

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: Reporting For:
6/6/2023 **2022**

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	8.4981	x	415	x	8.34	=	29,413
February	7.7300	x	386	x	8.34	=	24,885
March	14.2010	x	234	x	8.34	=	27,655
April	19.0553	x	89	x	8.34	=	14,144
May	11.7987	x	186	x	8.34	=	18,303
June	11.8440	x	190	x	8.34	=	18,768
July	8.8100	x	256	x	8.34	=	18,810
August	10.5097	x	191	x	8.34	=	16,741
September	10.6250	x	218	x	8.34	=	19,273
October	8.0606	x	290	x	8.34	=	19,495
November	11.6710	x	157	x	8.34	=	15,282
December	10.1423	x	269	x	8.34	=	22,754

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	24.2	x	90	=	21.78
		x	100	=	24.2
Design BOD, lbs/day	40900	x	90	=	36810
		x	100	=	40900

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)

2022-06-03

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:

Infractions occurred that exceeded the industrial limits for pH. All industries demonstrated a return to compliance for these infractions. The AWWTP did not experience an upset as a result of the discharges.

5. Septage Receiving

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

Septic Tanks

Holding Tanks

Grease Traps

Yes

Yes

Yes

No

No

No

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

Septic Tanks

Yes

7300

gallons

No

Holding Tanks

Yes

176000

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 is not affected by these discharges.

6. Pretreatment

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

Yes

No

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

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<div data-bbox="133 205 1461 258" style="border: 1px solid black; height: 25px; width: 100%;"></div> <p>6.2 Did your facility accept hauled industrial wastes, landfill leachate, etc.?</p> <ul style="list-style-type: none">● Yes○ No <p>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.</p> <div data-bbox="133 441 1461 583" style="border: 1px solid black; padding: 5px;"><p>AWWTP receives food processing wastes and landfill leachate. All wastes are tested prior to acceptance. Acceptance is based on toxicity and loading potential. Once waste has been screened and approved by AWWTP staff, it is discharged to the headworks or digestion for treatment.</p></div>
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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	25	22.5	6	1	0	0
February	25	22.5	6	1	0	0
March	25	22.5	5	1	0	0
April	25	22.5	5	1	0	0
May	25	22.5	5	1	0	0
June	25	22.5	4	1	0	0
July	25	22.5	4	1	0	0
August	25	22.5	5	1	0	0
September	25	22.5	4	1	0	0
October	25	22.5	7	1	0	0
November	25	22.5	6	1	0	0
December	25	22.5	6	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?

2. Flow Meter Calibration

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

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

No

If No, please explain:

Our effluent outfall wasn't designed for installation of a flowmeter. Influent flow is used in place of an effluent flowmeter.

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

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<p><input checked="" type="radio"/> No If Yes, please explain: <input type="text"/></p> <p>4.2 At any time in the past year was there a failure of an effluent acute or chronic whole effluent toxicity (WET) test? <input type="radio"/> Yes <input checked="" type="radio"/> No If Yes, please explain: <input type="text"/></p> <p>4.3 If the biomonitoring (WET) test did not pass, were steps taken to identify and/or reduce source(s) of toxicity? <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A Please explain unless not applicable: <input type="text"/></p>
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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	30	27	4	1	0	0
February	30	27	5	1	0	0
March	30	27	4	1	0	0
April	30	27	2	1	0	0
May	30	27	2	1	0	0
June	30	27	1	1	0	0
July	30	27	1	1	0	0
August	30	27	4	1	0	0
September	30	27	2	1	0	0
October	30	27	3	1	0	0
November	30	27	5	1	0	0
December	30	27	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	

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	10		1.426	0					
February	10		1.026	0					
March	10		.665	0					
April	11		.415	0					
May	11		.105	0					
June	4.4		.108	0					
July	4.4		.18	0					
August	4.4		.401	0					
September	4.4		1.111	0					
October	18		.545	0					
November	18		.894	0					
December	18		2.04	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	1	0.199	1	0
February	1	0.198	1	0
March	1	0.192	1	0
April	1	0.128	1	0
May	1	0.129	1	0
June	1	0.119	1	0
July	1	0.175	1	0
August	1	0.218	1	0
September	1	0.169	1	0
October	1	0.150	1	0
November	1	0.192	1	0
December	1	0.165	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?

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

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Outfall No. 010 - Biosolids- Compost Class A

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					3			2.11						0	0
Cadmium		39	85					.226			.219						0	0
Copper		1500	4300					34.1			39.5						0	0
Lead		300	840					10.5			8.41						0	0
Mercury		17	57					.062			.06						0	0
Molybdenum	60		75					1.77			2.25					0		0
Nickel	336		420					6.45			17.7					0		0
Selenium	80		100					.597			1.43					0		0
Zinc		2800	7500					89			94.7						0	0

Outfall No. 003 - 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	<7.66		2.3		<2.3		<7.1		<10		<6.79			0	0
Cadmium		39	85	<.18		<.05		.132		.265		.324		<.161			0	0
Copper		1500	4300	76		75		71		69		70		76			0	0
Lead		300	840	4		4.03		3.5		3.83		4		<2.19			0	0
Mercury		17	57	.141		<.125		<.129		<.093		<.127		<.121			0	0
Molybdenum	60		75	3.49		5.16		2.9		3.21		3.06		4.15		0		0
Nickel	336		420	11		11		9.3		11		12		13		0		0
Selenium	80		100	<6.76		<1.91		<2		<6.29		<8.98		<5.97		0		0
Zinc		2800	7500	127		138		109		125		146		164			0	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?

Not applicable

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.

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Outfall Number:	003
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2022 - 02/28/2022
Density:	6,551
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	No
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion with a 21-day HRT

Outfall Number:	003
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	03/01/2022 - 04/30/2022
Density:	18,909
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion with a 21-day HRT

Outfall Number:	003
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	05/01/2022 - 06/30/2022
Density:	11,644
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion with a 21-day HRT

Outfall Number:	003
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	07/01/2022 - 08/31/2022
Density:	3,542
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion with a 21-day HRT

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Outfall Number:	003
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	09/01/2022 - 10/31/2022
Density:	15,781
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Aerobic Digestion
Process Description:	Anaerobic digestion with a 21-day HRT

Outfall Number:	003
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	11/01/2022 - 12/31/2022
Density:	16,886
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Aerobic Digestion
Process Description:	Anaerobic digestion with a 21-day HRT

Outfall Number:	010
Biosolids Class:	A
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	04/01/2022 - 06/30/2022
Density:	0
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Composting
Process Description:	The composting material maintained a temperature of 55 degrees C or higher for 15 days or longer. During this period, a minimum of 5 windrow turns occurred.

Outfall Number:	010
Biosolids Class:	A
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	07/01/2022 - 09/30/2022
Density:	0
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Composting
Process Description:	The composting material maintained a temperature of 55 degrees C or higher for 15 days or longer. During this period, a minimum of 5 windrow turns occurred.

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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?

0

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:	003
Method Date:	01/18/2022
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	No
Limit (if applicable):	>= 38
Results (if applicable):	39.40

Outfall Number:	003
Method Date:	03/15/2022
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>= 38
Results (if applicable):	41.10

Outfall Number:	003
Method Date:	06/30/2022
Option Used To Satisfy Requirement:	Incorporation when land apply
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

Outfall Number:	003
Method Date:	07/12/2022
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>= 38
Results (if applicable):	39.50

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Outfall Number:	003
Method Date:	10/31/2022
Option Used To Satisfy Requirement:	Incorporation when land apply
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

Outfall Number:	003
Method Date:	12/31/2022
Option Used To Satisfy Requirement:	Incorporation when land apply
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

Outfall Number:	010
Method Date:	06/30/2022
Option Used To Satisfy Requirement:	Aerobic Composting Process
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

Outfall Number:	010
Method Date:	09/30/2022
Option Used To Satisfy Requirement:	Aerobic Composting Process
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

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?

\geq 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)

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

0

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	0
<p>7. Issues</p> <p>7.1 Describe any outstanding biosolids issues with treatment, use or overall management:</p> <p>On December 26,2022, the AWWTP experienced an interruption of the anaerobic digestion process due to polymer entering the digesters. As a result, on December 27, 2022, the anaerobic digestion process was bypassed with approval from the Wisconsin DNR. The bypassing continued into early January 2023. Environmental Programs Coordinator Brian Kreski, subsequently requested approval to land apply the primary/secondary dewatered sludge in his January 11, 2023 letter to Barti Oumarou.</p>	

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

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Staffing and Preventative Maintenance (All Treatment Plants)

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

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Operation/maintenance staff are knowledgeable and dedicated to repairing immediate needs, while also planning ahead for future maintenance and capital improvement projects.	
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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:

RYAN RICE

Certification No:

35598

0

2. Certification Requirements

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

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

0

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

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

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: ○ 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.	
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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: <input type="text" value="Kelli Rindt"/> Telephone: <input type="text" value="920-832-6316"/> (XXX) XXX-XXXX E-Mail Address (optional): <input type="text" value="kelli.rindt@appleton.org"/>		
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) <input type="checkbox"/> <input type="checkbox"/> ○ No (40 points) If No, please explain: <input type="text"/> 2.2 When was the User Charge System or other revenue source(s) last reviewed and/or revised? Year: <input type="text" value="2022"/> ● 0-2 years ago (0 points) <input type="checkbox"/> <input type="checkbox"/> ○ 3 or more years ago (20 points) <input type="checkbox"/> <input type="checkbox"/> ○ N/A (private facility) 2.3 Did you have a special account (e.g., CFWP 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: <input type="text" value="2022"/> ● 1-2 years ago (0 points) <input type="checkbox"/> <input type="checkbox"/> ○ 3 or more years ago (20 points) <input type="checkbox"/> <input type="checkbox"/> ○ N/A If N/A, please explain: <input type="text"/>		
3.2 Equipment Replacement Fund Activity		
3.2.1 Ending Balance Reported on Last Year's CMAR	\$ <input type="text" value="3,925,937.77"/>	
3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)	\$ <input type="text" value="0.00"/>	
3.2.3 Adjusted January 1st Beginning Balance	\$ <input type="text" value="3,925,937.77"/>	
3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	\$ <input type="text" value="0.00"/>	
	+	\$ <input type="text" value="0.00"/>

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

\$ 316,915.17

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

\$ 3,609,022.60

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.

Unrealized investment losses due to market conditions.

3.3 What amount should be in your Replacement Fund?

\$ 2,933,830.87

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	Sludge Storage Improvements	\$8,034,001	2023
2	Belt filter press upgrades	\$10,888,373	2023
3	Multi-Year Electrical Equipment Upgrade	\$1,506,282	2023
4	Multi-year HVAC Upgrades	\$3,668,655	2022
5	PLC & SCADA Upgrades	\$41,686	2023
6	Marshall Heights Lift Station Improvements	\$750,000	2024
7	Lighting Upgrades	\$300,000	2023
8	Roof Replacements	\$750,000	2023
9	Multi-Year Driveway and Walkway Replacements	\$1,204,442	2023
10	Glacier Ridge Lift Station	\$400,000	2024
11	Summer St Lift Station	\$400,000	2026
12	Secondary Clarifier Drive Replacements	\$215,000	2022
13	Blended Sludge Piping & Heat Exchanger Replacement	\$4,181,315	2023
14	Grit Trap Vortex Drive Replacement	\$267,811	2023
15	Phone/Wireless system upgrades	\$587,500	2023
16	Multi-year Elevator replacement	\$950,000	2024
17	Building renovations	\$1,077,616	2023
18	Multi-year MCC Upgrades	\$7,800,000	2023
19	Chemical Systems	\$225,000	2023
20	Final Clarifier Underdrain Replacement	\$349,650	2023

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21	Aeration Process Upgrade	\$1,200,000	2026
22	Digested Sludge Storage Tank Cover & Blending Pump Replacements	\$1,600,000	2024
23	Midway Lift Station Control Panel	\$400,000	2026
24	Water Street Lift Station	\$750,000	2024

5. Financial Management General Comments

None

ENERGY EFFICIENCY AND USE

6. Collection System

6.1 Energy Usage

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

COLLECTION SYSTEM PUMPAGE: Total Power Consumed

Number of Municipally Owned Pump/Lift Stations:

	Electricity Consumed (kWh)	Natural Gas Consumed (therms)
January	25,005	460
February	25,112	346
March	27,555	155
April	23,897	74
May	16,120	15
June	16,930	4
July	13,373	20
August	14,296	8
September	15,676	11
October	13,478	118
November	20,354	315
December	25,318	254
Total	237,114	1,780
Average	19,760	148

6.1.2 Comments:

None

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:

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6.2.2 Comments:

None

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

No

Yes

Year:

2009

By Whom:

Donohue & Associates, McMahon Engineers

Describe and Comment:

In the last five years the following lift stations have been reviewed and new designs, some including new energy efficient pumps, VFDs, etc., have been completed through construction projects: Briarcliff, Midway Rd, North Edgewood. Maintaining a lift station inventory that is energy efficient is a City of Appleton objective.

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?

Future lift station pump and motor upgrades will replace less efficient equipment with more energy efficient pumps and motors.

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	1,005,538	263.44	3,817	911.80	1,103	3,158
February	901,600	216.44	4,166	696.78	1,294	6,643
March	944,800	440.23	2,146	857.31	1,102	5,216
April	914,400	571.66	1,600	424.32	2,155	1,636
May	882,400	365.76	2,413	567.39	1,555	216
June	824,000	355.32	2,319	563.04	1,463	346
July	847,200	273.11	3,102	583.11	1,453	650
August	887,200	325.80	2,723	518.97	1,710	1,121
September	853,600	318.75	2,678	578.19	1,476	390
October	877,600	249.88	3,512	604.35	1,452	600
November	864,000	350.13	2,468	458.46	1,885	273
December	856,000	314.41	2,723	705.37	1,214	3,272
Total	10,658,338	4,044.93		7,469.09		23,521
Average	888,195	337.08	2,806	622.42	1,489	1,960

7.1.2 Comments:

None

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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:

7.2.2 Comments:

Effluent pumping is an as-needed process dependent on WWTP inflow and river levels.

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?

Equipment replacement with energy efficient pumps and motors as well optimization of process controls.
Biogas boiler heating system optimization to increase biogas utilization and heating system efficiency.

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

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<p><input type="radio"/> Yes</p> <p><input checked="" type="checkbox"/> Entire facility</p> <p>Year: <input type="text" value="2004"/></p> <p>By Whom: <input type="text" value="Joe Cantwell - Focus on Energy"/></p> <p>Describe and Comment:</p> <div style="border: 1px solid black; padding: 5px;"><p>Every project has an energy component. The City reviews projects by completing a conditions assessment followed by a review of alternatives. The City chooses the alternative with the least overall project cost (operating and capital). A number of projects resulted in decreased energy usage. As part of the plant electrical distribution project, two buildings currently heated by electricity will be converted to hot water heating.</p></div> <p><input type="checkbox"/> Part of the facility</p> <p>Year: <input type="text"/></p> <p>By Whom: <input type="text"/></p> <p>Describe and Comment:</p> <div style="border: 1px solid black; height: 20px;"></div>
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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:

Major Goals: Reconstruction is performed based on existing condition and expected useful life of sanitary sewer infrastructure. Budget constraints limit the amount of sewer infrastructure that can be replaced annually to an amount less than which meets our reconstruction criteria. In 2022, \$4,102,933 was budgeted for sewer reconstruction and \$1,013,663 was budgeted for maintenance. Specific 2022 goals included System cleaning: 37.4%; Defects to correct: 24; televising and root control: 9.7%; Spot Repairs: 22; Trouble call responses: 37; Blockages removed: 3; Cross-connections identified: 11; protruding taps removed: 0; General reduction in I/I through clear water inspection program. These goals are consistent with the 2022 budget for the collection system.

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?

Sewer Use Ordinance

If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 2020-11-03

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

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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
 A management system (computer database and/or file system) for collection system information for O&M activities, investigation and rehabilitation
 A description of routine operation and maintenance activities (see question 2 below)
 Capacity assessment program
 Basement back assessment and correction
 Regular O&M training
 Design and Performance Provisions [NR 210.23 (4) (e)]
 What standards and procedures are established for the design, construction, and inspection of the sewer collection system, including building sewers and interceptor sewers on private property?
 State Plumbing Code, DNR NR 110 Standards and/or local Municipal Code Requirements
 Construction, Inspection, and Testing
 Others:

Overflow Emergency Response Plan [NR 210.23 (4) (f)]
 Does your emergency response capability include:
 Responsible personnel communication procedures
 Response order, timing and clean-up
 Public notification protocols
 Training
 Emergency operation protocols and implementation procedures
 Annual Self-Auditing of your CMOM Program [NR 210.23 (5)]
 Special Studies Last Year (check only those that apply):
 Infiltration/Inflow (I/I) Analysis
 Sewer System Evaluation Survey (SSES)
 Sewer Evaluation and Capacity Management Plan (SECAP)
 Lift Station Evaluation Report
 Others:

0

2. Operation and Maintenance

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

Cleaning	37.4	% of system/year
Root removal	0.1	% of system/year
Flow monitoring	1.8	% of system/year
Smoke testing	0.0	% of system/year
Sewer line televising	13.0	% of system/year
Manhole inspections	14.7	% of system/year
Lift station O&M	12	# per L.S./year
Manhole rehabilitation		

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Mainline rehabilitation	<input type="text" value=".19"/>	% of manholes rehabbed
Private sewer inspections	<input type="text" value="0.04"/>	% of system/year
Private sewer I/I removal	<input type="text" value="0.0"/>	% of private services
River or water crossings	<input type="text" value="0.0"/>	% of pipe crossings evaluated or maintained
Please include additional comments about your sanitary sewer collection system below:		
<input type="text" value="No additional comments."/>		

3. Performance Indicators

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

<input type="text" value="25.16"/>	Total actual amount of precipitation last year in inches
<input type="text" value="32"/>	Annual average precipitation (for your location)
<input type="text" value="334"/>	Miles of sanitary sewer
<input type="text" value="14"/>	Number of lift stations
<input type="text" value="0"/>	Number of lift station failures
<input type="text" value="1"/>	Number of sewer pipe failures
<input type="text" value="37"/>	Number of basement backup occurrences
<input type="text" value="37"/>	Number of complaints
<input type="text" value="11.1"/>	Average daily flow in MGD (if available)
<input type="text" value="19.1"/>	Peak monthly flow in MGD (if available)
<input type="text" value="60.6"/>	Peak hourly flow in MGD (if available)

3.2 Performance ratios for the past year:

<input type="text" value="0.00"/>	Lift station failures (failures/year)
<input type="text" value="0.00"/>	Sewer pipe failures (pipe failures/sewer mile/yr)
<input type="text" value="0.00"/>	Sanitary sewer overflows (number/sewer mile/yr)
<input type="text" value="0.11"/>	Basement backups (number/sewer mile)
<input type="text" value="0.11"/>	Complaints (number/sewer mile)
<input type="text" value="1.7"/>	Peaking factor ratio (Peak Monthly:Annual Daily Avg)
<input type="text" value="5.5"/>	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

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If Yes, please describe:

Rain events in March and April increased influent flows above the average daily flow for the year.

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:

None

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

The following activities are being performed to address inflow/infiltration:

- a. 927 manhole Inspections
- b. 12 manholes rehabilitated
- c. 43 miles of sanitary mains televised
- d. 0.70 miles of sewer pipe rehabilitated
- e. 61 sanitary manhole seals installed
- f. 85 laterals replaced
- g. 11 basement inspections in conjunction with plumbing inspections and water meter maintenance, to identify and eliminate illegal clear water connections to the sanitary system. 11 violations were found or corrected.

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

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Grading Summary

WPDES No: 0023221

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:

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