the permittee's wastewater treatment is necessary to meet final phosphorus WQBELs, the submittal shall include a final engineering design report addressing the treatment plant upgrades, and a facility plan if required pursuant to ch. NR 110, Wis. Adm. Code.</p> <p>If the plan concludes Adaptive Management will be implemented, the submittal shall include a completed Watershed Adaptive Management Request Form 3200-139 and an engineering report addressing any treatment system upgrades necessary to meet interim limits pursuant to s. NR 217.18, Wis. Adm. Code.</p> <p>If the plan concludes water quality trading will be used, the submittal shall identify potential trading partners.</p> <p>Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	06/30/2019
<p><b>Progress Report on Plans &amp; Specifications:</b> Submit progress report regarding the progress of preparing final plans and specifications. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	06/30/2020
<p><b>Final Plans and Specifications:</b> Unless the permit has been modified, revoked and reissued, or reissued to include Adaptive Management or Water Quality Trading measures or to include a revised schedule based on factors in s. NR 217.17, Wis. Adm. Code, the permittee shall submit final</p>	12/31/2020

<p>construction plans to the Department for approval pursuant to s. 281.41, Stats., specifying treatment plant upgrades that must be constructed to achieve compliance with final phosphorus WQBELs, and a schedule for completing construction of the upgrades by the complete construction date specified below. (Note: Permit modification, revocation and reissuance, and reissuance are subject to s. 283.53(2), Stats.)</p> <p>Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	
<p><b>Treatment Plant Upgrade to Meet WQBELs:</b> The permittee shall initiate construction of the upgrades. The permittee shall obtain approval of the final construction plans and schedule from the Department pursuant to s. 281.41, Stats. Upon approval of the final construction plans and schedule by the Department pursuant to s. 281.41, Stats., the permittee shall construct the treatment plant upgrades in accordance with the approved plans and specifications. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	06/30/2021
<p><b>Construction Upgrade Progress Report #1:</b> The permittee shall submit a progress report on construction upgrades. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	06/30/2022
<p><b>Construction Upgrade Progress Report #2:</b> The permittee shall submit a progress report on construction upgrades. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	04/01/2023
<p><b>Complete Construction:</b> The permittee shall complete construction of wastewater treatment system upgrades. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	12/01/2023
<p><b>Achieve Compliance:</b> The permittee shall achieve compliance with final phosphorus WQBELs. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	01/01/2024

### 5.3 CMOM (Capacity, Management, Operation and Maintenance) Program Development

Required Action	Due Date
<p><b>Complete Program Development:</b> Complete development of CMOM Program by August 1, 2016. See CMOM requirements in the Standard Requirements section.</p>	08/01/2016

## 6 Standard Requirements

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

### 6.1 Reporting and Monitoring Requirements

#### 6.1.1 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 principal executive officer, a ranking elected official or other duly authorized representative. 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.

#### 6.1.2 Sampling and Testing Procedures

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

#### 6.1.3 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.

#### 6.1.4 Reporting of Monitoring Results

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

- Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 0.1 mg/L, report the pollutant concentration as < 0.1 mg/L.
- Pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified.
- For purposes of calculating NR 101 fees, the 2 mg/l lower reporting limits for BOD<sub>5</sub> and Total Suspended Solids shall be considered to be limits of quantitation
- For the purposes of reporting a calculated result, average or a mass discharge value, the permittee may substitute a 0 (zero) for any pollutant concentration that is less than the limit of detection. However, if the effluent limitation is less than the limit of detection, the department may substitute a value other than zero for results less than the limit of detection, after considering the number of monitoring results that are greater than the limit of detection and if warranted when applying appropriate statistical techniques.

### **6.1.5 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 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.

A separate CMAR certification document, that is not part of the electronic report form, shall be mailed to the Department at the time of electronic submittal of the CMAR. The CMAR certification shall be signed and submitted by an authorized representative of the permittee. The certification shall be submitted by mail. The certification shall verify the electronic report is complete, accurate and contains information from the owner's treatment works.

### **6.1.6 Records Retention**

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings 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.

### **6.1.7 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.

## **6.2 System Operating Requirements**

## 6.2.1 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 an unscheduled 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.**

## 6.2.2 Flow Meters

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

## 6.2.3 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 500-536, Wis. Adm. Code.

## 6.2.4 Sludge Management

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

## 6.2.5 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.

### **6.2.6 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 an unscheduled bypass provided all the following conditions are met:

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

### **6.2.7 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 unscheduled bypassing are met and include the proposed date and reason for the bypass, estimated volume and duration of the bypass, alternatives to bypassing and measures to mitigate environmental harm caused by the bypass. The department may require the permittee to provide public notification for a scheduled bypass if it is determined there is significant public interest in the proposed action and may recommend mitigation measures to minimize the impact of such bypass.

### **6.2.8 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 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.

## **6.2.9 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. The wastewater treatment facility shall be under the direct supervision of a state certified operator as required in s. NR 108.06(2), Wis. Adm. Code. 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.

## **6.3 Sewage Collection Systems**

### **6.3.1 Sanitary Sewage Overflows and Sewage Treatment Facility Overflows**

#### **6.3.1.1 Overflows Prohibited**

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

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

#### **6.3.1.2 Permittee Response to Overflows**

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

#### **6.3.1.3 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:

- The date and location of the overflow;
- The surface water to which the discharge occurred, if any;
- The duration of the overflow and an estimate of the volume of the overflow;
- A description of the sewer system or treatment facility component from which the discharge occurred such as manhole, lift station, constructed overflow pipe, or crack or other opening in a pipe;
- The estimated date and time when the overflow began and stopped or will be stopped;
- The cause or suspected cause of the overflow including, if appropriate, precipitation, runoff conditions, areas of flooding, soil moisture and other relevant information;
- Steps taken or planned to reduce, eliminate and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
- A description of the actual or potential for human exposure and contact with the wastewater from the overflow;
- Steps taken or planned to mitigate the impacts of the overflow and a schedule of major milestones for those steps;
- To the extent known at the time of reporting, the number and location of building backups caused by excessive flow or other hydraulic constraints in the sewage collection system that occurred concurrently with the sanitary sewer overflow and that were within the same area of the sewage collection system as the sanitary sewer overflow; and
- The reason the overflow occurred or explanation of other contributing circumstances that resulted in the overflow event. This includes any information available including whether the overflow was unavoidable to prevent loss of life, personal injury, or severe property damage and whether there were feasible alternatives to the overflow.

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

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

#### **6.3.1.4 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.

#### **6.3.2 Capacity, Management, Operation and Maintenance (CMOM) Program**

- The permittee shall by August 1, 2016 submit to the Department verification that a CMOM program for the sewage collection system has been developed which is consistent with the requirements of NR 210.23, Wis. Adm. Code.
- The permittee shall develop and maintain written documentation of the CMOM program components, and shall verify each year with the submittal of the Compliance Maintenance Annual Report required under the 'Compliance Maintenance Annual Reports' section of this permit that the CMOM program documentation is current and meets the requirements in NR 210.23, Wis. Adm. Code.
- The permittee shall implement a CMOM program consistent with the permittee's program documentation and with the requirements of NR 210.23, Wis. Adm. Code.
- The permittee shall annually conduct a self-audit of activities to ensure the CMOM program is being implemented as necessary to meet the requirements contained in the CMOM program documentation.
- The permittee shall make available CMOM program documentation, a record of implementation activities and the results of the self-audit to the Department on request.

### 6.3.3 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.

## 6.4 Surface Water Requirements

### 6.4.1 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.

### 6.4.2 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.]

**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.

### 6.4.3 Effluent Temperature Requirements

**Weekly Average Temperature** – The permittee shall use the following formula for calculating effluent results to determine compliance with the weekly average temperature limit (as applicable): Weekly Average Temperature = 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. ‘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.

### 6.4.4 Visible Foam or Floating Solids

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

### 6.4.5 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.

### 6.4.6 Percent Removal

During any 30 consecutive days, the average effluent concentrations of BOD<sub>5</sub> 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.

### 6.4.7 Fecal Coliforms

The limit for fecal coliforms shall be expressed as a monthly geometric mean.

### 6.4.8 Seasonal Disinfection

Disinfection shall be provided from May 1 through September 30 of each year. Monitoring requirements and the limitation for fecal coliforms apply only during the period in which disinfection is required. Whenever chlorine is used for disinfection or other uses, the limitations and monitoring requirements for residual chlorine shall apply. A dechlorination process shall be in operation whenever chlorine is used.

### 6.4.9 Whole Effluent Toxicity (WET) Monitoring Requirements

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

### 6.4.10 Whole Effluent Toxicity (WET) Identification and Reduction

This standard requirement applies only to acute or chronic WET monitoring that is not accompanied by a WET limit. 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 some or all of 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
  - (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.

## 6.5 Land Application Requirements

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

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

### 6.5.2 General Sludge Management Information

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

### 6.5.3 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.

### 6.5.4 Land Application Characteristic Report

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

Following submittal of the electronic Characteristic Report Form 3400-49, this form shall be certified electronically via the 'eReport Certify' page by a principal executive officer, ranking elected official or duly authorized representative. 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.

### 6.5.5 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:

$$\text{Water Extractable Phosphorus (\% of Total P)} = \frac{[\text{Water Extractable Phosphorus (mg/kg, dry wt)} \div \text{Total Phosphorus (mg/kg, dry wt)}] \times 100}{}$$

### 6.5.6 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 as follows.

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 the following provisions and Table EM in s. NR 219.04, Wis. Adm. Code.

- EPA Method 1668 may be used to test for all PCB congeners. If this method is employed, all PCB congeners shall be delineated. Non-detects shall be treated as zero. The values that are between the limit of detection 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. **Note:** It is recognized that a number of the congeners will co-elute with others, so there will not be 209 results to sum.

- EPA Method 8082A shall be used for PCB-Aroclor analysis and may be used for congener specific analysis as well. If congener specific analysis is performed using Method 8082A, the list of congeners tested shall include at least congener numbers 5, 18, 31, 44, 52, 66, 87, 101, 110, 138, 141, 151, 153, 170, 180, 183, 187, and 206 plus any other additional congeners which might be reasonably expected to occur in the particular sample. For either type of analysis, the sample shall be extracted using the Soxhlet extraction (EPA Method 3540C) (or the Soxhlet Dean-Stark modification) or the pressurized fluid extraction (EPA Method 3545A). If Aroclor analysis is performed using Method 8082A, clean up steps of the extract shall be performed as necessary to remove interference and to achieve as close to a limit of detection of 0.11 mg/kg as possible. Reporting protocol, 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 congener specific analysis is done using Method 8082A, clean up steps of the extract shall be performed as necessary to remove interference and to achieve as close to a limit of detection of 0.003 mg/kg as possible for each congener. If the aforementioned limits of detection 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. The lab conducting the analysis shall perform as many of the following methods as necessary to remove interference:

3620C – Florisil	3611B - Alumina
3640A - Gel Permeation	3660B - Sulfur Clean Up (using copper shot instead of powder)
3630C - Silica Gel	3665A - Sulfuric Acid Clean Up

### 6.5.7 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 principal executive officer, ranking elected official or duly authorized representative. The ‘eReport Certify’ page certifies that the electronic report form is true, accurate and complete.

### 6.5.8 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 principal executive officer, ranking elected official or duly authorized representative. The ‘eReport Certify’ page certifies that the electronic report form is true, accurate and complete.

### 6.5.9 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) (l), Wis. Adm. Code.

### 6.5.10 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.

### 6.5.11 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.

### 6.5.12 Class B Sludge: Fecal Coliform Limitation

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

Method 1:

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

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

Method 2:

$$\text{Geometric Mean} = \text{antilog}[(X_1 + X_2 + X_3 \dots + X_n) \div n]$$

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

Example for Method 2

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

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

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

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

### 6.5.13 Vector Control: Volatile Solids Reduction

The mass of volatile solids in the sludge shall be reduced by a minimum of 38% between the time the sludge enters the digestion process and the time it either exits the digester or a storage facility. For calculation of volatile solids reduction, the permittee shall use the Van Kleeck equation or one of the other methods described in "Determination of Volatile Solids Reduction in Digestion" by J.B. Farrell, which is Appendix C of EPA's *Control of Pathogens in Municipal Wastewater Sludge* (EPA/625/R-92/013). The Van Kleeck equation is:

$$\text{VSR}\% = \frac{\text{VS}_{\text{IN}} - \text{VS}_{\text{OUT}}}{\text{VS}_{\text{IN}}} \times 100$$

$$VS_{IN} - (VS_{OUT} \times VS_{IN})$$

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

$VS_{OUT}$  = Volatile Solids in Final Sludge (g VS/g TS)

VSR% = Volatile Solids Reduction, (Percent)

#### **6.5.14 Class B Sludge - Vector Control: Injection**

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

#### **6.5.15 Land Application of Sludge Which Contains Elevated Levels of Radium-226**

When contributory water supplies exceed 2 pci per liter of Radium 226, monitoring for Radium 226 in sludge is required. Sludge containing Radium 226 shall be land applied in accordance with the requirements in s. NR 204.07(3)(n), Wis. Adm. Code.

## 7 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
Mercury Pollutant Minimization Program -Implement the Mercury Pollutant Minimization Program	See Permit	12
Mercury Pollutant Minimization Program -Submit Annual Status Reports	June 30, 2015	12
Mercury Pollutant Minimization Program -Submit Annual Status Report #2	June 30, 2016	12
Mercury Pollutant Minimization Program -Submit Annual Status Report #3	June 30, 2017	12
Mercury Pollutant Minimization Program -Submit Annual Status Report #4	June 30, 2018	12
Mercury Pollutant Minimization Program -Submit Final Status Report	June 30, 2019	12
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Operational Evaluation Report	June 30, 2018	12
<del>Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Compliance Alternatives, Source Reduction, Improvements and Modifications Status</del>	<del>December 31, 2016</del>	13
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Preliminary Compliance Alternatives Plan	December 31, 2018	13
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Final Compliance Alternatives Plan	June 30, 2019	13
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Progress Report on Plans & Specifications	June 30, 2020	13
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Final Plans and Specifications	December 31, 2020	14
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Treatment Plant Upgrade to Meet WQBELs	June 30, 2021	14
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Construction Upgrade Progress Report #1	June 30, 2022	14
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Construction Upgrade Progress Report #2	April 1, 2023	14
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Complete Construction	December 1, 2023	14
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Achieve Compliance	January 1, 2024	14
CMOM (Capacity, Management, Operation and Maintenance) Program Development -Complete Program Development	August 1, 2016	14
Compliance Maintenance Annual Reports (CMAR)	by June 30, each year	16
General Sludge Management Form 3400-48	prior to any significant sludge	24

	management changes	
Characteristic Form 3400-49 and Lab Report	by January 31 following each year of analysis	24
Land Application Report Form 3400-55	by January 31, each year whether or not non-exceptional quality sludge is land applied	25
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	25
Wastewater Discharge Monitoring Report	no later than the date indicated on the form	15

Report forms shall be submitted electronically in accordance with the reporting requirements herein. Any facility plans or plans and specifications for municipal, industrial, industrial pretreatment and non industrial wastewater systems shall be submitted to the Bureau of Water Quality, P.O. Box 7921, Madison, WI 53707-7921. All other submittals required by this permit shall be submitted to: Southeast Region, 2300 N Dr ML King Drive, Milwaukee, WI 53212

**State of Wisconsin**  
DEPARTMENT OF NATURAL RESOURCES  
101 S. Webster Street  
Box 7921  
Madison WI 53707-7921

**Scott Walker, Governor**  
**Cathy Stepp, Secretary**  
Telephone 608-266-2621  
Toll Free 1-888-936-7463  
TTY Access via relay - 711



September 11, 2017

John Bjelajac  
Bjelajac & Kallenbach, L.L.C.  
P. O. Box 38  
601 Lake Avenue  
Racine WI 53401-0038

Subject: Wis. Stat. § 283.63 Petition for Contested Case Hearing; WPDES Permit WI-0022926-09-0;  
Reissued to City of Burlington (DNR-15-007)

Dear Mr. Bjelajac:

You submitted a request for contested case hearing, under Wis. Stat. § 283.63, on February 9, 2015, on behalf of the City of Burlington (Burlington), regarding WPDES Permit WI-0022926-09-0 (Permit). The Department of Natural Resources (DNR) granted the hearing on August 24, 2016. DNR and Burlington have reached an agreement to resolve the contested case without a hearing, as specified in the attached Settlement Agreement.

Attached to this letter is the agreement to resolve the issues presented in your petition for hearing. The proposal is to modify the Permit to change the interim compliance schedule. Please sign the Settlement Agreement on behalf of Burlington, and I will sign on behalf of DNR. The modified Permit must then go out for public notice and comment for 30 days, as provided in Wis. Stat. § 283.39. As discussed, we need a signed Settlement Agreement by October 31, 2017, to meet the schedule in the Agreement. If no one objects to the modified Permit and it is modified as specified in the Stipulation, Burlington agrees to withdraw its petition for contested case hearing and waive any further rights to challenge the modified Permit. Burlington retains its right to challenge the phosphorus WQBEL in the next Permit at permit reissuance.

Please contact me if you have any questions.

Sincerely,



Judith M. Mills  
Attorney, Wisconsin Department of Natural Resources

c: Laura Dietrich - SER  
Sharon Gayan—Bureau Director - WY/3

## SETTLEMENT AGREEMENT

This Settlement Agreement (“Agreement”) is made as between the Wisconsin Department of Natural Resources (“WDNR”) and the City of Burlington (“Burlington”) to resolve a pending contested case hearing petition brought by Burlington.

### BACKGROUND

WHEREAS, WDNR issued a Wisconsin Pollution Discharge Elimination System (“WPDES”) permit (“Permit”) to Burlington that contains a water quality based effluent limitation (“WQBEL”) for phosphorus, the effective date for which is after the expiration date of WPDES Permit No. WI-0022926-09-0;

WHEREAS, section 3.2.1 of the Permit contains an interim phosphorus limit of 1.0 mg/L (“Interim Limit”) and section 3.2.1.4 of the Permit contains a final phosphorus effluent limit of 0.1 mg/L, six-month average (May-October, November-April) and 0.3 mg/L monthly average, and 3.0 lbs/day annual average effective January 1, 2024, unless certain conditions are met (“Final WQBEL”);

WHEREAS, Burlington challenged the Final WQBEL and associated compliance schedule in the Permit in a Wis. Stat. § 283.63 petition filed on February 9, 2015;

WHEREAS, section 5.2 of the Permit specifies interim compliance dates to be met prior to attaining the Final WQBEL for phosphorus on January 1, 2024; and

WHEREAS, Burlington and WDNR have reached an agreement regarding the issues raised in the petition regarding the Final WQBEL for phosphorus and the associated compliance schedule and all other issues raised in the petition;

### **IT IS HEREBY STIPULATED AND AGREED BETWEEN WDNR AND BURLINGTON:**

1. No later than thirty (30) days following the execution of this agreement, WDNR shall public notice a proposed modification of the Permit, to modify the interim compliance

schedule for phosphorus, in accordance with the terms and conditions set forth in Attachment A (“Permit Modification”).

2. If the Permit is modified according to the terms of Attachment A on or before January 1, 2018, Burlington shall withdraw the Petition for Review and Request for Contested Case Hearing filed on February 9, 2015.
3. If the Permit is modified according to the terms of Attachment A on or before January 1, 2018, Burlington agrees they will comply with the interim compliance schedule for phosphorus specified in Attachment A and will not seek review of the Permit Modification pursuant to Wis. Stat. §§ 283.63 or 227.42. Burlington also agrees not to seek judicial review of this Stipulation under Wis. Stat. § 227.52.
4. Prior to the expiration date of the current Permit and before the effective date of the Final WQBEL for phosphorus, WDNR shall re-evaluate and replace the Final WQBEL with a New Final WQBEL for phosphorus.
5. The Department’s reevaluation of the phosphorus WQBEL shall be included as part of a proposed reissuance, or revocation and reissuance, of WPDES Permit No. WI-0022926-09-0.
6. WDNR’s reevaluation of the phosphorus WQBEL at the next reissuance could result in a calculated WQBEL that is higher, lower, or the same numeric value as the final limit in the current permit, but in any case will be a new decision by WDNR regarding the final value of the WQBEL at the time of reissuance.

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Attorney Judith M. Mills  
Department of Natural Resources  
P.O. Box 7921  
Madison, WI 53707

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Attorney John Bjelajac  
Bjelajac & Kallenbach, LLC  
P.O. Box 38  
Racine, WI 53401-0038