RESOLUTION NO. 2022-01

VILLAGE OF YORKVILLE
SEWER AND WATER COMMISSION
RACINE COUNTY, WISCONSIN

A RESOLUTION TO ADOPT THE FINDINGS OF THE 2021 YORKVILLE SEWER UTILITY DISTRICT'S COMPLIANCE MAINTENANCE ANNUAL REPORT

THE SEWER AND WATER COMMISSION OF THE VILLAGE OF YORKVILLE, RACINE COUNTY, WISCONSIN, RESOLVES AS FOLLOWS:

WHEREAS, the Wisconsin Department of Natural Resources requires that all Wastewater Treatment and/or Collection Systems file a Compliance Maintenance Annual Report (hereinafter "CMAR") to comply with the Wisconsin Pollutant Discharge Elimination System permit issued to them under the authority of Wisconsin Administrative Code NR 208, and

WHEREAS, the Wisconsin Department of Natural Resources requires that municipal governing bodies review and adopt the findings outlined within the CMAR, and

WHEREAS, the Village of Yorkville Sewer and Water Commission has reviewed the 2021 CMAR presented by the Village of Yorkville Sewer Utility District, and

WHEREAS, the Village of Yorkville Sewer and Water Commission reports that the 2021 CMAR presented by the Village of Yorkville Sewer Utility District has an overall grade point average of 2.53.

NOW, THEREFORE, BE IT RESOLVED, that the Village of Yorkville Sewer and Water Commission adopts the findings outlined within the 2021 CMAR, and

BE IT FURTHER RESOLVED, that the Sewer Utility District Manager is hereby directed to submit an action plan to the Wisconsin Department of Natural Resources outlining the steps proposed to address the overall and specific deficiencies identified in this CMAR, and

BE IT FURTHER RESOLVED, that the Administrator/Clerk is hereby directed to post this resolution in three places within thirty days of its adoption, and

BE IT FURTHER RESOLVED, that this resolution takes effect the day following its posting.

This Resolution was adopted by the Village of Yorkville Sewer and Water Commission on May 17, 2022.

VILLAGE OF YORKVILLE
SEWER AND WATER COMMISSION

Ayes: 3

Nays: 0

Abstentions: 0

Absences: 2

By: /s/ Douglas Nelson
Douglas Nelson, President

Attest: /s/ Michael McKinney
Michael McKinney, Administrator/Clerk

Compliance Maintenance Annual Report

Yorkville Sewer Utility District No 1

Last Updated: 5/11/2022 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	0.0578	x	177	x	8.34	=	86
February	0.1020	x	184	x	8.34	=	156
March	0.0988	x	130	x	8.34	=	107
April	0.0542	x	151	x	8.34	=	68
May	0.0506	x	174	x	8.34	=	73
June	0.1946	x	173	x	8.34	=	280
July	0.0553	x	152	x	8.34	=	70
August	0.0561	x	136	x	8.34	=	64
September	0.0485	x	154	x	8.34	=	62
October	0.0648	x	107	x	8.34	=	58
November	0.0505	x	137	x	8.34	=	58
December	0.0614	x	159	x	8.34	=	81

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	.15	x	90	=	0.135
		x	100	=	.15
Design BOD, lbs/day	255	x	90	=	229.5
		x	100	=	255

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	1	1	1	1
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		1	1	1	1
Points		2	1	3	2
Total Number of Points					**8**

8

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3. Flow Meter

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

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

● No

If No, please explain:

We do not have an influent flow meter

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

o No

If No, please explain:

4.2 Was it necessary to enforce the ordinance?

o Yes

● No

If Yes, please explain:

5. Septage Receiving

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

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

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

Septic Tanks

o Yes gallons

● No

Holding Tanks

o Yes gallons

● No

Grease Traps

o 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.

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

o No

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

Contractor filled manhole with blacktop causing us to fail a wet test due to tars and oils in the sewer system. System was cleaned and vacuumed to remove material.

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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	8
Score (100 - Total Points Generated)	92
Section Grade	**A**

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Yorkville Sewer Utility District No 1

Last Updated: 5/11/2022 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	20	18	15	1	0	0
February	20	18	41	1	1	1
March	20	18	11	1	0	0
April	20	18	10	1	0	0
May	20	18	3	1	0	0
June	20	18	4	1	0	0
July	20	18	4	1	0	0
August	20	18	6	1	0	0
September	20	18	2	1	0	0
October	20	18	1	1	0	0
November	20	18	7	1	0	0
December	20	18	22	1	1	1
* Equals limit if limit is <= 10						
Months of discharge/yr				12		
Points per each exceedance with 12 months of discharge					7	3
Exceedances					2	2
Points					14	6
Total number of points						**20**

20

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?

Wasted heavly

2. Flow Meter Calibration

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

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

2021-06-09

○ No

If No, please explain:

3. Treatment Problems

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

High loading to plant

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:

Chlorides due to Racine County highway dept located right by plant with over 1000 tons of salt stored on-site and 40 plus trucks spreading salt

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:

Due to manhole filled with blacktop
New plant being constructed

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:

monthly testing cleaning of system conducted a TRE

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

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Effluent Quality and Plant Performance (Total Suspended Solids)

1. Effluent Total Suspended Solids Results

1.1 Verify the following monthly average effluent values, exceedances, and points for TSS:

Outfall No. 001	Monthly Average Limit (mg/L)	90% of Permit Limit >10 (mg/L)	Effluent Monthly Average (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance	90% Permit Limit Exceedance
January	20	18	14	1	0	0
February	20	18	40	1	1	1
March	20	18	13	1	0	0
April	20	18	12	1	0	0
May	20	18	5	1	0	0
June	20	18	6	1	0	0
July	20	18	5	1	0	0
August	20	18	4	1	0	0
September	20	18	5	1	0	0
October	20	18	2	1	0	0
November	20	18	5	1	0	0
December	20	18	10	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					1	1
Points					7	3
Total Number of Points						**10**

10

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?

washed heavily

Total Points Generated	10
Score (100 - Total Points Generated)	90
Section Grade	**B**

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Yorkville Sewer Utility District No 1

Last Updated: 5/11/2022

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	12.4		3.496	0					
February	12.4		11.95	0					
March	12.4		12.45	1					
April	12.4		13.491	1					
May	2.2		.274	0					
June	2.2		.195	0					
July	2.2		.244	0					
August	2.2		.188	0					
September	2.2		.256	0					
October	2.2		0	0					
November	12.4		2.978	0					
December	12.4		10.688	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?

New plant being built and will be placed into operation 8/2022

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

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Effluent Quality and Plant Performance (Phosphorus)

1. Effluent Phosphorus Results

1.1 Verify the following monthly average effluent values, exceedances, and points for Phosphorus

Outfall No. 001	Monthly Average phosphorus Limit (mg/L)	Effluent Monthly Average phosphorus (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance
January	1	2.400	1	1
February	1	1.341	1	1
March	1	0.585	1	0
April	1	0.973	1	0
May	1	1.450	1	1
June	1	2.231	1	1
July	1	3.025	1	1
August	1	2.679	1	1
September	1	1.532	1	1
October	1	0.702	1	0
November	1	0.536	1	0
December	1	1.136	1	1
Months of Discharge/yr			12	
Points per each exceedance with 12 months of discharge:				**10**
Exceedances				8
Total Number of Points				**80**

80

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?

Due to high effluent TSS

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

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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:

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. 003 - Hauled 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			<.71											0	0
Cadmium		39	85			<.064											0	0
Copper		1500	4300			2.7											0	0
Lead		300	840			<.29											0	0
Mercury		17	57			<.0029											0	0
Molybdenum	60		75			.15										0		0
Nickel	336		420			.14										0		0
Selenium	80		100			.72										0		0
Zinc		2800	7500			4.4											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)

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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**
6. Biosolids Storage 6.1 How many days of actual, current biosolids storage capacity did your wastewater treatment facility have either on-site or off-site? ● >= 180 days (0 Points) o 150 - 179 days (10 Points) o 120 - 149 days (20 Points) o 90 - 119 days (30 Points) o < 90 days (40 Points) o 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: none	

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

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Staffing and Preventative Maintenance (All Treatment Plants)

1. Plant Staffing

1.1 Was your wastewater treatment plant adequately staffed last year?

- ● Yes
- o No

If No, please explain:

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
- o 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) ☐☐
- o No (40 points)☐☐

If No, please explain, then go to question 3:

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

- ● Yes
- o No (10 points)

0

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
  - o Computer system
  - o Both paper and computer system
- o No (10 points)

3. O&M Manual

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

- ● Yes
- o No

4. Overall Maintenance /Repairs

4.1 Rate the overall maintenance of your wastewater plant.

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

Describe your rating:

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We stay on top of maintenance we have no equipment failures even though the plant is 40 years old

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

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Operator Certification and Education

1. Operator-In-Charge

1.1 Did you have a designated operator-in-charge during the report year?

- ● Yes (0 points)
- ○ No (20 points)

Name: GARY W HANSON

Certification No: 01590

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		
		Basic	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
N	Total Nitrogen				
D	Disinfection				X
L	Laboratory	X			X
U	Unique Treatment Systems				
SS	Sanitary Sewage Collection	X	NA	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)

0

3. Succession Planning

3.1 In the event of the loss of your designated operator-in-charge, did you have a contingency plan to ensure the continued proper operation and maintenance of the plant that includes one or more of the following options (check all that apply)?

- ☐ One or more additional certified operators on staff
- ☐ An arrangement with another certified operator
- ☒ An arrangement with another community with a certified operator
- ☐ An operator on staff who has an operator-in-training certificate for your plant and is expected to be certified within one year
- ☐ A consultant to serve as your certified operator
- ☐ None of the above (20 points)

If "None of the above" is selected, please explain:

0

4. Continuing Education Credits

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

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OIT and Basic Certification: o Averaging 6 or more CECs per year. o Averaging less than 6 CECs per year. Advanced Certification: ● Averaging 8 or more CECs per year. o Averaging less than 8 CECs per year.	

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

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Financial Management

1. Provider of Financial Information

Name: Michael McKinney

Telephone: 262-878-2123 (XXX) XXX-XXXX

E-Mail Address (optional):

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		$ 38,139.99
3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)	+	$ 3,704.82
3.2.3 Adjusted January 1st Beginning Balance		$ 41,844.81
3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	+	$ 0.00

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

3.2.6 Ending Balance as of December 31st for CMAR Reporting Year $ 41,844.81

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.

none

3.3 What amount should be in your Replacement Fund? $ 41,692.06

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	Plant upgrade due to new permit requirements.	8000000	2021
2	Plant upgrade currently being built with completion by 12/2022	8000000	2022

5. Financial Management General Comments

ENERGY EFFICIENCY AND USE

6. Collection System

6.1 Energy Usage

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

COLLECTION SYSTEM PUMPAGE: Total Power Consumed

Number of Municipally Owned Pump/Lift Stations: 3

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	Electricity Consumed (kWh)	Natural Gas Consumed (therms)
January	585	
February	971	
March	1,469	
April	1,507	
May	1,444	
June	1,557	
July	1,504	
August	785	
September	401	
October	517	
November	495	
December	798	
Total	**12,033**	**0**
Average	**1,003**	**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:

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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?

none at this time

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	9,675	1.79	5,405	2.67	3,624	122
February	8,091	2.86	2,829	4.37	1,851	126
March	9,617	3.06	3,143	3.32	2,897	131
April	8,114	1.63	4,978	2.04	3,977	50
May	8,690	1.57	5,535	2.26	3,845	23
June	9,825	5.84	1,682	8.40	1,170	4
July	10,484	1.71	6,131	2.17	4,831	0
August	10,235	1.74	5,882	1.98	5,169	0
September	10,427	1.46	7,142	1.86	5,606	0
October	9,994	2.01	4,972	1.80	5,552	0
November	10,939	1.52	7,197	1.74	6,287	20
December	12,078	1.90	6,357	2.51	4,812	58
Total	**118,169**	**27.09**		**35.12**		**534**
Average	**9,847**	**2.26**	**5,104**	**2.93**	**4,135**	**67**

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?

new plant

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:

By Whom:

Describe and Comment:

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

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Sanitary Sewer Collection Systems

1. Capacity, Management, Operation, and Maintenance (CMOM) Program

1.1 Do you have a CMOM program that is being implemented?

- ● Yes
- ○ No

If No, explain:

1.2 Do you have a CMOM program that contains all the applicable components and items according to Wisc. Adm Code NR 210.23 (4)?

- ● Yes
- ○ No (30 points)
- ○ N/A

If No or N/A, explain:

1.3 Does your CMOM program contain the following components and items? (check the components and items that apply)

☒ Goals [NR 210.23 (4)(a)]

Describe the major goals you had for your collection system last year:

reduce Iand I and sample all of our users yearly

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 user ordiance

If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 2020-08-01

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

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

☐ Operation and Maintenance [NR 210.23 (4) (d)]

Does your operation and maintenance program and equipment include the following:

- ☒ Equipment and replacement part inventories
- ☒ Up-to-date sewer system map
- ☐ A management system (computer database and/or file system) for collection system information for O&M activities, investigation and rehabilitation

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☒ A description of routine operation and maintenance activities (see question 2 below)
☐ Capacity assessment program
☐ Basement back assessment and correction
☒ Regular O&M training

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

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

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

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

Does your emergency response capability include:

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

0

☐ 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	33	% of system/year
Root removal	0	% of system/year
Flow monitoring	0	% of system/year
Smoke testing	0	% of system/year
Sewer line televising	33	% of system/year
Manhole inspections	4	% of system/year
Lift station O&M	120	# per L.S./year
Manhole rehabilitation	4	% of manholes rehabbed
Mainline rehabilitation	0	% of sewer lines rehabbed
Private sewer inspections	1	% of system/year
Private sewer I/I removal	0	% of private services

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

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

3. Performance Indicators

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

29.8	Total actual amount of precipitation last year in inches
34.21	Annual average precipitation (for your location)
7	Miles of sanitary sewer
3	Number of lift stations
0	Number of lift station failures
0	Number of sewer pipe failures
0	Number of basement backup occurrences
0	Number of complaints
	Average daily flow in MGD (if available)
	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)
0.00	Complaints (number/sewer mile)
	Peaking factor ratio (Peak Monthly:Annual Daily Avg)
	Peaking factor ratio (Peak Hourly:Annual Daily Avg)

4. Overflows

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

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

5. Infiltration / Inflow (I/I)

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

- ○ Yes
- ● No

If Yes, please describe:

5.2 Has infiltration/inflow and resultant high flows affected performance or created problems in your collection system, lift stations, or treatment plant at any time in the past year?

- ○ Yes
- ● No

If Yes, please describe:

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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?

annual TVing of system and repairs leaks as found

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

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Grading Summary

WPDES No: 0029831

SECTIONS	LETTER GRADE	GRADE POINTS	WEIGHTING FACTORS	SECTION POINTS
Influent	A	4	3	12
BOD/CBOD	C	2	10	20
TSS	B	3	5	15
Ammonia	C	2	5	10
Phosphorus	F	0	3	0
Biosolids				
Staffing/PM	A	4	1	4
OpCert	A	4	1	4
Financial	A	4	1	4
Collection	A	4	3	12
TOTALS			**32**	**81**
GRADE POINT AVERAGE (GPA) = 2.53				

Notes:

A = Voluntary Range (Response Optional)

B = Voluntary Range (Response Optional)

C = Recommendation Range (Response Required)

D = Action Range (Response Required)

F = Action Range (Response Required)

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Resolution or Owner's Statement

Name of Governing Body or Owner:

Date of Resolution or Action Taken:

Resolution Number:

Date of Submittal:

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

Influent Flow and Loadings: Grade = A

Effluent Quality: BOD: Grade = C

Effluent Quality: TSS: Grade = B

Effluent Quality: Ammonia: Grade = C

Effluent Quality: Phosphorus: Grade = F

Biosolids Quality and Management: Grade =

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. = 2.53

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DNR Response to Resolution or Owner's Statement

Name of Governing Body or Owner: Village of Yorkville Sewer and Water Commission

Date of Resolution or Action Taken: 2022-05-17

Resolution Number: 2201-01

Date of Submittal: 5/18/2022

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

Permittee Response:

New Plant will be online with in 90 days

DNR Response:

The influent hydraulic loading for 2021 averaged 0.075 MGD (49.7% design capacity) with a maximum of 0.195 MGD (130% design capacity).

The influent organic loading for 2021 averaged 97 lbs/day (38% design capacity) with a maximum of 281 lbs/day (110% design capacity).

Effluent Quality: BOD: Grade = C

Permittee Response:

New Plant will be online with in 90 days. Discussed startup at commission meeting

DNR Response:

The effluent BOD quality for 2021 averaged 10.5 mg/L (53% of the limit) with a maximum of 41 mg/L (105% over the limit) for the month of February.

WWTF upgrade is expected to improve effluent quality. Completion anticipated by December 2022.

Effluent Quality: TSS: Grade = B

Permittee Response:

New Plant will be on line within 90days

DNR Response:

The effluent TSS quality for 2021 averaging 10.1 mg/L (50.5% of the limit) with a maximum of 40 mg/L (100% over the limit) for the month of February.

Effluent Quality: Ammonia: Grade = C

Permittee Response:

New Plant will be online with in 90 days. Discussed startup at commission meeting

DNR Response:

The effluent ammonia quality for 2021 averaged 4.7 mg/L with a maximum of 13.491 mg/L for the month of April.

WWTF upgrade is expected to improve effluent quality. Completion anticipated by December 2022.

Effluent Quality: Phosphorus: Grade = F

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Permittee Response:

New Plant will be online with in 90 days. Discussed startup at commission meeting

DNR Response:

The effluent phosphorus quality for 2021 averaged 1.55 mg/L (55% over of the limit) with a maximum of 3.025 mg/L (202.5% over the limit) for the month of July.

WWTF upgrade is expected to improve effluent quality. Completion anticipated by December 2022.

Biosolids Quality and Management: Grade = A

Permittee Response:

New Plant will be online with in 90 days.

DNR Response:

Good biosolids management.

Staffing: Grade = A

Permittee Response:

no action taken

DNR Response:

No comments.

Operator Certification: Grade = A

Permittee Response:

no action taken

DNR Response:

The OIC, Gary Hanson, holds the required certifications.

Financial Management: Grade = A

Permittee Response:

no action taken

DNR Response:

Thank you for reviewing the Equipment Replacement Fund in 2021. Continue to ensure there are adequate funds to maintain and replace equipment so the facility can maintain compliance.

Collection Systems: Grade = A

(Regardless of grade, response required for Collection Systems if SSOs were reported)

Permittee Response:

no action taken

DNR Response:

The Department recognizes your efforts in preventing sanitary sewer overflows. Please continue with your collection system repairs and I/I reduction program.

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. = 2.73

Permittee Response:

New Plant will be online with in 90 days. Discussed startup at commission meeting

DNR G.P.A. Response:

Start-up of the new wastewater treatment system in 2022 is expected to improve discharge quality and prevent effluent violation reoccurrence.

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DNR CMAR Overall Response:

Thank you for your submission of the Yorkville 2021 CMAR. The Department appreciates your effort to protect human health and the environment by assuring that your wastewater collection and treatment systems are properly operated and maintained. Don’t hesitate to contact Jacob.Wedesky@wisconsin.gov or call (414-239-1480) if you have any questions regarding any of the above responses.

DNR Reviewer: Wedesky, Jacob
Phone: (414) 897-5792
Address: 1027 W Saint Paul Ave, Milwaukee, WI 53212
Date: 8/17/2022