

# Compliance Maintenance Annual Report

Racine Wastewater Utility

Last Updated: Reporting For:  
6/6/2024 **2023**

## Influent Flow and Loading

### 1. Monthly Average Flows and BOD Loadings

1.1 Verify the following monthly flows and BOD loadings to your facility.

| Influent No.<br>701 | Influent Monthly<br>Average Flow, MGD | x | Influent Monthly<br>Average BOD<br>Concentration mg/L | x | 8.34 | = | Influent Monthly<br>Average BOD<br>Loading, lbs/day |
|---------------------|---------------------------------------|---|---|---|------|---|---|
| January             | 17.8510                               | x | 113   | x | 8.34 | = | 16,866  |
| February            | 30.9946                               | x | 84  | x | 8.34 | = | 21,704  |
| March               | 39.5581                               | x | 50  | x | 8.34 | = | 16,443  |
| April               | 26.3533                               | x | 74  | x | 8.34 | = | 16,286  |
| May                 | 18.7226                               | x | 115   | x | 8.34 | = | 17,987  |
| June                | 14.5533                               | x | 160   | x | 8.34 | = | 19,420  |
| July                | 14.4452                               | x | 152   | x | 8.34 | = | 18,324  |
| August              | 16.8329                               | x | 127   | x | 8.34 | = | 17,779  |
| September           | 16.7767                               | x | 147   | x | 8.34 | = | 20,554  |
| October             | 19.7555                               | x | 110   | x | 8.34 | = | 18,092  |
| November            | 16.6497                               | x | 128   | x | 8.34 | = | 17,723  |
| December            | 20.7977                               | x | 107   | x | 8.34 | = | 18,481  |

### 2. Maximum Monthly Design Flow and Design BOD Loading

2.1 Verify the design flow and loading for your facility.

| Design                     | Design Factor | x | %   | = | % of Design |
|----------------------------|---------------|---|-----|---|-------------|
| Max Month Design Flow, MGD | 48            | x | 90  | = | 43.2        |
|                            |               | x | 100 | = | 48          |
| Design BOD, lbs/day        | 31591         | x | 90  | = | 28431.9     |
|                            |               | x | 100 | = | 31591       |

2.2 Verify the number of times the flow and BOD exceeded 90% or 100% of design, points earned, and score:

|                               | Months<br>of<br>Influent | Number of times<br>flow was greater<br>than 90% of | Number of times<br>flow was greater<br>than 100% of | Number of times<br>BOD was greater<br>than 90% of design | Number of times<br>BOD was greater<br>than 100% of design |
|-------------------------------|--------------------------|--|---|--|---|
| January                       | 1                        | 0  | 0   | 0  | 0   |
| February                      | 1                        | 0  | 0   | 0  | 0   |
| March                         | 1                        | 0  | 0   | 0  | 0   |
| April                         | 1                        | 0  | 0   | 0  | 0   |
| May                           | 1                        | 0  | 0   | 0  | 0   |
| June                          | 1                        | 0  | 0   | 0  | 0   |
| July                          | 1                        | 0  | 0   | 0  | 0   |
| August                        | 1                        | 0  | 0   | 0  | 0   |
| September                     | 1                        | 0  | 0   | 0  | 0   |
| October                       | 1                        | 0  | 0   | 0  | 0   |
| November                      | 1                        | 0  | 0   | 0  | 0   |
| December                      | 1                        | 0  | 0   | 0  | 0   |
| Points per each               |                          | 2  | 1   | 3  | 2   |
| Exceedances                   |                          | 0  | 0   | 0  | 0   |
| Points                        |                          | 0  | 0   | 0  | 0   |
| <b>Total Number of Points</b> |                          |  |   |  | <b>0</b>  |

0

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## 3. Flow Meter

3.1 Was the influent flow meter calibrated in the last year?

- Yes Enter last calibration date (MM/DD/YYYY)

- No

If No, please explain:

## 4. Sewer Use Ordinance

4.1 Did your community have a sewer use ordinance that limited or prohibited the discharge of excessive conventional pollutants ((C)BOD, SS, or pH) or toxic substances to the sewer from industries, commercial users, hauled waste, or residences?

- Yes

- No

If No, please explain:

4.2 Was it necessary to enforce the ordinance?

- Yes

- No

If Yes, please explain:

## 5. Septage Receiving

5.1 Did you have requests to receive septage at your facility?

Septic Tanks                      Holding Tanks                      Grease Traps

- Yes

- Yes

- Yes

- No

- No

- No

5.2 Did you receive septage at your facility? If yes, indicate volume in gallons.

Septic Tanks

- Yes  gallons

- No

Holding Tanks

- Yes  gallons

- No

Grease Traps

- Yes  gallons

- No

5.2.1 If yes to any of the above, please explain if plant performance is affected when receiving any of these wastes.

## 6. Pretreatment

6.1 Did your facility experience operational problems, permit violations, biosolids quality concerns, or hazardous situations in the sewer system or treatment plant that were attributable to commercial or industrial discharges in the last year?

- Yes

- No

If yes, describe the situation and your community's response.

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6.2 Did your facility accept hauled industrial wastes, landfill leachate, etc.?

- Yes
- No

If yes, describe the types of wastes received and any procedures or other restrictions that were in place to protect the facility from the discharge of hauled industrial wastes.

Hauled industrial waste is pH checked for compliance prior to discharge. A representative sample was analyzed prior to accepting the waste. Additionally, analytes are tested for on a monthly for quarterly basis.  
Landfill leachate is accepted from a local landfill as a permanent discharge although it is not hauled.

|   |          |
|---|----------|
| <b>Total Points Generated</b>               | 0        |
| <b>Score (100 - Total Points Generated)</b> | 100      |
| <b>Section Grade</b>                        | <b>A</b> |

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## Effluent Quality and Plant Performance (BOD/CBOD)

### 1. Effluent (C)BOD Results

1.1 Verify the following monthly average effluent values, exceedances, and points for BOD or CBOD

| Outfall No.<br>001 | Monthly Average Limit (mg/L) | 90% of Permit Limit > 10 (mg/L) | Effluent Monthly Average (mg/L) | Months of Discharge with a Limit | Permit Limit Exceedance | 90% Permit Limit Exceedance |
|--------------------|------------------------------|---------------------------------|---------------------------------|----------------------------------|-------------------------|-----------------------------|
| January            | 30                           | 27                              | 9                               | 1                                | 0                       | 0                           |
| February           | 30                           | 27                              | 11                              | 1                                | 0                       | 0                           |
| March              | 30                           | 27                              | 8                               | 1                                | 0                       | 0                           |
| April              | 30                           | 27                              | 8                               | 1                                | 0                       | 0                           |
| May                | 30                           | 27                              | 10                              | 1                                | 0                       | 0                           |
| June               | 30                           | 27                              | 10                              | 1                                | 0                       | 0                           |
| July               | 30                           | 27                              | 8                               | 1                                | 0                       | 0                           |
| August             | 30                           | 27                              | 10                              | 1                                | 0                       | 0                           |
| September          | 30                           | 27                              | 7                               | 1                                | 0                       | 0                           |
| October            | 30                           | 27                              | 9                               | 1                                | 0                       | 0                           |
| November           | 30                           | 27                              | 12                              | 1                                | 0                       | 0                           |
| December           | 30                           | 27                              | 9                               | 1                                | 0                       | 0                           |

\* Equals limit if limit is <= 10

|  |    |   |          |
|--|----|---|----------|
| Months of discharge/yr                                 | 12 |   |          |
| Points per each exceedance with 12 months of discharge |    | 7 | 3        |
| Exceedances  |    | 0 | 0        |
| Points   |    | 0 | 0        |
| <b>Total number of points</b>                          |    |   | <b>0</b> |

0

NOTE: For systems that discharge intermittently to state waters, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge. Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is  $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

Per cent removal in March did not meet 85%. It was 84% because due to I/I and higher than normal flows, the influent BOD was 51 mg/l.

### 2. Flow Meter Calibration

2.1 Was the effluent flow meter calibrated in the last year?

- Yes Enter last calibration date (MM/DD/YYYY)

2023-07-19

- No

If No, please explain:

### 3. Treatment Problems

3.1 What problems, if any, were experienced over the last year that threatened treatment?

There were no treatment problems.

### 4. Other Monitoring and Limits

4.1 At any time in the past year was there an exceedance of a permit limit for any other pollutants such as chlorides, pH, residual chlorine, fecal coliform, or metals?

- Yes

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|   |
|---|
| <p><input type="radio"/> No</p> <p>If Yes, please explain:</p> <div style="border: 1px solid black; padding: 5px;"><p>A chlorine sample was not taken on 2/28/23. There were 2 samples taken 3/1/2023, one of which was just after midnight. Staff has been retrained on sample collection and permit requirements. This was reported on the February 2023 DMR.</p></div> <p>4.2 At any time in the past year was there a failure of an effluent acute or chronic whole effluent toxicity (WET) test?</p> <p><input type="radio"/> Yes</p> <p><input checked="" type="radio"/> No</p> <p>If Yes, please explain:</p> <div style="border: 1px solid black; height: 20px;"></div> <p>4.3 If the biomonitoring (WET) test did not pass, were steps taken to identify and/or reduce source(s) of toxicity?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input checked="" type="radio"/> N/A</p> <p>Please explain unless not applicable:</p> <div style="border: 1px solid black; height: 20px;"></div> |
|---|

|   |          |
|---|----------|
| <b>Total Points Generated</b>               | 0        |
| <b>Score (100 - Total Points Generated)</b> | 100      |
| <b>Section Grade</b>                        | <b>A</b> |

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**2023**

## Effluent Quality and Plant Performance (Total Suspended Solids)

### 1. Effluent Total Suspended Solids Results

1.1 Verify the following monthly average effluent values, exceedances, and points for TSS:

| Outfall No.<br>001   | Monthly Average Limit (mg/L) | 90% of Permit Limit >10 (mg/L) | Effluent Monthly Average (mg/L) | Months of Discharge with a Limit | Permit Limit Exceedance | 90% Permit Limit Exceedance |
|--|------------------------------|--------------------------------|---------------------------------|----------------------------------|-------------------------|-----------------------------|
| January  | 30                           | 27                             | 5                               | 1                                | 0                       | 0                           |
| February   | 30                           | 27                             | 6                               | 1                                | 0                       | 0                           |
| March  | 30                           | 27                             | 5                               | 1                                | 0                       | 0                           |
| April  | 30                           | 27                             | 4                               | 1                                | 0                       | 0                           |
| May  | 30                           | 27                             | 4                               | 1                                | 0                       | 0                           |
| June   | 30                           | 27                             | 4                               | 1                                | 0                       | 0                           |
| July   | 30                           | 27                             | 6                               | 1                                | 0                       | 0                           |
| August   | 30                           | 27                             | 5                               | 1                                | 0                       | 0                           |
| September  | 30                           | 27                             | 6                               | 1                                | 0                       | 0                           |
| October  | 30                           | 27                             | 5                               | 1                                | 0                       | 0                           |
| November   | 30                           | 27                             | 5                               | 1                                | 0                       | 0                           |
| December   | 30                           | 27                             | 7                               | 1                                | 0                       | 0                           |
| * Equals limit if limit is <= 10                               |                              |                                |                                 |                                  |                         |                             |
| Months of Discharge/yr   |                              |                                |                                 | 12                               |                         |                             |
| <b>Points per each exceedance with 12 months of discharge:</b> |                              |                                |                                 |                                  | <b>7</b>                | <b>3</b>                    |
| Exceedances  |                              |                                |                                 |                                  | 0                       | 0                           |
| Points   |                              |                                |                                 |                                  | 0                       | 0                           |
| <b>Total Number of Points</b>                                  |                              |                                |                                 |                                  |                         | <b>0</b>                    |

0

NOTE: For systems that discharge intermittently to state waters, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge.

Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is  $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

|   |          |
|---|----------|
| <b>Total Points Generated</b>               | 0        |
| <b>Score (100 - Total Points Generated)</b> | 100      |
| <b>Section Grade</b>                        | <b>A</b> |

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## Effluent Quality and Plant Performance (Ammonia - NH3)

### 1. Effluent Ammonia Results

1.1 Verify the following monthly and weekly average effluent values, exceedances and points for ammonia

| Outfall No.<br>001   | Monthly Average NH3 Limit (mg/L) | Weekly Average NH3 Limit (mg/L) | Effluent Monthly Average NH3 (mg/L) | Monthly Permit Limit Exceedance | Effluent Weekly Average for Week 1 | Effluent Weekly Average for Week 2 | Effluent Weekly Average for Week 3 | Effluent Weekly Average for Week 4 | Weekly Permit Limit Exceedance |
|--|----------------------------------|---------------------------------|-------------------------------------|---------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|--------------------------------|
| January  | 25                               | 62                              | 1.056                               | 0                               | .643                               | 1.013                              | 1.141                              | 1.324                              | 0                              |
| February   | 25                               | 62                              | 1.893                               | 0                               | 2.951                              | 2.13                               | 1.367                              | 1.124                              | 0                              |
| March  | 25                               | 62                              | 1.071                               | 0                               | 1.494                              | 1.211                              | .611                               | 1.146                              | 0                              |
| April  | 25                               | 62                              | 1.169                               | 0                               | .743                               | 1.303                              | 1.446                              | 1.496                              | 0                              |
| May  |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 0                              |
| June   |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 0                              |
| July   |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 0                              |
| August   |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 0                              |
| September  |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 0                              |
| October  |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 0                              |
| November   | 25                               | 62                              | 3.198                               | 0                               | 5.261                              | 2.403                              | 1.949                              | 2.799                              | 0                              |
| December   | 25                               | 62                              | .913                                | 0                               | 1.089                              | .656                               | 1.137                              | 1.091                              | 0                              |
| Points per each exceedance of Monthly average:                                   |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 10                             |
| Exceedances, Monthly:  |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 0                              |
| Points:  |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 0                              |
| Points per each exceedance of weekly average (when there is no monthly average): |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 2.5                            |
| Exceedances, Weekly:   |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 0                              |
| Points:  |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | 0                              |
| <b>Total Number of Points</b>  |                                  |                                 |                                     |                                 |                                    |                                    |                                    |                                    | <b>0</b>                       |

0

NOTE: Limit exceedances are considered for monthly OR weekly averages but not both. When a monthly average limit exists it will be used to determine exceedances and generate points. This will be true even if a weekly limit also exists. When a weekly average limit exists and a monthly limit does not exist, the weekly limit will be used to determine exceedances and generate points.

1.2 If any violations occurred, what action was taken to regain compliance?

|  |
|--|
|  |
|--|

|   |            |
|---|------------|
| <b>Total Points Generated</b>               | <b>0</b>   |
| <b>Score (100 - Total Points Generated)</b> | <b>100</b> |
| <b>Section Grade</b>                        | <b>A</b>   |

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## Effluent Quality and Plant Performance (Phosphorus)

### 1. Effluent Phosphorus Results

1.1 Verify the following monthly average effluent values, exceedances, and points for Phosphorus

| Outfall No. 001  | Monthly Average phosphorus Limit (mg/L) | Effluent Monthly Average phosphorus (mg/L) | Months of Discharge with a Limit | Permit Limit Exceedance |
|--|---|--|----------------------------------|-------------------------|
| January  | .86                                     | 0.696                                      | 1                                | 0                       |
| February   | .86                                     | 0.650                                      | 1                                | 0                       |
| March  | .86                                     | 0.635                                      | 1                                | 0                       |
| April  | .86                                     | 0.751                                      | 1                                | 0                       |
| May  | .86                                     | 0.754                                      | 1                                | 0                       |
| June   | .86                                     | 0.647                                      | 1                                | 0                       |
| July   | .86                                     | 0.708                                      | 1                                | 0                       |
| August   | .86                                     | 0.698                                      | 1                                | 0                       |
| September  | .86                                     | 0.667                                      | 1                                | 0                       |
| October  | .86                                     | 0.596                                      | 1                                | 0                       |
| November   | .86                                     | 0.792                                      | 1                                | 0                       |
| December   | .86                                     | 0.703                                      | 1                                | 0                       |
| Months of Discharge/yr   |   |  | 12                               |                         |
| <b>Points per each exceedance with 12 months of discharge:</b> |   |  |                                  | <b>10</b>               |
| Exceedances  |   |  |                                  | 0                       |
| <b>Total Number of Points</b>                                  |   |  |                                  | <b>0</b>                |

0

NOTE: For systems that discharge intermittently to waters of the state, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge.

Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is  $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

|   |          |
|---|----------|
| <b>Total Points Generated</b>               | 0        |
| <b>Score (100 - Total Points Generated)</b> | 100      |
| <b>Section Grade</b>                        | <b>A</b> |



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## Biosolids Quality and Management

### 1. Biosolids Use/Disposal

1.1 How did you use or dispose of your biosolids? (Check all that apply)

- Land applied under your permit
- Publicly Distributed Exceptional Quality Biosolids
- Hauled to another permitted facility
- Landfilled
- Incinerated
- Other

NOTE: If you did not remove biosolids from your system, please describe your system type such as lagoons, reed beds, recirculating sand filters, etc.

1.1.1 If you checked Other, please describe:

### 2. Land Application Site

2.1 Last Year's Approved and Active Land Application Sites

2.1.1 How many acres did you have?

9480.8 acres

2.1.2 How many acres did you use?

523.1 acres

2.2 If you did not have enough acres for your land application needs, what action was taken?

2.3 Did you overapply nitrogen on any of your approved land application sites you used last year?

Yes (30 points)

No

2.4 Have all the sites you used last year for land application been soil tested in the previous 4 years?

Yes

No (10 points)

N/A

### 3. Biosolids Metals

Number of biosolids outfalls in your WPDES permit:

3.1 For each outfall tested, verify the biosolids metal quality values for your facility during the last calendar year.

#### Outfall No. 002 - ANAEROBIC CAKE SLUDGE

| Parameter  | 80% of Limit | H.Q. Limit | Ceiling Limit | Jan  | Feb | Mar   | Apr | May  | Jun | Jul  | Aug | Sep  | Oct | Nov  | Dec | 80% Value | High Quality | Ceiling |
|------------|--------------|------------|---------------|------|-----|-------|-----|------|-----|------|-----|------|-----|------|-----|-----------|--------------|---------|
| Arsenic    |              | 41         | 75            | 6.7  |     | 7.7   |     | <7   |     | <6.8 |     | <6.1 |     | 6.9  |     |           | 0            | 0       |
| Cadmium    |              | 39         | 85            | 1.4  |     | 1.2   |     | 1.3  |     | 1.2  |     | 1.5  |     | 1.2  |     |           | 0            | 0       |
| Copper     |              | 1500       | 4300          | 593  |     | 620   |     | 637  |     | 591  |     | 601  |     | 587  |     |           | 0            | 0       |
| Lead       |              | 300        | 840           | 30   |     | 34    |     | 32.1 |     | 25.6 |     | 33.4 |     | 31.9 |     |           | 0            | 0       |
| Mercury    |              | 17         | 57            | .47  |     | .76   |     | .38  |     | .36  |     | .44  |     | .64  |     |           | 0            | 0       |
| Molybdenum | 60           |            | 75            | 21.9 |     | 20.8  |     | 17.1 |     | 22.9 |     | 25.4 |     | 25.4 |     | 0         |              | 0       |
| Nickel     | 336          |            | 420           | 31.9 |     | 32.4  |     | 29.5 |     | 28.5 |     | 36.2 |     | 36   |     | 0         |              | 0       |
| Selenium   | 80           |            | 100           | 7.3  |     | <12.2 |     | 8.4  |     | 11.1 |     | 7.4  |     | 10.6 |     | 0         |              | 0       |
| Zinc       |              | 2800       | 7500          | 857  |     | 869   |     | 785  |     | 865  |     | 980  |     | 931  |     |           | 0            | 0       |

3.1.1 Number of times any of the metals exceeded the high quality limits OR 80% of the limit for molybdenum, nickel, or selenium = 0

Exceedence Points

0 (0 Points)

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1-2 (10 Points)  
 > 2 (15 Points)  
 3.1.2 If you exceeded the high quality limits, did you cumulatively track the metals loading at each land application site? (check applicable box)  
 Yes  
 No (10 points)  
 N/A - Did not exceed limits or no HQ limit applies (0 points)  
 N/A - Did not land apply biosolids until limit was met (0 points)  
 3.1.3 Number of times any of the metals exceeded the ceiling limits = 0  
 Exceedence Points  
 0 (0 Points)  
 1 (10 Points)  
 > 1 (15 Points)  
 3.1.4 Were biosolids land applied which exceeded the ceiling limit?  
 Yes (20 Points)  
 No (0 Points)  
 3.1.5 If any metal limit (high quality or ceiling) was exceeded at any time, what action was taken? Has the source of the metals been identified?

0

## 4. Pathogen Control (per outfall):

4.1 Verify the following information. If any information is incorrect, use the Report Issue button under the Options header in the left-side menu.

|                              |   |
|------------------------------|---|
| Outfall Number:              | <b>002</b>  |
| Biosolids Class:             | B   |
| Bacteria Type and Limit:     | Fecal Coliform  |
| Sample Dates:                | 01/01/2023 - 02/28/2023   |
| Density:                     | 82,080  |
| Sample Concentration Amount: | CFU/G TS  |
| Requirement Met:             | Yes   |
| Land Applied:                | No  |
| Process:                     | Anaerobic Digestion   |
| Process Description:         | Anaerobic digestion: 30 - 45 day MCRT at 95 degrees F; record temperature 3x daily requirement met. |

|                              |   |
|------------------------------|---|
| Outfall Number:              | <b>002</b>  |
| Biosolids Class:             | B   |
| Bacteria Type and Limit:     | Fecal Coliform  |
| Sample Dates:                | 03/01/2023 - 04/30/2023   |
| Density:                     | 48,850  |
| Sample Concentration Amount: | CFU/G TS  |
| Requirement Met:             | Yes   |
| Land Applied:                | Yes   |
| Process:                     | Anaerobic Digestion   |
| Process Description:         | Anaerobic digestion: 30 - 45 day MCRT at 95 degrees F; record temperature 3x daily requirement met. |

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|                              |   |
|------------------------------|---|
| Outfall Number:              | <b>002</b>  |
| Biosolids Class:             | B   |
| Bacteria Type and Limit:     | Fecal Coliform  |
| Sample Dates:                | 05/01/2023 - 06/30/2023   |
| Density:                     | 21,640  |
| Sample Concentration Amount: | CFU/G TS  |
| Requirement Met:             | Yes   |
| Land Applied:                | No  |
| Process:                     | Anaerobic Digestion   |
| Process Description:         | Anaerobic digestion: 30 - 45 day MCRT at 95 degrees F; record temperature 3x daily requirement met. |

|                              |   |
|------------------------------|---|
| Outfall Number:              | <b>002</b>  |
| Biosolids Class:             | B   |
| Bacteria Type and Limit:     | Fecal Coliform  |
| Sample Dates:                | 07/01/2023 - 08/31/2023   |
| Density:                     | 37,010  |
| Sample Concentration Amount: | CFU/G TS  |
| Requirement Met:             | Yes   |
| Land Applied:                | Yes   |
| Process:                     | Anaerobic Digestion   |
| Process Description:         | Anaerobic digestion: 30 - 45 day MCRT at 95 degrees F; record temperature 3x daily requirement met. |

|                              |   |
|------------------------------|---|
| Outfall Number:              | <b>002</b>  |
| Biosolids Class:             | B   |
| Bacteria Type and Limit:     | Fecal Coliform  |
| Sample Dates:                | 09/01/2023 - 10/31/2023   |
| Density:                     | 23,950  |
| Sample Concentration Amount: | CFU/G TS  |
| Requirement Met:             | Yes   |
| Land Applied:                | No  |
| Process:                     | Anaerobic Digestion   |
| Process Description:         | Anaerobic digestion: 30 - 45 day MCRT at 95 degrees F; record temperature 3x daily requirement met. |

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|   |   |          |
|---|---|----------|
| Outfall Number:   | <b>002</b>  | <b>0</b> |
| Biosolids Class:  | B   |          |
| Bacteria Type and Limit:  | Fecal Coliform  |          |
| Sample Dates:   | 11/01/2023 - 12/31/2023   |          |
| Density:  | 27,260  |          |
| Sample Concentration Amount:  | CFU/G TS  |          |
| Requirement Met:  | Yes   |          |
| Land Applied:   | Yes   |          |
| Process:  | Anaerobic Digestion   |          |
| Process Description:  | Anaerobic digestion: 30 - 45 day MCRT at 95 degrees F; record temperature 3x daily requirement met. |          |
| <p>4.2 If exceeded Class B limit or did not meet the process criteria at the time of land application.</p> <p>4.2.1 Was the limit exceeded or the process criteria not met at the time of land application?</p> <p><input type="radio"/> Yes (40 Points)</p> <p><input checked="" type="radio"/> No</p> <p>If yes, what action was taken?</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> |   |          |
| <p>5. Vector Attraction Reduction (per outfall):</p> <p>5.1 Verify the following information. If any of the information is incorrect, use the Report Issue button under the Options header in the left-side menu.</p>   |   |          |
| Outfall Number:   | <b>002</b>  |          |
| Method Date:  | 02/28/2023  |          |
| Option Used To Satisfy Requirement:   | Incorporation when land apply   |          |
| Requirement Met:  | Yes   |          |
| Land Applied:   | No  |          |
| Limit (if applicable):  |   |          |
| Results (if applicable):  |   |          |
| Outfall Number:   | <b>002</b>  |          |
| Method Date:  | 04/30/2023  |          |
| Option Used To Satisfy Requirement:   | Incorporation when land apply   |          |
| Requirement Met:  | Yes   |          |
| Land Applied:   | Yes   |          |
| Limit (if applicable):  |   |          |
| Results (if applicable):  |   |          |
| Outfall Number:   | <b>002</b>  |          |
| Method Date:  | 06/30/2023  |          |
| Option Used To Satisfy Requirement:   | Incorporation when land apply   |          |
| Requirement Met:  | Yes   |          |
| Land Applied:   | No  |          |
| Limit (if applicable):  |   |          |
| Results (if applicable):  |   |          |

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|   |                               |          |
|---|-------------------------------|----------|
| Outfall Number:   | <b>002</b>                    |          |
| Method Date:  | 08/31/2023                    |          |
| Option Used To Satisfy Requirement:   | Incorporation when land apply |          |
| Requirement Met:  | Yes                           |          |
| Land Applied:   | Yes                           |          |
| Limit (if applicable):  |                               |          |
| Results (if applicable):  |                               |          |
| Outfall Number:   | <b>002</b>                    | <b>0</b> |
| Method Date:  | 10/31/2023                    |          |
| Option Used To Satisfy Requirement:   | Incorporation when land apply |          |
| Requirement Met:  | Yes                           |          |
| Land Applied:   | No                            |          |
| Limit (if applicable):  |                               |          |
| Results (if applicable):  |                               |          |
| Outfall Number:   | <b>002</b>                    |          |
| Method Date:  | 12/31/2023                    |          |
| Option Used To Satisfy Requirement:   | Incorporation when land apply |          |
| Requirement Met:  | Yes                           |          |
| Land Applied:   | Yes                           |          |
| Limit (if applicable):  |                               |          |
| Results (if applicable):  |                               |          |
| <p>5.2 Was the limit exceeded or the process criteria not met at the time of land application?</p> <p><input type="radio"/> Yes (40 Points)</p> <p><input checked="" type="radio"/> No</p> <p>If yes, what action was taken?</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>  |                               |          |
| <p>6. Biosolids Storage</p> <p>6.1 How many days of actual, current biosolids storage capacity did your wastewater treatment facility have either on-site or off-site?</p> <p><input checked="" type="radio"/> &gt;= 180 days (0 Points)</p> <p><input type="radio"/> 150 - 179 days (10 Points)</p> <p><input type="radio"/> 120 - 149 days (20 Points)</p> <p><input type="radio"/> 90 - 119 days (30 Points)</p> <p><input type="radio"/> &lt; 90 days (40 Points)</p> <p><input type="radio"/> N/A (0 Points)</p> <p>6.2 If you checked N/A above, explain why.</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> |                               |          |
| <p>7. Issues</p> <p>7.1 Describe any outstanding biosolids issues with treatment, use or overall management:</p> <div style="border: 1px solid black; padding: 5px;"> <p>There were no issues.</p> </div>   |                               |          |

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|   |          |
|---|----------|
| <b>Total Points Generated</b>               | 0        |
| <b>Score (100 - Total Points Generated)</b> | 100      |
| <b>Section Grade</b>                        | <b>A</b> |

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2023

## Staffing and Preventative Maintenance (All Treatment Plants)

|  |          |
|--|----------|
| <p>1. Plant Staffing</p> <p>1.1 Was your wastewater treatment plant adequately staffed last year?</p> <ul style="list-style-type: none"><li>● Yes</li><li>○ No</li></ul> <p>If No, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>Could use more help/staff for:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>1.2 Did your wastewater staff have adequate time to properly operate and maintain the plant and fulfill all wastewater management tasks including recordkeeping?</p> <ul style="list-style-type: none"><li>● Yes</li><li>○ No</li></ul> <p>If No, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>  |          |
| <p>2. Preventative Maintenance</p> <p>2.1 Did your plant have a documented AND implemented plan for preventative maintenance on major equipment items?</p> <ul style="list-style-type: none"><li>● Yes (Continue with question 2) <input type="checkbox"/><input type="checkbox"/></li><li>○ No (40 points) <input type="checkbox"/><input type="checkbox"/></li></ul> <p>If No, please explain, then go to question 3:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>2.2 Did this preventative maintenance program depict frequency of intervals, types of lubrication, and other tasks necessary for each piece of equipment?</p> <ul style="list-style-type: none"><li>● Yes</li><li>○ No (10 points)</li></ul> <p>2.3 Were these preventative maintenance tasks, as well as major equipment repairs, recorded and filed so future maintenance problems can be assessed properly?</p> <ul style="list-style-type: none"><li>● Yes<ul style="list-style-type: none"><li>○ Paper file system</li><li>○ Computer system</li><li>● Both paper and computer system</li></ul></li><li>○ No (10 points)</li></ul> | <b>0</b> |
| <p>3. O&amp;M Manual</p> <p>3.1 Does your plant have a detailed O&amp;M and Manufacturer Equipment Manuals that can be used as a reference when needed?</p> <ul style="list-style-type: none"><li>● Yes</li><li>○ No</li></ul>   |          |
| <p>4. Overall Maintenance /Repairs</p> <p>4.1 Rate the overall maintenance of your wastewater plant.</p> <ul style="list-style-type: none"><li>● Excellent</li><li>○ Very good</li><li>○ Good</li><li>○ Fair</li><li>○ Poor</li></ul> <p>Describe your rating:</p>   |          |

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We have a qualified maintenance staff, supervised by an experienced mechanic. Staff is cross-trained and does an excellent job.

|   |          |
|---|----------|
| <b>Total Points Generated</b>               | 0        |
| <b>Score (100 - Total Points Generated)</b> | 100      |
| <b>Section Grade</b>                        | <b>A</b> |



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## Operator Certification and Education

### 1. Operator-In-Charge

1.1 Did you have a designated operator-in-charge during the report year?

- Yes (0 points)
- No (20 points)

Name:

MARY FRANCES T KLIMEK

Certification No:

23898

0

### 2. Certification Requirements

2.1 In accordance with Chapter NR 114.56 and 114.57, Wisconsin Administrative Code, what level and subclass(es) were required for the operator-in-charge (OIC) to operate the wastewater treatment plant and what level and subclass(es) were held by the operator-in-charge?

| Sub Class | SubClass Description          | WWTP     | OIC |       |          |
|-----------|-------------------------------|----------|-----|-------|----------|
|           |                               | Advanced | OIT | Basic | Advanced |
| A1        | Suspended Growth Processes    | X        |     |       | X        |
| A2        | Attached Growth Processes     |          |     |       |          |
| A3        | Recirculating Media Filters   |          |     |       |          |
| A4        | Ponds, Lagoons and Natural    |          |     |       |          |
| A5        | Anaerobic Treatment Of Liquid |          |     |       |          |
| B         | Solids Separation             | X        |     |       | X        |
| C         | Biological Solids/Sludges     | X        |     |       | X        |
| P         | Total Phosphorus              | X        |     |       | X        |
| N         | Total Nitrogen                |          |     |       |          |
| D         | Disinfection                  | X        |     |       | X        |
| L         | Laboratory                    | X        |     |       | X        |
| U         | Unique Treatment Systems      |          | X   |       |          |
| SS        | Sanitary Sewage Collection    | X        | NA  | X     | NA       |

0

2.2 Was the operator-in-charge certified at the appropriate level and subclass(es) to operate this plant? (Note: Certification in subclass SS is required 5 years after permit reissuance.)

- Yes (0 points)
- No (20 points)

2.3 For wastewater treatment facilities with a registered or certified laboratory, is at least one operator that works in the laboratory certified at the basic level in the laboratory (L) subclass?

- Yes
- No
- N/A – Wastewater treatment facility does not have a registered or certified laboratory

2.4 For wastewater treatment facilities that own and operate a sanitary sewage collection system, has at least one operator been designated the OIC for sanitary sewage collection system and certified at the basic level in the sanitary sewage collection system (SS) subclass?

- Yes
- No
- N/A – Owner of the Wastewater treatment facility does not own and operate a sanitary sewage collection system

### 3. Succession Planning

3.1 In the event of the loss of your designated operator-in-charge, did you have a contingency plan to ensure the continued proper operation and maintenance of the plant that includes one or more of the following options (check all that apply)?

- One or more additional certified operators on staff

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|   |   |
|---|---|
| <input type="checkbox"/> An arrangement with another certified operator<br><input type="checkbox"/> An arrangement with another community with a certified operator<br><input type="checkbox"/> An operator on staff who has an operator-in-training certificate for your plant and is expected to be certified within one year<br><input type="checkbox"/> A consultant to serve as your certified operator<br><input type="checkbox"/> None of the above (20 points)<br>If "None of the above" is selected, please explain:<br><div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div> | 0 |
|---|---|

|   |  |
|---|--|
| <p>4. Continuing Education Credits</p> <p>4.1 If you had a designated operator-in-charge, was the operator-in-charge earning Continuing Education Credits at the following rates?</p> <p>OIT and Basic Certification:</p> <ul style="list-style-type: none"> <li><input type="radio"/> Averaging 6 or more CECs per year.</li> <li><input type="radio"/> Averaging less than 6 CECs per year.</li> </ul> <p>Advanced Certification:</p> <ul style="list-style-type: none"> <li><input checked="" type="radio"/> Averaging 8 or more CECs per year.</li> <li><input type="radio"/> Averaging less than 8 CECs per year.</li> </ul> |  |
|---|--|

|   |          |
|---|----------|
| <b>Total Points Generated</b>               | 0        |
| <b>Score (100 - Total Points Generated)</b> | 100      |
| <b>Section Grade</b>                        | <b>A</b> |

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## Financial Management

|  |  |   |   |  |    |   |  |    |   |   |   |   |  |
|--|--|---|---|--|----|---|--|----|---|---|---|---|--|
| <p>1. Provider of Financial Information</p> <p>Name: <input style="width: 300px;" type="text" value="Kenneth Scolaro"/></p> <p>Telephone: <input style="width: 150px;" type="text" value="262-636-9433"/> (XXX) XXX-XXXX</p> <p>E-Mail Address (optional): <input style="width: 300px;" type="text" value="ken.scolaro@cityofracine.org"/></p>   |  |   |   |  |    |   |  |    |   |   |   |   |  |
| <p>2. Treatment Works Operating Revenues</p> <p>2.1 Are User Charges or other revenues sufficient to cover O&amp;M expenses for your wastewater treatment plant AND/OR collection system ?</p> <p>● Yes (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ No (40 points)</p> <p>If No, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>2.2 When was the User Charge System or other revenue source(s) last reviewed and/or revised? Year: <input style="width: 100px;" type="text" value="2024"/></p> <p>● 0-2 years ago (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ 3 or more years ago (20 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ N/A (private facility)</p> <p>2.3 Did you have a special account (e.g., CWFPP required segregated Replacement Fund, etc.) or financial resources available for repairing or replacing equipment for your wastewater treatment plant and/or collection system?</p> <p>● Yes (0 points)</p> <p>○ No (40 points)</p>  | 0  |   |   |  |    |   |  |    |   |   |   |   |  |
| <p>REPLACEMENT FUNDS [PUBLIC MUNICIPAL FACILITIES SHALL COMPLETE QUESTION 3]</p>   |  |   |   |  |    |   |  |    |   |   |   |   |  |
| <p>3. Equipment Replacement Funds</p> <p>3.1 When was the Equipment Replacement Fund last reviewed and/or revised? Year: <input style="width: 100px;" type="text" value="2023"/></p> <p>● 1-2 years ago (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ 3 or more years ago (20 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ N/A</p> <p>If N/A, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>  |  |   |   |  |    |   |  |    |   |   |   |   |  |
| <p>3.2 Equipment Replacement Fund Activity</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;"><b>3.2.1 Ending Balance Reported on Last Year's CMAR</b></td> <td style="width: 5%; text-align: right;">\$</td> <td style="width: 35%; text-align: right;"><input style="width: 150px;" type="text" value="3,267,874.14"/></td> </tr> <tr> <td>3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)</td> <td style="text-align: right;">\$</td> <td style="text-align: right;"><input style="width: 150px;" type="text" value="0.00"/></td> </tr> <tr> <td>3.2.3 Adjusted January 1st Beginning Balance</td> <td style="text-align: right;">\$</td> <td style="text-align: right;"><input style="width: 150px;" type="text" value="3,267,874.14"/></td> </tr> <tr> <td>3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)</td> <td style="text-align: right;">+</td> <td style="text-align: right;"><input style="width: 150px;" type="text" value="167,758.16"/></td> </tr> </table> | <b>3.2.1 Ending Balance Reported on Last Year's CMAR</b> | \$  | <input style="width: 150px;" type="text" value="3,267,874.14"/> | 3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.) | \$ | <input style="width: 150px;" type="text" value="0.00"/> | 3.2.3 Adjusted January 1st Beginning Balance | \$ | <input style="width: 150px;" type="text" value="3,267,874.14"/> | 3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.) | + | <input style="width: 150px;" type="text" value="167,758.16"/> |  |
| <b>3.2.1 Ending Balance Reported on Last Year's CMAR</b>   | \$   | <input style="width: 150px;" type="text" value="3,267,874.14"/> |   |  |    |   |  |    |   |   |   |   |  |
| 3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)   | \$   | <input style="width: 150px;" type="text" value="0.00"/>         |   |  |    |   |  |    |   |   |   |   |  |
| 3.2.3 Adjusted January 1st Beginning Balance   | \$   | <input style="width: 150px;" type="text" value="3,267,874.14"/> |   |  |    |   |  |    |   |   |   |   |  |
| 3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)  | +  | <input style="width: 150px;" type="text" value="167,758.16"/>   |   |  |    |   |  |    |   |   |   |   |  |

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3.2.5 Subtractions from Fund (e.g., equipment replacement, major repairs - use description box 3.2.6.1 below\*) -

\$ 0.00

3.2.6 Ending Balance as of December 31st for CMAR Reporting Year

\$ 3,435,632.30

All Sources: This ending balance should include all Equipment Replacement Funds whether held in a bank account(s), certificate(s) of deposit, etc.

3.2.6.1 Indicate adjustments, equipment purchases, and/or major repairs from 3.2.5 above.

3.3 What amount should be in your Replacement Fund?

\$ 1,749,521.82

0

Please note: If you had a CWFPP loan, this amount was originally based on the Financial Assistance Agreement (FAA) and should be regularly updated as needed. Further calculation instructions and an example can be found by clicking the SectionInstructions link under Info header in the left-side menu.

3.3.1 Is the December 31 Ending Balance in your Replacement Fund above, (#3.2.6) equal to, or greater than the amount that should be in it (#3.3)?

- Yes
- No

If No, please explain.

## 4. Future Planning

4.1 During the next ten years, will you be involved in formal planning for upgrading, rehabilitating, or new construction of your treatment facility or collection system?

- Yes - If Yes, please provide major project information, if not already listed below.
- No

| Project # | Project Description                                   | Estimated Cost | Approximate Construction Year |
|-----------|---|----------------|-------------------------------|
| 1         | UV System Replacement                                 | \$14,000,000   | 2024                          |
| 2         | Plant Engines, Blowers and Engine Generator - Phase 1 | \$7,000,000    | 2024                          |
| 3         | Chicory Road Tank                                     | \$11,500,000   | 2025                          |

## 5. Financial Management General Comments

### ENERGY EFFICIENCY AND USE

## 6. Collection System

### 6.1 Energy Usage

6.1.1 Enter the monthly energy usage from the different energy sources:

#### **COLLECTION SYSTEM PUMPAGE: Total Power Consumed**

Number of Municipally Owned Pump/Lift Stations:

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|                | Electricity Consumed (kWh) | Natural Gas Consumed (therms) |
|----------------|----------------------------|-------------------------------|
| January        | 97,984                     | 5,608                         |
| February       | 129,073                    | 5,426                         |
| March          | 182,458                    | 4,660                         |
| April          | 182,114                    | 3,039                         |
| May            | 98,916                     | 1,226                         |
| June           | 71,836                     | 373                           |
| July           | 93,807                     | 99                            |
| August         | 97,387                     | 66                            |
| September      | 93,595                     | 62                            |
| October        | 116,707                    | 512                           |
| November       | 112,869                    | 3,083                         |
| December       | 123,410                    | 3,968                         |
| <b>Total</b>   | <b>1,400,156</b>           | <b>28,122</b>                 |
| <b>Average</b> | <b>116,680</b>             | <b>2,344</b>                  |

### 6.1.2 Comments:

### 6.2 Energy Related Processes and Equipment

6.2.1 Indicate equipment and practices utilized at your pump/lift stations (Check all that apply):

- Comminution or Screening
- Extended Shaft Pumps
- Flow Metering and Recording
- Pneumatic Pumping
- SCADA System
- Self-Priming Pumps
- Submersible Pumps
- Variable Speed Drives
- Other:

### 6.2.2 Comments:

### 6.3 Has an Energy Study been performed for your pump/lift stations?

No

Yes

Year:

By Whom:

Describe and Comment:

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## 6.4 Future Energy Related Equipment

6.4.1 What energy efficient equipment or practices do you have planned for the future for your pump/lift stations?

As equipment is replaced, energy use is considered in the decision making process.  
An Energy Study is planned in 2025.

## 7. Treatment Facility

### 7.1 Energy Usage

7.1.1 Enter the monthly energy usage from the different energy sources:

#### TREATMENT PLANT: Total Power Consumed/Month

|                | Electricity Consumed (kWh) | Total Influent Flow (MG) | Electricity Consumed/Flow (kWh/MG) | Total Influent BOD (1000 lbs) | Electricity Consumed/Total Influent BOD (kWh/1000lbs) | Natural Gas Consumed (therms) |
|----------------|----------------------------|--------------------------|------------------------------------|-------------------------------|---|-------------------------------|
| January        | 527,788                    | 553.38                   | 954                                | 522.85                        | 1,009   | 50,669                        |
| February       | 517,397                    | 867.85                   | 596                                | 607.71                        | 851   | 39,939                        |
| March          | 604,375                    | 1,226.30                 | 493                                | 509.73                        | 1,186   | 37,220                        |
| April          | 701,671                    | 790.60                   | 888                                | 488.58                        | 1,436   | 23,403                        |
| May            | 579,411                    | 580.40                   | 998                                | 557.60                        | 1,039   | 7,981                         |
| June           | 502,914                    | 436.60                   | 1,152                              | 582.60                        | 863   | 3,790                         |
| July           | 366,108                    | 447.80                   | 818                                | 568.04                        | 645   | 5,243                         |
| August         | 564,603                    | 521.82                   | 1,082                              | 551.15                        | 1,024   | 7,336                         |
| September      | 791,153                    | 503.30                   | 1,572                              | 616.62                        | 1,283   | 12,356                        |
| October        | 649,182                    | 612.42                   | 1,060                              | 560.85                        | 1,157   | 21,047                        |
| November       | 610,891                    | 499.49                   | 1,223                              | 531.69                        | 1,149   | 34,562                        |
| December       | 673,717                    | 644.73                   | 1,045                              | 572.91                        | 1,176   | 43,574                        |
| <b>Total</b>   | <b>7,089,210</b>           | <b>7,684.69</b>          |                                    | <b>6,670.33</b>               |   | <b>287,120</b>                |
| <b>Average</b> | <b>590,768</b>             | <b>640.39</b>            | <b>990</b>                         | <b>555.86</b>                 | <b>1,068</b>  | <b>23,927</b>                 |

7.1.2 Comments:

### 7.2 Energy Related Processes and Equipment

7.2.1 Indicate equipment and practices utilized at your treatment facility (Check all that apply):

- Aerobic Digestion
- Anaerobic Digestion
- Biological Phosphorus Removal
- Coarse Bubble Diffusers
- Dissolved O2 Monitoring and Aeration Control
- Effluent Pumping
- Fine Bubble Diffusers
- Influent Pumping
- Mechanical Sludge Processing
- Nitrification
- SCADA System
- UV Disinfection
- Variable Speed Drives

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Other:

7.2.2 Comments:

Effluent pumping is for reuse in the plant.

## 7.3 Future Energy Related Equipment

7.3.1 What energy efficient equipment or practices do you have planned for the future for your treatment facility?

As equipment is replaced, energy use is considered in the decision making process. An analysis of energy production occurred in 2024. An Energy Study is planned in 2025. New equipment is currently being installed that was determined to be more energy efficient in the facility plan. This includes UV, a gas generator, an electric blower and gas cleaning. The utility works with Focus on Energy to find and analyze energy savings.

## 8. Biogas Generation

8.1 Do you generate/produce biogas at your facility?

No

Yes

If Yes, how is the biogas used (Check all that apply):

Flared Off

Building Heat

Process Heat

Generate Electricity

Other:

The primary use for biogas is in the gas engines. Secondary is for heat with biogas only sent to the flare is the gas storage is full and there is no other use for it. The current upgrade includes an engine generator to utilize the biogas.

## 9. Energy Efficiency Study

9.1 Has an Energy Study been performed for your treatment facility?

No

Yes

Entire facility

Year:

By Whom:

Describe and Comment:

Part of the facility

Year:

By Whom:

Black & Veatch, ITT Sanitaire and Brown and Caldwell

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Describe and Comment:

An energy study is planned in 2025.

|   |          |
|---|----------|
| <b>Total Points Generated</b>               | 0        |
| <b>Score (100 - Total Points Generated)</b> | 100      |
| <b>Section Grade</b>                        | <b>A</b> |



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## Sanitary Sewer Collection Systems

### 1. Capacity, Management, Operation, and Maintenance (CMOM) Program

#### 1.1 Do you have a CMOM program that is being implemented?

- Yes
- No

If No, explain:

#### 1.2 Do you have a CMOM program that contains all the applicable components and items according to Wisc. Adm Code NR 210.23 (4)?

- Yes
- No (30 points)
- N/A

If No or N/A, explain:

#### 1.3 Does your CMOM program contain the following components and items? (check the components and items that apply)

- Goals [NR 210.23 (4)(a)]

Describe the major goals you had for your collection system last year:

Clean 1/3 of the collection system.  
Complete Chicory Road Project.  
Continue planning Chicory Road Storage Basin.

Did you accomplish them?

- Yes
- No

If No, explain:

- Organization [NR 210.23 (4) (b)]

Does this chapter of your CMOM include:

- Organizational structure and positions (eg. organizational chart and position descriptions)
- Internal and external lines of communication responsibilities
- Person(s) responsible for reporting overflow events to the department and the public

- Legal Authority [NR 210.23 (4) (c)]

What is the legally binding document that regulates the use of your sewer system?

City of Racine Code of Ordinances Chapter 98

If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 2024-03-19

Does your sewer use ordinance or other legally binding document address the following:

- Private property inflow and infiltration
- New sewer and building sewer design, construction, installation, testing and inspection
- Rehabilitated sewer and lift station installation, testing and inspection
- Sewage flows satellite system and large private users are monitored and controlled, as necessary
- Fat, oil and grease control
- Enforcement procedures for sewer use non-compliance
- Operation and Maintenance [NR 210.23 (4) (d)]

Does your operation and maintenance program and equipment include the following:

- Equipment and replacement part inventories
- Up-to-date sewer system map

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- A management system (computer database and/or file system) for collection system information for O&M activities, investigation and rehabilitation
- A description of routine operation and maintenance activities (see question 2 below)
- Capacity assessment program
- Basement back assessment and correction
- Regular O&M training

Design and Performance Provisions [NR 210.23 (4) (e)]

What standards and procedures are established for the design, construction, and inspection of the sewer collection system, including building sewers and interceptor sewers on private property?

- State Plumbing Code, DNR NR 110 Standards and/or local Municipal Code Requirements
- Construction, Inspection, and Testing
- Others:

Overflow Emergency Response Plan [NR 210.23 (4) (f)]

Does your emergency response capability include:

- Responsible personnel communication procedures
- Response order, timing and clean-up
- Public notification protocols
- Training
- Emergency operation protocols and implementation procedures

Annual Self-Auditing of your CMOM Program [NR 210.23 (5)]

Special Studies Last Year (check only those that apply):

- Infiltration/Inflow (I/I) Analysis
- Sewer System Evaluation Survey (SSES)
- Sewer Evaluation and Capacity Management Plan (SECAP)
- Lift Station Evaluation Report
- Others:

0

## 2. Operation and Maintenance

2.1 Did your sanitary sewer collection system maintenance program include the following maintenance activities? Complete all that apply and indicate the amount maintained.

|                           |       |                           |
|---------------------------|-------|---------------------------|
| Cleaning                  | 34.25 | % of system/year          |
| Root removal              | 4.04  | % of system/year          |
| Flow monitoring           | 78.58 | % of system/year          |
| Smoke testing             | 0     | % of system/year          |
| Sewer line televising     | 9.01  | % of system/year          |
| Manhole inspections       | 28.64 | % of system/year          |
| Lift station O&M          | 116.1 | # per L.S./year           |
| Manhole rehabilitation    | 0.29  | % of manholes rehabbed    |
| Mainline rehabilitation   | 0.61  | % of sewer lines rehabbed |
| Private sewer inspections | 0.25  | % of system/year          |

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Private sewer I/I removal  % of private services

River or water crossings  % of pipe crossings evaluated or maintained

Please include additional comments about your sanitary sewer collection system below:

### 3. Performance Indicators

3.1 Provide the following collection system and flow information for the past year.

|                                     |  |
|-------------------------------------|--|
| <input type="text" value="34.92"/>  | Total actual amount of precipitation last year in inches |
| <input type="text" value="35"/>     | Annual average precipitation (for your location)         |
| <input type="text" value="254.7"/>  | Miles of sanitary sewer                                  |
| <input type="text" value="14"/>     | Number of lift stations                                  |
| <input type="text" value="0"/>      | Number of lift station failures                          |
| <input type="text" value="0"/>      | Number of sewer pipe failures                            |
| <input type="text" value="2"/>      | Number of basement backup occurrences                    |
| <input type="text" value="2"/>      | Number of complaints                                     |
| <input type="text" value="20.12"/>  | Average daily flow in MGD (if available)                 |
| <input type="text" value="38.22"/>  | Peak monthly flow in MGD (if available)                  |
| <input type="text" value="179.87"/> | Peak hourly flow in MGD (if available)                   |

3.2 Performance ratios for the past year:

|                                   |  |
|-----------------------------------|--|
| <input type="text" value="0.00"/> | Lift station failures (failures/year)                |
| <input type="text" value="0.00"/> | Sewer pipe failures (pipe failures/sewer mile/yr)    |
| <input type="text" value="0.02"/> | Sanitary sewer overflows (number/sewer mile/yr)      |
| <input type="text" value="0.01"/> | Basement backups (number/sewer mile)                 |
| <input type="text" value="0.01"/> | Complaints (number/sewer mile)                       |
| <input type="text" value="1.9"/>  | Peaking factor ratio (Peak Monthly:Annual Daily Avg) |
| <input type="text" value="8.9"/>  | Peaking factor ratio (Peak Hourly:Annual Daily Avg)  |

### 4. Overflows

#### LIST OF SANITARY SEWER (SSO) AND TREATMENT FACILITY (TFO) OVERFLOWS REPORTED \*\*

|   | Date   | Location  | Cause          | Estimated Volume |
|---|--|---|----------------|------------------|
| 0 | 2/27/2023 8:35:00 AM - 2/27/2023 12:26:00 PM | Safety Site #2 (3225 Michigan Blvd)             | Rain, Snowmelt | 403,540          |
| 1 | 2/27/2023 9:05:00 AM - 2/27/2023 1:15:00 PM  | Safety Site #9 (Ontario Street/West Siphon)     | Rain, Snowmelt | 27,872           |
| 2 | 2/27/2023 8:30:00 AM - 2/27/2023 10:34:00 AM | Lift Station 9 - 3908 Frances Drive             | Rain, Snowmelt | 13,440           |
| 3 | 2/27/2023 7:55:00 AM - 2/27/2023 10:55:00 AM | Safety Site #6 (Washington and Grove)           | Rain, Snowmelt | 398,582          |
| 4 | 2/27/2023 8:00:00 AM - 2/27/2023 12:00:00 PM | Safety Site #11 (Knoll Place and Norwood Drive) | Rain, Snowmelt | 82,607           |

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|   |  |   |                   |     |
|---|--|---|-------------------|-----|
| 5   | 9/14/2023 10:25:00 AM -<br>9/14/2023 10:35:00 AM | Northeast corner of intersection of Chicory Rd and Farmington Lane, Mt Pleasant | Equipment Failure | 200 |
| <p>** If there were any SSOs or TFOs that are not listed above, please contact the DNR and stop work on this section until corrected.</p> <p>What actions were taken, or are underway, to reduce or eliminate SSO or TFO occurrences in the future?</p> <p>The communities that contribute flow to the wastewater utility are evaluating the need for additional I/I reduction. Chicory Road Storage Tank Project is currently in progress.</p> |  |   |                   |     |

5. Infiltration / Inflow (I/I)

5.1 Was infiltration/inflow (I/I) significant in your community last year?

- Yes
- No

If Yes, please describe:

I/I continues to be an issue in the collection system. The Utility's Facility Plan lays out the proposed addition of multiple holding tanks in the coming years to help mitigate I/I issues.

5.2 Has infiltration/inflow and resultant high flows affected performance or created problems in your collection system, lift stations, or treatment plant at any time in the past year?

- Yes
- No

If Yes, please describe:

The February 2023 rain event resulted in an estimated 0,926 MG in overflows.

5.3 Explain any infiltration/inflow (I/I) changes this year from previous years:

Rain intensities continue to increase.

5.4 What is being done to address infiltration/inflow in your collection system?

CCTV and flow monitoring are used to pinpoint areas of concern that may need lining or re-laying of pipe. The Utility continues to work with the communities that contribute flow to correct deficiencies in the collection system and evaluate the need for additional storage.

|   |          |
|---|----------|
| <b>Total Points Generated</b>               | 0        |
| <b>Score (100 - Total Points Generated)</b> | 100      |
| <b>Section Grade</b>                        | <b>A</b> |

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## Grading Summary

WPDES No: 0025194

| SECTIONS                                | LETTER GRADE | GRADE POINTS | WEIGHTING FACTORS | SECTION POINTS |
|---|--------------|--------------|-------------------|----------------|
| Influent                                | A            | 4            | 3                 | 12             |
| BOD/CBOD                                | A            | 4            | 10                | 40             |
| TSS                                     | A            | 4            | 5                 | 20             |
| Ammonia                                 | A            | 4            | 5                 | 20             |
| Phosphorus                              | A            | 4            | 3                 | 12             |
| Biosolids                               | A            | 4            | 5                 | 20             |
| Staffing/PM                             | A            | 4            | 1                 | 4              |
| OpCert                                  | A            | 4            | 1                 | 4              |
| Financial                               | A            | 4            | 1                 | 4              |
| Collection                              | A            | 4            | 3                 | 12             |
| <b>TOTALS</b>                           |              |              | <b>37</b>         | <b>148</b>     |
| <b>GRADE POINT AVERAGE (GPA) = 4.00</b> |              |              |                   |                |

### Notes:

- A = Voluntary Range (Response Optional)
- B = Voluntary Range (Response Optional)
- C = Recommendation Range (Response Required)
- D = Action Range (Response Required)
- F = Action Range (Response Required)

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## Resolution or Owner's Statement

Name of Governing  
Body or Owner:

Date of Resolution or  
Action Taken:

Resolution Number:

Date of Submittal:

### **ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO SPECIFIC CMAR SECTIONS (Optional for grade A or B. Required for grade C, D, or F):**

Influent Flow and Loadings: Grade = A

Effluent Quality: BOD: Grade = A

Effluent Quality: TSS: Grade = A

Effluent Quality: Ammonia: Grade = A

Effluent Quality: Phosphorus: Grade = A

Biosolids Quality and Management: Grade = A

Staffing: Grade = A

Operator Certification: Grade = A

Financial Management: Grade = A

Collection Systems: Grade = A

(Regardless of grade, response required for Collection Systems if SSOs were reported)

### **ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO THE OVERALL GRADE POINT AVERAGE AND ANY GENERAL COMMENTS**

(Optional for G.P.A. greater than or equal to 3.00, required for G.P.A. less than 3.00)

**G.P.A. = 4.00**