



August 24, 2018

Via Email (geisa.thielen@wisconsin.gov) and
Certified Mail - Return Receipt Requested

Ms. Geisa Thielen
Wastewater Engineer- Water Quality Bureau /SE District
Wisconsin Department of Natural Resources
2300 North Dr. Martin Luther King Jr Dr.
Milwaukee, WI 53212

Subject: August 20-21, 2018 Combined Sewer Overflow Event Five-Day Notification Letter
WPDES Permit No. WI-0036820-03-1

Dear Ms. Thielen:

The following information describes the combined sewer overflows and the combined sewer wet weather treatment process that occurred August 20-21, 2018. This information complies with the reporting requirements of sections 10.2.6 and 10.2.8 of the District's WPDES permit.

Reason for Overflow

The combined sewer overflows occurred as a result of intense rainfall on the evening of August 20th. At 11:20 PM, the volume in the Inline Storage System (ISS) was 288 million gallons with an inflow rate of 6.35 billion gallons per day and an estimated time to fill of 27 minutes. By 11:30 PM, the decision was made to close the combined sewer gates to prevent basement backups and reserve the remaining capacity for separate sewage. The precipitation amount measured at District rain gauge WS1224 between 10:30 PM and 11:30 PM was 2.65 inches with a maximum intensity of 6.12 inches per hour.

The Depth Duration Frequency Curves are attached and were generated for District rain gauge WS1224, using National Oceanic and Atmospheric Administration Atlas 14, Volume 8, Version 2. This reference shows that this rainfall event was representative of a 50-year recurrence interval storm.

Estimated Duration of Combined Sewer Discharge

The discharges began shortly after the combined sewer gates closed at 11:30 PM on August 20th. All discharges were concluded by 4:00 PM on August 21st for a duration of 16.5 hours.

Estimated Volume of Discharge

The current estimate of the overflow volume is 98.7 million gallons. This amount includes one combined sewer overflow from an outfall that is not tributary to the ISS. The District will continue its analysis of the overflow volumes and will report any significant volume revisions in the District's quarterly submitted WDNR Wastewater Discharge Monitoring Short Report.

Milwaukee Metropolitan Sewerage District

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

414-272-5100 www.mmsd.com 

Ms. Geisa Thielen
August 24, 2018
Page 2 of 2

Combined Sewer Wet Weather Flow Treatment Process

To minimize the volume of combined sewer overflows the combined sewer wet weather flow treatment process at Jones Island was utilized. The process began on August 20, 2018 at 11:11 PM and concluded on August 21, 2018 at 6:22 AM. The total amount treated in this process was 21.8 million gallons.

Steps Taken to Prevent another Discharge

The District and Veolia Water Milwaukee will continue to operate the conveyance system, ISS, NWSRS, and the water reclamation facilities in a manner to prevent separate sewer overflows and to maximize the capture of combined sewer flow volumes. The District is also funding a 10 year, \$58 million-dollar Private Party Inflow and Infiltration Reduction Program throughout our service area to further reduce the risk of basement backups and separate sewer overflows.

The following supporting documents are attached:

- CSO Monitoring Report Summary
- Precipitation Map at District Rain Gauges
- Depth Duration Frequency Curve

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

enc.

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



Milwaukee Metropolitan Sewerage District

CSO Monitoring Report Summary

Reporting Period Start Date: 8/20/18
Reporting Period End Date: 8/21/18

Collector System	Waterbody	Total Estimated Volume (MG)	Total Estimated Duration (Hours)
CT2 WPDES 113 North Hawley Road & West State Street	Menomonee	1.0	2
CT3/4 WPDES 114 North 44th Street & West Wells Street	Menomonee	26.3	4
CT5/6 WPDES 115 North 25th Street at the Menomonee River	Menomonee	0.0	0
CT7 WPDES 116 South 16th Street & West Canal Street	Menomonee	0.0	0
CT8 WPDES 117 South 3rd Street & West Seeboth Street	Menomonee	0.0	0
KK1 WPDES 118 South 6th Street & West Cleveland Avenue	Kinnickinnic	0.0	0
KK2 WPDES 119 South 1st Street & South Chase Avenue	Kinnickinnic	0.0	0
KK3 WPDES 120 South 4th Street & West Becher Street	Kinnickinnic	0.0	0
KK4 WPDES 121 South 1st Street & West Lincoln Avenue	Kinnickinnic	0.0	0
LMN WPDES 122 East Bay Street & East Ward Street	Lake Michigan	4.4 *	4
LMS WPDES 123 South Lincoln Memorial Drive & East Russell Avenue	Lake Michigan	0.0	0
NS4 WPDES 104 North Cambridge Avenue & East Providence Avenue	Milwaukee	3.4	4
NS5 WPDES 105 East Burleigh Street at the Milwaukee River	Milwaukee	1.4	1
NS6 WPDES 106 East Park Place at the Milwaukee River	Milwaukee	3.0	4
NS7 WPDES 107 North Commerce Street & North Booth Street	Milwaukee	43.6	16
NS8 WPDES 108 North Commerce Street & East Pleasant Street	Milwaukee	0.9	2
NS9 WPDES 109 North Old World 3rd Street & West McKinley Avenue	Milwaukee	0.0	0
NS10 WPDES 110 North Water Street & East St. Paul Avenue	Milwaukee	0.0	0
NS11 WPDES 111 North Humboldt Avenue & East Capitol Drive	Milwaukee	3.4	5
NS12 WPDES 112 North 31st Street & West Capitol Drive	Lincoln Creek	1.0	1

Total Estimated CSO Discharge For Dropshaft Basins **88.4**

Combined Sewer Overflow Volumes from CSO Outfalls Not Tributary to the ISS Dropshafts

CSO-262 North 59th Street & West Trenton Place	Menomonee	10.3	6
--	-----------	------	---

Total Estimated Non-Tributary Discharge **10.3**

TOTAL ESTIMATED CSO DISCHARGE: **98.7 MG**
For 8/20/18 Through 8/21/18 **5 Minute Calculation**






* Flow adjusted; see CSO Flow Adjustment Report for details.

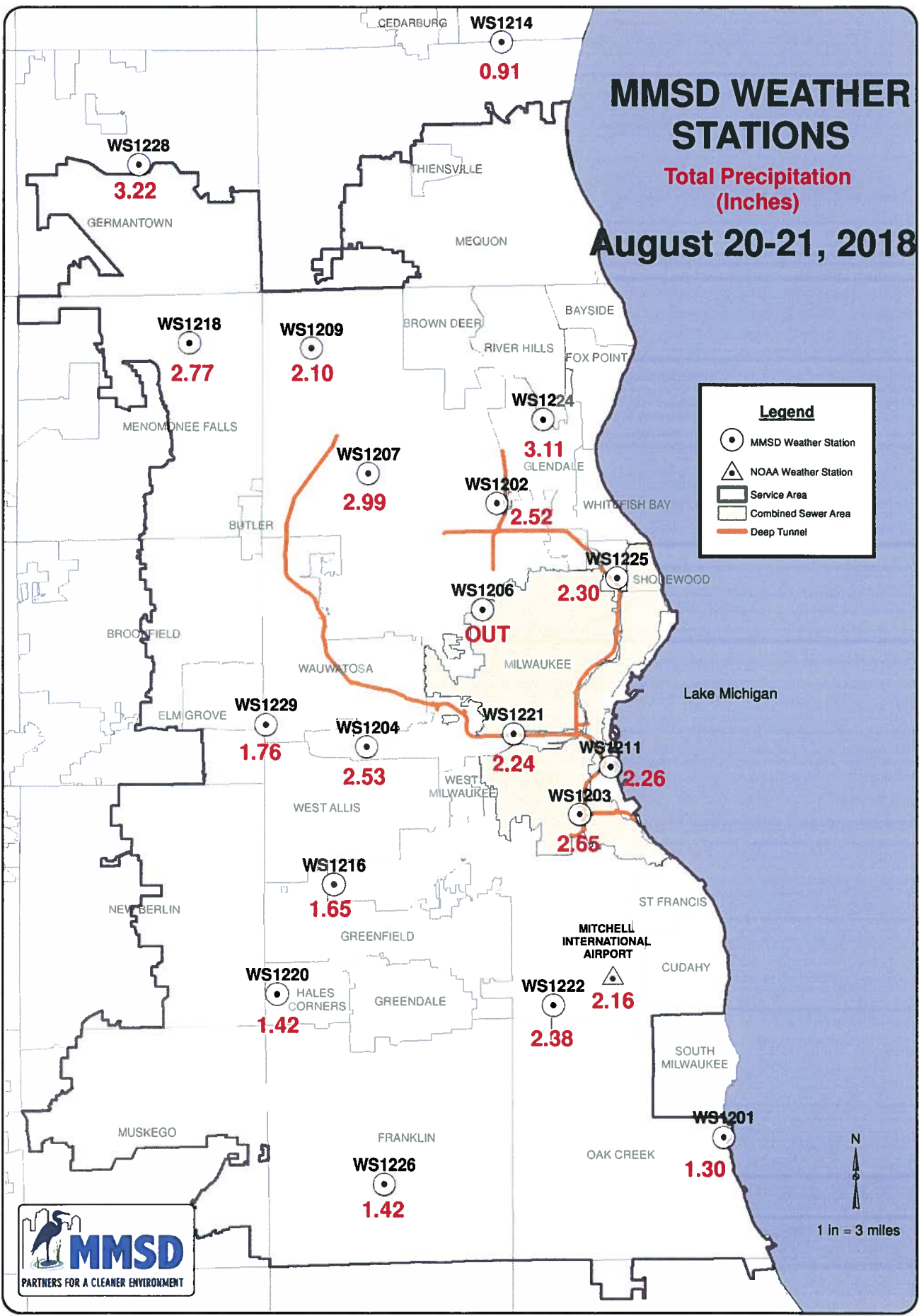
MMSD WEATHER STATIONS

Total Precipitation
(Inches)

August 20-21, 2018

Legend

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



1 in = 3 miles

Depth Duration Frequency Curve
Based on NOAA Atlas 14, Vol. 8, Ver. 2
With Rainfall Data from Gauge WS1224 Reported to MMSD
August 20-21, 2018

