

# Compliance Maintenance Annual Report

Milwaukee, City

Last Updated: Reporting For:  
5/26/2017 2016

## 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&amp;M expenses for your wastewater treatment plant AND/OR collection system ?</p> <p><input checked="" type="radio"/> Yes (0 points)</p> <p><input type="radio"/> 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="2016"/></p> <p><input checked="" type="radio"/> 0-2 years ago (0 points)</p> <p><input type="radio"/> 3 or more years ago (20 points)</p> <p><input type="radio"/> N/A (private facility)</p> <p>2.3 Did you have a special account (e.g., CWWP 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><input checked="" type="radio"/> Yes (0 points)</p> <p><input type="radio"/> No (40 points)</p>	0															
<p><b>REPLACEMENT FUNDS [PUBLIC MUNICIPAL FACILITIES SHALL COMPLETE QUESTION 3]</b></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="2016"/></p> <p><input checked="" type="radio"/> 1-2 years ago (0 points)</p> <p><input type="radio"/> 3 or more years ago (20 points)</p> <p><input type="radio"/> 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: 10%; text-align: right;">\$</td> <td style="width: 30%; text-align: right;"><input style="width: 150px;" 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: right;"><input style="width: 150px;" 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: right;"><input style="width: 150px;" 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: right;"><input style="width: 150px;" type="text" value="735,607.00"/></td> </tr> <tr> <td></td> <td style="text-align: right;">+</td> <td style="text-align: right;"><input style="width: 150px;" type="text" value="735,607.00"/></td> </tr> </table>	3.2.1 Ending Balance Reported on Last Year's CMAR	\$	<input style="width: 150px;" 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: 150px;" type="text" value="0.00"/>	3.2.3 Adjusted January 1st Beginning Balance	\$	<input style="width: 150px;" type="text" value="300,000.00"/>	3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)	\$	<input style="width: 150px;" type="text" value="735,607.00"/>		+	<input style="width: 150px;" type="text" value="735,607.00"/>	
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3.2.5 Subtractions from Fund (e.g., equipment replacement, major repairs - use description box 3.2.6.1 below\*) -

\$ 735,607.00

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 and 2) Purchase of sewer maintenance and safety equipment: confined space safety harness, jet nozzles, gas monitors, sewer cleaner vac-jet, small dumps and two vehicles.

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 program. From 2016 to 2021, our six year Capital Improvement Program is \$193,000,000. This amount is for replacement of the City's combined, sanitary and storm sewers. Of that amount, approximately \$7,000,000 is budgeted for the sanitary sewer system rehabilitation each year.	7,000,000	2016

## 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:

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	Electricity Consumed (kWh)	Natural Gas Consumed (therms)
January	27,025	4
February	24,081	3
March	20,946	22
April	20,391	3
May	15,572	7
June	14,746	4
July	13,919	3
August	13,869	4
September	14,468	2
October	14,960	2
November	15,025	6
December	22,731	8
Total	217,733	68
Average	18,144	6

## 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:

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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?

- 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

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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:

To efficiently collect and convey all of our customer's 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

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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	46.31	% of system/year
Root removal	.50	% of system/year
Flow monitoring	.82	% of system/year
Smoke testing	0	% of system/year
Sewer line televising	10	% of system/year
Manhole inspections	18.42	% of system/year
Lift station O&M	12	# per L.S./year
Manhole rehabilitation	2.86	% of manholes rehabbed
Mainline rehabilitation	1.89	% of sewer lines rehabbed
Private sewer inspections	0	% of system/year

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Private sewer I/I removal	<input style="width: 80%;" type="text" value="0"/>	% of private services
River or water crossings	<input style="width: 80%;" type="text" value="0"/>	% of pipe crossings evaluated or maintained
Please include additional comments about your sanitary sewer collection system below:		
<input style="width: 100%;" type="text"/>		

### 3. Performance Indicators

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

<input style="width: 80%;" type="text" value="29.29"/>	Total actual amount of precipitation last year in inches
<input style="width: 80%;" type="text" value="34.76"/>	Annual average precipitation (for your location)
<input style="width: 80%;" type="text" value="945"/>	Miles of sanitary sewer
<input style="width: 80%;" type="text" value="7"/>	Number of lift stations
<input style="width: 80%;" type="text" value="1"/>	Number of lift station failures
<input style="width: 80%;" type="text" value="1"/>	Number of sewer pipe failures
<input style="width: 80%;" type="text" value="23"/>	Number of basement backup occurrences
<input style="width: 80%;" type="text" value="1442"/>	Number of complaints
<input style="width: 80%;" type="text"/>	Average daily flow in MGD (if available)
<input style="width: 80%;" type="text"/>	Peak monthly flow in MGD (if available)
<input style="width: 80%;" type="text"/>	Peak hourly flow in MGD (if available)

3.2 Performance ratios for the past year:

<input style="width: 80%;" type="text" value="0.14"/>	Lift station failures (failures/year)
<input style="width: 80%;" type="text" value="0.00"/>	Sewer pipe failures (pipe failures/sewer mile/yr)
<input style="width: 80%;" type="text" value="0.01"/>	Sanitary sewer overflows (number/sewer mile/yr)
<input style="width: 80%;" type="text" value="0.02"/>	Basement backups (number/sewer mile)
<input style="width: 80%;" type="text" value="1.53"/>	Complaints (number/sewer mile)
<input style="width: 80%;" type="text"/>	Peaking factor ratio (Peak Monthly: Annual Daily Avg)
<input style="width: 80%;" 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	04/04/2016 11:50:00 AM - 04/04/2016 2:45:00 PM	Permit No. 239 Overflow structure on West Potomoc Ave and 350 feet northwest of W. Glendale Avenue	Plugged Sewer	0.0653 - 0.0653
1	05/17/2016 4:30:00 PM - 05/17/2016 10:00:00 PM	Manhole approx 160 feet east of the intersection of N Gordon Place and E Concordia Avenue	Plugged Sewer	0.0007 - 0.0007
2	06/03/2016 3:45:00 AM - 06/03/2016 8:00:00 AM	Manhole #318A0005, approximately 1000 feet northeast of the intersection of N. Lincoln Memorial Dr and E. Bellevue Place	Equipment Failure	0.0085 - 0.0085
3	06/03/2016 3:45:00 AM - 06/03/2016 8:00:00 AM	Sanitary Manhole #318A0002, approx 400 feet northeast of the intersection of N. Lincoln Memorial Dr and E. Bellevue Place	Equipment Failure	0.0086 - 0.0086
4	06/03/2016 3:45:00 AM - 06/03/2016 8:00:00 AM	Sanitary Manhole #318A0004, approx. 800 feet northeast of the intersection of N. Lincoln Memorial Dr and E. Bellevue Place.	Equipment Failure	0.0086 - 0.0086

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5	09/07/2016 5:30:00 PM - 09/07/2016 7:00:00 PM	Permanent Overflow structure, Permit No.074, at S 99th St and W. Oklahoma Ave.	Rain	0.0782 - 0.0782
<p>** If there were any SSOs or TFOs that are not listed above, please contact the DNR and stop work on this section until corrected.</p>				
<p>What actions were taken, or are underway, to reduce or eliminate SSO or TFO occurrences in the future?</p>				
<p>The city continues to 1. implement aggressive inflow and infiltration reduction program 2. clean and televise its sanitary sewer system to identify and prevent blockages.</p>				
<p>5. Infiltration / Inflow (I/I)</p>				
<p>5.1 Was infiltration/inflow (I/I) significant in your community last year?</p>				
<p><input type="radio"/> Yes</p>				
<p><input checked="" type="radio"/> No</p>				
<p>If Yes, please describe:</p>				
<p></p>				
<p>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?</p>				
<p><input type="radio"/> Yes</p>				
<p><input checked="" type="radio"/> No</p>				
<p>If Yes, please describe:</p>				
<p></p>				
<p>5.3 Explain any infiltration/inflow (I/I) changes this year from previous years:</p>				
<p></p>				
<p>There are no I/I changes from the previous year.</p>				
<p>5.4 What is being done to address infiltration/inflow in your collection system?</p>				
<p></p>				
<p>1. Flow monitoring 2. Manhole Inspections 3. Manhole Rehab 4. Implement sanitary sewer lining projects 5. Working with MMSD on CMOM and the 2020 Facilities Plan.</p>				

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



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## 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)

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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):

Financial Management: Grade = A

Collection Systems: Grade = A

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

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO THE OVERALL  
GRADE POINT AVERAGE AND ANY GENERAL COMMENTS

(Optional for G.P.A. greater than or equal to 3.00, required for G.P.A. less than 3.00)

G.P.A. = 4.00