MMSD
PARTNERS FOR A CLEANER ENVIRONMENT

Kevin L. Shafer, P.E.
Executive Director

June 28, 2013

Mr. Theera Ratarasarn, P.E.
Wisconsin Department of Natural Resources
2300 North Dr. Martin Luther King, Jr. Drive
P. O. Box 12436
Milwaukee, WI 53212

SUBJECT: Capacity, Management, Operation and Maintenance (CMOM) Program Annual Report – 2012 WPDES No. WI-0036820-03-0

Dear Mr. Ratarasarn:

Please find enclosed three copies of the District's Capacity, Management, Operation and Maintenance (CMOM) Program Annual Report for 2012 as required by our Wisconsin Pollutant Discharge Elimination System (WPDES) Permit No. WI-0036820-03-0. All of the CMOM Program annual reports, along with the original CMOM Program documentation submitted to you in June 2007 are also available on the District's public website at v3.mmsd.com/CMOM.aspx.

If you have any questions, please call me at (414) 225-2088.

Sincerely,

Kevin L. Shafer, P.E.
Executive Director

Enclosure

Capacity, Management, Operation and Maintenance (CMOM) Program Annual Report for 2012

Milwaukee Metropolitan
Sewerage District

June 2013

TABLE OF CONTENTS

Section 1: Program Overview
Section 2: Management Plan
Section 3: Asset Management Plan
Section 4: Overflow Response Plan
Section 5: System Evaluation and Capacity Assurance Plan
Section 6: Communication Plan
Section 7: Audit Plan

Attachment 1: CMOM Performance Measures
Attachment 2: Changes to CMOM Management Plan
Attachment 3: Separate Sewer Outfall Locations
Attachment 4: Combined Sewer Outfall Locations
Attachment 5: Satellite Municipality Phone List
Attachment 6: District Situational Contact List

SECTION 1: PROGRAM OVERVIEW

The Milwaukee Metropolitan Sewerage District (District) developed and submitted to the Wisconsin Department of Natural Resources (WDNR) documentation of its Capacity, Management, Operation and Maintenance (CMOM) Program in June 2007. To oversee and assist with efforts related to the CMOM Program development and implementation, a CMOM Program Committee consisting of District Staff from the Technical Services, Legal Services, and Water Quality Protection Divisions was created. This committee now also includes staff from the Planning, Research and Sustainability Division, which was split from the Technical Services Division in 2009. Changes to the Program are made through consensus of the committee. The CMOM Committee also provides oversight on the preparation of the CMOM Program Annual Report.

The District determined the CMOM Program would be implemented for the three main areas of operations: wastewater conveyance, wastewater treatment and watercourse systems. Further, the District viewed the CMOM Program implementation as an opportunity to (1) audit its practices and documentation, (2) bring the documentation under one umbrella to ensure consistent practices, and (3) improve its management of capital assets.

The CMOM Program is used as a method for the District to document current and proposed activities that are intended to help the District achieve goals related to overflows, effluent quality, and watercourse flooding. In addition, the annual reporting and auditing effort allows periodic assessment of practices and procedures and implementation of systematic improvements.

1.1 REPORT PURPOSE

The CMOM Program Annual Report provides summary descriptions of CMOM Program activities (past and planned) and is intended to be a communication tool. The report is intended for District staff, regulatory authorities, customers, and the general public. The report serves four general purposes:

1. To provide an overview of the activities completed under the CMOM Program on an annual basis;
2. To describe and document changes to the CMOM Program documentation on an annual basis, which may include changes to objectives, strategies, tactics, and performance measures;
3. To describe the activities that are planned or currently being undertaken under the CMOM Program; and
4. To meet the requirements of the District's Wisconsin Pollutant Discharge Elimination System (WPDES) Permit with the Wisconsin Department of Natural Resources (WDNR) under section 4.3 Asset Management, which states "By June 30 of each year the Permittee will complete and submit to the Department a CMOM update report."

The report consists of this Program Overview section plus one section for each of the CMOM Program Plans which are summarized below.

1.2 PROGRAM SUMMARY BY PLAN

The District's CMOM Program includes a Management Plan, Asset Management Plan, Overflow Response Plan, System Evaluation and Capacity Assurance Plan (SECAP), Communication Plan and Audit Plan. A general description of each plan is included immediately below. Significant activities that took place in 2012 under each plan are discussed in the individual chapters devoted to each plan. Performance measures are included in the CMOM Program under the Management Plan, and are included as Attachment 1.

Management Plan

The Management Plan describes the goals and objectives of the District related to conveyance, treatment plant and watercourse systems, the strategies and tactics the District is employing to achieve the goals, and the performance measures being used to assess attainment of the goals.

The goals of the CMOM Program for the District are divided into four areas: 1) Overall; 2) Conveyance; 3) Treatment; and 4) Watercourse

The goal and objectives for each of the four areas are listed below.

Overall Goal

> By June 2007, MMSD will develop and implement a cost-effective CMOM Program based upon best practices for wastewater conveyance, wastewater treatment and watercourse management, which results in maximizing the capacity of the existing and planned facilities to convey and treat wastewater, providing flood management, and improving water quality in the MMSD service area. The program must be consistent with goals from other MMSD policies and facilities plans.

Overall Objectives

1. Enable implementation of the CMOM Program within the District organizational structure
2. Communicate the goals and objectives of the CMOM Program to internal and external stakeholders, monitor the CMOM Program implementation, and institute program modifications
3. Continue to maintain adequate financial planning
4. Continue to comply with regulatory requirements
5. Establish a regional CMOM program
6. Continue to maintain a safe work environment and sustain a competent workforce

Conveyance Goal

> By June 30, 2007, MMSD will implement a CMOM Program with the intent of eliminating all SSOs except those caused by circumstances as defined by Title 40 of the Code of Federal Regulations (CFR) §122.41 (m) (4), and minimizing CSOs in accordance with the current discharge permit.

Conveyance Objectives

1. Establish CMOM program elements specific to minimizing the number and volume of CSOs
2. Address peak wet weather flows from satellite systems that impact the District's system
3. Where possible, establish additional practices to prevent SSOs, maintain or improve system performance, and avoid preventable failures
4. Continue to establish and document level of protection, design, and performance standards for new conveyance assets constructed in the District service area
5. Minimize the cost of conveyance asset ownership while maintaining necessary stewardship of assets and achieving defined protection levels
6. Enhance District level of knowledge and understanding of wet weather flows and system response to precipitation and other factors
7. Provide information receipt, response activity, and feedback regarding customer inquiries

Treatment Goal

By 2007, the MMSD will implement a CMOM Program for cost-effective wastewater treatment that will achieve and sustain:

- Effluent, biosolids, and air emissions quality meeting or exceeding regulatory and permit requirements
- Sustain operational readiness, reliability, and redundancy for liquid and solids processing
- Achieve asset management implementation
- Improve coordination of wastewater treatment plant operations with collection system facilities and staff
- Improve proper work management related to maintenance

Treatment Objectives

1. Continue to provide effluent quality that meets or exceeds WPDES permit requirements and effluent quality goals
2. Continue to optimize effectiveness of wet weather treatment capacity
3. Continue to manage bio-solids in a manner that maximizes beneficial reuse
4. Continue to document level of protection, design and performance standards for new treatment plant assets
5. Minimize the cost of wastewater treatment asset ownership while maintaining necessary stewardship of assets and achieving defined protection levels

Watercourse Goal

MMSD will implement a CMOM Program intended to minimize the risk of flooding associated with the one percent probability flood event to habitable structures along jurisdictional streams in an environmentally responsible and cost-effective manner, through updating and implementing its Watercourse Management Plan.

Watercourse Objectives

1. Within jurisdictional streams, cost-effectively remove or reduce the consequences to habitable structures from flooding associated with the District's one-percent probability flood event
2. Reduce the likelihood of new habitable structures being added to the District's one-percent probability floodplain
3. Establish and document level of protection, design, and performance standards for new assets in the watercourse system
4. Minimize the cost of watercourse asset ownership while maintaining necessary stewardship of assets and achieving defined protection levels
5. Continue to be a leader in the effort to improve the area's water quality
6. Provide information receipt, response activity, and feedback regarding customer inquiries on the watercourse systems

Performance Measures

A complete list of the performance measures and the value/status for 2010 through 2012 is included in Attachment 1. The purpose of the performance measures is to track District activities over time and gauge achievement of District objectives.

Some of the performance measures have been selected as key performance measures to be used to quickly gauge the overall performance of the District in the areas of Organization, System Performance, Satellite Municipalities, and Customer Service. These key performance measures are shown in Table 1 on Page 1-6.

Asset Management Plan

The Asset Management Plan describes the objectives, strategies, and tactics specifically related to asset management in more detail than is described in the Management Plan. These objectives are related to asset information, asset maintenance, asset rehabilitation and replacement, levels of service, and cost minimization.

The District has a 10-year agreement (Agreement) with Veolia Water Milwaukee (Veolia) for the operation and maintenance of the conveyance and treatment facilities that went into effect on March 1, 2008 and expires on February 28, 2018. Because of their responsibilities outlined in the Agreement, many of the District's asset maintenance objectives related to these facilities are being met by Veolia.

Overflow Response Plan

The Overflow Response Plan describes the measures the District has put in place to be aware of, respond to, and provide notification of overflows from the District system.

Veolia has the equipment and personnel, and is required by the District (through the Agreement for operation and maintenance services), to be the first responder for emergencies and overflows from the conveyance system. As the Agreement was developed during 2007, language was included that requires Veolia to have emergency, separate sewer overflow (SSO), and combined sewer overflow (CSO) response plans in place. In 2008, Veolia submitted their overflow and emergency response plans to the District and has been updating these plans annually.

Veolia is not responsible for responding to watercourse issues with the exception of the stormwater pumping station located at North 42nd Street & West Mt Vernon Avenue in the City of Milwaukee. In 2009, the District completed a watercourse emergency response plan, which is put into place when there is the threat of severe rain, flooding, or issuance of a flood warning by the National Weather Service. In 2011 the District prepared an Emergency Action Plan (EAP) for the Milwaukee County Grounds Dam. The EAP describes actions to be taken during an unusual or emergency event at the Milwaukee County Grounds Dam.

System Evaluation and Capacity Assurance Plan (SECAP)

The SECAP describes actions the District has taken and will take to determine capacity requirements, evaluate system capacity, and undertake capacity enhancement measures.

The District completed and submitted the 2020 Facilities Plan (2020 FP) to the WDNR in June of 2007. The 2020 FP was a broad-scope effort and looked not only at facilities required for the District to provide services, but also at methods of improving the quality of the region's water resources. As part of the 2020 FP development process, an analysis of the capacity requirements and available storage and capacity was performed to determine additional facilities needed through the year 2020. The 2020 FP recommended additional treatment and conveyance facilities that may be needed, depending on several factors, including population growth, additional monitoring and analysis, success of I/I reduction efforts, etc. The District continues to perform individual capacity analyses and studies in the conveyance and treatment system as described in Section 5.

The District also has previously completed Watercourse System Plans that outlined the efforts needed to provide flood flow conveyance and protect habitable structures from flood flows.

Communication Plan

The Communication Plan serves to document the types and frequency of communications that will be prepared and distributed regarding the CMOM Program and CMOM Program Annual Report.

Audit Plan

The Audit Plan serves to define the method, responsibilities, timeline, and documentation that will be used to complete an audit of the District CMOM Program. The first audit of the CMOM program was performed in 2012. The process, findings and actions to be taken based on the audit results are described in Section 7.

Table 1: Key Performance Measures

Performance Measure			2012 Value/Status	Evaluation
Organization				
1	*Organizational Best Practices Index*[1]		27	District is better than 50th percentile in benchmark survey (25.5)[2]
2	*Bond Ratings*		AAA (Fitch), Aaa (Moody's), AA+ (S&P)	Fitch and Moody's are at top grade, S&P is one step below top grade
3	*Employee Health and Safety Severity Rate*[3]		1.9	0.0 is the best value attainable
System Performance				
4	*Volume of wet weather SSOs where the event-generated flow is less than the WDNR approved Level of Protection*		0.016 MG	One SSO of 16,250 gallons was reported in 2012
5	*Percent of time effluent is in compliance with WPDES permit limits*		100%	
6	*Conveyance System Integrity*[4]		0.0 failures /100 miles of piping	No known pipe failures. District is better than 75th percentile in benchmark survey (0.9 failures/100 miles of piping)[5]
7	*Annual number of habitable structures removed from the District's one-percent probability floodplain*		32	
8	*Number of building backups caused by the loss of capacity or function of a District facility*		0	
Satellite municipalities				
9	*Satellite CMOM & Wet Weather Peak Flow Management Plan (WWPFMP) development*			
	2012	*Review of annual satellite CMOM reports*	Yes	
		District action taken for satellite reporting issues	Yes	
		Review of WWPFMP monitoring data	Yes	
		District action taken with respect to peak flow performance standards	Yes	The District is monitoring and reviewing actions taken by municipalities with non-compliant metersheds
Customer Service				
10	*Percent of inquiry documentation completed (conveyance and watercourse)*		94%	

[1] Benchmark is defined in *Benchmarking Performance Indicators for Water and Wastewater Utilities: 2007 Annual Survey Data and Analyses Report, Copyright 2008, American Water Works Association.*

[2] Value of 25.5 is from *Benchmarking Performance Indicators for Water and Wastewater Utilities : 2007 Annual Survey Data and Analyses Report*

[3] Benchmark is defined in *Benchmarking Performance Indicators for Water and Wastewater Utilities: 2007 Annual Survey Data and Analyses Report.*

[4] Benchmark is defined in *Benchmarking Performance Indicators for Water and Wastewater Utilities: 2007 Annual Survey Data and Analyses Report.*

[5] Value of 0.9 failures/100 miles of piping is from *Benchmarking Performance Indicators for Water and Wastewater Utilities: 2007 Annual Survey Data and Analyses Report*

SECTION 2: MANAGEMENT PLAN

This section of the report discusses changes to the defined performance measures and evaluation of the District's performance using the defined measures. Review of performance using defined measures is intended to be an evaluation of the District's status with respect to achieving its goals and objectives. The review then provides impetus to continue existing strategies and tactics or to modify them to better achieve the objectives.

2.1 PERFORMANCE MEASURES

Performance measures were originally defined in section 2.2.6 of the CMOM Program documentation submitted to the WDNR in June 2007. There were modifications to the performance measures that were included in the annual reports submitted to the WDNR in 2008, 2009 and 2010.

2.1.1 CHANGES TO THE DEFINED PERFORMANCE MEASURES

Changes have been made to the format of the performance measures to make the measures easier to review and reference. All of the previous information is retained; only the formatting has been modified.

Several performance measures were removed from Attachment 1 that were duplicated under both the Overall service area and Treatment service area. And one performance measure was removed from Attachment 1 that was duplicated under both the Overall service area and the Conveyance service area. The measures were removed from the Overall service area and retained in the respective Conveyance or Treatment service area. The measures are listed below.

- Percent of time effluent BOD is in compliance with WPDES permit limits
- Percent of time effluent fecal coliform count is in compliance with WPDES permit limits
- Percent of time effluent TSS is in compliance with WPDES permit limits
- Number of wet weather sanitary sewage overflows occurring more frequently than the WDNR approved Level of Protection (Level of Protection is defined as the 5-year wastewater recurrence interval)

The language for one performance measure was revised. The performance measure referenced objective 2.2.1.1.2. Since there is only one annual CMOM report prepared the measure was revised from a percentage of reports completed to a value of yes/no. The original measure is listed below.

- Percent of annual reports completed on time

The revised language is as follows.

- Annual CMOM report completed on time

2.1.2 EVALUATION OF 2012 PERFORMANCE BASED ON THE DEFINED MEASURES

All of the individual performance measures and the value or status for the years 2010 through 2012 is included in Attachment 1 to this report. A review of recent performance measures indicates the following District strengths, areas in which improvements have been made and areas in which improvements should be focused.

District Strengths

- Treatment plant effluent quality
- Achieving objectives related to overflows
- Managing operation of the Inline Storage System
- Beneficial reuse of biosolids
- Financial status

Improvements Made

- Condition monitoring (percent of conveyance assets with a defined condition and management method)
- Achieving annual target for removing habitable structures from the floodplain

Improvements Desired

- Developing guidelines for conducting Business Case Analysis
- Reducing backlog of construction project updates to the geographic information system (GIS)
- Condition monitoring of treatment plant and watercourse assets
- Percent of documented inquiries with a documented response (conveyance)
- Number of CM work orders older than 90 days (treatment plant equipment)

2.2 MANAGEMENT PLAN REVISIONS

There were no changes made to the District's objectives, strategies, or tactics during 2012. The only revision to the performance measures referenced objective 2.2.1.1.2 and involved revised wording of the measure. The change is described above under Changes to the Defined Performance Measures.

SECTION 3: ASSET MANAGEMENT PLAN

The District has determined that a key component of the CMOM Program is the development, implementation and maintenance of an Asset Management Program. To oversee and assist with efforts related to the Asset Management Program, an Asset Management Team has been developed. The Asset Management Team includes personnel from the areas of Planning, Accounting, Facilities Information, Contract Compliance, Technical Services and Capital Program Business Administration as well as staff from Veolia.

The Asset Management Plan was created to identify the steps required to implement and maintain the Asset Management Program. The Asset Management Plan is intended to be regularly updated as the implementation and utilization of asset management increases throughout the District. The first significant updates to the plan will take place as part of the 2013 audit implementation.

Objectives were identified in the Asset Management Plan and are discussed below along with activities completed in each area in 2012. Objectives were grouped into foundation work (immediate), near-term, and long-term.

3.1 FOUNDATION WORK (IMMEDIATE OBJECTIVES)

The District's foundation work asset management objectives include: 1) Vision and Support; 2) Plan Organization; 3) Plan Communication; 4) Plan Development; and 5) Immediate Gains. Each objective is discussed below.

Vision and Support

The key objectives include gaining understanding and obtaining support from District management and the Commission, and establishing relationships between levels of protection and costs. All of these objectives were met to a degree by the end of 2007. The District received support from District management and the Commission, and the relationship between level of protection and cost was addressed in the 2020 FP. Additional detail is required to define level of protection requirements at an asset level to incorporate this factor in asset rehabilitation and replacement planning. It is intended to incorporate this need in the next FP which will begin in 2014.

Plan Organization

This objective required the establishment of the Asset Manager position and chartering the Asset Management Team, both of which occurred prior to the end of 2007. The 2012 CMOM audit identified the need for additional resources to fully implement the Asset Management Program. Additional staffing for asset management will be requested in the 2014 budget.

Plan Communication

This objective required the identification and interests of key stakeholders, which has mostly occurred. In 2008, the District's internal CMOM web page was implemented and used to post information related to the documentation and implementation of the CMOM Program. This continued in 2012 with the posting of additional information and reports on the internal and external web pages. In addition, multiple internal staff meetings were held with various stakeholders to discuss asset management related processes and documentation.

Plan Development

This objective dealt with developing an Asset Management Plan (AMP). By virtue of the CMOM Program documentation submitted in 2007, this objective has been completed. Being part of the CMOM Program, the AMP is set up to be continually practiced and improved, and to receive periodic reviews for updates to the documentation. Based on the 2012 CMOM audit recommendations the AMP will be revised under the audit implementation in 2013.

Immediate Gains

Immediate gains were expected to be realized through utilizing the Business Case Analysis (BCA) process, which defines objectives and drivers for each project and alternative approaches to meet objectives. The ultimate outcome of applying the BCA process is to ensure projects that are undertaken have valid business objectives, the project will meet the objectives, and the project will be completed cost-effectively. The BCA process is expected to be developed in the future as part of the capital improvement program.

3.2 NEAR-TERM AND LONG-TERM OBJECTIVES

The District's near-term and long-term objectives include asset knowledge, planning, refurbishment and replacement, asset development, condition monitoring, operations and maintenance, financing, financial reporting, and the asset information management system (AIMS). The foundation for addressing these objectives was laid in 2007 through the development and documentation of the AMP, as well as including asset monitoring and maintenance requirements in the Agreement with Veolia. These objectives were under various states of activity in 2012 with the following areas highlighted below: Asset knowledge, asset development, condition monitoring.

Asset Knowledge

Asset knowledge was defined to include five objectives:

1. Define the minimum level of detail for an asset.
2. Establish a uniform asset enumeration scheme.
3. Identify existing assets and related attributes.
4. Identify the probability and consequence of failure of an asset.
5. Establish the level of AM performed.

Significant activities performed in 2012 addressed objectives 2, 3 and 4 above.

The District is in the process of designing and implementing a new watercourse computerized maintenance management system (CMMS), which began in 2012. The new CMMS will be more compatible with the District's overall asset management system and with other technology upgrades. As part of the design of the new watercourse software, District staff has reviewed and updated the existing asset hierarchy and asset class structure to reflect the current and planned assets. A significant effort is required to reconcile watercourse asset data from several locations and perform field verification prior to importing data into the new CMMS. The CMMS design is anticipated to be completed in 2013 and the asset data review has begun in 2013 and will likely continue into 2014. These steps will result in an accurate asset listing and defined workflows which will allow efficient planning of maintenance and tracking of data for future asset planning.

In 2012, the District has continued the process of reconciling treatment plant asset data by reviewing both the CMMS asset listing and the accounting fixed asset listing. The two lists are compared against each other to obtain a complete list of assets since historically the two lists do not always share a common asset numbering or naming convention. After the comprehensive list of assets is compiled the assets are field verified to confirm they are still in service and to obtain available asset numbering information that is physically attached to the assets. The final step requires updating both the CMMS asset listing and the accounting fixed asset listing with the information obtained from field verification. This step involves adding, removing and updating assets in both databases and creating a common asset naming and numbering convention so the two lists contain the same information and can be cross-referenced in the future. This work is currently being performed by part-time staff with the oversight of the asset management program manager. Work completed to date has been at the Jones Island Water Reclamation Facility (JIWRF), with approximately 75% of the JIWRF assets reconciled through mid-2013. As a result of limited staff availability, this effort will continue through at least 2014 based on current staffing levels.

Veolia began an equipment audit of conveyance field sites in 2012 to ensure the CMMS includes an accurate asset list. The scope of the audit involves visiting conveyance equipment sites, including pump stations, diversion chambers, bypass stations and inline storage system (ISS) drop shaft sites among others. Field staff record assets that are observed at the conveyance sites using the existing asset listing within the CMMS as a reference. The CMMS list is updated by adding, removing and updating assets based on the field observations. More than 50% of the conveyance field sites were audited in 2012. This effort is expected to be completed in 2013. After the audit is completed, a review and update of the conveyance field location hierarchy will be performed and the revised CMMS list will be compared against the accounting fixed asset listing for reconciliation.

Veolia continued their review of plant equipment criticality in 2012; the initial effort began in 2011. This task requires assembling operations and maintenance staff to review plant systems and assets. Assets are assigned weighted scores from a standardized group of categories to determine an overall score which represents the consequences associated with failure of the asset. This allows all assets to be ranked by the same criteria to determine which assets have the highest consequence of failure and are therefore considered the most critical assets to maintain. In 2012 Veolia completed the criticality

review of the South Shore Water Reclamation Facility (SSWRF) and a large portion of the JIWRF. The remainder of the JIWRF is scheduled to be completed in 2013.

Asset Development

Asset development was defined to include five objectives:

1. Develop a systematic approach to creating assets.
2. Consider constructability, maintainability, and operability in the design process.
3. Require that enumeration schemes be followed by designers and contractors.
4. Maximize contractor contribution to asset development.
5. Prepare asset plans coincident with asset delivery.

Significant activities performed in 2012 addressed objectives 2 and 3 above.

During 2012 a significant change was incorporated in the process to identify assets added, modified or removed as part of a capital project. Construction plans and specifications prepared by designers are typically clearly presented and the scope of work is well defined, however the process of breaking a project down into assets had not been incorporated in the design process. This typically resulted in assets being identified and assigned CMMS and fixed asset numbers at the end of construction. Assigning assets at this late stage of a project did not allow optimal time to discuss asset operating and maintenance requirements, limited the ability to obtain accurate cost information, and sometimes resulted in the assets not being properly identified and located within the asset hierarchy.

The revised process requires meetings early in the design project between the District project manager, consultant designer, contract operator and District asset management staff to specifically discuss the assets being added, modified or removed on a project. The deliverable from the meetings will be an asset table, prepared by the designer and included in the contract plans, which will provide a listing of all assets included in the project along with some key asset information including hierarchy location, fixed asset number, CMMS number, asset cost and asset description. This revised process has been incorporated into the District Request for Proposal (RFP) standards. The new process will create more detailed discussions on asset maintenance and operation requirements early in the design phase and will also ensure that asset standards regarding naming and enumeration are incorporated at the design phase. A similar process is planned to be incorporated into assets added, modified or removed for non-capital projects in 2013.

Asset Condition Monitoring

Asset Condition Monitoring was defined to include three objectives:

1. Define condition monitoring methods.
2. Define the condition monitoring program.
3. Integrate condition monitoring with other business processes.

Significant activities performed in 2012 addressed objective 1 above.

A significant condition monitoring task was undertaken in 2012; inspection and evaluation of the Inline Storage System (ISS) which is commonly referred to as the deep tunnel. This task was included as a requirement in the District's operating contract with Veolia. The contract required digital video and a written report documenting inspection findings for the mainline ISS tunnels, connecting tunnels (segments which connect the collector system to the ISS) and tunnel access and drop shafts. The inspection video and report were reviewed by District staff to assess tunnel condition. The inspection results identified there have been no significant changes in structural condition or maintenance issues since the last inspection, which was performed in 2002. No structural issues have been identified since the tunnel went online in 1994 that require action other than continued monitoring through routine inspection.

Based on analysis of the inspection findings from 2002 and 2012 and a review of the procedures followed to perform the inspections a list of recommendations has been created which will be incorporated in future tunnel inspections, including the planned 2016 inspection of the Northwest Side Remote Storage (NWSRS). Recommendations include timing of the next ISS inspection, performance monitoring to be incorporated, appurtenant tunnel facilities to be included in future inspections and preliminary investigations that should be performed prior to tunnel inspection.

SECTION 4: OVERFLOW RESPONSE PLAN

The overflow response plan (ORP) included with the CMOM Program documentation includes listings of outfall locations (both SSO and CSO), as well as methods in place for knowing there is an overflow, response procedures, analysis, and public notifications. These plans are in place and are implemented when responding to overflows and emergencies.

4.1 OUTFALL LOCATIONS

As of January 8, 2013 the District's new WPDES permit was finalized. Several changes were incorporated in the new permit regarding SSOs and CSOs. Three SSO sites were transferred to the CSO list based on information provided by the District indicating the sites function as CSOs. The sites are as follows.

- 230 – N Richards St & E Congress St
- 260 – S 6th St & W Oklahoma Ave
- 262 – N 59th St & W Trenton Pl

One site, SSO 205 – W Roosevelt Dr & W Scranton Pl, was removed from the SSO list in the new permit. The bypass pipe to the SSO at the site had previously been bulkheaded since the SSO was determined to not be needed.

No physical changes were made to any other SSOs or CSOs in 2012. The SSO and CSO tables included in this report as Attachments 3 and 4 show the most up-to-date listing of the District's constructed overflow points.

4.2 CONTACT LISTS

The District's list of municipal phone numbers for emergency situations has been updated. The updated list is included as Attachment 5 to this report. The District's situational contact list has been updated and sent out to the satellite municipalities. The contact list is included as Attachment 6 to this report.

4.3 EMERGENCY RESPONSE PREPAREDNESS

In 2008, Veolia submitted an overflow response plan and an emergency response plan. The overflow response plan details the steps to be taken when an overflow is identified, whether it is an SSO or CSO. The steps include notifications, dispatch of crews, containment, and feedback. The emergency response plan includes actions to be taken during various emergency situations, including severe weather, spills of hazardous substances into the conveyance system, power failures, and other treatment plant and conveyance system emergencies that impact the collection, conveyance, and treatment of sewage. Veolia provides annual updates to both the overflow response plan and emergency response plan. Both plans were updated in 2012.

During 2012, Veolia responded to 12 reported spills, 14 odor issues, and 1 report of damage to system equipment among the various items that were reported to them.

With the transition of the operating contract from United Water to Veolia in 2008, the District removed the duties related to watercourse maintenance and responding to watercourse issues and emergencies. With this change, the District began tracking watercourse related emergencies and complaints. In 2012, the District responded to numerous complaints regarding debris and sediment in the watercourse systems, as well as complaints about clogging of the trash racks, among the various items that were reported.

4.4 INCIDENT ANALYSIS

Since 2006, the District has been preparing documentation on pipe breaks, equipment problems, overflows, and those in-plant diversions that are not consistent with the WPDES permit, generally called root cause analyses (RCAs).

2012 Root Cause Analyses

There was one root cause analysis which was started and completed in 2012. On May 6th, 2012, during a wet weather event, the bypass at S 35th St and W Manitoba St (BS0601) activated causing a separate sewer overflow, even though the ISS did not close to separate sewage inflows on this date. An analysis was performed to determine why the bypass activated. It was determined that the overflow was caused by an operation performed by the system operator which resulted in unexpected gate movement at a downstream diversion structure (DC0604). The gate movement was not expected by the operator because the site control logic was changed at some point in time and was not known until investigation of this incident. Recommended changes to prevent a similar occurrence include revising Standard Operating Procedures (SOP) for operation of wet weather diversion sites, which has been implemented, and a review of site control logic at both BS0601 and DC0604 to determine if improvements can be made. The review of control logic at BS0601 and DC0604 has been incorporated into a systematic review of District diversion and bypass sites which was scheduled to begin in 2013.

Prior Root Cause Analyses – Status Update

1. On August 21, 2010, during a wet weather event, the bypass at North Richards Street & West Congress Drive (BS0514) activated even though the ISS drop shaft just upstream of the site was still open and accepting flow. An analysis was begun on this site to determine the causes that triggered the overflow. It was determined that there was no sewage overflow at this location during the August 21, 2010 event; flow observed to be exiting at this location was likely caused by clear water infiltrating the local municipal system. It was also determined that BS0514 does not relieve the MIS system and only provides minimal protection to the municipal systems. Recommendations are to either turn-over the bypass to the tributary municipalities of Milwaukee or Glendale or abandon the bypass if the municipalities do not accept the transfer of ownership. This site has been added to a list of facilities that are proposed to be transferred to tributary municipalities.

The District plans to begin notifying municipalities in 2013, of the District sites which are proposed to be transferred.

SECTION 5: SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

The District completed the 2020 FP in June 2007, with the plan being approved by the Wisconsin Department of Natural Resources in December 2007. This plan addresses the long-term, overall evaluation of the capacity requirements and available capacity of the wastewater system. A number of advanced planning items were identified in the 2020 FP that address specific capacity evaluations. Short descriptions of these and other capacity-related programs and projects that are being undertaken by the District are included below.

The Wet Weather Peak Flow Management Program (WWPFMP)

The objective of the WWPFMP is to manage peak wet weather flows in the tributary municipal sewer systems to levels at or below the performance standards listed in Chapter 3 of the District's Rules. In addition to changing the District rules to require management within the identified performance, the District, working in collaboration with the satellite municipalities, developed a Program that will ensure continued long-term compliance with the peak flows identified for the satellite municipalities.

Efforts that were underway in 2012 include:

- Construction on Phases I, II, and III which will install flow measuring devices at 71 new metering locations and 93 existing sites will be upgraded
- Performing analysis on 32 metersheds using area-velocity data
- Working with municipal officials of the eight municipalities in which metersheds are out of compliance with the peak flow performance standards, based on analyses conducted since 2010, to develop a peak hourly flow rate reduction program to bring the metershed flows into compliance. Overall 24 metersheds are out of compliance, which measure flow from a total of 50 sewersheds.

Adaptive Implementation Plan

The Adaptive Implementation Plan was developed to allow the District to respond to actual changes in population and land use as well as additional data collected through flow monitoring to plan and implement identified projects in a timely manner. By utilizing data to evaluate the region's development and flows in the District conveyance system, it ensures that regional dollars are spent appropriately to meet the needs of the region. Fourteen projects were identified in the development of the 2020 FP. In 2012, it was determined that five of these would no longer need to be reviewed. As a requirement of the new WPDES permit the District will be submitting an annual report to the DNR updating the Adaptive Implementation Plan schedule.

Gravity SSO Conversion to Pump Overflow

The purpose of this project is to evaluate conversion of gravity overflows to pumped overflows. A gravity overflow is currently the relief for many locations in the District system and during severe precipitation events is often impeded from discharging into the

receiving waters because the water level in the receiving water is higher than the water surface elevation in the MIS. This increases the sewage level in the MIS system, potentially increases the sewage level in local systems, and potentially increases the probability of basement backup occurrence.

Demonstration and Installation Projects for Increasing Capacity of the South Shore Water Reclamation Facility

This project consists of developing and pilot testing a biological/physical-chemical process for the treatment of wet weather flows at the South Shore Water Reclamation Facility. This project follows the SSWRF Capacity Analysis and was initiated in 2010. The information obtained from the demonstration project pilot testing will be used for the design of the full-scale wet weather treatment facilities, should they be necessary. Pilot testing was performed using simulated wet weather flow and actual plant wet weather flows in 2011 and 2012. Additional pilot testing will continue in 2013 using actual plant wet weather flows.

Lyons Park Creek Flood Management

The evaluation portion of this project began in 2011 and is scheduled for completion in 2013. This project was initiated based on the results from a District-funded study by SEWRPC in 2009 which updated the floodplain boundary and the number of habitable structures at risk of flooding during a one-percent probability flood flow. The purpose of this part of the project is to develop alternatives to remove habitable structures from the one-percent flood flows along Lyons Park Creek, evaluate these alternatives with project stakeholders and determine the recommended alternative.

Honey Creek Subwatershed Flood Management

The evaluation portion of this project began in 2011 and will continue through 2014. This project was initiated based on the results from a District-funded study by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) in 2009 which updated the floodplain boundary and the number of habitable structures at risk of flooding during a one-percent probability flood flow. The purpose of this part of the project is to develop alternatives to remove habitable structures from the one-percent flood flows along Honey Creek, evaluate these alternatives with project stakeholders and determine the recommended alternative.

Climate Change Planning

The purpose of this project is to perform a Vulnerability Analysis to assess how soon impacts of climate change may materialize at a strong enough level to present a meaningful threat to existing or planned facilities or operations. This analysis will provide information that will be critical to the development of the next phase of facilities planning, which is expected to start in 2014.

SECTION 6: COMMUNICATION PLAN

The Communication Plan documents the types and frequency of communications that are prepared and presented or distributed regarding the implementation of the CMOM Program.

The District conducted several activities during 2012 to communicate the status of its CMOM Program to various stakeholders. The activities included the CMOM conference, which is attended by satellite municipalities, presentations to District staff, submitting the CMOM Program Annual Report to the WDNR, and updating CMOM Program information on the District's web site (both internal and external).

Discussed below are the activities of the communication plan that have been completed during 2012:

- Presentations were given to District staff on July 12, 2012 and September 18, 2012
- The District held a CMOM conference on March 8th, 2012. Public works and engineering staff from the District's satellite municipalities attended. The conference included presentations on manhole and pipeline repair products and different inspection techniques for sewer pipe, among others.
- The CMOM Program Annual Report for 2011 was submitted to the WDNR on June 30, 2012.
- Staff submitted a memorandum to the Commission on August 29th, 2012, which provided a summary and description of the 2011 CMOM Program Annual Report.
- The District's publicly accessible CMOM web page was updated to include the 2011 CMOM Program Annual Report.
- The District updated its internal CMOM web page to include the 2011 CMOM Program Annual Report

SECTION 7: AUDIT PLAN

The Audit Plan is comprised of three sections: (1) Annual updating, which is completed through the Annual Report; (2) Program audit, which is completed through the Program Audit Report and undertaken on a five year cycle, with the first performed in 2012, and (3) Program change procedures, which will be implemented following the Program Audit.

The first CMOM Program Audit was performed in 2012. The audit consisted of a high level review of the entire CMOM Program documentation by the CMOM Committee along with representation from MMSD's contract operator, Veolia, and a municipal staff member. The intent of the audit was to determine if the program accurately reflected the current goals and objectives of the District, determine if the performance measures were meaningful and applicable, identify areas of program improvement and ensure the program complies with recently revised WDNR SSO rules requiring CMOM Programs. Documents which were reviewed as part of the audit include the new WPDES Permit, the District's 2013-2015 Strategic Plan, MMSD's 2035 Vision, MMSD's Sustainability Plan and the WDNR SSO Rules.

Recommendations from the audit will be incorporated in an audit implementation which will be performed in 2013. The audit implementation will present the audit recommendations to key stakeholders for each specific area of the CMOM Program via small focused workshops. The key stakeholders input and comments will be utilized to update the CMOM Program. The final updated CMOM Program Documentation will be reviewed and approved by the CMOM Committee. Revisions from the audit implementation will be incorporated into the CMOM Program documentation and described in the 2013 CMOM Annual Report.

Key recommendations from the audit are listed below and will be addressed with the audit implementation in 2013.

- Include a "roadmap" in CMOM Program introduction to reference the location of WDNR CMOM requirements within the District program documentation.
- Revise CMOM Ch. 8 – Satellite CMOM Effort to coordinate with the new WDNR requirement of CMOM programs for all sewage collection system operators.
- Review and revise performance measures, as required, to ensure they coincide with compliance requirements of the new WPDES permit issued in 2013.
- Develop methods to apply the defined Level of Protection for conveyance, treatment and watercourse systems at the asset level to allow capacity considerations to be included in asset rehabilitation and replacement decision making.
- Create overall standard operating procedures for asset management.

- Incorporate life cycle costing standards into project alternatives analysis and consider use of triple bottom line to include financial, environmental and social considerations.
- Incorporate a performance measure to track energy consumption and type of energy used (landfill gas, natural gas, electric, etc…).
- Review methods of tracking maintenance measures to determine if they provide the most useful information.
- Review current benchmarking measures to determine if a more current and applicable industry benchmark data is available.

ATTACHMENT 1 – CMOM PERFORMANCE MEASURES

Service Area	Functional Area	Reference Objective Glossary table at end of attachment	Measure *indicates the measure is also a benchmark	2010 Status/Value	2011 Status/Value	2012 Status/Value
OVERALL	Communication	2.2.1.1.2	Annual Commission memorandum completed	Yes	Yes	Yes
			Annual staff briefing completed	Yes	Yes	Yes
			Annual TAT briefing completed	Yes	No	Yes
			CMOM page on the District's internal website updated annually to include new reports and communications	Yes	Yes	Yes
			CMOM page on the District's public website updated annually to include new reports and communications	Yes	Yes	Yes
			Annual CMOM report completed on time	100%	100%	Yes[1]
		2.2.1.1.4	Percent of overflow and in-plant diversion events for which a public notification was issued	100%	100%	100%
	Finance	2.2.1.1.3	Bond Ratings*	AAA (Fitch Ratings), Aaa (Moody's), AA+ (S&P)	AAA (Fitch Ratings), Aaa (Moody's), AA+ (S&P)	AAA (Fitch Ratings), Aaa (Moody's), AA+ (S&P)
			Six-year capital financing plan is updated and revised annually	Yes	Yes	Yes
			Outstanding Debt	1.59%	1.63%	1.78%
			Percent of cash financing (six-year average)	25%	30%	25%
	Personnel & Safety	2.2.1.1.6	Annual regulatory training completed	Yes	Yes	Yes
			Annual training hours per employee*	7.0 hrs/employee	16.8 hrs/employee	16.0 hrs/employee
			Employee Health and Safety Severity Rate*	8.1 injury hours per 100 FTEs	0 injury hours per 100 FTEs	1.9 injury hours per 100 FTEs

[1] Language for this performance measure was changed in 2012 and caused the status/value to change from a percentage to Yes/No.

ATTACHMENT 1 – CMOM PERFORMANCE MEASURES

Service Area	Functional Area	Reference Objective Glossary table at end of attachment	Measure *indicates the measure is also a benchmark	2010 Status/Value	2011 Status/Value	2012 Status/Value
OVERALL CONT.	Program Organization	2.2.1.1.1	Asset Management Team established and functioning	Yes	Yes	Yes
			Asset Manager responsibilities assigned	Yes	Yes	Yes
			CMOM Manager responsibilities assigned	Yes	Yes	Yes
			CMOM work team established and functioning	Yes	Yes	Yes
			Organizational Best Practices Index*	27	27	27
		2.2.1.1.2	Annual cost for the implementation of the regional CMOM Program activities	$ 119,273.78	$ 101,761.12	$ 107,161.09
	Satellite Systems	2.2.1.1.5	Percent of municipal sewer construction projects receiving QA inspection as defined by the QA program	100%	100%	100%
			Percent of sewer plans reviewed by the District within deadlines established by the sewer plan review process	100%	100%	100%
	System Performance	2.2.1.1.4	CMAR overall score*	JI = 3.91; SS = 3.46	JI = 4.0; SS = 3.84	Waiting on review from DNR.
			Percent of flow into system, resulting from wet weather, that is captured and treated	93%	99.6%	100%

ATTACHMENT 1 – CMOM PERFORMANCE MEASURES

Service Area	Functional Area	Reference Objective Glossary table at end of attachment	Measure *indicates the measure is also a benchmark	2010 Status/Value	2011 Status/Value	2012 Status/Value
CONVEYANCE	Asset Management	2.2.1.2.3	Percent completion of post-overflow review process within one year	100%	40%	100%
		2.2.1.2.4	Backlog of conveyance construction project updates to the GIS	4 contracts	5 contracts	15 contracts
			Number of conveyance construction project updates to the GIS	4 contracts	5 contracts	2 contracts
			Percent of conveyance assets with defined condition and management method as documented in the Asset Information Management System	61%	73%	88%
			Establish criteria and procedures for conducting Business Case Analysis on conveyance projects by June 30, 2009	In Progress[2]	No[3]	No[4]
			Percent of Business Case Analyses completed where required by District procedures	N/A for 2010	N/A for 2011	N/A for 2012
			Level of Protection defined and approved by the WDNR for the wastewater system	Yes	Yes	Yes
		2.2.1.2.5	Number of open PM work orders older than 90 days (conveyance equipment and pump stations)	67	124	123
			Number of open PM work orders older than 90 days (sewers)	13	2	0
			Planned maintenance ratio: hours* (sewers)	97%	85%	71%
			Planned maintenance ratio: cost* (sewers)	97%	89%	81%
			Planned Maintenance ratio: count (sewers)	95%	95%	93%
			Planned maintenance ratio: hours* (conveyance equipment and pump stations)	71%	77%	73%
			Planned maintenance ratio: cost* (conveyance equipment and pump stations)	64%	67%	67%

[2] New completion date is June 30, 2011.
[3] New completion date is June 30, 2013.
[4] New completion date is June 30, 2015.

ATTACHMENT 1 – CMOM PERFORMANCE MEASURES

Service Area	Functional Area	Reference Objective Glossary table at end of attachment	Measure *indicates the measure is also a benchmark	2010 Status/Value	2011 Status/Value	2012 Status/Value
CONVEYANCE CONT.	Asset Management Cont.	2.2.1.2.5	Planned maintenance ratio: count (conveyance equipment and pump stations)	79%	84%	77%
			Conveyance system integrity* (# of collection system failures/total miles in collection system)	0 failures per 100 miles of piping[5]	0.28 failures per 100 miles of piping	0 failures per 100 miles of piping[5]
	Capital Program Implementation	2.2.1.2.4	Facilities Plan implementation on schedule	Yes	Yes	Yes
	Customer Service	2.2.1.2.7	Percent of documented inquiries with a documented response	96%	97%	87%
	System Monitoring	2.2.1.2.6	Percent of portable flow monitors repaired within 5 business days after problems are identified	100%	100%	90%
			Percent of permanent monitoring sites with less than 30 consecutive days of missing or bad data	72%[6]	65%[6]	50%[6]
			Percent of monitoring sites calibrated (check and adjustment as necessary) annually	100%	100%	50%[7]
			Percent of rain gauges calibrated (check and adjustment as necessary) annually	94%	100%	100%
			Percent of data reviewed for QA within 30 days	70%	70%	90%
	System Performance	2.2.1.2.1	Number of wet weather CSOs	4	1	0

[5] No piping failures causing a loss of capacity or function identified in 2010 or 2012.
[6] Sites with non-functioning equipment have not been repaired because they will be replaced or abandoned under the WWPFMP. Some sites have portable meters to cover gaps in data until permanent meters are functioning.
[7] Sites with active construction contracts under the WWPFMP have not received annual calibration since existing equipment has been or will be replaced or abandoned.

ATTACHMENT 1 – CMOM PERFORMANCE MEASURES

Service Area	Functional Area	Reference Objective Glossary table at end of attachment	Measure *indicates the measure is also a benchmark	2010 Status/Value	2011 Status/Value	2012 Status/Value
CONVEYANCE CONT.	System Performance Cont.	2.2.1.2.1	Ratio of unused volume of the ISS to the wet weather CSO volume for each event	6/15/10 >100%; 7/7/10 >100%; 7/15/10 1%; 7/22/10 0%	6/21/11 60%	0
		2.2.1.2.1 2.2.1.2.3	Number of dry weather overflows	0	0	0
		2.2.1.2.3	Number of building backups caused by the loss of capacity or function of a District facility	Cannot be determined[8]	Zero	Zero
			Percent of total flow entering the conveyance system that is captured and treated	96.2%	99.8%	100%[9]
			Number of wet weather SSOs where the event generated flow is less than the WDNR approved level of protection[10]	0[11]	0	1
			Number of wet weather SSOs	4	0	1
			Volume of wet weather SSOs where the event generated flow is less than the WDNR approved level of protection	0.61 MG	0 MG	.02 MG
			Volume of wet weather SSOs	326 MG	0 MG	.02 MG
			Regulatory-approved Industrial Waste Pretreatment Program in operation	Yes	Yes	Yes

[8] The District's investigation into 12 basement backups which occurred during a July 15, 2010 event could not determine whether the backups were attributable to the interceptor system owned by the District based on the information available on the local municipal sewer system.
[9] 16,000 gallons of flow entering the conveyance system were not treated in 2012 due to an SSO, however due to rounding the percentage is displayed as 100%.
[10] Level of Protection is defined as the five year wastewater recurrence interval, as stated in the approved 2020 FP.
[11] A RCA was completed in 2012 for the August 21st, 2010 event at Richards & Congress. The RCA determined there was no SSO due to the event. Prior year Annul CMOM reports incorrectly reported this incident as a SSO.

ATTACHMENT 1 – CMOM PERFORMANCE MEASURES

Service Area	Functional Area	Reference Objective Glossary table at end of attachment	Measure *indicates the measure is also a benchmark	2010 Status/Value	2011 Status/Value	2012 Status/Value
TREATMENT	Asset Management	2.2.1.3.4	Level of Protection is defined (by the 2020 Facilities Plan) and approved by the WDNR for the Wastewater System	Yes	Yes	Yes
			Establish criteria and procedures for conducting Business Case Analysis on treatment plant projects by June 30, 2009	In Progress[12]	No[13]	No[14]
			Percent of Business Case Analyses completed where required by District procedures	N/A for 2010	N/A for 2011	N/A for 2012
			Percent of treatment plant assets with defined condition and management method as documented in the Asset Information Management System	0%	0%	0%
		2.2.1.3.5	Number of CM work orders older than 90 days (treatment plant equipment)	276	213	395
			Number of PM work orders older than 90 days (plant equipment)	349	625	379
			Percent of PM tasks completed	99%	99%	100%
			Planned maintenance ratio: count of work orders	73%	81%	71%
			Planned maintenance ratio: cost*	37%	54%	43%
			Planned maintenance ratio: hours*	52%	68%	57%
			O&M cost per MG treated*	$1,036/MG	$1,007/MG	$1,243/MG
	Capital Program Implementation	2.2.1.3.4	Facilities Plan implementation on schedule for treatment plant studies and projects	Yes	Yes	Yes
	System Performance	2.2.1.3.1	Number of in-plant diversions not consistent with permit requirements	0	0	0
			Percent of time effluent Ammonia is in compliance with WPDES permit	100%	100%	100%

[12] New completion date is June 30, 2011.
[13] New completion date is June 30, 2013.
[14] New completion date is June 30, 2015.

ATTACHMENT 1 – CMOM PERFORMANCE MEASURES

Service Area	Functional Area	Reference Objective Glossary table at end of attachment	Measure *indicates the measure is also a benchmark	2010 Status/Value	2011 Status/Value	2012 Status/Value
TREATMENT CONT.	System Performance Cont.	2.2.1.3.1	Percent of time effluent BOD is in compliance with WPDES permit	100%	100%	100%
			Percent of time effluent fecal coliform count is in compliance with WPDES permit	100%	100%	100%
			Percent of time effluent Phosphorous is in compliance with WPDES permit	100%	100%	100%
			Percent of time effluent TSS is in compliance with WPDES permit	100%	100%	100%
			Receipt of NACWA Peak Performance Award	Yes	Yes	Yes
			Volume of in-plant diversions not consistent with permit requirements	0	0	0
		2.2.1.3.2	Number of SSO events due to closure of the ISS separate sewer gates where the event generated flow is below the approved Level of Protection	0	0	0
			Number of SSOs due to closure of the ISS separate sewer gates	2	0	0
			Volume of SSOs due to closure of the ISS separate sewer gates	326 MG[15]	0 MG	0 MG
			Volume of SSOs due to closure of the ISS separate sewer gates where the event generated flow is below the approved Level of Protection	0	0	0
		2.2.1.3.3	Percent of produced biosolids that are beneficially reused	98.4%[16]	97.7%[15]	100%

[15] This is the total overflow volume for the event where the ISS was closed to separate sewage. It is not an actual determination of the specific overflow volume that was directly caused by the closing of the ISS separate sewer gates

[16] All biosolids not beneficially reused were from cleaning of digesters.

ATTACHMENT 1 – CMOM PERFORMANCE MEASURES

Service Area	Functional Area	Reference Objective Glossary table at end of attachment	Measure *indicates the measure is also a benchmark	2010 Status/Value	2011 Status/Value	2012 Status/Value
WATERCOURSE	Asset Management	2.2.1.4.2	Number of presentations by District personnel that included information on stormwater runoff reduction practices	53 presentations	90 presentations	125 presentations
			Number of rain barrels sold by the District	1,782 rain barrels ordered	1,397 rain barrels ordered	915 rain barrels ordered
			Number of stormwater runoff reduction projects with District financial participation	6 projects	14 projects	30 projects
		2.2.1.4.3	Linear feet of jurisdictional streambank with a current condition assessment	51%	77%	77%
			Number of jurisdictional watercourse construction project updates to the GIS	0 contracts	0 contracts	0 contracts
			Backlog of jurisdictional watercourse construction project updates to the GIS	2 contracts	2 contracts	5 contracts
			Percent of watercourse assets with defined condition and management method documented in the Asset Information Management System	44%	54%	54%
			Establish criteria and procedures for conducting Business Case Analysis on watercourse projects by June 30, 2009	In Progress[17]	No[18]	No[19]
			Percent of Business Case Analyses completed where required by District procedures	N/A for 2010	N/A for 2011	N/A for 2012
			Level of Protection defined and accepted by Stakeholders	Yes	Yes	Yes
		2.2.1.4.4	Percent of scheduled jurisdictional watercourse inspections completed	95%	96%	100%

[17] New completion date is June 30, 2011.
[18] New completion date is June 30, 2013.
[19] New completion date is June 30, 2015.

ATTACHMENT 1 – CMOM PERFORMANCE MEASURES

Service Area	Functional Area	Reference Objective Glossary table at end of attachment	Measure *indicates the measure is also a benchmark	2010 Status/Value	2011 Status/Value	2012 Status/Value
WATERCOURSE CONT.	Asset Management Cont.	2.2.1.4.4	Percent of scheduled culvert and structure inspections completed	100%	100%	0%[20]
			Jurisdictional watercourse O&M costs	$ 1,297,012	$ 376,059	$ 294,789.80
			Jurisdictional watercourse O&M hours	4,218	3,728	2,382
	Capitol Program Implementation	2.2.1.4.1	Annual number of habitable structures removed from the District's one-percent probability floodplain	1	31	32
			Percent of annual habitable structures removal goal achieved	5%	119%	75%
	Customer Service	2.2.1.4.6	Percent inquiry documentation completed	100%	100%	100%
	System Conservation	2.2.1.4.2	Area of property protected/preserved through District ownership or conservation easement	220 acres[21]	94 acres[22]	152 acres[23]
			Percent of stormwater management plans reviewed within the timeframe allowed	100%	100%	100%
		2.2.1.4.5	Percent of jurisdictional watercourse with non-concrete streambeds	82%	82%	83%
	System Performance	2.2.1.4.1	Number of habitable structures impacted (low water entry into a habitable building) by the District's one-percent probability flood	1,035 structures[24]	885 structures[25]	860 structures[26]

[20] No inspections were scheduled for 2012
[21] 2,256 acres to date
[22] 2,350 acres to date
[23] 2,502 acres to date
[24] The number decreased due to review and analysis on several watercourse systems.
[25] The number decreased due to analysis conducted on the Kinnickinnic River and removal of structures on the Kinnickinnic River.
[26] The number decreased due to analysis conducted on several watercourse systems and removal of structures on the Kinnickinnic River.

ATTACHMENT 1 – CMOM PERFORMANCE MEASURES

Reference Objective Glossary		
Overall	2.2.1.1.1	Enable implementation of the CMOM Program within the District organizational structure
	2.2.1.1.2	Communicate the goals and objectives of the CMOM Program to internal and external stakeholders, monitor the CMOM Program implementation, and institute program modifications
	2.2.1.1.3	Continue to maintain adequate financial planning
	2.2.1.1.4	Continue to comply with regulatory requirements
	2.2.1.1.5	Establish a regional CMOM program
	2.2.1.1.6	Continue to maintain a safe work environment for District employees and sustain a competent District workforce
Conveyance	2.2.1.2.1	Establish CMOM Program elements specific to minimizing the number and volume of CSOs
	2.2.1.2.3	Where possible, establish additional practices to prevent SSOs, maintain or improve system performance, and avoid preventable failures
	2.2.1.2.4	Continue to establish and document level of protection, design and performance standards for conveyance assets constructed in the District service area
	2.2.1.2.5	Minimize the cost of conveyance asset ownership while maintaining necessary stewardship of assets and achieving defined protection levels
	2.2.1.2.6	Enhance District level of knowledge and understanding of wet weather flows and system response to precipitation and other factors
	2.2.1.2.7	Provide information receipt, response activity, and feedback regarding customer inquiries
Treatment	2.2.1.3.1	Continue to provide effluent quality that meets or exceeds WPDES permit requirements and effluent quality goals
	2.2.1.3.2	Continue to optimize effectiveness of wet weather treatment capacity
	2.2.1.3.3	Continue to manage biosolids in a manner that maximizes beneficial reuse
	2.2.1.3.4	Continue to establish and document levels of protection, design and performance standards for treatment plant assets
	2.2.1.3.5	Minimize the cost of wastewater treatment plant asset ownership while maintaining necessary stewardship of assets and achieving defined protection levels
Watercourse	2.2.1.4.1	Within jurisdictional streams, cost-effectively remove habitable structures from flooding associated with the one-percent probability flood event
	2.2.1.4.2	Reduce the likelihood of new habitable structures being added to the District's one-percent probability floodplain
	2.2.1.4.3	Establish and document level of protection, design and performance standards for new assets in the watercourse system
	2.2.1.4.4	Minimize the cost of watercourse asset ownership while maintaining necessary stewardship of assets and achieving defined protection levels
	2.2.1.4.5	Continue to be a leader in the effort to improve the area's water quality
	2.2.1.4.6	Provide information receipt, response activity, and feedback regarding customer inquiries on the watercourse system

ATTACHMENT 2 – CHANGES TO CMOM MANAGEMENT PLAN

This Attachment intentionally left blank for the 2012 Report

ATTACHMENT 3 –SEPARATE SEWER OUTFALL LOCATIONS

MMSD Site Number	WPDES Permit ID number	Location	Pump or Gravity	Current SCADA[i]	Current Portable[ii]	Notes
BS0101	220	S Howell Ave s/o E Grange Ave	Gravity	Yes		Permanent meter was installed in 2012 and added to SCADA system.
BS0302	233	W Fisher Pkwy at N 106th St	Gravity	Yes		
BS0303	247	W Oklahoma Ave, 100 feet w/o S 74th St	Pump	Yes		
BS0304	242	S 79th St (ext'd) & W Dickenson St (ext'd)	Gravity	Yes	Yes	Permanent meter was installed in 2012 and added to SCADA system.
BS0401	235	N Honey Creek Pkwy & W Wisconsin Ave	Pump	Yes		
BS0402	237	N Menomonee River Pkwy, 300 feet e/o N 68th St	Gravity	No	Yes	Portable meter in outfall pipe
BS0403	234	N Honey Creek Pkwy & W Portland Ave	Gravity	Yes	Yes	Permanent meter was installed in 2013 and added to SCADA system.
BS0404	263	W Green Tree Rd & Milwaukee River	Gravity	Yes		
~~BS0501~~	~~230~~	~~N Richards St & E Congress St~~	~~Gravity~~	~~Yes~~		This outfall was transferred from the SSO list to the CSO list in the WPDES permit issued on 1/8/13. Recently discovered information indicates combined sewage is tributary to this outfall.
BS0503	226	W Roosevelt Dr & N 35th St	Pump	Yes		
BS0504	214	W Hampton Ave & N Lydell Ave	Gravity	No	No	Manually activated gate
BS0505	223	W Villard Ave & N 27th St	Pump	Yes		
BS0506	231	N Range Line Rd & Milwaukee River (east side)	Pump	Yes		

ATTACHMENT 3 –SEPARATE SEWER OUTFALL LOCATIONS

MMSD Site Number	WPDES Permit ID Number	Location	Pump or Gravity	Current SCADA[i]	Current Portable[ii]	Notes
BS0507	229	N 46th St & W State St	Gravity	Yes		
BS0511	207	N 31st St & W Fairmont Ave	Gravity	No	Yes	
BS0512	244	N Lydell Ave & W Lancaster Ave	Gravity	No	No	Manually activated gate
BS0513	245	N Lydell Ave & W Montclair Ave	Gravity	No	Yes	Portable meter in overflow pipe. Permanent meter scheduled to be installed in 2013 and added to SCADA system.
BS0514	209	N 27th St & W Silver Spring Dr	Gravity	No	Yes	
BS0515	266	200 E River Woods Parkway. [Manhole 02140 – s/o E Hampton Rd & N Lydell Ave, s/o Milwaukee River (formerly Pillsbury Silos)]	Gravity	No	No	Manholes modified as part of Northeast Side Flow Control Gates, level monitored at NS3 junction chamber. WPDES Permit ID number 266 was issued to this overflow in the WPDES permit issued on 1/8/13.
BS0516	265	4700 N Estabrook Parkway. [Manhole 02141 – s/o E Hampton Rd & N Lydell Ave, n/o Milwaukee River (formerly Pillsbury Silos)]	Gravity	No	No	Manholes modified as part of Northeast Side Flow Control Gates, level monitored at NS3 junction chamber. WPDES Permit ID number 265 was issued to this overflow in the WPDES permit issued on 1/8/13.
BS0601	225	S 35th St & W Manitoba St	Pump	Yes		
BS0602	232	S Kinnickinnic Ave & E St Francis Ave	Gravity	Yes		

ATTACHMENT 3 –SEPARATE SEWER OUTFALL LOCATIONS

MMSD Site Number	WPDES Permit ID Number	Location	Pump or Gravity	Current SCADA[i]	Current Portable[ii]	Notes
BS0603	243	W Lincoln Ave, 565 feet w/o S 43rd St	Gravity	No	Yes	
~~DC0103~~	~~260~~	~~S 6th St & W Oklahoma Ave~~	~~Gravity~~	~~Yes~~		This outfall was transferred from the SSO list to the CSO list in the WPDES permit issued on 1/8/13. Under wet weather operating conditions of the District system, this site acts as a CSO.
~~DC0402~~	~~262~~	~~N 59th St & W Trenton Pl~~	~~Gravity~~	~~Yes~~		This outfall was transferred from the SSO list to the CSO list in the WPDES permit issued on 1/8/13. Recently discovered information indicates combined sewage is tributary to this outfall.
MS0409	206	9523 N Broadmoor Rd	Gravity	Yes		Level sensor in MS0409, which has a gravity overflow pipe
PS0402	264	Ravine Lift Station	Gravity	Yes		
~~N/A~~	~~205~~	~~W Roosevelt Dr & W Scranton Pl~~	~~Gravity~~	~~No~~	~~No~~	This outfall was removed from the SSO list in the WPDES permit issued on 1/8/13. The bypass pipe had previously been bulkheaded and the SSO was not functional.

[i] Sites noted as yes indicate notification of an overflow at the site is received via a real time connection from the meter to our Supervisory Control and Data Acquisition (SCADA) system.

[ii] Sites noted as yes indicate a portable meter is installed at the site which requires a physical site inspection of the meter to confirm an overflow has occurred. Per DNR requirements, sites with only a portable meter are inspected within 24 hours of a rain event greater than 0.75in.

ATTACHMENT 4 – COMBINED SEWER OUTFALL LOCATIONS

Receiving Water (of combined sewer overflow)	Combined Sewer Outfall Number	Diversion Structure Number	ISS Drop Shaft	Intercepting Structure Number	IS upstream of DS	Location	Notes
Burnham Canal	189	189	CT07	400	Yes	S 9th St (east outfall)	
Burnham Canal	190	190	CT07	363 & 400A	Yes	S 9th St (west outfall)	
Burnham Canal	191	191	CT07	399	Yes	S 11th St	
Burnham Canal	193	193	CT07	398	Yes	S 13th St	
Burnham Canal	194	194	CT07	360, 361 & 396	Yes	S Muskego Ave	
Kinnickinnic River	019	85046	MIS	None	N/A	S 1st St at the Kinnickinnic River	MIS Overflow
Kinnickinnic River	148	148	CT08	369	Yes	E National Ave	
Kinnickinnic River	149	149	CT08	362 & 368A	Yes	S of E Walker St	
Kinnickinnic River	150	150	CT08	367	Yes	S of E Washington St	
Kinnickinnic River	151	151	CT08	346	Yes	E Greenfield Ave	
Kinnickinnic River	152	152	KK03	342	Same structure	S Kinnickinnic Ave (north bank)	
Kinnickinnic River	153	153	KK03	339	Yes	S Kinnickinnic Ave (south bank)	
Kinnickinnic River	154	154	KK03	341	Yes	S 1st St (north bank)	
Kinnickinnic River	155	155	KK03	340	Yes	S 1st St (south bank)	
Kinnickinnic River	156	156	KK03	345A & 366	Yes	S 2nd St at KK River	
Kinnickinnic River	157	157	KK03	345	Yes	W Rogers St	
Kinnickinnic River	158	158/159	KK03	343, 344A & 364	Yes	W Becher St (north outfall)	
Kinnickinnic River	159	158/159	KK03	343, 344A & 364	Yes	W Becher St (south outfall)	
Kinnickinnic River	160	160	KK04	None	N/A	E Lincoln Ave (south of)	
Kinnickinnic River	161	161	KK04	330	Same structure	W Lincoln Ave (west bank)	
Kinnickinnic River	162	162	KK04	331	Same structure	W Lincoln Ave (east bank)	

ATTACHMENT 4 – COMBINED SEWER OUTFALL LOCATIONS

Receiving Water (of combined sewer overflow)	Combined Sewer Outfall Number	Diversion Structure Number	ISS Drop Shaft	Intercepting Structure Number	IS upstream of DS	Location	Notes
Kinnickinnic River	163	163	KK02	328	Yes	S Chase Ave (north bank)	
Kinnickinnic River	164	164	KK02	327	Yes	S Chase Ave (south bank)	
Kinnickinnic River	165	165	KK01	325	Same structure	S 6th St at W Cleveland Ave (middle outfall)	
Kinnickinnic River	166	166	KK01	325	Same structure	S 6th St at W Cleveland Ave (north outfall)	
Kinnickinnic River	166A	KK1JC01	KK01	None	N/A	S 6th St at W Cleveland Ave (south outfall)	KK1 Junction Chamber overflow
Kinnickinnic River	167	167	KK01	City Manhole	Yes	S 8th St	
Kinnickinnic River	168	168	KK01	City Manhole	Yes	S 14th St	
Kinnickinnic River	169	169	KK01	City Manhole	Yes	S 27th St at KK River	
Kinnickinnic River	260	DC0103	MIS	None	N/A	S 6th St at W Oklahoma Ave	This outfall was transferred from the SSO list to the CSO list in the WPDES permit issued on 1/8/13
Lake Michigan	195	195	LMN	338	Same structure	E Bay St	
Lake Michigan	196	196	LMS	335, 336 & 337	Yes	E Russell Ave	
Lincoln Creek	145	145	NS12	500	Yes	N 35th St & W Congress St	
Lincoln Creek	197	BS0502	MIS	None	N/A	Hampton Ave at 32nd St	
Menomonee River	010	85047	MIS	None	N/A	W Canal St at 8th St	MIS Overflow
Menomonee River	170	170	CT08	404	Yes	S 2nd St at Menomonee River	

ATTACHMENT 4 – COMBINED SEWER OUTFALL LOCATIONS

Receiving Water (of combined sewer overflow)	Combined Sewer Outfall Number	Diversion Structure Number	ISS Drop Shaft	Intercepting Structure Number	IS upstream of DS	Location	Notes
Menomonee River	172	172	CT07	197, 197A, 197B & 197C	Yes	N Ember La (east outfall)	Upsized in 2007
Menomonee River	173	173/174	CT07	196 & 388	Yes	N 15th St (east outfall)	
Menomonee River	174	173/174	CT07	196 & 388	Yes	N 15th St (west outfall)	
Menomonee River	175	175	CT07	387	Yes	N 17th St	
Menomonee River	176	176	CT5/6	195, 380 & 502	Yes	N 25th St	
Menomonee River	177	177	CT5/6	195, 380 & 502	Yes	N 26th St	
Menomonee River	177A	CT5/6	CT5/6	None	N/A	123 N 25th St	
Menomonee River	178	178	CT5/6	358, 358A & 359A	Yes	S 27th St at Menomonee River (west outfall)	
Menomonee River	180	180	CT5/6	357 & 381	No	S 35th St	
Menomonee River	181	181	CT3/4	377	Same structure	W Wisconsin Ave at Menomonee River	
Menomonee River	182	182	CT3/4	193A, 372 & 372A	Yes	N 43rd St	
Menomonee River	182A	C182A01	CT3/4	None	Yes	4251 W State St (CT3,4)	54" flow balance overflow
Menomonee River	183	183	CT3/4	183	Yes	N 45th St (60” combined sewer to 72” storm sewer)	IS183 goes to City of Milwaukee sanitary sewer
Menomonee River	184	DG08-03	CT02	187A & 188	Yes	N Hawley Rd	
Menomonee River	185	185	CT07	386	Yes	N 9th St (Ext'd)	

ATTACHMENT 4 – COMBINED SEWER OUTFALL LOCATIONS

Receiving Water (of combined sewer overflow)	Combined Sewer Outfall Number	Diversion Structure Number	ISS Drop Shaft	Intercepting Structure Number	IS upstream of DS	Location	Notes
Menomonee River	262	BS0405	MIS	None	N/A	59th St and Trenton	This outfall was transferred from the SSO list to the CSO list in the WPDES permit issued on 1/8/13
Milwaukee River	015	85043	MIS	None	N/A	N Marshall St at the Milwaukee River	MIS Overflow
Milwaukee River	016	85042	MIS	None	N/A	W Vliet St ext'd, east of N 3rd St	MIS Overflow
Milwaukee River	017	105/017	NS08	None	N/A	N Van Buren St at E Brady St	MIS Overflow
Milwaukee River	018	BS0701	MIS	None	N/A	S Water St at E Bruce St	Siphon protection
Milwaukee River	051	51	NS07	208	Yes	Point 300' west of N Humboldt Ave & N Weil Ext'd	
Milwaukee River	089	NS11JC01	NS11	134	Yes	E Capitol Dr	
Milwaukee River	090	90	NS04	135A	Yes	E Keefe Ave	
Milwaukee River	091	91	NS04	73 & 74A	Yes	E Edgewood Ave	
Milwaukee River	092	92	NS05	None	Yes	E Auer Ave	
Milwaukee River	094	94	NS05	135	Yes	E Burleigh St	
Milwaukee River	096	NS5A02	NS05	None	Yes	E Locust St	
Milwaukee River	097A	97A	NS06	136	Yes	E Park Pl	DS and CSO modified in 2007; updated to 97A
Milwaukee River	098	98	NS06	137 & 228	Yes	E Bradford Ave	
Milwaukee River	099	99	NS07	139, 140, 141 & 228A	Yes	E Boylston St	
Milwaukee River	101	101	NS07	230	Yes	N Pulaski St	

ATTACHMENT 4 – COMBINED SEWER OUTFALL LOCATIONS

Receiving Water (of combined sewer overflow)	Combined Sewer Outfall Number	Diversion Structure Number	ISS Drop Shaft	Intercepting Structure Number	IS upstream of DS	Location	Notes
Milwaukee River	102	102	NS07	135, 207, & 207A	Yes	N Humboldt Ave	
Milwaukee River	103	103	NS07	231	Yes	N Marshall St	
Milwaukee River	103A	NS7	NS07	None	N/A	1944 N Commerce St	NS07 Junction Chamber
Milwaukee River	104	104	NS07	199/200A	Yes	N Holton St	
Milwaukee River	106	106	NS08	209	Yes	N of E Pleasant St	
Milwaukee River	107	107	NS08	210	Yes	E Walnut St	
Milwaukee River	108B	108	NS08	144 & 233	Yes	E Pleasant St at N Water St	Constructed in 2007 to replace 108 and 108A
Milwaukee River	109	109	NS08	200, 201 & 211	Same structure	N of W Cherry St	
Milwaukee River	110	110	NS08	201A & 212	Yes	W Cherry St	
Milwaukee River	111	111	NS08	234	Yes	E Lyon St	
Milwaukee River	112	112	NS09	235	Same structure	E Ogden Ave	
Milwaukee River	113	113	NS09	213	Yes	W McKinley Ave	
Milwaukee River	113A	113A	NS09	214A	Yes	McKinley Ave	
Milwaukee River	114	114	NS09	215	No	W Juneau Ave	
Milwaukee River	115	115	NS09	216	No	W Highland Ave	
Milwaukee River	116	116	NS09	237	No	E Highland Ave	
Milwaukee River	117	117	NS09	217	No	W State St	
Milwaukee River	118	118	NS09	146 & 238A	No	E State St	
Milwaukee River	119	119	NS09	218	Yes	W Kilbourn Ave	

ATTACHMENT 4 – COMBINED SEWER OUTFALL LOCATIONS

Receiving Water (of combined sewer overflow)	Combined Sewer Outfall Number	Diversion Structure Number	ISS Drop Shaft	Intercepting Structure Number	IS upstream of DS	Location	Notes
Milwaukee River	120	120N/120 S	NS09	147, 239, 239A & 239B	No, Same, Same	E Kilbourn Ave	
Milwaukee River	121	121	NS09	219 & 219A	Yes	N of W Wells St	
Milwaukee River	122	122	NS09	205, 206 & 220	No	W Wells St	
Milwaukee River	123	123	NS09	148 & 240	No	E Wells St	
Milwaukee River	124	124	NS09	221	Yes	N of W Wisconsin Ave	
Milwaukee River	125	125	NS09	222	No	W Wisconsin Ave at Milwaukee River	
Milwaukee River	126	126	NS10	241	Same structure	E Wisconsin Ave	
Milwaukee River	127	127	NS10	223	No	W Michigan St	
Milwaukee River	128	128	NS10	242	No	E Michigan St	
Milwaukee River	129	129	NS10	224	Yes	N of W Clybourn St	
Milwaukee River	130	130	NS10	225	Yes	W Clybourn St	
Milwaukee River	131	131	NS10	243	No	E Clybourn St	
Milwaukee River	133	NS10F05	NS10	227	Yes	W St. Paul Ave	
Milwaukee River	134	134	NS10	244	No	E St. Paul Ave	
Milwaukee River	135	135	NS10	245	Yes	E Buffalo St	
Milwaukee River	136	136	NS10	246	Same structure	E Chicago St	
Milwaukee River	137	137	CT08	405	Same structure	S 1st Pl	
Milwaukee River	139	139	CT08	406	Yes	E Pittsburgh Ave	
Milwaukee River	140	140	NS10	247	Yes	N Broadway	

ATTACHMENT 4 – COMBINED SEWER OUTFALL LOCATIONS

Receiving Water (of combined sewer overflow)	Combined Sewer Outfall Number	Diversion Structure Number	ISS Drop Shaft	Intercepting Structure Number	IS upstream of DS	Location	Notes
Milwaukee River	141	141	CT08	403, 403A & 407	Yes	E Florida St	
Milwaukee River	142	142	NS10	248A	Yes	E Polk St	
Milwaukee River	143	143	CT08	370	Same structure	E Bruce St	
Milwaukee River	144	144	NS08	234A	Yes	E Lyon St	
Milwaukee River	146	146	NS07	142A	Yes	N Arlington Pl	
Milwaukee River	147	147	NS09	145 & 236	No	E Juneau Ave	
Milwaukee River	230	BS0501	MIS	None	N/A	N Richards at E Congress	This outfall was transferred from the SSO list to the CSO list in the WPDES permit issued on 1/8/13
South Menomonee Canal	061	EWWE	None	None	N/A	S 3rd St (Ext'd) & W Seeboth St	Emergency Wastewater Exit
South Menomonee Canal	187	187	CT08	401 & 402	Yes	S 4th St	
South Menomonee Canal	188	188	CT08	394	Yes	S 6th St at Menomonee River	

ATTACHMENT 5– SATELLITE MUNICIPALITY PHONE LIST

Municipality	Business Hours	After hours / weekends
Bayside	414-351-8811	414-351-8800
Brookfield	262-782-0199	262-782-0199 OR 262-787-3700
Brown Deer	414-357-0120	414-371-2900
Butler	262-783-2525	262-783-2525
Caledonia	262-681-3900	262-939-3409
Cudahy	414-769-2216	414-769-2260
Elm Grove	262-782-6700	262-786-4141
Fox Point	414-351-8900	414-351-9900
Franklin	414-425-7510	414-425-2522
Germantown	262-250-4721	262-253-7780
Glendale	414-228-1710	414-228-1753
Greendale	414-423-2133	414-423-2121
Greenfield	414-761-5301	414-761-5374
Hales Corners	414-529-6140	414-529-6140
Menomonee Falls	262-532-4800	262-532-1700
Mequon	262-236-2913	262-242-3500
Milwaukee	414-286-2489	414-286-2489
Muskego	262-679-4128	262-679-4130
New Berlin	262-786-7086	262-782-6640
Oak Creek	414-768-7060	414-768-7060
River Hills	414-352-0080	414-351-9900
St. Francis	414-481-2300	414-481-2232
Shorewood	414-847-2650	414-847-2610
Thiensville	262-242-3720	262-242-2100
Wauwatosa	414-471-8422	414-471-8422
West Allis	414-302-8800	414-302-8000
West Milwaukee	414-645-6238	414-645-2151
Whitefish Bay	414-962-6690	414-962-6690

ATTACHMENT 6 – DISTRICT SITUATIONAL CONTACT LIST

Situation	Urgency	Direct to	Phone number
Water in basement	Critical	Central Control Operator (Veolia)	282-7200 (internal x3491)
Sewage overflow	Critical	Central Control Operator (Veolia)	282-7200 (internal x3491)
Spill of a hazardous substance into the sewer system	Critical	Central Control Operator (Veolia)	282-7200 (internal x3491)
Clogged MIS or structure	Critical	Central Control Operator (Veolia)	282-7200 (internal x3491)
Illegal dumping into a sewer	Urgent	Central Control Operator (Veolia)	282-7200 (internal x3491)
Illegal dumping into catch basin	Urgent	Central Control Operator (Veolia)	282-7200 (internal x3491)
Contractor hit District facility	Urgent	Debra Jensen (District) (Backup is Larry Anderson)	225-2143 (Backup 617-1429)
Manhole cover missing	Urgent	Central Control Operator (Veolia)	282-7200 (internal x3491)
Blockage/major debris in the river	Urgent	Dave Fowler (District) (Backup is Patrick Elliott)	277-6368, cell – 559-9883 (Backup 225-2168, Backup Cell – 313-1608)
Facility ownership question	Non-emergency	Debra Jensen (District)	225-2143
Municipal request regarding sewer system	Non-emergency	Debra Jensen (District)	225-2143
How much water is in the deep tunnel	Non-emergency	District Public web site	www.mmsd.com – click on storm update
How much rainfall have we received	Non-emergency	District Public web site	www.mmsd.com – click on storm update
Odor complaint	Non-emergency	Central Control Operator (Veolia)	282-7200 (internal x3491)
Maintenance of a District conveyance facility	Non-emergency	Central Control Operator (Veolia)	282-7200 (internal x3491)
Watercourse maintenance issue (e.g. grass cutting, graffiti, snow plowing)	Non-emergency	Dave Fowler (District)	277-6368, cell – 559-9883
Construction site complaint	Non-emergency	Rick Niederstadt (District)	225-2173, cell – 617-6859
Notice of Intent to Discharge into MMSD system	Non-emergency	Peter Topczewski (District)	225-2176

Note: All phone numbers are area code (414)