Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 Reporting For: **2023**

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	3.3810	x	221	x	8.34	=	6,235
February	3.9989	x	205	x	8.34	=	6,840
March	5.4968	x	142	x	8.34	=	6,499
April	4.8348	x	168	x	8.34	=	6,788
May	3.4572	x	245	x	8.34	=	7,050
June	2.6864	x	279	x	8.34	=	6,241
July	2.4440	x	294	x	8.34	=	5,984
August	2.4693	x	310	x	8.34	=	6,376
September	2.2365	x	315	x	8.34	=	5,872
October	2.5418	x	338	x	8.34	=	7,172
November	2.4334	x	375	x	8.34	=	7,613
December	2.4654	x	334	x	8.34	=	6,877

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	8.8	x	90	=	7.92
		x	100	=	8.8
Design BOD, lbs/day	6600	x	90	=	5940
		x	100	=	6600

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	1	0
February	1	0	0	1	1
March	1	0	0	1	0
April	1	0	0	1	1
May	1	0	0	1	1
June	1	0	0	1	0
July	1	0	0	1	0
August	1	0	0	1	0
September	1	0	0	0	0
October	1	0	0	1	1
November	1	0	0	1	1
December	1	0	0	1	1
Points per each		2	1	3	2
Exceedances		0	0	11	6
Points		0	0	33	12
Total Number of Points					**45**

45

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 Reporting For: **2023**

3. Flow Meter

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

● Yes Enter last calibration date (MM/DD/YYYY): 2023-10-26

○ 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:

The city of Watertown Wastewater has four (4) active industrial pre-treatment permits issued to businesses with target limits in place. One (1) of those facilities has established Federal pre-treatment limits and a program requirement to meet all of those limits in their discharge.

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 gallons

● No

Holding Tanks

● Yes 146,067 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 does not appear to be negatively impacted.

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

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

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.

Total Points Generated	45
Score (100 - Total Points Generated)	55
Section Grade	**F**

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

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	30	27	7	1	0	0
February	30	27	6	1	0	0
March	30	27	4	1	0	0
April	30	27	5	1	0	0
May	30	27	5	1	0	0
June	16	14.4	4	1	0	0
July	12	10.8	6	1	0	0
August	10	10	7	1	0	0
September	10	10	7	1	0	0
October	12	10.8	6	1	0	0
November	25	22.5	4	1	0	0
December	29	26.1	5	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): 2023-10-26
- ○ No

If No, please explain:

3. Treatment Problems

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

Daphnia magna aquatic insect infestations in clarifiers.

4. Other Monitoring and Limits

4.1 At any time in the past year was there an exceedance of a permit limit for any other pollutants such as chlorides, pH, residual chlorine, fecal coliform, or metals?

- ○ Yes
- ● No

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

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

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	3	1	0	0
February	30	27	3	1	0	0
March	30	27	3	1	0	0
April	30	27	4	1	0	0
May	30	27	3	1	0	0
June	16	14.4	4	1	0	0
July	12	10.8	6	1	0	0
August	10	10	4	1	0	0
September	10	10	3	1	0	0
October	12	10.8	4	1	0	0
November	25	22.5	5	1	0	0
December	29	26.1	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

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

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	20	20	1.136	0	.121	.128	2.436	2.491	0
February	20	20	.54	0	.32	.463	.341	1.035	0
March	20	20	.158	0	.052	.12	.295	.212	0
April									0
May									0
June	17	17	.108	0	.081	.191	.077	.088	0
July	9	9	.118	0	.086	.084	.132	.152	0
August	6.4	6.4	.072	0	.112	.075	.055	.062	0
September	8.9	8.9	.068	0	.046	.046	.12	.06	0
October	9.3	13	.053	0	.062	.063	.038	.047	0
November	20	20	.057	0	.053	.062	.072	.049	0
December	20	20	.049	0	.042	.04	.047	.07	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**

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

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	0.333	1	0
February	1	0.259	1	0
March	1	0.336	1	0
April	.8	0.345	1	0
May	1	0.457	1	0
June	.8	0.591	1	0
July	1	0.660	1	0
August	1	0.441	1	0
September	1	0.329	1	0
October	1	0.223	1	0
November	1	0.161	1	0
December	1	0.251	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

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

Biosolids Quality and Management

1. Biosolids Use/Disposal

1.1 How did you use or dispose of your biosolids? (Check all that apply)

- ☒ Land applied under your permit
- ☐ Publicly Distributed Exceptional Quality Biosolids
- ☐ Hauled to another permitted facility
- ☐ Landfilled
- ☐ Incinerated
- ☐ Other

NOTE: If you did not remove biosolids from your system, please describe your system type such as lagoons, reed beds, recirculating sand filters, etc.

1.1.1 If you checked Other, please describe:

2. Land Application Site

2.1 Last Year's Approved and Active Land Application Sites

2.1.1 How many acres did you have?

2033 acres

2.1.2 How many acres did you use?

109.8 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?

- ○ Yes (30 points)
- ● No

0

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. 004 - 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	40			22			31			33				0	0
Cadmium		39	85	.79			.78			.58			.6				0	0
Copper		1500	4300	360			290			350			380				0	0
Lead		300	840	18			20			22			18				0	0
Mercury		17	57	<.34			.39			.39			.69				0	0
Molybdenum	60		75	8.1			7.8			10			10			0		0
Nickel	336		420	57			56			61			58			0		0
Selenium	80		100	<28			<15			9.6			<11			0		0
Zinc		2800	7500	670			570			670			710				0	0

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 Reporting For: **2023**

Outfall No. 002 - LIQUID SLUDGE

Parameter	80% of Limit	H.Q. Limit	Ceiling Limit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	80% Value	High Quality	Ceiling
Arsenic		41	75							36							0	0
Cadmium		39	85							<.49							0	0
Copper		1500	4300							310							0	0
Lead		300	840							11							0	0
Mercury		17	57							<3.4							0	0
Molybdenum	60		75							8.8						0		0
Nickel	336		420							51						0		0
Selenium	80		100							<31						0		0
Zinc		2800	7500							680							0	0

3.1.1 Number of times any of the metals exceeded the high quality limits OR 80% of the limit for molybdenum, nickel, or selenium = 0

Exceedence Points

- ● 0 (0 Points)
- ○ 1-2 (10 Points)
- ○ > 2 (15 Points)

3.1.2 If you exceeded the high quality limits, did you cumulatively track the metals loading at each land application site? (check applicable box)

- ○ Yes
- ○ No (10 points)
- ● N/A - Did not exceed limits or no HQ limit applies (0 points)
- ○ N/A - Did not land apply biosolids until limit was met (0 points)

3.1.3 Number of times any of the metals exceeded the ceiling limits = 0

Exceedence Points

- ● 0 (0 Points)
- ○ 1 (10 Points)
- ○ > 1 (15 Points)

3.1.4 Were biosolids land applied which exceeded the ceiling limit?

- ○ Yes (20 Points)
- ● No (0 Points)

3.1.5 If any metal limit (high quality or ceiling) was exceeded at any time, what action was taken? Has the source of the metals been identified?

0

4. Pathogen Control (per outfall):

4.1 Verify the following information. If any information is incorrect, use the Report Issue button under the Options header in the left-side menu.

Outfall Number:	**004**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2023 - 12/31/2023
Density:	200,000
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion is utilized to meet list 3 requirements prior to land application. Operated mesophilic 95 to 98 degrees Fahrenheit.

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

Outfall Number:	**004**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2023 - 12/31/2023
Density:	31,000
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Aerobic Digestion
Process Description:	Anaerobic digestion is utilized to meet list 3 requirements prior to land application. Operated mesophilic 95 to 98 degrees Fahrenheit.

Outfall Number:	**004**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2023 - 12/31/2023
Density:	31,000
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Aerobic Digestion
Process Description:	Anaerobic digestion is utilized to meet list 3 requirements prior to land application. Operated mesophilic 95 to 98 degrees Fahrenheit.

Outfall Number:	**004**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2023 - 12/31/2023
Density:	22,000
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Aerobic Digestion
Process Description:	Anaerobic digestion is utilized to meet list 3 requirements prior to land application. Operated mesophilic 95 to 98 degrees Fahrenheit.

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

Outfall Number:	**004**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2023 - 03/31/2023
Density:	200,000
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion is utilized to meet list 3 requirements prior to land application. Operated mesophilic 95 to 98 degrees Fahrenheit.

Outfall Number:	**004**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	04/01/2023 - 06/30/2023
Density:	31,000
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	No
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion is utilized to meet list 3 requirements prior to land application. Operated mesophilic 95 to 98 degrees Fahrenheit.

Outfall Number:	**004**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	07/01/2023 - 09/30/2023
Density:	200,000
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion is utilized to meet list 3 requirements prior to land application. Operated mesophilic 95 to 98 degrees Fahrenheit.

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

Outfall Number:	**004**
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	10/01/2023 - 12/31/2023
Density:	22,000
Sample Concentration Amount:	CFU/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic digestion is utilized to meet list 3 requirements prior to land application. Operated mesophilic 95 to 98 degrees Fahrenheit.

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:	**004**
Method Date:	01/10/2023
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>=38
Results (if applicable):	61.3

Outfall Number:	**004**
Method Date:	04/19/2023
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>=38
Results (if applicable):	55.1

Outfall Number:	**004**
Method Date:	07/18/2023
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>=38
Results (if applicable):	43.2

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 Reporting For: **2023**

Outfall Number:	**004**
Method Date:	10/12/2024
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>=38
Results (if applicable):	43

Outfall Number:	**004**
Method Date:	01/10/2023
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>=38
Results (if applicable):	61.3

Outfall Number:	**004**
Method Date:	04/19/2023
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	No
Limit (if applicable):	>=38
Results (if applicable):	55.1

Outfall Number:	**004**
Method Date:	01/10/2023
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>=38
Results (if applicable):	61.3

Outfall Number:	**004**
Method Date:	10/12/2023
Option Used To Satisfy Requirement:	Volatile Solids Reduction
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	>=38
Results (if applicable):	43

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

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

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) 6.2 If you checked N/A above, explain why.	**0**
7. Issues 7.1 Describe any outstanding biosolids issues with treatment, use or overall management: We have concerns regarding PFAS/PFOS and disposal options as looking into the future is a moving target for regulations.	

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

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 | Reporting For: **2023**

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

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

Staff here in Watertown takes great pride in their work and our facilities, unfortunately while pay is below average, the results are very good. I take regular tours and visit of other facilities on an annual basis, I also talk to other plant managers and find that our program is better than most others.

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

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

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: PETER A HARTZ

Certification No: 32167

0

2. Certification Requirements

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

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

2.3 For wastewater treatment facilities with a registered or certified laboratory, is at least one operator that works in the laboratory certified at the basic level in the laboratory (L) subclass?

- ● Yes
- ○ No
- ○ N/A – Wastewater treatment facility does not have a registered or certified laboratory

2.4 For wastewater treatment facilities that own and operate a sanitary sewage collection system, has at least one operator been designated the OIC for sanitary sewage collection system and certified at the basic level in the sanitary sewage collection system (SS) subclass?

- ● Yes
- ○ No
- ○ N/A – Owner of the Wastewater treatment facility does not own and operate a sanitary sewage collection system

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

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 Reporting For: **2023**

☐ 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? 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

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 | Reporting For: **2023**

Financial Management

1. Provider of Financial Information

Name: Peter Hartz

Telephone: 920-262-4085 (XXX) XXX-XXXX

E-Mail Address (optional): phartz@watertownwi.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: 2023

- ● 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: 2023

- ● 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		$ 1,576,248.82
3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)		$ 0.00
3.2.3 Adjusted January 1st Beginning Balance		$ 1,576,248.82
3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	+	$ 378,350.00

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 Reporting For: **2023**

3.2.5 Subtractions from Fund (e.g., equipment replacement, major repairs - use description box 3.2.6.1 below*) - $ 1,302,074.05

3.2.6 Ending Balance as of December 31st for CMAR Reporting Year $ 652,524.77

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.

Collections system project engineering & repairs, new turbo blower install and electrical work, new mixers, new lift station pumps, electrical work for new emergency generator, new sludge pump and install, RAS pump rebuild, WAS pump rebuild, facilities planning engineering costs, new spiral sludge heat exchangers

0

3.3 What amount should be in your Replacement Fund? $ 652,524.77

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	Install new interceptor sewer for highway 26 bypass - west side interceptor	$25,000,000	2026
2	GIS enhancements	$30,000	2023
3	Continuance of hydraulic study for the sanitary sewer service area. Model updates anticipated in 2023.	$15,000	2023
4	Bio-gas utilization study - bid and install biosolids dryer.	$4,225,000	2025
5	Alerman lift station engineering & rehab - controls and pumps	$2,000,000	2025
6	WWTP facilities planning update project engineering, design, and process upgrades (yet to be determined)	$10,000,000	2024

5. Financial Management General Comments

The city intends to have the wastewater utility commit funds to developers which currently is not allowed by city codes. The public service commission should be included in these discussions as the wastewater rates were not set to cover expenses such as these, and the wwtp has many millions of dollars estimated for process and collections systems needs and updates due to the age of facilities.

ENERGY EFFICIENCY AND USE

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 Reporting For: **2023**

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: 18

	Electricity Consumed (kWh)	Natural Gas Consumed (therms)
January	18,278	
February	14,912	
March	17,297	
April	18,253	
May	15,417	
June	10,833	
July	8,798	
August	9,174	
September	8,724	
October	7,967	
November	9,740	
December	13,750	
Total	**153,143**	**0**
Average	**12,762**	**0**

6.1.2 Comments:

6.2 Energy Related Processes and Equipment

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

- ☐ Comminution or Screening
- ☐ Extended Shaft Pumps
- ☒ Flow Metering and Recording
- ☐ Pneumatic Pumping
- ☒ SCADA System
- ☐ Self-Priming Pumps
- ☒ Submersible Pumps
- ☒ Variable Speed Drives
- ☐ Other:

6.2.2 Comments:

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

- ● No
- ○ Yes

Year:

By Whom:

Describe and Comment:

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?

New stand-by emergency generators for Grandview, Riverlawn, and Carlson lift stations are planned for 2024.

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	230,935	104.81	2,203	193.29	1,195	10,877
February	209,585	111.97	1,872	191.52	1,094	11,840
March	225,612	170.40	1,324	201.47	1,120	8,345
April	223,835	145.04	1,543	203.64	1,099	6,835
May	248,200	107.17	2,316	218.55	1,136	4,054
June	242,739	80.59	3,012	187.23	1,296	1,110
July	240,361	75.76	3,173	185.50	1,296	1,047
August	279,924	76.55	3,657	197.66	1,416	1,415
September	254,856	67.10	3,798	176.16	1,447	1,992
October	217,403	78.80	2,759	222.33	978	2,674
November	177,556	73.00	2,432	228.39	777	3,321
December	222,634	76.43	2,913	213.19	1,044	10,462
Total	**2,773,640**	**1,167.62**		**2,418.93**		**63,972**
Average	**231,137**	**97.30**	**2,584**	**201.58**	**1,158**	**5,331**

7.1.2 Comments:

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:

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?

Possibly solar panels to operate and offset electric consumption for new biosolids dryer.

8. Biogas Generation

8.1 Do you generate/produce biogas at your facility?
○ No
● Yes

If Yes, how is the biogas used (Check all that apply):
☒ Flared Off
☒ Building Heat
☐ Process Heat
☐ Generate Electricity
☐ Other:

9. Energy Efficiency Study

9.1 Has an Energy Study been performed for your treatment facility?
● No
○ Yes
☐ Entire facility
Year:
By Whom:
Describe and Comment:
☐ Part of the facility
Year:

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

By Whom:

Describe and Comment:

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

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

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:

We continue to push forward a private lateral replacement program. In 2025 Dewey Ave is being completely redone and we hope to have a new private lateral replacement program in place for that project.

Did you accomplish them?

- ○ Yes
- ● No

If No, explain:

We continue to experience resistance to our private replacement program and have been denied in our request to bring forward to our public works commission for discussion. That is mostly due to resistance from the storm water team regarding inadequate storm water system capacities, and funding for improvements the storm water system perceives as needed to pair with our program; we disagree to some extents as clear water discharge to the sanitary sewer is a violation of the clean water act and should be eliminated entirely; something the wastewater utility can afford to accomplish along with annual projects.

☒ 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?

Watertown Municipal Code 508

If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 2015-06-05

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

- ☒ Private property inflow and infiltration
- ☒ New sewer and building sewer design, construction, installation, testing and inspection
- ☒ Rehabilitated sewer and lift station installation, testing and inspection
- ☒ Sewage flows satellite system and large private users are monitored and controlled, as necessary
- ☒ Fat, oil and grease control

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 Reporting For: **2023**

☒ 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	27.1	% of system/year
Root removal	5	% of system/year
Flow monitoring	10	% of system/year
Smoke testing	0	% of system/year
Sewer line televising	7.5	% of system/year
Manhole inspections	27.1	% of system/year
Lift station O&M	18	# per L.S./year
Manhole rehabilitation	0.5	% of manholes rehabbed

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 Reporting For: **2023**

Mainline rehabilitation	0.12	% of sewer lines rehabbed
Private sewer inspections	1	% of system/year
Private sewer I/I removal	0	% of private services
River or water crossings	100	% of pipe crossings evaluated or maintained

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

3. Performance Indicators

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

31.06	Total actual amount of precipitation last year in inches
36.02	Annual average precipitation (for your location)
109	Miles of sanitary sewer
18	Number of lift stations
0	Number of lift station failures
0	Number of sewer pipe failures
0	Number of basement backup occurrences
14	Number of complaints
3.1996	Average daily flow in MGD (if available)
10.433	Peak monthly flow in MGD (if available)
	Peak hourly flow in MGD (if available)

3.2 Performance ratios for the past year:

0.00	Lift station failures (failures/year)
0.00	Sewer pipe failures (pipe failures/sewer mile/yr)
0.00	Sanitary sewer overflows (number/sewer mile/yr)
0.00	Basement backups (number/sewer mile)
0.13	Complaints (number/sewer mile)
3.3	Peaking factor ratio (Peak Monthly:Annual Daily Avg)
0.0	Peaking factor ratio (Peak Hourly:Annual Daily Avg)

4. Overflows

LIST OF SANITARY SEWER (SSO) AND TREATMENT FACILITY (TFO) OVERFLOWS REPORTED **			
Date	Location	Cause	Estimated Volume
None reported			

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

5. Infiltration / Inflow (I/I)

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

- ● Yes
- ○ No

If Yes, please describe:

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024 Reporting For: **2023**

During normal or dry times, even this past year being hot and dry, we average approximately 1,000,000 gallons per day of clear water infiltration into the sanitary sewer system. This number comes from the daily drinking water numbers vs the wastewater influent numbers.

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:

When it rains more than 2" a day our flows spike - look at February 26 - 28th as an example. We got 1.82" of rain and the flows went from 3.6 MGD to 10.4 MGD in a few hours. Flows did not get back down to 3.6 MGD until early May; more than 2 months later.

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

Not much if anything has changed. We continue to discuss moving forward with private lateral inspections and disconnections of the drain tiles to the sanitary laterals.

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

Not enough as we continue to talk but do nothing because of concerns for the storm water system - that utility needs to understand that what wastewater needs to do is a priority, wastewater has funds and can make progress and should be able to do so independently of the storm water utility.

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

Compliance Maintenance Annual Report

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

Grading Summary

WPDES No: 0028541

SECTIONS	LETTER GRADE	GRADE POINTS	WEIGHTING FACTORS	SECTION POINTS
Influent	F	0	3	0
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**	**136**
GRADE POINT AVERAGE (GPA) = 3.68				

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

Watertown Wastewater Treatment Facility

Last Updated: 5/6/2024

Reporting For: **2023**

Resolution or Owner's Statement

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

Date of Resolution or Action Taken: 2024-06-11

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 = F

Watertown hired Applied Technologies Inc., to update the wastewater facilities plan. The results of the plan updates will be available later in 2024; after which we will review and discuss with the Public Works Commission members and take any necessary action pending available funds. Even with the high influent BOD loadings, the plant effluent met permit limits all of 2023.

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)

Watertown continues to support staff at the treatment facility with equipment and infrastructure improvements when and where necessary; pending available funding.

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. = 3.68