# Compliance Maintenance Annual Report

**Waukesha City**

Last Updated: 5/14/2021 Reporting For: **2020**

## 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. 702 | Influent Monthly Average Flow, MGD | x | Influent Monthly Average BOD Concentration mg/L | x | 8.34 | = | Influent Monthly Average BOD Loading, lbs/day |
|---|---|---|---|---|---|---|---|
| January | 10.5830 | x | 236 | x | 8.34 | = | 20,799 |
| February | 9.8673 | x | 290 | x | 8.34 | = | 23,905 |
| March | 11.7845 | x | 196 | x | 8.34 | = | 19,301 |
| April | 10.9919 | x | 202 | x | 8.34 | = | 18,521 |
| May | 13.5465 | x | 123 | x | 8.34 | = | 13,933 |
| June | 10.5828 | x | 106 | x | 8.34 | = | 9,367 |
| July | 9.5199 | x | 173 | x | 8.34 | = | 13,700 |
| August | 8.0071 | x | 186 | x | 8.34 | = | 12,451 |
| September | 7.8804 | x | 222 | x | 8.34 | = | 14,584 |
| October | 7.4717 | x | 233 | x | 8.34 | = | 14,499 |
| November | 7.1748 | x | 271 | x | 8.34 | = | 16,190 |
| December | 7.0282 | x | 306 | x | 8.34 | = | 17,965 |

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 | 18.5 | x | 90 | = | 16.65 |
| | | x | 100 | = | 18.5 |
| Design BOD, lbs/day | 29653 | x | 90 | = | 26687.7 |
| | | x | 100 | = | 29653 |

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

| | Months of Influent | Number of times flow was greater than 90% of | Number of times flow was greater than 100% of | Number of times BOD was greater than 90% of design | Number of times BOD was greater 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 |
| **Total Number of Points** | | | | | **0** |

**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) 12/22/2020

○ 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:

Notices of Violation were issued to 5 industrial users for violation of permit limits, and warning letters were sent to 2 for sampling results approaching limits. All users returned to compliance after resampling. A warning letter was issued to a drywall contractor for discharge of solids to the collection system. Warning letters were also issued to 10 restaurants for failure to maintain grease traps.

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 faclity? If yes, indicate volume in gallons.

Septic Tanks

● Yes 5,523,789 gallons

○ No

Holding Tanks

● Yes 3,641,626 gallons

○ No

Grease Traps

○ Yes 0 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.

Plant performance was not affected

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

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

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.

All hauled waste is subject to review by our Pretreatment Program for acceptance. Review may include on-site inspections, sampling, and permitting. Hauled waste manifests are screened for potential new industrial sources, and follow-up inspections conducted if needed. We have a categorical metal Finisher, landfill leachate, and a non-categorical printer that are permitted as Industrial Users that are hauled to the plant.

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

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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. 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 | 10 | 10 | 0 | 1 | 0 | 0 |
| February | 10 | 10 | 0 | 1 | 0 | 0 |
| March | 10 | 10 | 0 | 1 | 0 | 0 |
| April | 10 | 10 | 0 | 1 | 0 | 0 |
| May | 7.9 | 7.9 | 0 | 1 | 0 | 0 |
| June | 7.9 | 7.9 | 0 | 1 | 0 | 0 |
| July | 7.9 | 7.9 | 0 | 1 | 0 | 0 |
| August | 7.9 | 7.9 | 0 | 1 | 0 | 0 |
| September | 7.9 | 7.9 | 0 | 1 | 0 | 0 |
| October | 7.9 | 7.9 | 0 | 1 | 0 | 0 |
| November | 10 | 10 | 0 | 1 | 0 | 0 |
| December | 10 | 10 | 0 | 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 |
| **Total number of points** | | | | | | **0** |

**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?

2. Flow Meter Calibration

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

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

12/22/2020

○ No

If No, please explain:

3. Treatment Problems

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

None

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

○ No

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If Yes, please explain:

Our weekly Chloride limit of 620 mg/L was exceeded in February of 2020 with a result of 621 mg/L. This exceedance was reported to DNR.

4.2 At any time in the past year was there a failure of an effluent acute or chronic whole effluent toxicity (WET) test?

- ○ Yes
- ● No

If Yes, please explain:

4.3 If the biomonitoring (WET) test did not pass, were steps taken to identify and/or reduce source(s) of toxicity?

- ○ Yes
- ○ No
- ● N/A

Please explain unless not applicable:

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

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## 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. 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 | 10 | 10 | 1 | 1 | 0 | 0 |
| February | 10 | 10 | 0 | 1 | 0 | 0 |
| March | 10 | 10 | 1 | 1 | 0 | 0 |
| April | 10 | 10 | 1 | 1 | 0 | 0 |
| May | 10 | 10 | 1 | 1 | 0 | 0 |
| June | 10 | 10 | 0 | 1 | 0 | 0 |
| July | 10 | 10 | 0 | 1 | 0 | 0 |
| August | 10 | 10 | 0 | 1 | 0 | 0 |
| September | 10 | 10 | 0 | 1 | 0 | 0 |
| October | 10 | 10 | 0 | 1 | 0 | 0 |
| November | 10 | 10 | 0 | 1 | 0 | 0 |
| December | 10 | 10 | 1 | 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 |
| **Total Number of Points** | | | | | | **0** |

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

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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. 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 | 5 | | 0 | 0 | | | | | |
| February | 5.2 | | .017586207 | 0 | | | | | |
| March | 6 | | 0 | 0 | | | | | |
| April | 5.6 | | 0 | 0 | | | | | |
| May | 4.9 | | .014516129 | 0 | | | | | |
| June | 3.1 | | .015 | 0 | | | | | |
| July | 2 | | .112258065 | 0 | | | | | |
| August | 2.1 | | 0 | 0 | | | | | |
| September | 2.9 | | .053 | 0 | | | | | |
| October | 4 | | .008064516 | 0 | | | | | |
| November | 5.1 | | .040666667 | 0 | | | | | |
| December | 4.9 | | .012580645 | 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 |
| **Total Number of Points** | **0** |

**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** | **A** |

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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 | .6 | 0.174 | 1 | 0 | |
| February | .6 | 0.128 | 1 | 0 | |
| March | .6 | 0.060 | 1 | 0 | |
| April | .6 | 0.050 | 1 | 0 | |
| May | .6 | 0.068 | 1 | 0 | |
| June | .6 | 0.040 | 1 | 0 | |
| July | .6 | 0.041 | 1 | 0 | |
| August | .6 | 0.043 | 1 | 0 | |
| September | .6 | 0.058 | 1 | 0 | |
| October | .6 | 0.089 | 1 | 0 | **0** |
| November | .6 | 0.051 | 1 | 0 | |
| December | .6 | 0.068 | 1 | 0 | |
| Months of Discharge/yr | | | 12 | | |
| **Points per each exceedance with 12 months of discharge:** | | | | **10** | |
| Exceedances | | | | 0 | |
| **Total Number of Points** | | | | **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?

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

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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?

3311.40 acres

2.1.2 How many acres did you use?

808 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? **0**

- ○ 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. 005 - Liquid 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 | | | | | | | | | | | | | | 0 | 0 |
| Cadmium | | 39 | 85 | | | | | | | | | | | | | | 0 | 0 |
| Copper | | 1500 | 4300 | | | | | | | | | | | | | | 0 | 0 |
| Lead | | 300 | 840 | | | | | | | | | | | | | | 0 | 0 |
| Mercury | | 17 | 57 | | | | | | | | | | | | | | 0 | 0 |
| Molybdenum | 60 | | 75 | | | | | | | | | | | | | 0 | | 0 |
| Nickel | 336 | | 420 | | | | | | | | | | | | | 0 | | 0 |
| Selenium | 80 | | 100 | | | | | | | | | | | | | 0 | | 0 |
| Zinc | | 2800 | 7500 | | | | | | | | | | | | | | 0 | 0 |

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**Outfall No. 002 - 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 | <5.3 | | | <5.5 | | | <5.3 | | | 5.7 | | | | 0 | 0 |
| Cadmium | | 39 | 85 | 1.4 | | | .64 | | | 1 | | | .92 | | | | 0 | 0 |
| Copper | | 1500 | 4300 | 666 | | | 627 | | | 685 | | | 696 | | | | 0 | 0 |
| Lead | | 300 | 840 | 21.5 | | | 22.3 | | | 25.1 | | | 26.1 | | | | 0 | 0 |
| Mercury | | 17 | 57 | .43 | | | .26 | | | .35 | | | .44 | | | | 0 | 0 |
| Molybdenum | 60 | | 75 | 17.4 | | | 12.6 | | | 14.8 | | | 14.7 | | | 0 | | 0 |
| Nickel | 336 | | 420 | 57 | | | 41.3 | | | 39.1 | | | 35.6 | | | 0 | | 0 |
| Selenium | 80 | | 100 | 8.5 | | | 6.3 | | | 8.6 | | | 7 | | | 0 | | 0 |
| Zinc | | 2800 | 7500 | 982 | | | 835 | | | 1020 | | | 1100 | | | | 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)
- ○ 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: | **002** |
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 01/01/2020 - 12/31/2020 |
| Density: | 61,000 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Process: | Anaerobic Digestion |
| Process Description: | Centrifuge samples.<br>Lab Certification Number: 721026460 |

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| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 01/01/2020 - 12/31/2020 |
| Density: | 390,000 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Process: | Anaerobic Digestion |
| Process Description: | Storage pile samples.<br>Lab Certification Number: 721026460 |

| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 01/01/2020 - 12/31/2020 |
| Density: | 57,900 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Process: | Anaerobic Digestion |
| Process Description: | Centrifuge samples.<br>Lab Certification Number: 460024950 |

| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 01/01/2020 - 12/31/2020 |
| Density: | 29,400 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Process: | Anaerobic Digestion |
| Process Description: | Centrifuge samples.<br>Lab Certification Number: 460024950 |

| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 01/01/2020 - 12/31/2020 |
| Density: | 4,460 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Process: | Anaerobic Digestion |
| Process Description: | Storage pile samples.<br>Lab Certification Number: 460024950 |

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| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 01/01/2020 - 12/31/2020 |
| Density: | 18,200 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Process: | Anaerobic Digestion |
| Process Description: | Centrifuge samples.<br>Lab Certification Number: 460024950 |

| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 01/01/2020 - 12/31/2020 |
| Density: | 817 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Process: | Anaerobic Digestion |
| Process Description: | Storage pile samples.<br>Lab Certification Number: 460024950 |

| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 01/01/2020 - 03/31/2020 |
| Density: | 61,000 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | No |
| Process: | Anaerobic Digestion |
| Process Description: | Centrifuge samples.<br>Lab Certification Number: 721026460 |

| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 04/01/2020 - 06/30/2020 |
| Density: | 390,000 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Process: | Anaerobic Digestion |
| Process Description: | Storage pile samples.<br>Lab Certification Number: 721026460 |

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| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 04/01/2020 - 06/30/2020 |
| Density: | 57,900 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Process: | Anaerobic Digestion |
| Process Description: | Centrifuge samples.<br>Lab Certification Number: 460024950 |

| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 07/01/2020 - 09/30/2020 |
| Density: | 29,400 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | No |
| Process: | Anaerobic Digestion |
| Process Description: | Centrifuge samples.<br>Lab Certification Number: 460024950 |

| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 07/01/2020 - 09/30/2020 |
| Density: | 4,460 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | No |
| Process: | Anaerobic Digestion |
| Process Description: | Storage pile samples.<br>Lab Certification Number: 460024950 |

| Outfall Number: | **002** |
|---|---|
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 10/01/2020 - 12/31/2020 |
| Density: | 18,200 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Process: | Anaerobic Digestion |
| Process Description: | Centrifuge samples.<br>Lab Certification Number: 460024950 |

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**Waukesha City**

Last Updated: 5/14/2021 Reporting For: **2020**

| | |
|---|---|
| Outfall Number: | **002** |
| Biosolids Class: | B |
| Bacteria Type and Limit: | Fecal Coliform |
| Sample Dates: | 10/01/2020 - 12/31/2020 |
| Density: | 817 |
| Sample Concentration Amount: | CFU/G TS |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Process: | Anaerobic Digestion |
| Process Description: | Storage pile samples.<br>Lab Certification Number: 460024950 |

**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?

○ 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: | **002** |
| Method Date: | 12/31/2020 |
| Option Used To Satisfy Requirement: | Incorporation when land apply |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Limit (if applicable): | |
| Results (if applicable): | |

| | |
|---|---|
| Outfall Number: | **002** |
| Method Date: | 03/31/2020 |
| Option Used To Satisfy Requirement: | Incorporation when land apply |
| Requirement Met: | Yes |
| Land Applied: | No |
| Limit (if applicable): | |
| Results (if applicable): | |

| | |
|---|---|
| Outfall Number: | **002** |
| Method Date: | 06/30/2020 |
| Option Used To Satisfy Requirement: | Incorporation when land apply |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Limit (if applicable): | |
| Results (if applicable): | |

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| Outfall Number: | **002** |
|---|---|
| Method Date: | 09/30/2020 |
| Option Used To Satisfy Requirement: | Incorporation when land apply |
| Requirement Met: | Yes |
| Land Applied: | No |
| Limit (if applicable): | |
| Results (if applicable): | |

| Outfall Number: | **002** |
|---|---|
| Method Date: | 12/31/2020 |
| Option Used To Satisfy Requirement: | Incorporation when land apply |
| Requirement Met: | Yes |
| Land Applied: | Yes |
| Limit (if applicable): | |
| Results (if applicable): | |

**0**

5.2 Was the limit exceeded or the process criteria not met at the time of land application?

- ○ Yes (40 Points)
- ● No

If yes, what action was taken?

6. Biosolids Storage

6.1 How many days of actual, current biosolids storage capacity did your wastewater treatment facility have either on-site or off-site?

- ● >= 180 days (0 Points)
- ○ 150 - 179 days (10 Points)
- ○ 120 - 149 days (20 Points)
- ○ 90 - 119 days (30 Points)
- ○ < 90 days (40 Points)
- ○ N/A (0 Points)

**0**

6.2 If you checked N/A above, explain why.

7. Issues

7.1 Describe any outstanding biosolids issues with treatment, use or overall management:

None, 2020 was a good year weather wise for a change.

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

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## Staffing and Preventative Maintenance (All Treatment Plants)

1. Plant Staffing

1.1 Was your wastewater treatment plant adequately staffed last year?

- ● Yes
- ○ No

If No, please explain:

Could use more help/staff for:

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:

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:

2.2 Did this preventative maintenance program depict frequency of intervals, types of lubrication, and other tasks necessary for each piece of equipment?

- ● Yes
- ○ No (10 points)

2.3 Were these preventative maintenance tasks, as well as major equipment repairs, recorded and filed so future maintenance problems can be assessed properly?

- ● Yes
  - ○ Paper file system
  - ○ Computer system
  - ● Both paper and computer system
- ○ No (10 points)

**0**

3. O&M Manual

3.1 Does your plant have a detailed O&M and Manufacturer Equipment Manuals that can be used as a reference when needed?

- ● Yes
- ○ No

4. Overall Maintenance /Repairs

4.1 Rate the overall maintenance of your wastewater plant.

- ○ Excellent
- ● Very good
- ○ Good
- ○ Fair
- ○ Poor

Describe your rating:

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During the height of Covid we were rotating our staff to isolate from each other so some maintenance was deferred until safe to have all staff here together. However having had a recent upgrade most equipment is newer and requires less upkeep.

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

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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: JEFF T HARENDA

Certification No: 31618

**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 | | | | X |
| A3 | Recirculating Media Filters | | | | |
| A4 | Ponds, Lagoons and Natural | | X | | |
| 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 | | | | |
| 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 and is basic level only.)

- ● Yes (0 points)
- ○ No (20 points)

**0**

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:

**0**

4. Continuing Education Credits

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4.1 If you had a designated operator-in-charge, was the operator-in-charge earning Continuing Education Credits at the following rates?

OIT and Basic Certification:

- ○ Averaging 6 or more CECs per year.
- ○ Averaging less than 6 CECs per year.

Advanced Certification:

- ● Averaging 8 or more CECs per year.
- ○ Averaging less than 8 CECs per year.

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

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## Financial Management

1. Provider of Financial Information

Name: Rich Abbott

Telephone: 262-524-3556 (XXX) XXX-XXXX

E-Mail Address (optional): rabbott@waukesha-wi.gov

2. Treatment Works Operating Revenues

2.1 Are User Charges or other revenues sufficient to cover O&M expenses for your wastewater treatment plant AND/OR collection system ?

- ● Yes (0 points) ☐☐
- ○ No (40 points)

If No, please explain:

2.2 When was the User Charge System or other revenue source(s) last reviewed and/or revised?

Year: 2020

- ● 0-2 years ago (0 points) ☐☐
- ○ 3 or more years ago (20 points)☐☐
- ○ N/A (private facility)

2.3 Did you have a special account (e.g., CWFP required segregated Replacement Fund, etc.) or financial resources available for repairing or replacing equipment for your wastewater treatment plant and/or collection system?

- ● Yes (0 points)
- ○ No (40 points)

**0**

REPLACEMENT FUNDS [PUBLIC MUNICIPAL FACILITIES SHALL COMPLETE QUESTION 3]

3. Equipment Replacement Funds

3.1 When was the Equipment Replacement Fund last reviewed and/or revised?

Year: 2020

- ● 1-2 years ago (0 points)☐☐
- ○ 3 or more years ago (20 points)☐☐
- ○ N/A

If N/A, please explain:

3.2 Equipment Replacement Fund Activity

| | | |
|---|---|---|
| **3.2.1 Ending Balance Reported on Last Year's CMAR** | | $ 3,311,075.71 |
| 3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.) | | $ 0.00 |
| 3.2.3 Adjusted January 1st Beginning Balance | | $ 3,311,075.71 |
| 3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.) | + | $ 250,000.00 |

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3.2.5 Subtractions from Fund (e.g., equipment replacement, major repairs - use description box 3.2.6.1 below*) - $ 15,098.40

3.2.6 Ending Balance as of December 31st for CMAR Reporting Year $ 3,545,977.31

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.

Clarifier blanket meters $15,098.40

3.3 What amount should be in your Replacement Fund? $ 1,698,128.00

**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

○ 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 | 6-10 year faciltity plan upgrades, to include phosphorus treatment, primary inf/eff pump replacement, continued electrical upgrades, door, paving, and aeration piping replacements. | 15800000 | 2021 |
| 2 | Replace scum pump | 16500 | 2021 |
| 3 | Eliminate three lift stations on the south side of city consolidating into another by gravity. | 14,000,000 | 2022 |
| 4 | Eliminate and consolidate three lift stations on west side of city. | 7,000,000 | 2021 |
| 5 | Construct a Return Flow Pump Station and pipeline for switch to a Lake Michigan water supply. | 120,000,000 | 2021 |
| 6 | Replace top thickened sludge pump | 20000 | 2021 |
| 7 | Facility Plan 11-15 yr. upgrades. Continued upgrades to motor control centers, biogas utilization. | 11,000,000 | 2024 |
| 8 | Replace 110/140 bldg. emergency generators | 4,500,000 | 2024 |
| 9 | replace bldg. 510 emergency generators | 1,500,000 | 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:

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**COLLECTION SYSTEM PUMPAGE: Total Power Consumed**

Number of Municipally Owned Pump/Lift Stations: 38

| | Electricity Consumed (kWh) | Natural Gas Consumed (therms) |
|---|---|---|
| **January** | 103,117 | 17 |
| **February** | 87,532 | 20 |
| **March** | 84,299 | 15 |
| **April** | 91,794 | 16 |
| **May** | 86,455 | 14 |
| **June** | 83,484 | 17 |
| **July** | 70,559 | 17 |
| **August** | 61,133 | 19 |
| **September** | 58,381 | 25 |
| **October** | 59,539 | 30 |
| **November** | 65,186 | 16 |
| **December** | 75,647 | 19 |
| **Total** | **927,126** | **225** |
| **Average** | **77,261** | **19** |

6.1.2 Comments:

Gas consumption is from 3 onsite emergency generators which are exercised weekly. We have 4 small grinder stations that are not metered separately, adding in the averages for 3 of the same that are would increase the 927,126 kWh total by 3,584 for a total of 930,710 kWh for all stations.

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:

Three pump stations have onsite emergency natural gas generators.

6.2.2 Comments:

Continued I&I reduction should reduce electrical consumption. We also have some gravity consolidation projects underway that will eliminate several pump stations.

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

- ○ No
- ● Yes

Year: 2019

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By Whom: Donohue

Describe and Comment:

A feasibility study was done for the elimination or upgrading of four lift stations on the west side of the city. Energy consumption was a factor in deciding to consolidate via gravity to one new more efficient station.

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 currently doing a similar study to that mentioned above for six lift stations on the south side of the city.

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** | 800,377 | 328.07 | 2,440 | 644.77 | 1,241 | 27,332 |
| **February** | 759,316 | 286.15 | 2,654 | 693.25 | 1,095 | 28,817 |
| **March** | 723,024 | 365.32 | 1,979 | 598.33 | 1,208 | 20,717 |
| **April** | 843,649 | 329.76 | 2,558 | 555.63 | 1,518 | 15,413 |
| **May** | 756,825 | 419.94 | 1,802 | 431.92 | 1,752 | 1,730 |
| **June** | 802,956 | 317.48 | 2,529 | 281.01 | 2,857 | 346 |
| **July** | 874,540 | 295.12 | 2,963 | 424.70 | 2,059 | 578 |
| **August** | 832,481 | 248.22 | 3,354 | 385.98 | 2,157 | 331 |
| **September** | 874,891 | 236.41 | 3,701 | 437.52 | 2,000 | 323 |
| **October** | 799,081 | 231.62 | 3,450 | 449.47 | 1,778 | 315 |
| **November** | 803,164 | 215.24 | 3,731 | 485.70 | 1,654 | 839 |
| **December** | 835,864 | 217.87 | 3,837 | 556.92 | 1,501 | 338 |
| **Total** | **9,706,168** | **3,491.20** | | **5,945.20** | | **97,079** |
| **Average** | **808,847** | **290.93** | **2,917** | **495.43** | **1,735** | **8,090** |

7.1.2 Comments:

We have two natural gas accounts for the plant. One covers six emergency stand-by generators which totaled 5,478 therms. The other account has two emergency back-up generators on it in addition to building heat. The generator portion of that account would estimate to be 1,826 therms resulting in a total of 7,304 therms used for generators and 89,775 therms for building heat. However,in November a major leak was discovered on our main gas line which was repaired, and it was subsequently discovered that our main gas meter was not functioning correctly since March. The gas meter was replaced by WE Energies in December so gas usage listed is what was invoiced for. A calculated average was used for air permit reporting. Process heat was 100% from bio-gas.

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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
- ☒ Other:

Eight 300kW natural gas emergency back-up generators which are exercised weekly.

7.2.2 Comments:

Our primary influent and our primary effluent is pumped.

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?

The primary influent and effluent pumps are being replaced with newer high efficiency pumps. Beneficial bio-gas reuse continues to be examined.

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:

9. Energy Efficiency Study

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

- ○ No
- ● Yes

- ☒ Entire facility

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Year:

2020

By Whom:

UW Milwaukee Industrial Assessment Center

Describe and Comment:

This was a student project sponsored by the US Dept. of Energy. There was a recommendation to replace the DAFT air system which we are looking at through the budget process, and also a Solar Panel system to offset electrical costs. There were a few other minor recommendations but for the most part they found we are being energy conscious. Some of the costs were unrealistic so we are researching further.

☐ 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
- ○ 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:

Maintain assets through rehabilitation and replacement program-rehabilitated/replaced:
22,955 LF mainline, 10,668 LF laterals, rehabilitate 253 manholes.
Clean 30% of sewers.
Televise 10% of sewers.
Inspect all pump stations weekly.

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?

Chapter 29

If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 03/20/2018

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:

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

Sanitary infrastructure Field Verification & Acceptance Request forms must be submitted and approved prior to city acceptance of sanitary infrastructure.

**0**

☒ 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 Managment Plan (SECAP)
☐ Lift Station Evaluation Report
☒ Others:

Flow review for sizing Pebble Valley lift station/force main upgrade.

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 | 90 | % of system/year |
| Root removal | 1 | % of system/year |
| Flow monitoring | 0 | % of system/year |
| Smoke testing | 0 | % of system/year |
| Sewer line televising | 9.7 | % of system/year |
| Manhole inspections | 4 | % of system/year |
| Lift station O&M | 50 | # per L.S./year |
| Manhole rehabilitation | 4 | % of manholes rehabbed |
| Mainline rehabilitation | 2 | % of sewer lines rehabbed |

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| | | |
|---|---|---|
| Private sewer inspections | 1 | % of system/year |
| Private sewer I/I removal | 1 | % of private services |
| River or water crossings | 100 | % of pipe crossings evaluated or maintained |

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

There were 111 after hours call in alarms for lift stations in 2020. 27 of those were communications related, 33 were due to power outages, and 51 were mechanical or controls related issues. All of these were resolved in the field with no failure of the station. Lift Station O&M involves weekly inspections to test equipment and pump down wet wells. Preventative mechanical maintenance and wet well flushing are performed at least annually.

3. Performance Indicators

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

| | |
|---|---|
| 34.57 | Total actual amount of precipitation last year in inches |
| 34.62 | Annual average precipitation (for your location) |
| 269 | Miles of sanitary sewer |
| 38 | Number of lift stations |
| 2 | Number of lift station failures |
| 1 | Number of sewer pipe failures |
| 2 | Number of basement backup occurrences |
| 2 | Number of complaints |
| 9.53 | Average daily flow in MGD (if available) |
| 21.11 | Peak monthly flow in MGD (if available) |
| 21.107 | Peak hourly flow in MGD (if available) |

3.2 Performance ratios for the past year:

| | |
|---|---|
| 0.05 | Lift station failures (failures/year) |
| 0.00 | Sewer pipe failures (pipe failures/sewer mile/yr) |
| 0.01 | Sanitary sewer overflows (number/sewer mile/yr) |
| 0.01 | Basement backups (number/sewer mile) |
| 0.01 | Complaints (number/sewer mile) |
| 2.2 | Peaking factor ratio (Peak Monthly:Annual Daily Avg) |
| 2.2 | 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 | 6/1/2020 6:00:00 PM - 6/1/2020 6:15:00 PM | 1150 Frame Park Dr. Waukesha WI 53186 | Other causes | 5 |
| 1 | 6/12/2020 1:00:00 PM - 6/12/2020 1:20:00 PM | 1150 Frame Park Dr. Waukesha WI 53186 | Other causes | 3 |
| 2 | 8/21/2020 5:00:00 PM - 8/24/2020 3:00:00 PM | 1154 Burr Oak Blvd. Waukesha WI 53189 | Broken Sewer, Broken Sewer | 593,000 |

| | | | | |
|---|---|---|---|---|
| 3 | 8/28/2020 6:10:00 AM - 8/28/2020 6:20:00 AM | 600 Sentry Drive, Waukesha WI 53186 | Plugged Sewer | 1,800 |

** If there were any SSOs or TFOs that are not listed above, please contact the DNR and stop work on this section until corrected.

What actions were taken, or are underway, to reduce or eliminate SSO or TFO occurences in the future?

A contractor will be hired to upgrade the Frame Park bathroom pump station with completion planned for end of summer. The upgrade will include a call-out alarm. The Burr Oak force main and station are currently under study for either elimination or replacement/upgrade. The drain line that backed up at the treatment plant was determined to have an excessive amount of hard water scale build-up so entire line was high pressure jetted. The switch of water supply will eliminate the hard water scale.

5. Infiltration / Inflow (I/I)

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

○ Yes

● No

If Yes, please describe:

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:

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

For 2020, the average monthly difference in Clean Water Plant (CWP) influent versus Water Utility pumping was 4.118 MGD. This is higher than the historical (2005-2010) monthly average difference of 3.390 MGD by 0.728 MGD. This is the smallest increase above the historical monthly average since 2016. This may be attributable to the extensive sewer lining work conducted in the Pebble Valley area recognized as contributing a significant level of I/I to the system.

The precipitation for the year was slightly below the historical annual total. This marks the first time in five years that the precipitation fell below the historical average precipitation.

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

Continued lining or re-laying of mainline sewer, lining or re-laying of laterals in the ROW, grouting of individual leaks in the sewers, chimney seals on rehabilitated manholes, continue budgeting for lining of concrete sewers and televising for suspected clear water discharges.

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

# Compliance Maintenance Annual Report

**Waukesha City**

Last Updated: 5/14/2021

Reporting For: **2020**

## Grading Summary

WPDES No: 0029971

| 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 |
| **TOTALS** | | | **37** | **148** |
| **GRADE POINT AVERAGE (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)

# Compliance Maintenance Annual Report

**Waukesha City**

Last Updated: 5/14/2021

Reporting For: **2020**

## Resolution or Owner's Statement

Name of Governing Body or Owner: City of Waukesha

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)

A contractor will be hired to upgrade the Frame Park bathroom pump station with completion planned for end of summer. The Burr Oak force main and station are currently under study for either elimination or replacement/upgrade. The drain line that backed up at the treatment plant was determined to have an excessive amount of hard water scale build-up so entire line was high pressure jetted. The switch of water supply will eliminate the hard water scale.

**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**