City of Appleton

100 North Appleton Street
Appleton, WI 54911-4799
www.appleton.org

Meeting Agenda - Final

Utilities Committee

Tuesday, June 7, 2022 | **4:30 PM** | **Council Chambers, 6th Floor**

1. Call meeting to order

2. Roll call of membership

3. Approval of minutes from previous meeting

22-0735 Approval of the May 18, 2022 Special Utilities Committee Meeting Minutes.

Attachments: May 18, 2022 SPECIAL Utilities Committee Meeting Minutes.pdf

4. Public Hearings/Appearances

5. Action Items

22-0736 Award 2022 AWWTP Preliminary Heat Exchanger and Blended Sludge Piping Replacement Project Engineering Services Amendment #1 increasing the McMahon total contract amount by $3,800 from $26,300 to $30,100 and increase contingency from $2,630 to $4,000 for a Project Total not to exceed $34,100.

Attachments: Contract Amend #1_McMahon_2022 AWWTP Prelim HEX-Blended Sludge Pipi

22-0738 Amend 2022A Stormwater Management Plan Review Contract with Brown and Caldwell by an increase of $20,000 for a total contract amount not to exceed $67,500.

Attachments: 2022A SWM Plan Review BC Amendment Memo Util Cmte.pdf

22-0752 Request Approval of the Electronic Compliance Maintenance Annual Report (eCMAR) for 2021 and Request the following Resolution be presented to the Common Council for approval:

Whereas, the City of Appleton manages, operates, and maintains a sewer collection system and wastewater treatment plant; and

Whereas, treatment efforts produce a liquid effluent and a biosolids that are returned to the environment; and

Whereas, the State of Wisconsin evaluates wastewater utilities throughout the State of Wisconsin through an electronic Compliance Maintenance Annual Report (eCMAR); and

Whereas, Appleton received the score of 3.73 GPA; and

Whereas, the State of Wisconsin requests the Common Council pass a resolution accepting the eCMAR report;

Now, therefore, be it resolved by the City Council that the City of Appleton:

Article 1. Continue supporting treatment and maintenance programs at the utility
Article 2. Continue planning efforts that will address and promote long term performance results at the facility.

Attachments: 2021 eCMAR Validated.pdf

6. Information Items

22-0739 Monthly Reports for April 2022:
- Water Distribution and Meter Team Monthly Report

Attachments: Water Main Breaks - April 2022.pdf

7. Adjournment

Notice is hereby given that a quorum of the Common Council may be present during this meeting, although no Council action will be taken.

Reasonable Accommodations for Persons with Disabilities will be made upon Request and if Feasible.

For questions on the agenda, contact Chris Shaw at 920-832-5945 or Nate Loper 920-832-6474.

City of Appleton

100 North Appleton Street
Appleton, WI 54911-4799
www.appleton.org

Meeting Minutes - Final
Utilities Committee

Wednesday, May 18, 2022 | **6:45 PM** | **Council Chambers, 6th Floor**

SPECIAL

1. Call meeting to order

Chairperson Meltzer called the Utilities Committee meeting to order at 6:45 p.m.

2. Roll call of membership

Present: 3 - Meltzer, Firkus and Jones

Excused: 2 - Doran and Schultz

3. Approval of minutes from previous meeting

22-0625 Approval of the April 26, 2022 Utilities Committee Meeting Minutes.

Attachments: April 26, 2022 Utilities Committee Meeting Minutes.pdf

Jones moved, seconded by Firkus, that the Minutes be approved. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Firkus and Jones

Excused: 2 - Doran and Schultz

4. Public Hearings/Appearances

5. Action Items

22-0627 Adopt Governmental Responsibility Resolution for Urban Nonpoint Source and Stormwater Grants.

Attachments: RESPONSIBILITY RESOLUTION May 2022.pdf

Firkus moved, seconded by Jones, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Firkus and Jones

Excused: 2 - Doran and Schultz

6. Information Items

7. Adjournment

Jones moved, seconded by Firkus, that the Utilities Committee be adjourned at 6:47 p.m.. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Firkus and Jones

Excused: 2 - Doran and Schultz

"…meeting community needs…enhancing quality of life."

Department of Utilities
Wastewater Treatment Plant
2006 E Newberry Street
Appleton, WI 54915
920-832-5945 tel.
920-832-5949 fax

TO: Chairperson Vered Meltzer and Members of the Utilities Committee

FROM: Chris Stempa, Utilities Deputy Director

DATE: May 23, 2022

RE: ***Award: 2022 AWWTP Preliminary Heat Exchanger and Blended Sludge Piping Replacement Project Engineering Services Amendment #1 increasing the McMahon total contract amount by $3,800 from $26,300 to $30,100 and increase contingency from $2,630 to $4,000 for a Project Total not to exceed $34,100***

BACKGROUND:

The Appleton Wastewater Treatment Plant (AWWTP) Preliminary Heat Exchanger and Blended Sludge Piping Replacement Project engineering service contract was awarded to McMahon by Common Council on February 16, 2022. The project scope originally included the Preliminary Heat Exchanger (HEX) replacement and Blended Sludge pipe replacement in M-K Tunnel. It also included the installation of an access ladder, fall support, and recladding of the Raw Sludge Blend Tank.

Contract Amendment #1 would include preliminary design, bidding, and construction management services associated with the replacement of the Grit Vortex System drive mechanisms. There was $292,500 allocated in the 2022 budget as part of the Grit Trap Vortex System Drive Replacement CIP. The recommendation for advancing this contract amendment is to take advantage of parallel engineering activities within McMahon's existing contract. It provides an opportunity to receive greater value through economy of scale engineering services and public bid construction.

SUMMARY

The cost of additional engineering services outlined as part of the McMahon Contract Amendment #1 totals $3,800. This amendment would result in the contract amount increasing from $26,300 to $30,100. I also request that the amount of contingency be increased from $2,630 to $4,000 to account for unknowns encountered during construction. If approved, the revised not to exceed contract amount would be $34,100. If you have any questions regarding this project, please contact Chris Stempa at ph: 832-5945.

Department of Public Works – Engineering Division

MEMO

TO: Utilities Committee

FROM: Paula Vandehey, Director of Public Works
Pete Neuberger, Staff Engineer
Sue Olson, Staff Engineer

DATE: May 26, 2022

RE: Amend 2022A Stormwater Management Plan Review contract with Brown and Caldwell by an increase of $20,000 for a total contact amount not to exceed $67,500.

The Department of Public Works is requesting an amendment to the contract with Brown and Caldwell (BC) for 2022 Stormwater Management Plan Reviews by an increase of $20,000 for a total contact amount not to exceed $67,500. After this contract amendment, $ 331,500 will remain in the 2022 stormwater consulting budget.

Due to the number of stormwater management plans submitted in 2022, the number of plans expected to be submitted yet this summer and the coordination needed for larger projects, the original contact amount of $47,500 is anticipated to be expended soon. Also, due to the staff change at the Erosion Control Inspector position, BC is also assisting the City with reviewing erosion control plans on larger sites that have additional WDNR requirements.

Work under this contract is charged on an hourly basis and is therefore only used as needed. In order to keep projects moving forward, staff is requesting this amendment now, before the current contract is completely spent.

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 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	8.4403	x	362	x	8.34	=	25,459
February	8.4771	x	322	x	8.34	=	22,730
March	13.6097	x	120	x	8.34	=	13,621
April	13.1000	x	197	x	8.34	=	21,468
May	11.3142	x	110	x	8.34	=	10,332
June	10.5103	x	266	x	8.34	=	23,317
July	15.0019	x	257	x	8.34	=	32,092
August	13.3377	x	284	x	8.34	=	31,591
September	9.5717	x	307	x	8.34	=	24,467
October	7.7035	x	314	x	8.34	=	20,142
November	7.5393	x	304	x	8.34	=	19,115
December	9.0229	x	304	x	8.34	=	22,839

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

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

3. Flow Meter

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

● Yes Enter last calibration date (MM/DD/YYYY): 2021-08-23

○ 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 faclity? If yes, indicate volume in gallons.

Septic Tanks

● Yes 155210 gallons

○ No

Holding Tanks

● Yes 791150 gallons

○ No

Grease Traps

○ Yes gallons

● No

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

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.

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022

Reporting For: **2021**

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.

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.

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

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 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	7	1	0	0
February	25	22.5	8	1	0	0
March	25	22.5	7	1	0	0
April	25	22.5	5	1	0	0
May	25	22.5	5	1	0	0
June	25	22.5	5	1	0	0
July	25	22.5	4	1	0	0
August	25	22.5	4	1	0	0
September	25	22.5	4	1	0	0
October	25	22.5	5	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**

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

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

- ● 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?

- ○ 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**

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 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	2	1	0	0
February	30	27	6	1	0	0
March	30	27	4	1	0	0
April	30	27	3	1	0	0
May	30	27	2	1	0	0
June	30	27	2	1	0	0
July	30	27	2	1	0	0
August	30	27	2	1	0	0
September	30	27	1	1	0	0
October	30	27	4	1	0	0
November	30	27	4	1	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**

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**

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 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	10		11.673	1					
February	10		14.173	1					
March	10		1.745	0					
April	11		1.623	0					
May	11		1.002	0					
June	4.4		.522	0					
July	4.4		.361	0					
August	4.4		.254	0					
September	4.4		.12	0					
October	18		.498	0					
November	18		.689	0					
December	18		1.378	0					

Points per each exceedance of Monthly average:	10
Exceedances, Monthly:	2
Points:	20
Points per each exceedance of weekly average (when there is no monthly average):	2.5
Exceedances, Weekly:	0
Points:	0
Total Number of Points	**20**

20

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?

Effluent ammonia limits were exceeded in January and February due to construction activities as part of our 2019 Improvements Project, which included modification of our BFP filtrate piping. While work was in progress, ammonia rich BFP filtrate was directed upstream of our aeration tanks, instead of the re-aeration passes in the aeration tanks. This change resulted in less effective ammonia removal. Since the completion of the work to modify the filtrate piping, effluent ammonia limits have been met.

Total Points Generated	20
Score (100 - Total Points Generated)	80
Section Grade	**C**

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

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	0.271	1	0
February	1	0.334	1	0
March	1	0.218	1	0
April	1	0.194	1	0
May	1	0.211	1	0
June	1	0.249	1	0
July	1	0.156	1	0
August	1	0.209	1	0
September	1	0.186	1	0
October	1	0.373	1	0
November	1	0.280	1	0
December	1	0.180	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**

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

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:

Utilized the Appleton Composting Facility at Outagamie County Landfill.

2. Land Application Site

2.1 Last Year's Approved and Active Land Application Sites

2.1.1 How many acres did you have?

14619.80 acres

2.1.2 How many acres did you use?

1000 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. 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									1.96	1.7				0	0
Cadmium		39	85									<.495	<.49				0	0
Copper		1500	4300									30	28.1				0	0
Lead		300	840									12.5	78				0	0
Mercury		17	57									<.584	<.579				0	0
Molybdenum	60		75									1.84	1.64			0		0
Nickel	336		420									7.13	7.14			0		0
Selenium	80		100									<1.15	1.43			0		0
Zinc		2800	7500									76.3	78				0	0

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

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	<2.05		<9.08		<7.43		<7.43		<2.56		<7.08			0	0
Cadmium		39	85	.09		<.214		<.19		<.174		<.06		<.167			0	0
Copper		1500	4300	86		83		64		71		80		82			0	0
Lead		300	840	3.42		4.92		5		3.23		3.68		5.02			0	0
Mercury		17	57	<.11		.25		<.13		<.114		<.134		.131			0	0
Molybdenum	60		75	4.66		5.14		2.6		3.43		5.25		3.77		0		0
Nickel	336		420	8.93		9.53		9.7		9.71		10		11		0		0
Selenium	80		100	<1.81		<8.03		<7.2		<6.54		<2.26		<6.26		0		0
Zinc		2800	7500	138		150		127		137		151		148			0	0

Outfall No. 009 - Biosolids- Compost Class B

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

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 — **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?

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.

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

Outfall Number:	**003**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2021 - 02/28/2021
Density:	21,135
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	No
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion with a 24-day HRT at 95-98* (corrected per Kreski email 2/3/2022 ahp)

Outfall Number:	**003**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	03/01/2021 - 04/30/2021
Density:	19,941
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion with a 38-day HRT as verified by the Van Kleeck Method

Outfall Number:	**003**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	05/01/2021 - 06/30/2021
Density:	10,435
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	No
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion with a 38-day HRT as verified by the Van Kleeck Method

Outfall Number:	**003**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	07/01/2021 - 08/31/2021
Density:	7,777
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion with a 38-day HRT as verified by the Van Kleeck Method

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

Outfall Number:	**003**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	09/01/2021 - 10/31/2021
Density:	19,922
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion with a 38-day HRT as verified by the Van Kleeck Method

Outfall Number:	**003**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	11/01/2021 - 12/31/2021
Density:	12,255
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion with a 38-day HRT as verified by the Van Kleeck Method

Outfall Number:	**010**
Biosolids Class:	A
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	07/01/2021 - 09/30/2021
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° C or higher for 15 days or longer. During this period, a minimum of 5 windrow turns occurred

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

Outfall Number:	**010**
Biosolids Class:	A
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	10/01/2021 - 12/31/2021
Density:	30
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Composting
Process Description:	The composting material maintained a temperature of 55° C or higher for 15 days or longer. During this period, a minimum of 5 windrow turns occurred

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:	**003**
Method Date:	01/12/2021
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	No
Limit (if applicable):	>=38
Results (if applicable):	45.70

Outfall Number:	**003**
Method Date:	03/09/2021
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>=38
Results (if applicable):	48.30

Outfall Number:	**003**
Method Date:	05/11/2021
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	No
Limit (if applicable):	>=38
Results (if applicable):	48.70

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

Outfall Number:	**003**
Method Date:	07/13/2021
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>=38
Results (if applicable):	44.20

Outfall Number:	**003**
Method Date:	09/14/2021
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>=38
Results (if applicable):	41.60

Outfall Number:	**003**
Method Date:	12/14/2021
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>=38
Results (if applicable):	42.10

Outfall Number:	**010**
Method Date:	09/30/2021
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:	12/31/2021
Option Used To Satisfy Requirement:	Aerobic Composting Process
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

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

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

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

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

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:

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022

Reporting For: **2021**

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

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

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

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

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?

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022

Reporting For: **2021**

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**

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

Financial Management

1. Provider of Financial Information

Name: Kelli Rindt

Telephone: 920-832-6316 (XXX) XXX-XXXX

E-Mail Address (optional): 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) ☐☐
- ○ 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: 2021

- ● 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		$ 3,993,908.35
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		$ 3,993,908.35
3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	+	$ 0.00

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

3.2.5 Subtractions from Fund (e.g., equipment replacement, major repairs - use description box 3.2.6.1 below*) - $ 67,970.58

3.2.6 Ending Balance as of December 31st for CMAR Reporting Year $ 3,925,937.77

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? $ 2,550,822.81

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	8500000	2023
2	Receiving Station Improvements	330000	2022
3	Belt filter press upgrades	6000000	2023
4	Multi-Year Electrical Equipment Upgrade	3800000	2023
5	Multi-year HVAC Upgrades	2577000	2022
6	PLC & SCADA Upgrades	60000	2022
7	Marshall Heights Lift Station Improvements	400000	2024
8	Process Improvements - (Filtrate tank/piping, RAS pumps, WGB, Blended Sludge piping, Effluent Pumps, Primary Clarifier Drives)	3170269	2021
9	Lighting Upgrades	100000	2022
10	Roof Replacements	550000	2023
11	Multi-Year Driveway and Walkway Replacements	925675	2022
12	Glacier Ridge Lift Station	400000	2024
13	Summer St Lift Station	400000	2026
14	Secondary Clarifier Drive Replacements	200000	2022
15	Blended Sludge Piping Replacement	450000	2022
16	Grit Trap Vortex Drive Replacement	258750	2022
17	Phone/Wireless system upgrades	400000	2022
18	Elevator replacement	700000	2024
19	Building renovations	950000	2023

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

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: 14

	Electricity Consumed (kWh)	Natural Gas Consumed (therms)
January	27,309	417
February	27,359	255
March	22,328	106
April	18,608	73
May	12,556	8
June	15,433	2
July	14,140	6
August	16,361	45
September	13,639	13
October	12,801	23
November	17,330	339
December	21,867	453
Total	**219,731**	**1,740**
Average	**18,311**	**145**

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:

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 LS, Midways Rd LS, North Edgewood LS.
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	744,000	261.65	2,843	789.23	943	5,819
February	789,600	237.36	3,327	636.44	1,241	26,038
March	830,400	421.90	1,968	422.25	1,967	2,029
April	722,400	393.00	1,838	644.04	1,122	2,351
May	789,600	350.74	2,251	320.29	2,465	12,545
June	784,800	315.31	2,489	699.51	1,122	6,904
July	879,928	465.06	1,892	994.85	884	8,735
August	908,027	413.47	2,196	979.32	927	425
September	909,819	287.15	3,168	734.01	1,240	172
October	970,321	238.81	4,063	624.40	1,554	302
November	900,000	226.18	3,979	573.45	1,569	1,103
December	955,200	279.71	3,415	708.01	1,349	3,551
Total	**10,184,095**	**3,890.34**		**8,125.80**		**69,974**
Average	**848,675**	**324.20**	**2,786**	**677.15**	**1,365**	**5,831**

7.1.2 Comments:

None

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 as 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
- ● Yes

- ☒ Entire facility

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022

Reporting For: **2021**

Year: 2004

By Whom: Joe Cantwell - Focus on Energy

Describe and Comment:

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.

☐ Part of the facility

Year:

By Whom:

Describe and Comment:

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

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

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 2021, $5,115,000 was budgeted for sewer reconstruction and $920,000 was budgeted for maintenance. Specific 2021 goals included System cleaning: 55%; Defects to correct: 23; televising and root control: 13%; Spot Repairs: 23; Trouble call responses: 30; Blockages removed: 3; Cross-connections identified: 1; protruding taps removed: 3; General reduction in I/I through clear water inspection program. These goals are consistent with the 2021 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) 2020-11-30

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

☒ Private property inflow and infiltration

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

☒ 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
☒ 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:

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:

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	50.9	% of system/year
Root removal	1.1	% of system/year
Flow monitoring	1.8	% of system/year
Smoke testing	0.0	% of system/year
Sewer line televising	14.1	% of system/year

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

Manhole inspections	13.6	% of system/year
Lift station O&M	12	# per L.S./year
Manhole rehabilitation	.21	% of manholes rehabbed
Mainline rehabilitation	.29	% of sewer lines rehabbed
Private sewer inspections	.28	% of system/year
Private sewer I/I removal	0.0	% of private services
River or water crossings	0.0	% of pipe crossings evaluated or maintained

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

No additional comments.

3. Performance Indicators

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

34.22	Total actual amount of precipitation last year in inches
32	Annual average precipitation (for your location)
329	Miles of sanitary sewer
14	Number of lift stations
0	Number of lift station failures
3	Number of sewer pipe failures
41	Number of basement backup occurrences
41	Number of complaints
10.6	Average daily flow in MGD (if available)
15.0	Peak monthly flow in MGD (if available)
42.1	Peak hourly flow in MGD (if available)

3.2 Performance ratios for the past year:

0.00	Lift station failures (failures/year)
0.01	Sewer pipe failures (pipe failures/sewer mile/yr)
0.00	Sanitary sewer overflows (number/sewer mile/yr)
0.12	Basement backups (number/sewer mile)
0.12	Complaints (number/sewer mile)
1.4	Peaking factor ratio (Peak Monthly:Annual Daily Avg)
4.0	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.

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022 Reporting For: **2021**

5. Infiltration / Inflow (I/I)

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

- ● Yes
- ○ No

If Yes, please describe:

Rain events in June, July, and August, 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. 850 manhole Inspections
b. 13 manholes rehabilitated
c. 46 miles of sanitary mains televised
d. 0.95 miles of sewer pipe rehabilitated
e. 69 sanitary manhole seals installed
f. 239 laterals replaced
g. 75 basement inspections in conjunction with plumbing inspections and water meter maintenance, to identify and eliminate illegal clear water connections to the sanitary system. This number is lower than typical due to COVID restrictions throughout 2021. 7 violations were found or corrected.

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

Compliance Maintenance Annual Report

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022

Reporting For: **2021**

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	C	2	5	10
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**	**138**
GRADE POINT AVERAGE (GPA) = 3.73				

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

Appleton Wastewater Treatment Facility

Last Updated: 5/25/2022

Reporting For: **2021**

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 = C

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. = 3.73

WATER MAIN BREAK/ JOINT LEAK REPORT - APRIL

YEARLY WATER MAIN BREAK COMPARISON

APRIL 21	APRIL 22	YTD 21	YTD 22
5	6	50	66

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
2621 E. John St.	4/1/2022	306445	DIP	12"	1975	5" Split x 1/32" crack	91 days	3,200,425	$19,458.58
NOTES: Break was found with the correlator. Duration is based on the soil saturation. Break never surfaced.									
3301 S. White Birch La.	4/6/2022	306671	DIP	8"	1979	1/32" Hole	97 Days	23,029	$140.02
NOTES: Break was found with the correlator. Duration is based on the soil saturation.									
38 Partridge Ct.	4/6/2022	306626	DIP	8"	1978	1/8" Hole	65 Days	250,000	$1,520.00
NOTES: Break was found with the correlator. Duration is based on soil saturation and the last hydrant inspection date.									
2701 S. Jackson St.	4/13/2022	306867	CIP	8"	1968	3" Split	102 Days	1,593,708	$9,689.74
NOTES: Break was found with the correlator. Break never surfaced, duration is based on soil saturation and water present in trenches.									

**Water Loss is calculated at the residential rate of $6.08 per 1000 gallons.

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
1809 N. Douglas St.	4/18/2022	307012	CIP	8"	1960	1/16" Crack	10 Hours	318,726	$1,937.85
NOTES: Break was found as water was on the road. Duration is based on soil saturation and dirt/ stone washout.									
1719 Schaefer Ci.	4/27/2022	307272	DIP	8"	1980	3" Hole	6 Hours	600,000	$3,648.00
NOTES: Break was called in by resident as water was surfacing. Duration is based on soil saturation and water present.									

In addition to the dollar value of water revenue lost, there is an average cost of $9,000 to repair each water main break (including final restoration) and an average cost of $630 to produce the lost water for each main break.

**Water Loss is calculated at the residential rate of $6.08 per 1000 gallons.