III

Res. No. 19 - 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.

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_____

Public Works

I HEREBY CERTIFY that the foregoing Resolution was duly passed by the Common Council of the City of Sheboygan, Wisconsin, on the _____ day of _____, 20____.

Dated _____ 20____. _____, City Clerk

Approved _____ 20____. _____, Mayor

Compliance Maintenance Annual Report

Sheboygan Wastewater Treatment Plant

Last Updated: 5/9/2022 Reporting For: **2021**

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. 701	Influent Monthly Average Flow, MGD	x	Influent Monthly Average BOD Concentration mg/L	x	8.34	=	Influent Monthly Average BOD Loading, lbs/day
January	9.1294	x	201	x	8.34	=	15,299
February	8.8106	x	189	x	8.34	=	13,851
March	12.0421	x	131	x	8.34	=	13,204
April	10.5718	x	154	x	8.34	=	13,542
May	10.7151	x	166	x	8.34	=	14,795
June	9.8631	x	175	x	8.34	=	14,414
July	11.4246	x	154	x	8.34	=	14,662
August	10.9131	x	172	x	8.34	=	15,655
September	9.5219	x	198	x	8.34	=	15,755
October	8.9691	x	189	x	8.34	=	14,163
November	8.2332	x	214	x	8.34	=	14,723
December	8.2522	x	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, lbs/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 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) 2021-08-12

○ No

If No, please explain:

4. Sewer Use Ordinance

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

● Yes

○ No

If No, please explain:

4.2 Was it necessary to enforce the ordinance?

○ Yes

● No

If Yes, please explain:

5. Septage Receiving

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

Septic Tanks	Holding Tanks	Grease Traps
● Yes	● Yes	○ Yes
○ No	○ No	● No

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

Septic Tanks

● Yes 510078 gallons

○ No

Holding Tanks

● Yes 4905550 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 unaffected as a result of receiving these wastes.

6. Pretreatment

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

○ Yes

● No

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

N/A

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.

We received industrial dairy wastes and process was unaffected.

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

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Sheboygan Wastewater Treatment Plant

Last Updated: 5/9/2022 Reporting For: **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. 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	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
* 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?

N/A

2. Flow Meter Calibration

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.

3. 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

If Yes, please explain:

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

- o 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?

- o Yes
- o 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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Sheboygan Wastewater Treatment Plant

Last Updated: 5/9/2022 Reporting For: **2021**

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	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	0
December	30	27	4	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**	

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?

N/A

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

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Last Updated: 5/9/2022 Reporting For: **2021**

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									
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 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**

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?

N/A

0

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	.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 Discharge/yr			12	
Points per each exceedance with 12 months of discharge:				**10**
Exceedances				0
Total Number of Points				**0**

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?

N/A

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:

Biosolids are sold to an outside contractor for use as a soil conditioner.

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. 004 - EQ Dried Sludge - Dryer

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			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. 005 - EQ Dried Sludge - Silo

Parameter	80% of Limit	H.Q. Limit	Ceiling Limit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	80% Value	High Quality	Ceiling
Arsenic		41	75				6.8		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		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
Zinc		2800	7500				694		623		679	659		789			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

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- ○ 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?

N/A

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:	**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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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

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
Process Description:	Heat Drying utilizing Biosolids Dryer

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Outfall Number:	**005**
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 - Silo

Outfall Number:	**005**
Biosolids Class:	A
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	05/01/2021 - 06/30/2021
Density:	20
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:	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

Outfall Number:	**005**
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.

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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 With 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 With Unstabilized Solids
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>90
Results (if applicable):	100

Outfall Number:	**005**
Method Date:	11/02/2021
Option Used To Satisfy Requirement:	Drying With Unstabilized Solids
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>90
Results (if applicable):	95

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:

No outstanding issues were encountered in 2021.

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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
- o 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
- o 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) ☐☐
- o 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
- o 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
  - o Paper file system
  - ● Computer system
  - o Both paper and computer system
- o 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
- o No

4. Overall Maintenance /Repairs

4.1 Rate the overall maintenance of your wastewater plant.

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

Describe your rating:

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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	**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: STEVEN B JOSSART

Certification No: 12990

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.)

- ● 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

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

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OIT and Basic Certification:
- o Averaging 6 or more CECs per year.
- o Averaging less than 6 CECs per year.

Advanced Certification:
- ● Averaging 8 or more CECs per year.
- o 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: Kaitlyn Krueger

Telephone: 920-459-3440 (XXX) XXX-XXXX

E-Mail Address (optional): Kaitlyn.Krueger@sheboyganwi.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: N/A

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

Year: 2021

- ● 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: 2021

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

If N/A, please explain: N/A

3.2 Equipment Replacement Fund Activity

3.2.1 Ending Balance Reported on Last Year's CMAR		$ 1,865,340.12
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		$ 1,865,340.12
3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	+	$ 109,859.48

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3.2.5 Subtractions from Fund (e.g., equipment replacement, major repairs - use description box 3.2.6.1 below*) - $ 0.00

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

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
- ○ 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	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
2	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.	5000000	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

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: 5

	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:

N/A

6.2 Energy Related Processes and Equipment

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

- ☒ Comminution or Screening
- ☒ Extended Shaft Pumps
- ☒ Flow Metering and Recording
- ☐ Pneumatic Pumping
- ☒ SCADA System

☐ Self-Priming Pumps
☐ Submersible Pumps
☒ Variable Speed Drives
☐ Other:

6.2.2 Comments:

N/A

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

○ No
● 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. Treatment Facility

7.1 Energy Usage

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

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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	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 Comments:

N/A

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:

Process water system pumping

7.2.2 Comments:

N/A

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?

- ○ 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

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
- ○ 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:

Provide the proper resources for effective system management, operation and maintenance. Improve sewer infrastructure through sewer replacement and lining. Eliminate sanitary sewer overflows.

Did you accomplish them?

- ● Yes
- ○ No

If No, explain:

☒ Organization [NR 210.23 (4) (b)]☐☐

Does this chapter of your CMOM include:

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

☒ Legal Authority [NR 210.23 (4) (c)]

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

City of 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

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

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

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

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

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

Does your emergency response capability include:

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

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

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

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

0

2. Operation and Maintenance

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

Cleaning	39.3	% of system/year
Root removal	1.9	% of system/year
Flow monitoring	75	% of system/year
Smoke testing	0	% of system/year
Sewer line televising	2.1	% of system/year
Manhole inspections	50.2	% of system/year
Lift station O&M	55	# per L.S./year
Manhole rehabilitation	1.2	% of manholes rehabbed
Mainline rehabilitation	1.3	% of sewer lines rehabbed
Private sewer inspections	0	% of system/year

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Private sewer I/I removal: 0 % of private services

River or water crossings: 0 % of pipe crossings evaluated or maintained

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

3. Performance Indicators

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

28.810	Total actual amount of precipitation last year in inches
32	Annual average precipitation (for your location)
203.7	Miles of sanitary sewer
5	Number of lift stations
0	Number of lift station failures
1	Number of sewer pipe failures
2	Number of basement backup occurrences
29	Number of complaints
9.89	Average daily flow in MGD (if available)
12.042	Peak monthly flow in MGD (if available)
	Peak hourly flow in MGD (if available)

3.2 Performance ratios for the past year:

0.00	Lift station failures (failures/year)
0.00	Sewer pipe failures (pipe failures/sewer mile/yr)
0.00	Sanitary sewer overflows (number/sewer mile/yr)
0.01	Basement backups (number/sewer mile)
0.14	Complaints (number/sewer mile)
1.2	Peaking factor ratio (Peak Monthly:Annual Daily Avg)
0.0	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
None reported			

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

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:

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 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)

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Resolution or Owner's Statement

Name of Governing Body or Owner: City of Sheboygan Common Council

Date of Resolution or Action Taken:

Resolution Number:

Date of Submittal:

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

Influent Flow and Loadings: Grade = A

Effluent Quality: BOD: Grade = A

Effluent Quality: TSS: Grade = A

Effluent Quality: Ammonia: Grade = A

Effluent Quality: Phosphorus: Grade = A

Biosolids Quality and Management: Grade = A

Staffing: Grade = A

Operator Certification: Grade = A

Financial Management: Grade = A

Collection Systems: Grade = A
(Regardless of grade, response required for Collection Systems if SSOs were reported)

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO THE OVERALL GRADE POINT AVERAGE AND ANY GENERAL COMMENTS
(Optional for G.P.A. greater than or equal to 3.00, required for G.P.A. less than 3.00)
G.P.A. = 4.00