



July 14, 2020

Mr. Jacob Wedesky
Wastewater Engineer
Wisconsin Department of Natural Resources
2300 N. Dr Martin Luther King Jr Dr.
Milwaukee, WI 53212-3128

Subject: July 10, 2020 Combined Sewer Overflow Event Five-Day Report
WPDES Permit No. WI-0036820-04-0

Mr. Wedesky:

The following information describes the combined sewer overflow and combined sewer wet weather flow treatment process that occurred July 9 and 10, 2020. This information complies with the reporting terms and conditions listed in section 4.3.5 and 9.2.9 of MMSD's (District) WPDES permit.

Reason for Overflow

The combined sewer overflows occurred due to heavy downpours that began the night of July 9. At District rain gauge WS1203, located at 245 W. Lincoln, 2.1 inches of rain fell between 7:30 PM and 11:30 PM. Inflows to the Inline Storage System (ISS) reached 3.7 billion gallons per day. At 11:55 PM, the decision to close the combined sewerage gates was made to save the remaining ISS capacity for separate sewerage only and to prevent basement backups. During the early morning hours of July 10, the rain quickly subsided and, as the system began to recover, the combined gates were reopened to minimize discharge volume. Please see the attached precipitation map for amounts measured at all July 9, 2020 District rain gauges.

Estimated Duration of Combined Sewer Discharge

Discharges began after the combined sewer gates to the ISS closed on July 10 at approximately 12:52 AM. All discharges concluded by 4:35 AM on July 10 for a total duration of 3.75 hours.

Estimated Volume of Discharge

The current estimate of the overflow volume is 7.1 MG. See attached Combined Sewer Discharge Points and Receiving Waters Table. The District will continue its analysis of the overflow volumes and will report any significant volume revisions.

Milwaukee Metropolitan Sewerage District

260 W. Seeboth Street, Milwaukee, WI 53204-1446

414-272-5100 www.mmsd.com 

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Combined Sewer Wet Weather Flow Treatment Process

To minimize the volume of combined sewer overflows, the Combined Sewer Wet Weather Flow Treatment process was utilized at Jones Island Water Reclamation Facility from July 9, 2020 at 10:15 PM until July 10, 2020 at 7:00 AM for a total of 8.75 hours. Total volume for this process is estimated to be 20.5 million gallons. The use of the Combined Sewer Wet Weather Flow Treatment process complied with Section 3.2.2.1 of the District's WPDES permit.

Steps Taken to Prevent another Discharge

The District's six-year investment plan calls for \$1.4 billion in improvements to regional water reclamation facilities and sewers to reduce the risk of overflows and basement backups. Part of that spending includes the private property inflow and infiltration reduction program throughout our service area. MMSD and Veolia Water Milwaukee will continue to operate the conveyance system, Inline Storage System, Northwest Side Relief Sewer and the water reclamation facilities in a manner to prevent separate sewer overflows and to maximize the capture of combined sewer flow volumes.

For the DNR Compliance Maintenance Annual Report (CMAR), all overflows are assigned to the Jones Island Water Reclamation Facility and the CSO with the highest volume of discharge for this event was CSO 108B at E. Pleasant and N. Water Street.

The following supporting documents are attached:

- WDNR Form 3400-184 – Overflow Notification Summary Report
- Combined Sewer Discharge Points and Receiving Waters Table
- July 9, 2020 Precipitation Map at District Rain Gauges

If you have any questions concerning this report, please contact me at (414) 277-6384.

Sincerely,



Sharon K. Mertens
Director, Water Quality Protection
Milwaukee Metropolitan Sewerage District

c: K. Lazarski, MMSD
T. Nowicki, MMSD
S. Royer, Veolia Water Milwaukee

Notice: An overflow is defined as a release of wastewater from a sewage collection system (SSO) or from a location within a sewage treatment facility (TFO) other than a permitted outfall structure, directly to a water of the state or land surface. Pursuant to s. 283.55(1)(dm), Wis. Stats., s. NR 210.21(4)(5)(6) Wis. Adm. Code and in accordance with reporting requirements in your WPDES permit, permittees shall submit a written report form for each overflow. This record is used to administer the water quality program, and any personally identifiable information may be provided to requesters as required under the Wisconsin Open Records law (ss. 19.31-19.39, Wis. Stats.).

- Sanitary Sewer Overflow (SSO)
 Treatment Facility Overflow (TFO)

Use one form per SSO location. Submit within five calendar days to your Department wastewater representative. Attach additional information as necessary to explain or document each overflow occurrence. A single SSO may be more than one day if the circumstance causing the overflow results in discharge duration more than 24 hours. If there is a stop and restart of the overflow within 24 hours, but it's caused by the same circumstances, report it as one SSO. If the discharges are separated by more than 24 hours, they should be reported as separate SSOs.

Notifications

Department Notification

Permittee (Municipality or Facility Name) Milwaukee Metropolitan Sewerage District (MMSD)	Permit No. WI-0036820-04-0
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Person Who Contacted the DNR

Joe Leszczynski

DNR Person Contacted Jacob Wedesky	Date (mm/dd/yyyy) 07/10/2020	Time of Day 1:55 <input type="radio"/> am <input checked="" type="radio"/> pm	Within 24 hours? <input checked="" type="radio"/> Yes <input type="radio"/> No
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Public Notification

Date (mm/dd/yyyy) 07/10/2020	How the Public was Notified MMSD Website
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Describe the actual or potential for human exposure or contact with overflowing wastewater

There is potential for human exposure through recreational use of the waterway.

Other Notifications (if applicable)	Drinking Water Intake Owner Cudahy, Milwaukee, North Shore, Oak Creek and South Milw. Waterworks	Date (mm/dd/yyyy) 07/10/2020
	Regional Wastewater Treatment Facility NA	Date (mm/dd/yyyy)

(Satellite collection permittees are required to submit a copy of this report to the regional plant to which they discharge.)

Wet Weather Information (if applicable)

Was this overflow wet weather related? Yes No (skip this section)

Rainfall Start: 07/09/2020 Date (mm/dd/yyyy)	7:25 Start Time	<input checked="" type="radio"/> am <input type="radio"/> pm	2.5 inches Rainfall Amount
Rainfall End: 07/09/2020 Date (mm/dd/yyyy)	11:45 End Time	<input type="radio"/> am <input checked="" type="radio"/> pm	

Contributing Soil or Other Conditions (saturated, frozen, soil type, snowmelt, etc.):

Overflow Details

Location (Street Address)

Please see attached table for locations of discharges

Location (GPS coordinates, WGS84 standard coordinate system)	Latitude: _____ (e.g. 43.075350)	Longitude: _____ (e.g. -89.379770)
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Overflow Start: 07/10/2020 Date (mm/dd/yyyy)	12:52 Start Time	<input checked="" type="radio"/> am <input type="radio"/> pm	3.75 hours Duration	7,100,000 gallons Volume
Overflow End: 07/10/2020 Date (mm/dd/yyyy)	4:35 End Time	<input checked="" type="radio"/> am <input type="radio"/> pm		

Cause: (select all that apply)

- Rain Plugged Pipe
 Snow Melt Broken Pipe
 Flooding Equipment Failure
 Power Outage Contractor Related
 Other—Explain: _____

Overflow Occurred From: (select only one)

- Lift Station – Name: _____
 Manhole – MH#: _____
 Gravity Sewer Pipe
 Pressure Sewer Pipe (Forcemain)
 River or Stream Crossing – Select one: Forcemain Siphon
 Permanent Overflow Structure
 Treatment Plant Unit or Pipe: _____
 Other: _____

Destination: (select all that apply)

Ditch -- Name of surface water it drains to: _____

Storm sewer -- Name of surface water it goes to: _____

Surface water -- Name of waterbody: _____

Ground -- Seeps into soil: _____

Other -- Describe: Please see attached table for locations of discharges

Overflow Explanation (This includes any information, whether the overflow was unavoidable to prevent loss of life, personal injury, or severe property damage and whether there were feasible alternatives to the overflow.)

The combined sewer overflows occurred due to heavy rainfall that began the night of July 9. At District rain gauge WS1203, located at 245 W. Lincoln, 2.1 inches of rain fell between 7:30 PM and 11:30 PM. Inflows to the Inline Storage System (ISS) reached 3.7 billion gallons per day. At 11:55 PM, the decision to close the combined sewerage gates was made to save the remaining ISS capacity for separate sewerage only and to prevent basement backups. During the early morning hours of July 10, the rain quickly subsided and, as the system began to recover, the combined gates were reopened to minimize discharge volume.

Immediate Corrective Action and Steps Taken to Reduce this Overflow Volume and Impacts

MMSD and Veolia Water Milwaukee will continue to operate the conveyance system, Inline Storage System, Northwest Side Relief Sewer and the water reclamation facilities in a manner to prevent separate sewer overflows and to maximize the capture of combined sewer flow volumes.

Long Term Plan to Reduce, Eliminate, Prevent Reoccurrence of this Overflow

The District's six-year investment plan calls for \$1.4 billion in improvements to regional water reclamation facilities and sewers to reduce the risk of overflows and basement backups. Part of that spending includes the private property inflow and infiltration reduction program throughout our service area. MMSD and Veolia Water Milwaukee will continue to operate the conveyance system, Inline Storage System, Northwest Side Relief Sewer and the water reclamation facilities in a manner to prevent separate sewer overflows and to maximize the capture of combined sewer flow volumes.

Building Backups

Number of building backups occurring during this time in Area of Overflow: _____

Locations of Building Backups: Tributary municipalities record and respond to backups.
(list each one)

Certification

Authorized Representative Name Sharon K. Mertens	Authorized Representative Title Water Quality Protection Division Director
Email Address smertens@mmsd.com	Phone Number (414) 277-6384

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.


Signature of Authorized Representative

7/14/20
Signed Date (mm/dd/yyyy)

Note: Submit this form to your DNR wastewater representative. Permittees who are required to submit monthly Discharge Monitoring Reports (DMRs) shall report this overflow on the DMR.

DNR Follow-Up Action (DNR Use Only)	
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MMSD Reported Overflows
CSO Event: 7/10/20

Event Type		Event Date Range		Volume (MG)		Event Reason				
CSO	Event	7/10/20 - 7/10/20		7.1		Conveyance Capacity, ISS Gate Closures				
Dropshaft/ Structure	Point No	Serial No	Date	Volume (MG)	Duration (Hrs)	Waterway	Latitude	Longitude	Location	
NS04	104	090	7/10/20	0.8	1	Milwaukee River	43.08198	-87.89250	E. Keefe Avenue	
		091	7/10/20	0.2	1		43.08192	-87.89150	E. Edgewood Avenue	
NS07	107	099	7/10/20	0.3	1	Milwaukee River	43.05740	-87.89420	E. Boylston Street	
		103A	7/10/20	1.7	1		43.05678	-87.90121	1944 N. Commerce Street	
NS08	108	106	7/10/20	1.0	1	Milwaukee River	43.05222	-87.90744	N. of E. Pleasant Street	
		108B	7/10/20	2.0	1		43.05154	-87.90725	E. Pleasant Street at N. Water Street	
		111	7/10/20	0.1	1		43.04966	-87.90884	E. Lyon Street	
NS11	111	089	7/10/20	1.0	3	Milwaukee River	43.08932	-87.89910	E. Capitol Drive	

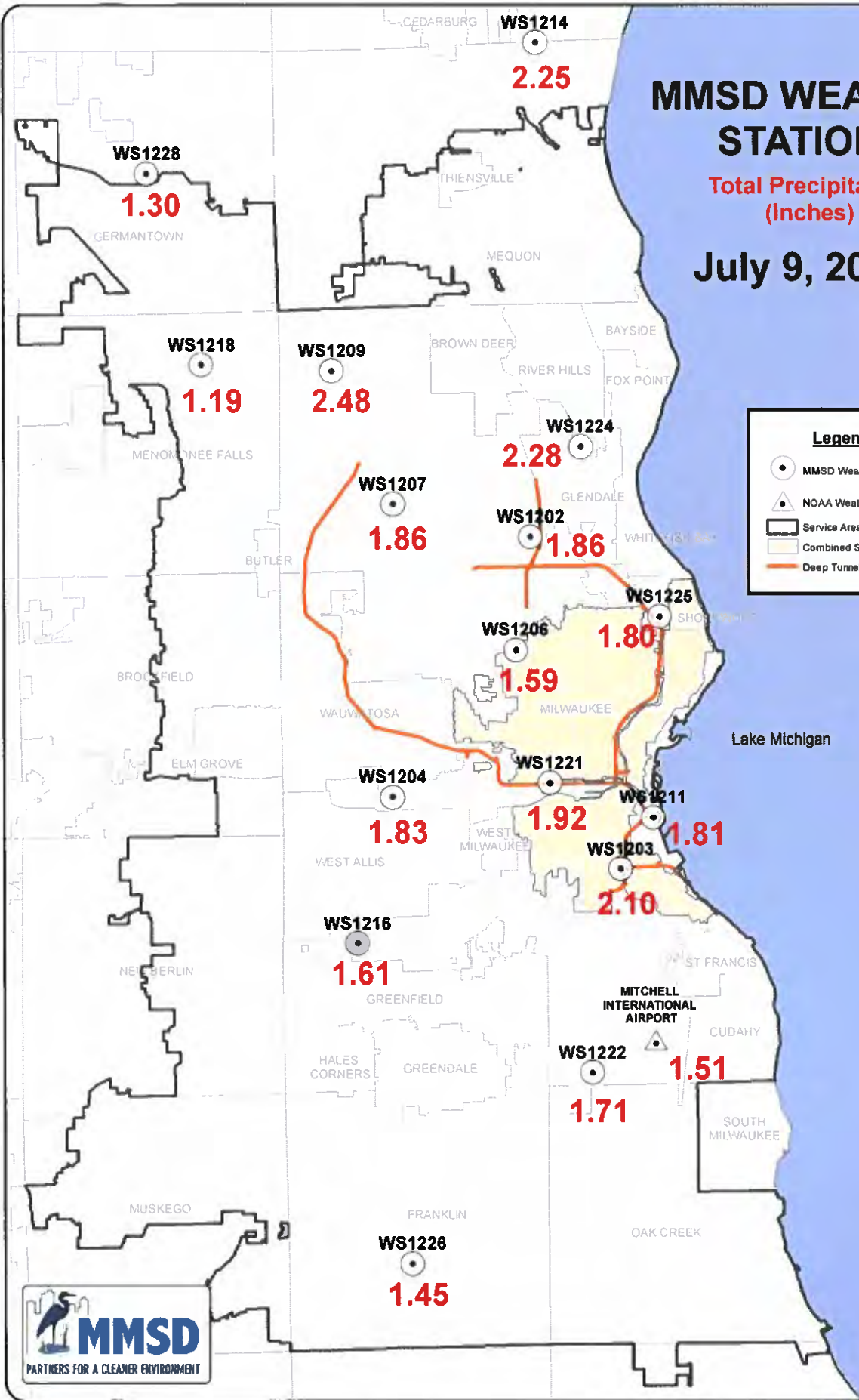
MMSD WEATHER STATIONS

Total Precipitation
(Inches)

July 9, 2020

Legend

- MMSD Weather Station
- ▲ NOAA Weather Station
- ▭ Service Area
- ▭ Combined Sewer Area
- Deep Tunnel



1 in = 3 miles