



Via Email and US Mail

September 10, 2018

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

Subject: September 5-6, 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 overflow and combined sewer wet weather flow treatment process that occurred September 5-6, 2018. This information complies with the terms and conditions listed in section 10.2.6 and 10.2.8 of Milwaukee Metropolitan Sewerage District (District) WPDES permit.

Reason for Overflow

The combined sewer overflows occurred because of extremely saturated ground and an active weather system that produced precipitation from September 1st through the evening of September 5th. As of the morning of September 5, the National Oceanic and Atmospheric Administration (NOAA) measured precipitation 6.2 inches above average in the Milwaukee area. Total precipitation recorded at District rain gauge WS1206 at 3626 W. Fond du Lac Ave from September 1st through the 5th was 4.13 inches. On September 5th at 11:30 AM, the Inline Storage System (ISS) was already storing 130 million gallons. Between 11:30 AM and 6:30 PM on September 5th, District rain gauge WS1206 measured over 2 inches of rain. When the decision was made at 6:30 PM to close the combined sewer gates to reserve the remaining capacity for separate sewage and to prevent basements backups, the volume in the ISS was 340 million gallons and inflow rate was 950 million gallons a day. The Northwest Side Relief Sewer (NWSRS) was storing 55 million gallons. Please see the attached precipitation map.

Estimated Duration of Combined Sewer Discharge

The discharges began after the combined sewer gates closed on September 5th, 2018 at 6:45 PM. All discharges were concluded by 10:40 PM on September 6th, 2018 for a total duration of 27.9 hours. The CSO Monitoring Report, which is a table of CSO discharge points, with estimated discharge times and estimated volumes, is attached.

Milwaukee Metropolitan Sewerage District

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

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Estimated Volume of Discharge

The current estimate of the overflow volume is 148 MG. This amount includes one combined sewer overflow not tributary to the Inline Storage System (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 Monitoring Short Report.

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 from 9/5/18 at 4:52 PM until 9/7/18 at 5:50 AM for a total of 37 hours. Total volume for this process was 93 million gallons. The use of the Combined Sewer Wet Weather Flow Treatment process complied with section 2.2.3 of the District's WPDES permit.

Steps Taken to Prevent another Discharge

The District and Veolia Water Milwaukee will continue to operate the conveyance system, ISS, Northwest Side Relief Sewer (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 Property 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 for September 1 through September 5, 2018

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



Milwaukee Metropolitan Sewerage District CSO Monitoring Report Summary

Reporting Period Start Date: 9/5/18

Reporting Period End Date: 9/6/18

Collector System	Waterbody	Total Estimated Volume (MG)	Total Estimated Duration (Hours)
CT2 WPDES 113 North Hawley Road & West State Street	Menomonee	0.5	2
CT3/4 WPDES 114 North 44th Street & West Wells Street	Menomonee	26.1	6
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	0.0	0
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	1.1	5
NS5 WPDES 105 East Burleigh Street at the Milwaukee River	Milwaukee	0.0	0
NS6 WPDES 106 East Park Place at the Milwaukee River	Milwaukee	0.0	0
NS7 WPDES 107 North Commerce Street & North Booth Street	Milwaukee	77.6	23
NS8 WPDES 108 North Commerce Street & East Pleasant Street	Milwaukee	0.6	1
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	0.1	2
NS12 WPDES 112 North 31st Street & West Capitol Drive	Lincoln Creek	0.0	0

Total Estimated CSO Discharge for Dropshaft Basins **106.0**

*Combined Sewer Overflow Volumes from CSO Outfalls not Tributary to the ISS Dropshafts
CSO-262 North 59th Street & West Trenton Place* **42.0** **12**

TOTAL ESTIMATED CSO DISCHARGE: **148.0**
For 9/5/18 Through 9/6/18 *5 minute calculation*

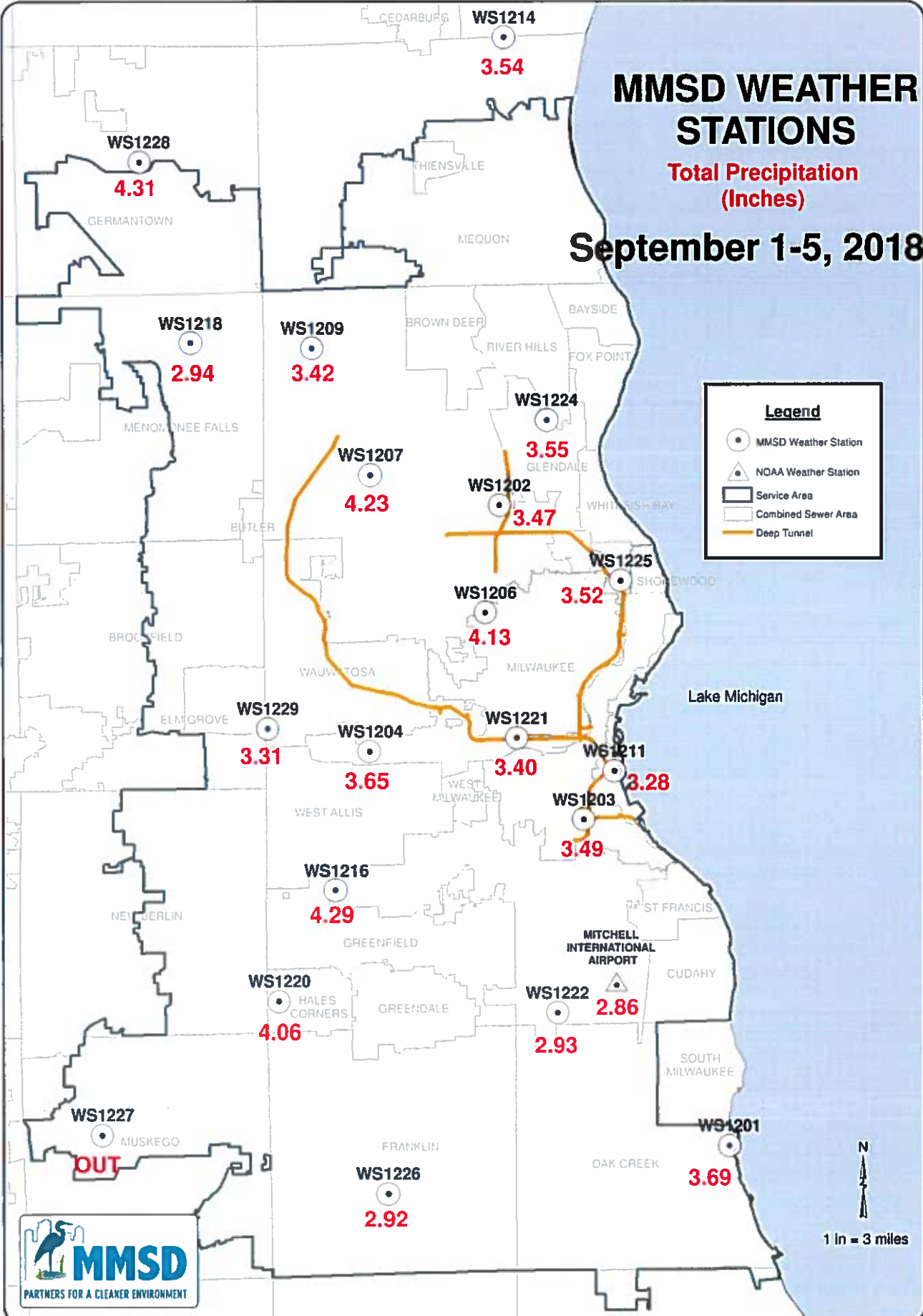
MMSD WEATHER STATIONS

Total Precipitation
(Inches)

September 1-5, 2018

Legend

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



1 in = 3 miles