

R. C. No. 17 - 22 - 23. By PUBLIC WORKS COMMITTEE. June 6, 2022.

Your Committee to whom was referred Res. No. 19-22-23 by Alderpersons Dekker and Perrella informing the Wisconsin Department of Natural Resources (WDNR) that the 2021 Compliance Maintenance Annual Report (CMAR) has been reviewed; recommends adopting the Resolution.

|            |  |           |               | Committee   |
|------------|--|-----------|---------------|---|
| and<br>the | I HEREBY CERTIFY that adopted by the Common day of | Council o | f the City of | Report was duly accepted Sheboygan, Wisconsin, on |
| Date       | ed   | 20        | ·             | , City Clerk                                      |
| Appr       | coved  | 20        | •             | , Mayor   |

Lova Reulle



Res. No.  $\bigcirc$  - 22 - 23. By Alderpersons Dekker and Perrella. May 16, 2022.

A RESOLUTION informing the Wisconsin Department of Natural Resources (WDNR) that the 2021 Compliance Maintenance Annual Report (CMAR) has been reviewed.

RESOLVED: That the City of Sheboygan hereby informs the WDNR that the Common Council has reviewed the 2021 CMAR, which is attached to this resolution.

BE IT FURTHER RESOLVED: That the Sheboygan Regional Wastewater Treatment Facility received an "A" grade for each section of the 2021 CMAR.

BE IT FURTHER RESOLVED: That the 2021 CMAR be accepted and placed on file.  $\ \ \,$ 

Public Works

|          |      | City | of S |    | ygan, | Resolution<br>Wisconsin, |      |       | ed<br>— | by the |   |
|----------|------|------|------|----|-------|--------------------------|------|-------|---------|--------|---|
| Dated    | <br> |      | 2    | 20 | _•    |                          |      | _, Ci | .ty     | Cler   | ζ |
| Approved |      |      | 2    | 20 | _•    |                          | <br> |       | _,      | Mayo   | r |

#### Sheboygan Wastewater Treatment Plant

Last Updated: Reporting For:

5/9/2022

#### 2021

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#### 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 Average BOD | x | 8.34 | = | Influent Monthly<br>Average BOD |
|                     |                                       |   | Concentration mg/L           |   |      |   | Loading, lbs/day                |
| January             | 9.1294                                | х | 201                          | х | 8.34 | = | 15,299                          |
| February            | 8.8106                                | х | 189                          | х | 8.34 | = | 13,851                          |
| March               | 12.0421                               | X | 131                          | Х | 8.34 | = | 13,204                          |
| April               | 10.5718                               | х | 154                          | х | 8.34 | = | 13,542                          |
| May                 | 10.7151                               | х | 166                          | х | 8.34 | = | 14,795                          |
| June                | 9.8631                                | х | 175                          | Х | 8.34 | = | 14,414                          |
| July                | 11.4246                               | x | 154                          | X | 8.34 | = | 14,662                          |
| August              | 10.9131                               | х | 172                          | х | 8.34 | = | 15,655                          |
| September           | 9.5219                                | х | 198                          | х | 8.34 | = | 15,755                          |
| October             | 8.9691                                | х | 189                          | х | 8.34 | = | 14,163                          |
| November            | 8.2332                                | x | 214                          | х | 8.34 | = | 14,723                          |
| December            | 8.2522                                | х | 227                          | X | 8.34 | = | 15,653                          |

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 | 25.2          | X | 90  | = | 22.68       |
|                            |               | X | 100 | = | 25.2        |
| Design BOD, Ibs/day        | 27940         | x | 90  | = | 25146       |
|                            |               | x | 100 | = | 27940       |

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

|              | Months    | Number of times | Number of times  | Number of times    | Number of times     |
|--------------|-----------|-----------------|------------------|--------------------|---------------------|
|              | of        |                 | flow was greater | BOD was greater    | BOD was greater     |
|              | Influent  | than 90% of     | than 100% of     | than 90% of design | 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 e | ach       | 2               | 1                | 3                  | 2                   |
| Exceedance   | s         | 0               | 0                | 0                  | 0                   |
| Points       |           | 0               | 0                | 0                  | 0                   |
| Total Num    | ber of Pr | pints           |                  |                    | 0                   |

| Snebbygan Wastewater Treatment Plant  | 5/9/2022 <b>2021</b>            |
|---|---------------------------------|
| 3. Flow Meter 3.1 Was the influent flow meter calibrated in the last year?  • Yes  Enter last calibration date (MM/DD/YYYY)  2021-08-12  • No   |                                 |
| If No, please explain:  | ·                               |
|   |                                 |
| 4. Sewer Use Ordinance  |                                 |
| 4.1 Did your community have a sewer use ordinance that limited of   | or prohibited the discharge of  |
| excessive conventional pollutants ((C)BOD, SS, or pH) or toxic sub  |                                 |
| industries, commercial users, hauled waste, or residences?  |                                 |
| • Yes   |                                 |
| o No  |                                 |
| If No, please explain:  |                                 |
|   |                                 |
| 6.3.11/- 15   |                                 |
| 4.2 Was it necessary to enforce the ordinance?  o 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  |                                 |
| 5.2 Did you receive septage at your facility? If yes, indicate volume   | e in gallons.                   |
| Septic Tanks  |                                 |
| • Yes 510078 gallons  |                                 |
| o No  |                                 |
| Holding Tanks   | ,                               |
| • Yes 4905550 gallons   | 1.                              |
| o No  |                                 |
| Grease Traps  |                                 |
| o Yes 0 gallons   |                                 |
| • No  |                                 |
| 5.2.1 If yes to any of the above, please explain if plant performan   | neo is affected when receiving  |
| any of these wastes.  | nice is affected when receiving |
|   |                                 |
| Plant performance was unaffected as a result of receiving these   | wastes.                         |
| Pretreatment     One of the second of the last year?  O Yes  O Pretreatment  O Pretreatme | at were attributable to         |
| • No  |                                 |
| If yes, describe the situation and your community's response.   |                                 |
| N/A   |                                 |
| 6.2 Did your facility accept hauled industrial wastes, landfill leache  | ate, etc.?                      |

#### Sheboygan Wastewater Treatment Plant

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Yes

o 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.

We received industrial dairy wastes and process was unaffected.

| Total Points Generated               | 0   |
|--------------------------------------|-----|
| Score (100 - Total Points Generated) | 100 |
| Section Grade                        | A   |

Sheboygan Wastewater Treatment Plant

Last Updated: Reporting For:

5/9/2022

2021

#### 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<br>Average<br>Limit (mg/L) | 90% of<br>Permit Limit<br>> 10 (mg/L) | Effluent Monthly<br>Average (mg/L) | Months of<br>Discharge<br>with a Limit | Permit Limit<br>Exceedance | 90% Permit<br>Limit<br>Exceedance |
|--------------------|------------------------------------|---------------------------------------|------------------------------------|--|----------------------------|-----------------------------------|
| January            | 25                                 | 22.5                                  | 3                                  | 1                                      | 0                          | 0                                 |
| February           | 25                                 | 22.5                                  | 4                                  | 1                                      | 0                          | 0                                 |
| March              | 25                                 | 22.5                                  | 3                                  | 1                                      | 0                          | 0                                 |
| April              | 25                                 | 22.5                                  | 3                                  | 1                                      | 0                          | 0                                 |
| May                | 25                                 | 22.5                                  | 3                                  | 1                                      | 0                          | 0                                 |
| June               | 25                                 | 22.5                                  | 2                                  | 1                                      | 0                          | 0                                 |
| July               | 25                                 | 22.5                                  | 2                                  | 1                                      | 0                          | 0                                 |
| August             | 25                                 | 22.5                                  | 2                                  | 1                                      | 0                          | 0                                 |
| September          | 25                                 | 22.5                                  | 4                                  | 1                                      | 0                          | 0                                 |
| October            | 25                                 | 22.5                                  | 3                                  | 1                                      | 0                          | 0                                 |
| November           | 25                                 | 22.5                                  | 3                                  | 1                                      | 0                          | 0                                 |
| December           | 25                                 | 22.5                                  | 3                                  | 1                                      | 0                          | 0                                 |
|                    |                                    | * Eq                                  | uals limit if limit is             | <= 10                                  |                            |                                   |
| Months of d        | ischarge/yr                        |                                       |                                    | 12                                     |                            |                                   |
| Points per e       | ach exceedance                     | ce with 12 mor                        | nths of discharge                  |  | 7                          | 3                                 |
| Exceedance         | S                                  |                                       |                                    |  | 0                          | 0                                 |
| Points             |                                    |                                       |                                    |  | 0                          | 0                                 |
| Total numi         | ber of points                      |                                       |                                    |  | ,                          | 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?

| - 7 | 1/ | 11  | ١. |
|-----|----|-----|----|
| ı   | V, | / r | ٦  |

| <ol> <li>Flow N</li> </ol> | leter ( | Calib | oration |
|----------------------------|---------|-------|---------|
|----------------------------|---------|-------|---------|

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

o Yes

Enter last calibration date (MM/DD/YYYY)

No

If No, please explain:

We do not have an effluent flow meter.

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

There were no issues with treatment during 2021.

- 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?
- o Yes
- No

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|   | 3/3/2022            | 4444   |
|---|---------------------|--------|
| If Yes, please explain:   |                     |        |
| 4.2 At any time in the past year was there a failure of an effluent acute or toxicity (WET) test? | r chronic whole eff | fluent |
| o Yes   |                     |        |
| No     If Yes, please explain:  |                     |        |
|   |                     |        |
| 4.3 If the biomonitoring (WET) test did not pass, were steps taken to iden source(s) of toxicity? | ntify and/or reduce | е      |
| o Yes   |                     |        |
| o No  |                     |        |
| • N/A   |                     |        |
| Please explain unless not applicable:   |                     |        |
|   |                     | ll -   |

| Total Points Generated               | 0   |
|--------------------------------------|-----|
| Score (100 - Total Points Generated) | 100 |
| Section Grade                        | A   |

Sheboygan Wastewater Treatment Plant

Last Updated: Reporting For:

2021

5/9/2022

#### 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<br>Average<br>Limit (mg/L) | 90% of<br>Permit Limit<br>>10 (mg/L) | Effluent Monthly<br>Average (mg/L) |       | Permit Limit<br>Exceedance | 90% Permit<br>Limit<br>Exceedance |
|--------------------|------------------------------------|--------------------------------------|------------------------------------|-------|----------------------------|-----------------------------------|
| January            | 30                                 | 27                                   | 4                                  | 1     | 0                          | 0                                 |
| February           | 30                                 | 27                                   | 5                                  | 1     | 0                          | 0                                 |
| March              | 30                                 | 27                                   | 4                                  | 1     | 0                          | 0                                 |
| April              | 30                                 | 27                                   | 4                                  | 1     | 0                          | 0                                 |
| May                | 30                                 | 27                                   | 4                                  | 1     | 0                          | 0                                 |
| June               | 30                                 | 27                                   | 2                                  | 1     | 0                          | 0                                 |
| July               | 30                                 | 27                                   | 4                                  | 1     | 0                          | 0                                 |
| August             | 30                                 | 27                                   | 2                                  | 1     | 0                          | 0                                 |
| September          | 30                                 | 27                                   | 3                                  | 1     | 0                          | 0                                 |
| October            | 30                                 | 27                                   | 4                                  | 1     | 0                          | 0                                 |
| November           | 30                                 | 27                                   | 4                                  | 1     | 0                          | 0                                 |
| December           | 30                                 | 27                                   | 4                                  | 1     | 0                          | 0                                 |
|                    |                                    | * Eq                                 | uals limit if limit is             | <= 10 |                            |                                   |
| Months of D        | ischarge/yr                        |                                      |                                    | 12    |                            |                                   |
| Points per         | each exceed                        | ance with 12                         | months of disch                    | arge: | 7                          | 3                                 |
| Exceedance         | S                                  |                                      | 0                                  | 0     |                            |                                   |
| Points             |                                    |                                      | 0                                  | 0     |                            |                                   |
| Total Num          | ber of Points                      | Α                                    |                                    |       |                            | 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?

| Total Points Generated               | 1 0 |
|--------------------------------------|-----|
| Score (100 - Total Points Generated) | 100 |
| Section Grade                        | A   |

Sheboygan Wastewater Treatment Plant

Last Updated: Reporting For:

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2021

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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.  | Monthly    | Weekly     | Effluent   | Monthly                                 | Effluent | Effluent                                | Effluent | Effluent | Weekly |
|--|------------|------------|------------|---|----------|---|----------|----------|--------|
| 001  | Average    | Average    | Monthly    | Permit                                  | Weekly   | Weekly                                  | Weekly   | Weekly   | Permit |
|  | NH3        | NH3        | Average    | Limit                                   | Average  | Average                                 | Average  | Average  | Limit  |
|  | Limit      | Limit      | NH3        | Exceed                                  |          |   |          | for Week |        |
|  | (mg/L)     | (mg/L)     | (mg/L)     | ance                                    | 1        | 2                                       | 3        | 4        | ance   |
| January  |            |            |            |   |          |   |          |          |        |
| February   |            |            |            |   |          |   |          |          |        |
| March  |            |            |            |   |          |   |          |          |        |
| April  | 23         |            | 3.517      | 0                                       |          |   |          |          |        |
| May  |            |            |            |   |          |   |          |          |        |
| June   |            |            |            |   |          |   |          |          |        |
| July   |            |            |            |   |          |   |          |          |        |
| August   |            |            |            |   |          |   |          |          |        |
| September  |            |            |            |   |          |   |          |          |        |
| October  |            |            |            |   |          |   |          |          |        |
| November   | 23         |            | 8.58       | 0                                       |          |   |          |          |        |
| December   | 23         |            | 3.168      | 0                                       |          |   |          |          |        |
| Points per e   | ach excee  | dance of I | Monthly av | erage:                                  |          | *************************************** | •        |          | 10     |
| Exceedance   | s, Monthly | <b>/:</b>  |            | *************************************** |          |   |          |          | 0      |
| Points:  |            |            |            |   |          |   |          | 0        |        |
| Points per each exceedance of weekly average (when there is no monthly average): |            |            |            |   |          |   | 2.5      |          |        |
| Exceedances, Weekly:   |            |            |            |   |          |   |          | 0        |        |
| Points:  |            |            |            |   |          |   |          |          | 0      |
| Total Num  | ber of Po  | ints       |            |   |          |   |          |          | 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?

| Total Points Generated               | 0   |
|--------------------------------------|-----|
| Score (100 - Total Points Generated) | 100 |
| Section Grade                        | Α   |

Sheboygan Wastewater Treatment Plant

Last Updated: Reporting For:

5/9/2022

2021

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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<br>Average phosphorus<br>(mg/L) | Months of<br>Discharge with a<br>Limit | Permit Limit<br>Exceedance |  |  |  |  |
|-------------------|---|--|--|----------------------------|--|--|--|--|
| January           | .9                                      | 0.323  | 1                                      | 0                          |  |  |  |  |
| February          | .9                                      | 0.284  | 1                                      | 0                          |  |  |  |  |
| March             | .9                                      | 0.317  | 1                                      | 0                          |  |  |  |  |
| April             | .9                                      | 0.220  | 1                                      | 0                          |  |  |  |  |
| May               | .9                                      | 0.255  | 1                                      | 0                          |  |  |  |  |
| June              | .9                                      | 0.225  | 1                                      | 0                          |  |  |  |  |
| July              | .9                                      | 0.355  | 1                                      | 0                          |  |  |  |  |
| August            | .9                                      | 0.384  | 1                                      | 0                          |  |  |  |  |
| September         | .9                                      | 0.375  | 1                                      | 0                          |  |  |  |  |
| October           | .9                                      | 0.403  | 1                                      | 0                          |  |  |  |  |
| November          | .9                                      | 0.364  | 1                                      | 0                          |  |  |  |  |
| December          | .9                                      | 0.318  | 1                                      | 0                          |  |  |  |  |
| Months of Dischar | ge/yr                                   |  | 12                                     |                            |  |  |  |  |
| Points per each   | 10                                      |  |  |                            |  |  |  |  |
| Exceedances       | 0                                       |  |  |                            |  |  |  |  |
| Total Number of   | Points                                  |  | Total Number of Points                 |                            |  |  |  |  |

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?

| Total Points Generated               | 0   |
|--------------------------------------|-----|
| Score (100 - Total Points Generated) | 100 |
| Section Grade                        | A   |

Sheboygan Wastewater Treatment Plant

Last Updated: Reporting For:

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#### **Biosolids Quality and Management**

| 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   | 1 |
| 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:     |   |
| Biosolids are sold to an outside contractor for use as a soil conditioner.                                | 1 |
| biosolids are sold to all oddside contractor for use as a soli conditioner.                               | Ш |

#### 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 y    |                    | ıcıalı        | testeu           | , vei    | iiy cii | ie Dic | 30110 | 5 1116 | tai q | uanty           | y vait | 162 10 | л уо | ui ia | Cilicy | uuriii       | y the i         | ası     |
|---------------|--------------------|---------------|------------------|----------|---------|--------|-------|--------|-------|-----------------|--------|--------|------|-------|--------|--------------|-----------------|---------|
| Outfall No.   | 004                | - EQ          | Dried            | Slud     | ge -    | Drye   | Г     |        |       |                 |        |        |      |       |        |              |                 |         |
| Parameter     | 80%<br>of<br>Limit | H.Q.<br>Limit | Ceiling<br>Limit | Jan      | Feb     | Mar    | Apr   | May    | Jun   | Jul             | Aug    | Sep    | Oct  | Nov   | Dec    | 80%<br>Value | High<br>Quality | Celling |
| Arsenic       |                    | 41            |                  |          | 7.3     |        |       |        |       |                 |        |        |      |       |        |              | 0               | 0       |
| Cadmium       |                    | 39            |                  |          | .96     |        |       |        |       |                 |        |        |      |       |        |              | 0               | 0       |
| Copper        |                    | 1500          |                  |          | 420     |        |       |        |       |                 |        |        |      |       |        |              | 0               | 0       |
| Lead          |                    | 300           |                  |          | 22.3    |        |       |        |       |                 |        |        |      |       |        |              | 0               | 0       |
| Mercury       |                    | 17            |                  |          | .24     |        |       |        |       |                 |        |        |      |       |        |              | 0               | 0       |
| Molybdenum    | 60                 |               | 75               |          | 10.1    |        |       |        |       |                 |        |        |      |       |        | 0            |                 | 0       |
| Nickel        |                    |               |                  |          | 24.2    |        |       |        |       |                 |        |        |      |       |        | 0            |                 | 0       |
| Selenium      |                    |               |                  |          | <1.3    |        |       |        |       |                 |        |        |      |       |        | 0            |                 | 0       |
| Zinc          |                    | 2800          |                  |          | 646     |        |       |        |       |                 |        |        |      |       |        |              | 0               | 0       |
| Outfall No. 0 | 05 - E             | Q Dried       | Sludge           | e - Sile | 0       |        |       |        |       |                 |        |        |      |       |        |              |                 |         |
| Parameter     | 80%<br>of<br>Limit | H.Q.<br>Limit | Ceiling<br>Limit | Jan      | Feb     | Mar    | Apr   | May    | Jun   | Jul             | Aug    | Sep    | Oct  | Nov   | Dec    | 80%<br>Value | High<br>Quality | Ceiling |
| Arsenic       |                    | 41            | 75               |          |         |        | 6.8   |        | 5.2   |                 | 4.8    | 6.1    |      | 6.6   |        |              | 0               | 0       |
| Cadmium       |                    | 39            | 85               |          |         |        | .92   |        | .73   |                 | .75    | .93    |      | .91   |        |              | 0               | 0       |
| Copper        |                    | 1500          | 4300             |          |         |        | 461   |        | 429   |                 | 410    | 400    |      | 434   |        |              | 0               | 0       |
| Lead          |                    | 300           | 840              |          |         |        | 24.4  |        | 22.4  |                 | 28     | 31.2   |      | 29.3  |        |              | 0               | 0       |
| Mercury       |                    | 17            | 57               |          |         |        | .19   |        | .25   |                 | .36    | .52    |      | .46   |        |              | 0               | 0       |
| Molybdenum    | 60                 |               | 75               |          |         |        | 11.1  |        | 9.4   | e e e e e e e e | 10.4   | 10.7   |      | 14.7  |        | 0            |                 | 0       |
| Nickel        | 336                |               | 420              |          |         |        | 27.1  |        | 25.1  |                 | 26.9   | 27.1   |      | 29.3  |        | 0            |                 | 0       |
| Selenium      | 80                 |               | 100              |          |         |        | 3.8   |        | 4     |                 | 4.9    | <2.5   |      | 5.2   |        | 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

623

679 659

789

694

**Exceedence Points** 

2800 7500

- 0 (0 Points)
- 0 1-2 (10 Points)
- 0 > 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)
- o Yes

Zinc

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0

- o No (10 points)
- N/A Did not exceed limits or no HQ limit applies (0 points)
- o 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)
- 0 1 (10 Points)
- 0 > 1 (15 Points)
- 3.1.4 Were biosolids land applied which exceeded the ceiling limit?
- o 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?

- 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:              | 004  |
|------------------------------|--|
| Biosolids Class:             | A  |
| Bacteria Type and Limit:     | Fecal Coliform                                   |
| Sample Dates:                | 01/01/2021 - 02/28/2021                          |
| Density:                     | 64   |
| Sample Concentration Amount: | MPN/G TS   |
| Requirement Met:             | Yes  |
| Land Applied:                | Yes  |
| Process:                     | Heat Drying                                      |
| Process Description:         | Exceptional quality Sludge from the sludge Dryer |

| Outfall Number:              | 004                     |  |
|------------------------------|-------------------------|--|
| Biosolids Class:             | A                       |  |
| Bacteria Type and Limit:     | Fecal Coliform          |  |
| Sample Dates:                | 03/01/2021 - 04/30/2021 |  |
| Density:                     | 2                       |  |
| Sample Concentration Amount: | MPN/G TS                |  |
| Requirement Met:             | Yes                     |  |
| Land Applied:                | Yes                     |  |
| Process:                     | Heat Drying             |  |
| Process Description:         | Dried Biosolids - Dryer |  |

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|                              | 3/3/2022                                    |  |  |  |
|------------------------------|---|--|--|--|
| Outfall Number:              | 004   |  |  |  |
| Biosolids Class:             | A   |  |  |  |
| Bacteria Type and Limit:     | Fecal Coliform                              |  |  |  |
| Sample Dates:                | 05/01/2021 - 06/30/2021                     |  |  |  |
| Density:                     | 19  |  |  |  |
| Sample Concentration Amount: | MPN/G TS                                    |  |  |  |
| Requirement Met:             | Yes   |  |  |  |
| Land Applied:                | Yes   |  |  |  |
| Process:                     | Heat Drying                                 |  |  |  |
| Process Description:         | Biosolids dried using heat drying process   |  |  |  |
| Outfall Number:              | 004   |  |  |  |
| Biosolids Class:             | A   |  |  |  |
| Bacteria Type and Limit:     | Fecal Coliform                              |  |  |  |
| Sample Dates:                | 07/01/2021 - 08/31/2021                     |  |  |  |
| Density:                     | 1   |  |  |  |
| Sample Concentration Amount: | MPN/G TS                                    |  |  |  |
| Requirement Met:             | Yes   |  |  |  |
| Land Applied:                | Yes   |  |  |  |
| Process:                     | Heat Drying                                 |  |  |  |
| Process Description:         | Biosolids dried using heat drying process   |  |  |  |
| r ocess bescription.         | plosonds dried daing fleat of virig process |  |  |  |
| Outfall Number:              | 004   |  |  |  |
| Biosolids Class:             | A   |  |  |  |
| Bacteria Type and Limit:     | Fecal Coliform                              |  |  |  |
| Sample Dates:                | 09/01/2021 - 10/31/2021                     |  |  |  |
| Density:                     | 3   |  |  |  |
| Sample Concentration Amount: | MPN/G TS                                    |  |  |  |
| Requirement Met:             | Yes   |  |  |  |
| Land Applied:                | Yes   |  |  |  |
| Process:                     | Heat Drying                                 |  |  |  |
| Process Description:         | Biosolids dried using heat drying process.  |  |  |  |
| Outfall Number:              | 004   |  |  |  |
| Biosolids Class:             | A   |  |  |  |
| Bacteria Type and Limit:     | Fecal Coliform                              |  |  |  |
| Sample Dates:                | 11/01/2021 - 12/31/2021                     |  |  |  |
| Density:                     | 3   |  |  |  |
| Sample Concentration Amount: | MPN/G TS                                    |  |  |  |
| Requirement Met:             | Yes   |  |  |  |
| Land Applied:                | Yes   |  |  |  |
| Process:                     | Heat Drying                                 |  |  |  |
|                              | Heat Drying utilizing Biosolids Dryer       |  |  |  |

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| Outfall Number:              |                         | 005                  |
|------------------------------|-------------------------|----------------------|
| Biosolids Class:             |                         | Α                    |
| Bacteria Type and Limit:     | Fed                     | al Coliform          |
| Sample Dates:                | 03/01/2021 - 04/30/2    | 2021                 |
| Density:                     | 2                       |                      |
| Sample Concentration Amount: | MPN/G TS                |                      |
| Requirement Met:             | Yes                     |                      |
| Land Applied:                | Yes                     |                      |
| Process:                     | Heat Drying             |                      |
| Process Description:         | Dried Biosolids - Silo  |                      |
| Outfall Number:              |                         | 005                  |
| Biosolids Class:             |                         | A                    |
| Bacteria Type and Limit:     | Fed                     | al Coliform          |
| Sample Dates:                | 05/01/2021 - 06/30/2    | 2021                 |
| Density:                     | 20                      |                      |
| Sample Concentration Amount: | MPN/G TS                |                      |
| Requirement Met:             | Yes                     |                      |
| Land Applied:                | Yes                     |                      |
| Process:                     | Heat Drying             |                      |
| Process Description:         | Biosolids dried using I | heat drying process  |
| Outfall Number:              |                         | 005                  |
| Biosolids Class:             |                         | A                    |
| Bacteria Type and Limit:     | Fed                     | cal Coliform         |
| Sample Dates:                | 07/01/2021 - 08/31/2    | 2021                 |
| Density:                     | 1                       |                      |
| Sample Concentration Amount: | MPN/G TS                |                      |
| Requirement Met:             | Yes                     |                      |
| Land Applied:                | Yes                     |                      |
| Process:                     | Heat Drying             |                      |
| Process Description:         | Biosolids dried using   | heat drying process  |
| Outfall Number:              |                         | 005                  |
| Biosolids Class:             |                         | A                    |
| Bacteria Type and Limit:     | Fee                     | cal Coliform         |
| Sample Dates:                | 09/01/2021 - 10/31/2    | 2021                 |
| Density:                     | 3                       |                      |
| Sample Concentration Amount: | MPN/G TS                |                      |
| Requirement Met:             | Yes                     |                      |
| Land Applied:                | Yes                     |                      |
| Process:                     | Heat Drying             |                      |
| Process Description:         | Biosolids dried using   | heat drying process. |

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| Outfall Number:              | 005                                   |
|------------------------------|---------------------------------------|
| Biosolids Class:             | A                                     |
| Bacteria Type and Limit:     | Fecal Coliform                        |
| Sample Dates:                | 11/01/2021 - 12/31/2021               |
| Density:                     | 15                                    |
| Sample Concentration Amount: | MPN/G TS                              |
| Requirement Met:             | Yes                                   |
| Land Applied:                | Yes                                   |
| Process:                     | Heat Drying                           |
| Process Description:         | Heat Drying utilizing Biosolids Dryer |

0

- 4.2 If exceeded Class B limit or did not meet the process criteria at the time of land application.
- 4.2.1 Was the limit exceeded or the process criteria not met at the time of land application?
- o Yes (40 Points)
- · No

If yes, what action was taken?

- 5. Vector Attraction Reduction (per outfall):
- 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.

| Outfall Number:                     | 004                             |
|-------------------------------------|---------------------------------|
| Method Date:                        | 02/22/2021                      |
| Option Used To Satisfy Requirement: | Drying With Unstabilized Solids |
| Requirement Met:                    | Yes                             |
| Land Applied:                       | Yes                             |
| Limit (if applicable):              | >90                             |
| Results (if applicable):            | 97                              |

| Outfall Number:                     | 005                             |
|-------------------------------------|---------------------------------|
| Method Date:                        | 04/12/2021                      |
| Option Used To Satisfy Requirement: | Drying With Unstabilized Solids |
| Requirement Met:                    | Yes                             |
| Land Applied:                       | Yes                             |
| Limit (if applicable):              | >90                             |
| Results (if applicable):            | 98.50                           |

| Outfall Number:                     | 005                             |
|-------------------------------------|---------------------------------|
| Method Date:                        | 06/14/2021                      |
| Option Used To Satisfy Requirement: | Drying With Unstabilized Solids |
| Requirement Met:                    | Yes                             |
| Land Applied:                       | Yes                             |
| Limit (if applicable):              | >90                             |
| Results (if applicable):            | 98.10                           |

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| *  |                         |                                   |        |
|--|-------------------------|-----------------------------------|--------|
| Outfall Number:  |                         | 005                               |        |
| Method Date:   |                         | 08/16/2021                        |        |
| Option Used To Satisfy Requirement:  | Drying Wi               | th Unstabilized Solids            |        |
| Requirement Met:   | Yes                     |                                   |        |
| Land Applied:  | Yes                     |                                   |        |
| Limit (if applicable):   | >90                     |                                   |        |
| Results (if applicable):   | 97.60                   |                                   |        |
|  |                         |                                   |        |
| Outfall Number:  |                         | 005                               |        |
| Method Date:   |                         | 09/20/2021                        |        |
| Option Used To Satisfy Requirement:  | Drying Wi               | th Unstabilized Solids            |        |
| Requirement Met:   | Yes                     |                                   |        |
| Land Applied:  | Yes                     |                                   |        |
| Limit (if applicable):   | >90                     |                                   |        |
| Results (if applicable):   | 100                     |                                   | 0      |
|  |                         |                                   | 0      |
| Outfall Number:  |                         | 005                               | 1      |
| Method Date:   |                         | 11/02/2021                        |        |
| Option Used To Satisfy Requirement:  | Drying Wi               | th Unstabilized Solids            |        |
| Requirement Met:   | Yes                     |                                   |        |
| Land Applied:  | Yes                     |                                   |        |
| Limit (if applicable):   | >90                     |                                   |        |
| Results (if applicable):   | 95                      |                                   |        |
|  |                         |                                   |        |
| 5.2 Was the limit exceeded or the proce  | ess criteria not met at | the time of land application?     |        |
| o Yes (40 Points)  |                         |                                   |        |
| • No   |                         |                                   |        |
| If yes, what action was taken?   |                         |                                   | _      |
|  |                         |                                   |        |
| 6. Biosolids Storage   |                         |                                   |        |
| 6.1 How many days of actual, current b   | iosolids storage capac  | ity did your wastewater treatment |        |
| facility have either on-site or off-site?  |                         |                                   |        |
| <ul><li>&gt;= 180 days (0 Points)</li></ul>                                      |                         |                                   |        |
| o 150 - 179 days (10 Points)   |                         |                                   | 1      |
| o 120 - 149 days (20 Points)   |                         |                                   |        |
| o 90 - 119 days (30 Points)  |                         |                                   | 0      |
| 0 < 90 days (40 Points)  |                         |                                   |        |
| <ul><li>N/A (0 Points)</li><li>6.2 If you checked N/A above, explain v</li></ul> | why.                    |                                   |        |
| 0.2 If you checked to A above, explain v   | wily.                   |                                   | $\neg$ |
|  |                         |                                   |        |
| 7. Issues  |                         |                                   |        |
| 7.1 Describe any outstanding biosolids i   | issues with treatment,  | use or overall management:        | _      |
| No outstanding issues were encounter   | red in 2021.            |                                   |        |

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|--------------------------------------|---------------------------|---------------|
| Total Points Generated               |                           | 0             |
| Score (100 - Total Points Generated) |                           | 100           |
| Section Grade                        |                           | Α             |

Sheboygan Wastewater Treatment Plant

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### Staffing and Preventative Maintenance (All Treatment Plants)

| 1.1 Was your wastewater treatment plant adequately staffed last year?  • Yes  • No  If No, please explain:  N/A  Could use more help/staff for:  N/A  1.2 Did your wastewater staff have adequate time to properly operate and maintain the plant and fulfill all wastewater management tasks including recordkeeping?  • Yes  • No  If No, please explain: |   |
|---|---|
| N/A   |   |
| 2. Preventative Maintenance 2.1 Did your plant have a documented AND implemented plan for preventative maintenance on major equipment items?  ● Yes (Continue with question 2) □□  ○ No (40 points)□□  If No, please explain, then go to question 3:  |   |
| <ul> <li>2.2 Did this preventative maintenance program depict frequency of intervals, types of lubrication, and other tasks necessary for each piece of equipment?</li> <li>Yes</li> <li>No (10 points)</li> </ul>  | 0 |
| <ul> <li>2.3 Were these preventative maintenance tasks, as well as major equipment repairs, recorded and filed so future maintenance problems can be assessed properly?</li> <li>Yes</li> </ul>   |   |
| <ul> <li>Paper file system</li> <li>Computer system</li> <li>Both paper and computer system</li> <li>No (10 points)</li> </ul>  |   |
| <ul> <li>3. O&amp;M Manual</li> <li>3.1 Does your plant have a detailed O&amp;M and Manufacturer Equipment Manuals that can be used as a reference when needed?</li> <li>Yes</li> <li>No</li> </ul>   |   |
| <ul> <li>4. Overall Maintenance /Repairs</li> <li>4.1 Rate the overall maintenance of your wastewater plant.</li> <li>Excellent</li> <li>Very good</li> <li>Good</li> <li>Fair</li> <li>Poor</li> <li>Describe your rating:</li> </ul>  |   |
|   |   |

#### Sheboygan Wastewater Treatment Plant

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Replaced 2 clarifier drives, screening controls were added, rebuilt 1 influent screen, rebuilt 2 raw pumps. We continue to rebuild our critical equipment to improve overall plant reliability.

| Total Points Generated               | 0   |
|--------------------------------------|-----|
| Score (100 - Total Points Generated) | 100 |
| Section Grade                        | Α   |

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0

#### Operator Certification and Education

| <ol> <li>Operator-In-Charge</li> <li>1.1 Did you have a designated operator-in-charge during the report year?</li> <li>Yes (0 points)</li> <li>No (20 points)</li> </ol> |   |
|--|---|
| Name:<br>STEVEN B JOSSART  | 0 |
| Certification No: 12990  |   |
|  |   |

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

- 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)
- o No (20 points)
- 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
- ☐ An arrangement with another certified operator
- ☐ An arrangement with another community with a certified operator
- An operator on staff who has an operator-in-training certificate for your plant and is expected to be certified within one year
- ☐ A consultant to serve as your certified operator
- None of the above (20 points)
- If "None of the above" is selected, please explain:
- 4. Continuing Education Credits
- 4.1 If you had a designated operator-in-charge, was the operator-in-charge earning Continuing Education Credits at the following rates?

| Sheboygan Wastewater Treatment Plant   | Last Updated:<br>5/9/2022 | Reporting For 2021 |
|--|---------------------------|--------------------|
| OIT and Basic Certification:  o Averaging 6 or more CECs per year.  o Averaging less than 6 CECs per year. |                           |                    |
| Advanced Certification:  • Averaging less than 8 CECs per year.  • Averaging less than 8 CECs per year.    |                           |                    |

| Total Points Generated               | 0   |
|--------------------------------------|-----|
| Score (100 - Total Points Generated) | 100 |
| Section Grade                        | A   |

| Sheboygan Wastewater 1  | reatment Plant   | Last Updated: Reporting 5/9/2022 2021 | For: |
|---|--|---------------------------------------|------|
| Financial Managemer   | nt   |                                       |      |
| Provider of Financial Inf<br>Name:  |  |                                       |      |
| Telephone:  | Kaitlyn Krueger<br>920-459-3440  | (xxx) xxx-xxxx                        |      |
| E-Mail Address<br>(optional):   | Kaitlyn.Krueger@sheboyganwi.gov  |                                       |      |
| 2. Treatment Works Opera 2.1 Are User Charges or of treatment plant AND/OR of or Yes (0 points) □□ ○ No (40 points)  If No, please explain: | other revenues sufficient to cover O&M   | expenses for your wastewater          |      |
| N/A 2.2 When was the User C   | harge System or other revenue source   | (s) last reviewed and/or revised?     |      |
| <ul> <li>0-2 years ago (0 points</li> <li>3 or more years ago (2</li> <li>N/A (private facility)</li> </ul>                                 |  |                                       | 0    |
|   | al account (e.g., CWFP required segregable for repairing or replacing equipment stem?            |                                       |      |
| o No (40 points)  |  |                                       | _    |
| 3. Equipment Replacement 3.1 When was the Equipment Year:  2021  1-2 years ago (0 point)  | ment Replacement Fund last reviewed a  |                                       |      |
| o 3 or more years ago (2<br>o N/A<br>If N/A, please explain:<br>N/A   | 20 points)LLL  |                                       |      |
| 3.2 Equipment Replacem  | ent Fund Activity  |                                       |      |
| 3.2.1 Ending Balance I 3.2.2 Adjustments - if ne  | Reported on Last Year's CMAR<br>ecessary (e.g. earned interest,<br>val of excess funds, increase | \$ 1,865,340.12<br>\$ 0.00            |      |
| 3.2.3 Adjusted January 1<br>3.2.4 Additions to Fund (<br>earned interest, etc.)   |  | \$ 1,865,340.12<br>\$ 109,859.48      |      |

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| 3.2.5  | Subtractions from Fund (e.g., equipment    |
|--------|--|
| replac | ement, 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

1,975,199.60

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.

| n  | 1/ | Λ             |
|----|----|---------------|
| I١ | 17 | $\overline{}$ |

3.3 What amount should be in your Replacement Fund?

1,975,199.60

0

Please note: If you had a CWFP 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
- o 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.

| 0 | r\1 | - |
|---|-----|---|
| U | 1 / | U |

| Project<br># | Project Description  |         | Approximate<br>Construction<br>Year |
|--------------|--|---------|-------------------------------------|
| 1            | Replacing/refurbishing the last primary and secondary clarifier drives. The plan is to replace each clarifier drive over the course of the next 1 - 2 years.   | 225000  | 2023                                |
|              | Fine bubble diffuser system maintenance and aeration basin repairs. The scope will also include the replacement of the beams supporting the walls in the anoxic and anerobic zones.  | 900000  | 2023                                |
| 3            | Sanitary Sewer Lining Projects. The city of Sheboygan is setting aside money annually to line sanitary sewers in conjunction with street replacement projects over the next five years. The estimated cost is the total cost of the work over the next five years. | 500000  | 2027                                |
| 4            | Replacement aeration blower.   | 375000  | 2025                                |
| 5            | Update 6th and Pershing Lift Station. The lift station will be painted and the controls and electrical will be upgraded.   | 125000  | 2023                                |
| 6            | Paint Indiana Lift Station. The lift station cans will be cleaned and painted.   | 100000  | 2024                                |
| 7            | Bleach and Bisulfite Tank Replacement  | 250000  | 2024                                |
| 8            | Administrative Building HVAC Controls and air conditioning unit. The Admin building will be broken up into zones and the heating and air conditioning controls will be updated along with replacement of the air conditioning unit.                                | 5500000 | 2024                                |
| 9            | Ferric Chloride Tank Replacement   | 150000  | 2025                                |
| 10           | Grit System Modifications. Baffles will be installed in the pista grit to improve both low and high flow performance.  | 125000  | 2025                                |
| 11           | Replace heat exchangers for the anaerobic digesters.   | 400000  | 2023                                |

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| 12 | Final Effluent Pumping system replacement            | 75000   | 2023 |
|----|--|---------|------|
| 13 | Dryer Maintenance beams installation                 | 75000   | 2023 |
| 14 | North Avenue lift station generator control upgrades | 40000   | 2024 |
| 15 | North Avenue lift station controls upgrade           | 50000   | 2025 |
| 16 | Replace north entrance gates to treatment plant      | 50000   | 2025 |
| 17 | Paint North Avenue lift station                      | 100000  | 2025 |
| 18 | Administration Building roof replacement             | 550000  | 2026 |
| 19 | Indiana Avenue lift station isolation wet well       | 450000  | 2026 |
| 20 | Kentucky Avenue lift station upgrade                 | 3400000 | 2027 |
| 21 | Replace Influent building roof                       | 450000  | 2027 |

5. Financial Management General Comments

Rates have been adequate to support the plant and capital project plans.

#### **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:

|           | Electricity Consumed (kWh) | Natural Gas Consumed (therms) |
|-----------|----------------------------|-------------------------------|
| January   | 53,344                     | 387                           |
| February  | 54,545                     | 603                           |
| March     | 59,628                     | 248                           |
| April     | 60,811                     | 96                            |
| May       | 45,166                     | 38                            |
| June      | 46,142                     | 2                             |
| July      | 54,286                     | 0                             |
| August    | 44,735                     | 0                             |
| September | 41,267                     | 0                             |
| October   | 40,658                     | 13                            |
| November  | 36,627                     | 109                           |
| December  | 45,371                     | 427                           |
| Total     | 582,580                    | 1,923                         |
| Average   | 48,548                     | 214                           |

#### 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
- □ Flow Metering and Recording
- □ Pneumatic Pumping
- SCADA System

7. Treatment Facility 7.1 Energy Usage

### Sheboygan Wastewater Treatment Plant Last Updated: Reporting For: 5/9/2022 2021 ☐ Self-Priming Pumps ☐ Submersible Pumps ☑ Variable Speed Drives ☐ Other: 6.2.2 Comments: N/A 6.3 Has an Energy Study been performed for your pump/lift stations? Yes Year: 2005 By Whom: Focus on Energy Describe and Comment: We are presently working with Focus on Energy and the Department of Energy Better Plants Program to identify projects and improvements. 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? We are looking to install VFD's at Kentucky Avenue lift station and changing lighting to LED.

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

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TREATMENT PLANT: Total Power Consumed/Month

|           | Electricity<br>Consumed<br>(kWh) | Total Influent<br>Flow (MG) | Electricity<br>Consumed/<br>Flow<br>(kWh/MG) | Total Influent<br>BOD (1000 lbs) | Electricity<br>Consumed/<br>Total Influent<br>BOD<br>(kWh/1000lbs) | Natural Gas<br>Consumed<br>(therms) |
|-----------|----------------------------------|-----------------------------|--|----------------------------------|--|-------------------------------------|
| January   | 540,900                          | 283.01                      | 1,911  | 474.27                           | 1,140  | 5,131                               |
| February  | 453,600                          | 246.70                      | 1,839  | 387.83                           | 1,170  | 10,922                              |
| March     | 532,800                          | 373.31                      | 1,427  | 409.32                           | 1,302  | 23,090                              |
| April     | 576,000                          | 317.15                      | 1,816  | 406.26                           | 1,418  | 22,291                              |
| May       | 527,400                          | 332.17                      | 1,588  | 458.65                           | 1,150  | 14,220                              |
| June      | 627,300                          | 295.89                      | 2,120  | 432.42                           | 1,451  | 8,861                               |
| July      | 651,600                          | 354.16                      | 1,840  | 454.52                           | 1,434  | 5,355                               |
| August    | 612,000                          | 338.31                      | 1,809  | 485.31                           | 1,261  | 5,111                               |
| September | 630,900                          | 285.66                      | 2,209  | 472.65                           | 1,335  | 6,286                               |
| October   | 541,800                          | 278.04                      | 1,949  | 439.05                           | 1,234  | 2,216                               |
| November  | 489,600                          | 247.00                      | 1,982  | 441.69                           | 1,108  | 8,925                               |
| December  | 531,000                          | 255.82                      | 2,076  | 485.24                           | 1,094  | 938                                 |
| Total     | 6,714,900                        | 3,607.22                    |  | 5,347.21                         |  | 113,346                             |
| Average   | 559,575                          | 300.60                      | 1,881  | 445.60                           | 1,258  | 9,446                               |

| 7 | 1 | 2 | C | m      | m | on | te  | • |
|---|---|---|---|--------|---|----|-----|---|
| / |   | - |   | 21 1 1 |   |    | 1 - | ı |

|     | N/A |  |
|-----|-----|--|
| 2.5 |     |  |

| 1.2 Energy Related | Processes and | i Equipment |  |
|--------------------|---------------|-------------|--|
|--------------------|---------------|-------------|--|

| 1 | .2.1 Indicate | equipment and | practices | utilized at | your | treatment | racility ( | (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
- SCADA System
   System
   Scapa System
   Sc
- ☐ UV Disinfection
- ☑ Variable Speed Drives
- Other:

Process water system pumping

#### 7.2.2 Comments:

| DA. | ٠ | • |  |
|-----|---|---|--|
|     |   |   |  |
|     |   |   |  |

#### 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?

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| We are presently working with Focus on Energy and the Department of Energy Better Plants Program to identify projects and improvements.                        |  |
|--|--|
| 8. Biogas Generation   |  |
| 8.1 Do you generate/produce biogas at your facility?  o No  • Yes  |  |
| If Yes, how is the biogas used (Check all that apply):  ☑ Flared Off ☑ Building Heat   |  |
| ☑ Process Heat ☐ Generate Electricity ☐ Other:   |  |
|  |  |
| 9. Energy Efficiency Study   |  |
| 9.1 Has an Energy Study been performed for your treatment facility?  o No  |  |
| ● Yes  ☑ Entire facility  Year:  |  |
| 2005   |  |
| By Whom: Focus on Energy   |  |
| Describe and Comment:  We are presently working with Focus on Energy and the Department of Energy Better Plants Program to identify projects and improvements. |  |
| Part of the facility Year:   |  |
| By Whom:   |  |
| Describe and Comment:  |  |
|  |  |

| Total Points Generated               | 0   |
|--------------------------------------|-----|
| Score (100 - Total Points Generated) | 100 |
| Section Grade                        | A   |

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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  |
| O 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  |
| o No (30 points)   |
| o N/A  |
| If No or N/A, explain:   |
|  |
| <ul> <li>1.3 Does your CMOM program contain the following components and items? (check the components and items that apply)</li> <li>☑ Goals [NR 210.23 (4)(a)]</li> <li>Describe the major goals you had for your collection system last year:</li> </ul> |
|  |
| Provide the proper resources for effective system management, operation and maintenance.<br>Improve sewer infrastructure through sewer replacement and lining. Eliminate sanitary sewer overflows.   |
| Did you accomplish them?   |
| • Yes  |
| o No   |
| If No, explain:  |
|  |
| M Organization (NR 210 22 (4) (b))   |
| ☑ 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 Sheboygan Sewer Ordinance  |
| If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 2016-05-12  |
| 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  |

#### Compliance Hamtenance Annual Report

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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 ☑ 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 Managment Plan (SECAP) ☐ Lift Station Evaluation Report Others: 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. % of system/year Cleaning 39.3 1.9 % of system/year Root removal 75 % of system/year Flow monitoring % of system/year Smoke testing Sewer line 2.1 % of system/year televising Manhole 50.2 % of system/year inspections 55 # per L.S./year Lift station O&M Manhole 1.2 % of manholes rehabbed rehabilitation Mainline 1.3 % of sewer lines rehabbed rehabilitation Private sewer % of system/year inspections

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| Private sewer I/I<br>removal                                  | 0  | % of private sen    | vices                 |              |
|---|--|---------------------|-----------------------|--------------|
| River or water crossings                                      |  | % of pipe crossing  | ngs evaluated or mair | ntained      |
| Please include additional                                     | comments about your  |                     | - <del></del>         |              |
|   |  |                     |                       |              |
| 3. Performance Indicators                                     | A STATE OF THE STA |                     |                       |              |
| 3.1 Provide the following of 28.810 Total                     | ollection system and i<br>I actual amount of pre   |                     |                       |              |
| 32 Anni   | ual average precipitat   | ion (for your locat | ion)                  | = 1          |
| 203.7 Miles   | s of sanitary sewer  |                     |                       |              |
| 5 Num   | ber of lift stations   |                     |                       |              |
| 0 Num   | ber of lift station failu  | ires                |                       |              |
| 1 Num   | ber of sewer pipe fail   | ures                |                       | = 1 1        |
| 2 Num   | ber of basement back   | kup occurrences     |                       |              |
| 29 Num  | ber of complaints  |                     |                       |              |
| 9.89 Aver   | rage daily flow in MGD   | (if available)      |                       |              |
| 12.042 Peak   | monthly flow in MGD  | (if available)      |                       |              |
| Peal  | c hourly flow in MGD (   | (if available)      |                       | e ,          |
| 3.2 Performance ratios for                                    |  |                     |                       |              |
|   | station failures (failure  |                     |                       | 10 1 = 0     |
|   | er pipe failures (pipe   |                     |                       |              |
|   | itary sewer overflows  | .75.) 81<br>        | ile/yr)               |              |
|   | ement backups (numb  |                     |                       |              |
|   | iplaints (number/sewe  | •                   |                       |              |
|   | king factor ratio (Peak  |                     |                       |              |
| 0.0 Peal  | king factor ratio (Peak  | Hourly:Annual Da    | aily Avg)             |              |
| 4. Overflows  |  |                     |                       |              |
| LIST OF SANITARY SEW  | ER (SSO) AND TREAT   | MENT FACILITY (7    | FO) OVERFLOWS RE      | PORTED **    |
| Date  | Locatio  |                     | Cause                 | Estimated    |
|   |  |                     |                       | Volume       |
|   | None   | reported            |                       |              |
| ** If there were any SSOs on this section until correct       | or TFOs that are not ted.  | listed above, pleas | se contact the DNR ar | nd stop work |
| 5. Infiltration / Inflow (I/I)<br>5.1 Was infiltration/inflow | (I/I) significant in you   | ur community last   | year?                 |              |
| o Yes   |  |                     |                       |              |
| <ul><li>No</li><li>If Yes, please describe:</li></ul>         |  |                     |                       |              |
| 11 103, picase describe.                                      |  |                     |                       |              |
| 5.2 Has infiltration (inflam                                  | and regultant high fla   | we affected as fa-  | manga or areated and  | hloma in     |
| 5.2 Has infiltration/inflow your collection system, lift      |  |                     |                       | biems in     |
| o Yes   |  |                     |                       |              |

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If Yes, please describe:

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

Due to relatively dry conditions, infiltration/inflow was significantly lower than the previous two years, as the plants average flow rate was 9.87 MGD, as compared with the two previous years which were both over 12.5 MGD.

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

We continue to work on lining sewers, as roads are repaired or problems are encountered. Plans to repair and protect the lake shore interceptor manholes are proceeding and construction on this project is expected to start in late 2022.

| Total Points Generated               | 0   |
|--------------------------------------|-----|
| Score (100 - Total Points Generated) | 100 |
| Section Grade                        | A   |

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#### **Grading Summary**

WPDES No: 0025411

| SECTIONS        | LETTER GRADE      | GRADE POINTS | WEIGHTING<br>FACTORS | SECTION<br>POINTS |
|-----------------|-------------------|--------------|----------------------|-------------------|
| Influent        | A                 | 4            | 3                    | 12                |
| BOD/CBOD        | A                 | 4            | 10                   | 40                |
| TSS             | А                 | 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          | Α                 | 4            | 1                    | 4                 |
| Financial       | A                 | 4            | 1                    | 4                 |
| Collection      | A                 | 4            | 3                    | 12                |
| TOTALS          | 1                 |              | 37                   | 148               |
| GRADE POINT AVE | RAGE (GPA) = 4.00 |              |                      |                   |

#### 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)

| heboygan Wastewater Treatment Plant  | Last Updated:<br>5/9/2022 | Reporting For 2021 |
|--|---------------------------|--------------------|
| Resolution or Owner's Statement  |                           |                    |
|  |                           |                    |
| Name of Governing<br>Body or Owner:  | 1                         |                    |
| City of Sheboygan Common Council   | ]                         |                    |
| Date of Resolution or<br>Action Taken:   |                           |                    |
| Resolution Number:   |                           |                    |
| Date of Submittal:   |                           |                    |
| ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER REL<br>SECTIONS (Optional for grade A or B. Required for grade C, D, o<br>Influent Flow and Loadings: Grade = A |                           | C CMAR             |
|  |                           |                    |
| Effluent Quality: BOD: Grade = A   |                           |                    |
|  |                           |                    |
| Effluent Quality: TSS: Grade = A   |                           |                    |
| Emache Quanty, 155, Grade - 7,   |                           |                    |
| Effluent Quality: Ammonia: Grade = A   |                           |                    |
|  |                           |                    |
| Effluent Quality: Phosphorus: Grade = A  |                           |                    |
|  |                           |                    |
| Biosolids Quality and Management: Grade = A  | 4000                      |                    |
|  | ***                       |                    |
| Staffing: Grade = A  |                           |                    |
| Starring, Grade = A  |                           |                    |
| Operator Certification: Grade = A  | 11-1A1-1A                 |                    |
|  |                           |                    |
| Financial Management: Grade = A  |                           |                    |
|  |                           |                    |
| Collection Systems: Grade = A  |                           |                    |
| (Regardless of grade, response required for Collection Systems if SSO  | )s were reported)         |                    |
| i e  |                           |                    |
|  |                           |                    |
| ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER REL<br>GRADE POINT AVERAGE AND ANY GENERAL COMMENTS   | LATING TO THE OV          | ERALL              |