

Compliance Maintenance Annual Report

Milwaukee, City

Last Updated: Reporting For:
5/21/2019 **2018**

Financial Management

<p>1. Provider of Financial Information</p> <p>Name: <input style="width: 150px;" type="text" value="Nader Jaber"/></p> <p>Telephone: <input style="width: 150px;" type="text" value="(414) 286-0514"/> (XXX) XXX-XXXX</p> <p>E-Mail Address (optional): <input style="width: 300px;" type="text" value="njaber@milwaukee.gov"/></p>													
<p>2. Treatment Works Operating Revenues</p> <p>2.1 Are User Charges or other revenues sufficient to cover O&M expenses for your wastewater treatment plant AND/OR collection system ?</p> <p>● Yes (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ No (40 points)</p> <p>If No, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>2.2 When was the User Charge System or other revenue source(s) last reviewed and/or revised?</p> <p>Year: <input style="width: 100px;" type="text" value="2017"/></p> <p>● 0-2 years ago (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ 3 or more years ago (20 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ N/A (private facility)</p> <p>2.3 Did you have a special account (e.g., CFWP required segregated Replacement Fund, etc.) or financial resources available for repairing or replacing equipment for your wastewater treatment plant and/or collection system?</p> <p>● Yes (0 points)</p> <p>○ No (40 points)</p>	0												
<p>REPLACEMENT FUNDS [PUBLIC MUNICIPAL FACILITIES SHALL COMPLETE QUESTION 3]</p>													
<p>3. Equipment Replacement Funds</p> <p>3.1 When was the Equipment Replacement Fund last reviewed and/or revised?</p> <p>Year: <input style="width: 100px;" type="text" value="2018"/></p> <p>● 1-2 years ago (0 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ 3 or more years ago (20 points) <input type="checkbox"/><input type="checkbox"/></p> <p>○ N/A</p> <p>If N/A, please explain:</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>													
<p>3.2 Equipment Replacement Fund Activity</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">3.2.1 Ending Balance Reported on Last Year's CMAR</td> <td style="width: 5%; text-align: right;">\$</td> <td style="width: 35%; text-align: center;"><input style="width: 100%;" type="text" value="300,000.00"/></td> </tr> <tr> <td>3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)</td> <td style="text-align: right;">\$</td> <td style="text-align: center;"><input style="width: 100%;" type="text" value="0.00"/></td> </tr> <tr> <td>3.2.3 Adjusted January 1st Beginning Balance</td> <td style="text-align: right;">\$</td> <td style="text-align: center;"><input style="width: 100%;" type="text" value="300,000.00"/></td> </tr> <tr> <td>3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)</td> <td style="text-align: right;">\$</td> <td style="text-align: center;"><input style="width: 100%;" type="text" value="1,854,820.00"/></td> </tr> </table>	3.2.1 Ending Balance Reported on Last Year's CMAR	\$	<input style="width: 100%;" type="text" value="300,000.00"/>	3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)	\$	<input style="width: 100%;" type="text" value="0.00"/>	3.2.3 Adjusted January 1st Beginning Balance	\$	<input style="width: 100%;" type="text" value="300,000.00"/>	3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	\$	<input style="width: 100%;" type="text" value="1,854,820.00"/>	
3.2.1 Ending Balance Reported on Last Year's CMAR	\$	<input style="width: 100%;" type="text" value="300,000.00"/>											
3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)	\$	<input style="width: 100%;" type="text" value="0.00"/>											
3.2.3 Adjusted January 1st Beginning Balance	\$	<input style="width: 100%;" type="text" value="300,000.00"/>											
3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	\$	<input style="width: 100%;" type="text" value="1,854,820.00"/>											

Compliance Maintenance Annual Report

Milwaukee, City

Last Updated: Reporting For:
5/21/2019 **2018**

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

\$ 1,854,820.00

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

\$ 300,000.00

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.

1) Rehab and/or repair pumps and generators 2) Purchase of sewer maintenance equipment: CCTV Pipeline Inspection System, jet nozzles, gas monitors, sewer cleaner vac-jet and two vehicles and 3) Purchase of safety equipment and safety harness.

3.3 What amount should be in your Replacement Fund? \$ 300,000.00

Please note: If you had a CFWP 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	The City of Milwaukee has an ongoing sewer replacement and I/I reduction program. From 2018 to 2023, our six year Capital Improvement Program is \$225,000,000. This amount is for replacement of the City's combined, sanitary and storm sewers. Of that amount, approximately \$5,000,000 is budgeted for the sanitary sewer system rehabilitation each year.	5000000	2018

5. Financial Management General Comments

The City's budget is based on the calendar year, Jan 1st to Dec 31st.

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:

Compliance Maintenance Annual Report

Milwaukee, City

Last Updated: Reporting For:
5/21/2019 **2018**

	Electricity Consumed (kWh)	Natural Gas Consumed (therms)
January	10,637	6
February	7,177	7
March	8,343	7
April	12,269	7
May	13,099	5
June	73,896	9
July	9,771	13
August	9,953	3
September	9,542	3
October	10,300	3
November	13,168	5
December	15,047	21
Total	193,202	89
Average	16,100	7

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:

Electric Heater

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:

Compliance Maintenance Annual Report

Milwaukee, City

Last Updated: Reporting For:
5/21/2019 **2018**

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?

- a) Monthly inspections and monitorings result in early identification of unexpected increases in energy usage, which can be investigated and corrected immediately.
- b) Annual pump rehabilitation project replaces old equipment with new potentially more energy efficient equipment.

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

Compliance Maintenance Annual Report

Milwaukee, City

Last Updated: Reporting For:
5/21/2019 2018

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:

To efficiently collect and convey all of our customers' wastewater in the most cost effective manner while remaining in compliance with WPDES permits, Clean Water Act, Wisconsin Law and MMSD Rules and Regulations.

Did you accomplish them?

- Yes
- No

If No, explain:

- Organization [NR 210.23 (4) (b)]

Does this chapter of your CMOM include:

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

- Legal Authority [NR 210.23 (4) (c)]

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

City of Milwaukee Ordinance

If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 1995-09-27

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

Compliance Maintenance Annual Report

Milwaukee, City

Last Updated: Reporting For:
5/21/2019 **2018**

- 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:

Milwaukee Metropolitan Sewerage District Guidelines

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

Does your emergency response capability include:

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

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

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

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

0

2. Operation and Maintenance

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

Cleaning	48.46	% of system/year
Root removal	0.5	% of system/year
Flow monitoring	5.1	% of system/year
Smoke testing	0	% of system/year
Sewer line televising	10	% of system/year
Manhole inspections	21.46	% of system/year
Lift station O&M	12	# per L.S./year
Manhole rehabilitation	0.87	% of manholes rehabbed
Mainline rehabilitation	1.21	% of sewer lines rehabbed
Private sewer inspections	0	% of system/year

Compliance Maintenance Annual Report

Milwaukee, City

Last Updated: Reporting For:
5/21/2019 **2018**

Private sewer I/I removal % of private services
 River or water crossings % 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.

<input type="text" value="45.08"/>	Total actual amount of precipitation last year in inches
<input type="text" value="34.76"/>	Annual average precipitation (for your location)
<input type="text" value="942"/>	Miles of sanitary sewer
<input type="text" value="7"/>	Number of lift stations
<input type="text" value="3"/>	Number of lift station failures
<input type="text" value="0"/>	Number of sewer pipe failures
<input type="text" value="33"/>	Number of basement backup occurrences
<input type="text" value="1460"/>	Number of complaints
<input type="text"/>	Average daily flow in MGD (if available)
<input type="text"/>	Peak monthly flow in MGD (if available)
<input type="text"/>	Peak hourly flow in MGD (if available)

3.2 Performance ratios for the past year:

<input type="text" value="0.43"/>	Lift station failures (failures/year)
<input type="text" value="0.00"/>	Sewer pipe failures (pipe failures/sewer mile/yr)
<input type="text" value="0.03"/>	Sanitary sewer overflows (number/sewer mile/yr)
<input type="text" value="0.04"/>	Basement backups (number/sewer mile)
<input type="text" value="1.55"/>	Complaints (number/sewer mile)
<input type="text"/>	Peaking factor ratio (Peak Monthly:Annual Daily Avg)
<input type="text"/>	Peaking factor ratio (Peak Hourly:Annual Daily Avg)

4. Overflows

LIST OF SANITARY SEWER (SSO) AND TREATMENT FACILITY (TFO) OFERFLOWS REPORTED **

	Date	Location	Cause	Estimated Volume (MG)
0	6/20/2018 11:09:00 AM - 6/20/2018 11:35:00 AM	Sanitary Manhole #317D194 approx. 330' south of the intersection of N. Lincoln Memorial Dr. and E. Ravine Rd.	Plugged Sewer	0.0007 - 0.0007
1	6/18/2018 3:20:00 PM - 6/18/2018 3:37:00 PM	North 75th Street and West Hadley Street (Permit No. 062)	Rain	0.0399 - 0.0399
2	6/18/2018 3:40:00 PM - 6/18/2018 3:50:00 PM	West Potomac Avenue and 350' NW of West Glendale Avenue (Permit No. 239)	Rain	0.0144 - 0.0144
3	6/18/2018 3:40:00 PM - 6/18/2018 4:02:00 PM	North 21st Street and West Hampton Avenue (Permit No. 059)	Rain	0.0302 - 0.0302
4	6/18/2018 3:18:00 PM - 6/18/2018 3:27:00 PM	North 27th Street and West Hope Avenue (404' s/o) (Permit No. 219)	Rain	0.0018 - 0.0018

Compliance Maintenance Annual Report

Milwaukee, City

Last Updated: Reporting For:
5/21/2019 **2018**

5	6/18/2018 3:18:00 PM - 6/18/2018 5:27:00 PM	West Potomac Avenue and West Chapman Place (Permit No. 216)	Rain	0.1468 - 0.1468
6	6/18/2018 3:40:00 PM - 6/18/2018 5:03:00 PM	North 20th Street and West Hampton Ave (nw/s) (Permit No. 023)	Rain	0.0530 - 0.0530
7	6/18/2018 3:31:00 PM - 6/18/2018 5:08:00 PM	North 72nd Street and West Hope Avenue (Permit No. 214)	Rain, Equipment Failure	0.1270 - 0.1270
8	6/18/2018 3:40:00 PM - 6/18/2018 4:18:00 PM	North 41st Street and West Congress Street (N/S) (Permit No. 014)	Rain	0.0231 - 0.0231
9	6/18/2018 3:25:00 PM - 6/18/2018 5:56:00 PM	North 72nd Street and West Capitol Drive (Permit No. 215)	Rain, Flooding	0.1810 - 0.1810
10	6/18/2018 3:40:00 PM - 6/18/2018 4:00:00 PM	North 20th Street and West Hampton Avenue (S/S) (Permit No. 024)	Rain	0.0126 - 0.0126
11	6/18/2018 3:20:00 PM - 6/18/2018 5:20:00 PM	North 86th Street and West Center Street (Permit No. 199)	Rain	0.1467 - 0.1467
12	6/18/2018 3:40:00 PM - 6/18/2018 3:53:00 PM	North 76th Street (W/S) and West Glendale Street (Permit No. 234)	Rain	0.0218 - 0.0218
13	7/7/2018 8:58:00 AM - 7/7/2018 10:07:00 AM	Sanitary Manhole #318A001 approx. 170' northeast of the intersection of N. Lincoln Memorial Dr. and E. Bellevue Pl.	Powerout, Equipment Failure	0.0013 - 0.0013
14	7/7/2018 8:58:00 AM - 7/7/2018 10:07:00 AM	Sanitary Manhole #318A002 approx. 460' northeast of the intersection of N. Lincoln Memorial Dr. and E. Bellevue Pl.	Powerout, Equipment Failure	0.0013 - 0.0013
15	7/7/2018 8:58:00 AM - 7/7/2018 10:07:00 AM	Sanitary Manhole #318A003 approx. 715' northeast of the intersection of N. Lincoln Memorial Dr. and E. Bellevue Pl.	Powerout, Equipment Failure	0.0027 - 0.0027
16	8/20/2018 10:15:00 PM - 8/20/2018 10:50:00 PM	West Potomac Avenue and 350' nw/o West Glendale Avenue (Permit No. 239)	Rain	0.0131 - 0.0131
17	8/20/2018 10:15:00 PM - 8/20/2018 10:50:00 PM	North 76th Street (W/S) and West Glendale Street (Permit No. 234)	Rain	0.0089 - 0.0089
18	8/20/2018 10:15:00 PM - 8/20/2018 10:50:00 PM	North 66th Street and West Ruby Avenue (Permit No. 223)	Rain	0.0155 - 0.0155
19	8/20/2018 10:09:00 PM - 8/20/2018 10:42:00 PM	West Potomac Avenue and West Chapman Place (Permit No. 216)	Rain	0.0143 - 0.0143
20	8/20/2018 10:14:00 PM - 8/20/2018 10:58:00 AM	North 72nd Street and West Capitol Drive (Permit No. 215)	Rain	0.0535 - 0.0535
21	8/20/2018 10:17:00 PM - 8/20/2018 10:38:00 PM	North 72nd Street and West Hope Avenue (Permit No. 214)	Rain	0.0011 - 0.0011
22	8/20/2018 10:15:00 PM - 8/20/2018 10:50:00 PM	North 20th Street and West Hampton Avenue (S/S) (Permit No. 024)	Rain	0.0198 - 0.0198
23	8/20/2018 10:15:00 PM - 8/20/2018 11:02:00 PM	North 20th Street and West Hampton Ave (nw/s) (Permit No. 023)	Rain	0.0304 - 0.0304
24	8/20/2018 10:15:00 PM - 8/20/2018 10:50:00 PM	North 41st Street and West Congress Street (N/S) (Permit No. 014)	Rain	0.0148 - 0.0148
25	8/26/2018 11:35:00 PM - 8/27/2018 12:05:00 AM	West Potomac Avenue and 350' nw/o West Glendale Avenue (Permit No. 239)	Rain	0.0174 - 0.0174
26	8/26/2018 11:37:00 PM - 8/27/2018 12:03:00 AM	West Potomac Avenue and West Chapman Place (Permit No. 216)	Rain	0.0086 - 0.0086
27	8/26/2018 11:35:00 PM - 8/27/2018 12:05:00 AM	N. 62nd Street and W. Fairmount Avenue (Permit No. 232)	Rain	0.0104 - 0.0104

Compliance Maintenance Annual Report

Milwaukee, City

Last Updated: Reporting For:
5/21/2019 **2018**

28	8/26/2018 11:35:00 PM - 8/27/2018 12:25:00 AM	North 76th Street (W/S) and West Glendale Street (Permit No. 234)	Rain	0.0843 - 0.0843
29	8/26/2018 11:43:00 PM - 8/26/2018 11:55:00 PM	North 72nd Street and West Hope Avenue (Permit No. 214)	Rain	0.0037 - 0.0037
30	8/26/2018 11:41:00 PM - 8/27/2018 12:20:00 AM	North 72nd Street and West Capitol Drive (Permit No. 215)	Rain	0.0472 - 0.0472
31	8/26/2018 11:41:00 PM - 8/27/2018 12:55:00 AM	North 20th Street and West Hampton Avenue (S/S) (Permit No. 024)	Rain	0.0475 - 0.0475

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

What actions were taken, or are underway, to reduce or eliminate SSO or TFO occurrences in the future?

The City continues to 1. Implement aggressive inflow and infiltration reductions programs, 2. Clean and televise its sanitary sewer system to identify and prevent blockages.

5. Infiltration / Inflow (I/I)

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

- Yes
 No

If Yes, please describe:

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

- Yes
 No

If Yes, please describe:

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

There are no I/I changes from the previous year.

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

1. Flow monitoring 2. Manhole inspections 3. Manhole rehab 4. Sanitary sewer lining projects 5. Working with MMSD on CMOM and the 2020 Facilities Plan.

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

Compliance Maintenance Annual Report

Milwaukee, City

Last Updated: Reporting For:
5/21/2019 **2018**

Grading Summary

WPDES No: 0047341

SECTIONS	LETTER GRADE	GRADE POINTS	WEIGHTING FACTORS	SECTION POINTS
Financial	A	4	1	4
Collection	A	4	3	12
TOTALS			4	16
GRADE POINT AVERAGE (GPA) = 4.00				

Notes:

- A = Voluntary Range (Response Optional)
- B = Voluntary Range (Response Optional)
- C = Recommendation Range (Response Required)
- D = Action Range (Response Required)
- F = Action Range (Response Required)