



**Combined Sewer Overflow
Public Notification Program
2025 Annual Report**

**City of Lakewood, Ohio
May 1, 2025**

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CSO Public Notification Program
Annual Report for 2025

The City of Lakewood has combined sewer overflows (CSOs) on Lake Erie and Rocky River. Public access areas affected by CSOs are Rocky River and Lake Erie beaches. The City notifies the public by email and on a website within four (4) hours of being made aware of a CSO event. Lakewood reports CSO activity monthly to the Ohio EPA, and annually to the US EPA.

The City has three (3) rain gauges that recorded between 32.25 and 36.04 inches of total rainfall throughout 2025. The rainfall for 2025 was greater than that observed in 2024. A total of sixty-five (65) CSO events occurred during the year, resulting in an estimated 120.95 million gallons (MG) of total CSO volume. By comparison, 2022 experienced a similar number of CSO events and a comparable total yearly rainfall, although the total CSO volume in 2025 was significantly lower than that observed in 2022. Ongoing system improvements previously implemented, along with differences in annual rainfall totals, storm characteristics, and overall weather patterns, contributed to year-to-year variability in CSO frequency and volume. Table 1 lists the number of CSO events, total CSO volume, and average annual rainfall (based on the three gauges) for the past five years.

Table 1: Annual CSO and Rainfall Data

Year	Number of CSO Events	Total Million Gallons (MG) of CSO Volume	Total Yearly Rainfall (in)
2021	68	169.17	33.95
2022	66	171.53	34.66
2023	65	227.32	45.27
2024	71	67.65	30.90
2025	65	120.95	34.22

The rainfall led to sixty-five (65) combined sewer overflow events in 2025. Table 2 is a listing of these wet weather CSO events for 2025. The last column of Table 2, Total Rain (in), is the rainfall only for events that produced one or more CSOs. The total rainfall of these events is less than the total for the entire year. Figure 1 is a map showing the locations of the outfalls listed in Table 2.

Table 2. Wet Weather Events Producing CSOs

Event 1^{1 2}: 0.12 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1055	12/31/24 11:55 PM	1/1/25 1:05 AM	0.01	1.2
CSO-052	12/31/24 11:55 PM	1/1/25 1:25 AM	0.26	1.5
CSO-056B	12/31/24 11:55 PM	1/1/25 2:00 AM	0.16	2.1
CSO-056A	12/31/24 11:55 PM	1/1/25 2:30 AM	0.10	2.6
CSO-059	12/31/24 11:55 PM	1/1/25 3:10 AM	0.36	3.3
LEWS 1045	1/1/25 12:00 AM	1/1/25 12:30 AM	0.01	0.5
LEWS 1040	1/1/25 12:20 AM	1/1/25 4:35 AM	0.16	4.3

Event 2¹: 0.37 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	1/18/25 5:25 AM	1/18/25 11:05 AM	0.04	5.7

Event 3^{1 2}: 0.03 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-056B	2/6/25 1:05 AM	2/6/25 4:45 AM	0.24	3.7
LEWS 1040	2/6/25 1:10 AM	2/6/25 4:20 AM	0.12	3.2
CSO-052	2/6/25 1:30 AM	2/6/25 3:55 AM	0.17	2.4
CSO-056A	2/6/25 2:20 AM	2/6/25 5:35 AM	0.07	3.3
CSO-059	2/6/25 4:50 AM	2/6/25 5:35 AM	0.02	0.8

Event 4^{1 2}: 0.35 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
RRES 1145	2/13/25 12:55 AM	2/13/25 2:35 AM	0.01	1.7
LEWS 1040	2/13/25 1:05 AM	2/13/25 3:55 AM	0.21	2.8
CSO-056B	2/13/25 1:10 AM	2/13/25 3:50 AM	0.36	2.7
LEWS 1055	2/13/25 1:15 AM	2/13/25 3:20 AM	0.05	2.1
CSO-052	2/13/25 1:20 AM	2/13/25 3:35 AM	0.51	2.3
LEWS 1045	2/13/25 1:55 AM	2/13/25 3:15 AM	0.02	1.3
CSO-056A	2/13/25 2:15 AM	2/13/25 4:45 AM	0.11	2.5
CSO-059	2/13/25 2:45 AM	2/13/25 4:50 AM	0.24	2.1

Event 5^{1 2}: 0.63 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	2/15/25 10:10 AM	2/15/25 12:10 PM	0.04	2.0
RRES 1145	2/15/25 10:15 AM	2/16/25 1:20 PM	0.12	27.1
CSO-056B	2/15/25 10:20 AM	2/15/25 12:15 PM	0.04	1.9
CSO-052	2/15/25 10:45 AM	2/15/25 11:00 AM	0.02	0.3
LEWS 1040	2/16/25 1:35 AM	2/16/25 7:35 AM	0.50	6.0
CSO-052	2/16/25 1:55 AM	2/16/25 6:55 AM	0.84	5.0
CSO-056B	2/16/25 1:55 AM	2/16/25 7:20 AM	0.63	5.4
LEWS 1055	2/16/25 2:00 AM	2/16/25 6:00 AM	0.05	4.0
LEWS 1045	2/16/25 2:50 AM	2/16/25 5:30 AM	0.02	2.7
CSO-056A	2/16/25 3:05 AM	2/16/25 8:05 AM	0.20	5.0
CSO-059	2/16/25 3:40 AM	2/16/25 8:20 AM	0.60	4.7

Event 6^{1 2}: 0.36 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	2/26/25 7:25 PM	2/26/25 11:25 PM	0.25	4.0
CSO-056B	2/26/25 7:35 PM	2/26/25 10:35 PM	0.27	3.0
CSO-052	2/26/25 7:40 PM	2/26/25 10:30 PM	0.51	2.8
LEWS 1055	2/26/25 7:50 PM	2/26/25 10:05 PM	0.03	2.3
CSO-056A	2/26/25 7:55 PM	2/26/25 10:25 PM	0.08	2.5
CSO-059	2/26/25 9:50 PM	2/26/25 11:40 PM	0.20	1.8

Event 7^{1 2}: 0.15 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-056B	2/27/25 6:55 PM	2/27/25 8:40 PM	0.03	1.8
LEWS 1040	2/27/25 6:55 PM	2/27/25 9:00 PM	0.08	2.1
CSO-052	2/27/25 7:30 PM	2/27/25 8:45 PM	0.10	1.3

Event 8^{1 2}: 0.37 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-056B	3/5/25 2:30 AM	3/5/25 4:55 AM	0.18	2.4
LEWS 1040	3/5/25 2:35 AM	3/5/25 5:00 AM	0.16	2.4
CSO-056A	3/5/25 2:40 AM	3/5/25 3:45 AM	0.03	1.1
CSO-052	3/5/25 2:45 AM	3/5/25 4:25 AM	0.26	1.7
LEWS 1070	3/5/25 3:15 AM	3/5/25 5:30 AM	0.05	2.3
CSO-059	3/5/25 3:55 AM	3/5/25 5:55 AM	0.08	2.0
CSO-056B	3/5/25 11:50 AM	3/5/25 12:35 PM	0.07	0.8
CSO-056A	3/5/25 11:55 AM	3/5/25 12:30 PM	0.02	0.6
CSO-052	3/5/25 12:00 PM	3/5/25 12:35 PM	0.09	0.6

Event 9¹: 0.07 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	3/5/25 8:35 PM	3/5/25 8:45 PM	0.04	0.2

Event 10¹: 0.17 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	3/15/25 5:35 AM	3/15/25 5:55 AM	0.01	0.3
CSO-056B	3/15/25 6:35 AM	3/15/25 7:25 AM	0.07	0.8
LEWS 1040	3/15/25 6:45 AM	3/15/25 8:05 AM	0.06	1.3

Event 11¹: 0.13 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	3/15/25 8:55 PM	3/15/25 9:40 PM	0.01	0.8

Event 12¹: 0.08 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	3/16/25 10:55 AM	3/16/25 12:05 PM	0.04	1.2

Event 13¹: 0.24 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	3/20/25 3:30 AM	3/20/25 6:00 AM	0.12	2.5
CSO-056B	3/20/25 3:55 AM	3/20/25 5:40 AM	0.08	1.8

Event 14^{1 2}: 0.18 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-056B	3/28/25 1:55 PM	3/28/25 2:30 PM	0.01	0.6
LEWS 1040	3/28/25 1:55 PM	3/28/25 3:00 PM	0.04	1.1
CSO-052	3/28/25 2:00 PM	3/28/25 2:35 PM	0.06	0.6

Event 15^{1 2}: 0.77 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	3/29/25 11:05 AM	4/1/25 12:00 AM	0.43	60.9
CSO-055	3/30/25 4:35 AM	3/30/25 5:05 AM	0.04	0.5
LEWS 1055	3/30/25 5:30 AM	3/30/25 6:20 AM	0.05	0.8
CSO-056B	3/30/25 5:30 AM	3/30/25 6:35 AM	0.17	1.1
CSO-052	3/30/25 5:35 AM	3/30/25 6:35 AM	0.30	1.0
CSO-056A	3/30/25 5:35 AM	3/30/25 6:35 AM	0.05	1.0
LEWS 1070	3/30/25 5:55 AM	3/30/25 7:10 AM	0.03	1.3
CSO-059	3/30/25 6:45 AM	3/30/25 7:45 AM	0.08	1.0
CSO-055	3/30/25 8:15 PM	3/30/25 8:55 PM	0.07	0.7
CSO-056B	3/30/25 9:15 PM	3/31/25 12:05 AM	0.30	2.8
CSO-056A	3/30/25 9:20 PM	3/30/25 11:55 PM	0.10	2.6
LEWS 1055	3/30/25 9:25 PM	3/30/25 11:35 PM	0.04	2.2
CSO-052	3/30/25 9:30 PM	3/30/25 11:55 PM	0.57	2.4
LEWS 1070	3/30/25 9:55 PM	3/31/25 12:45 AM	0.07	2.8
CSO-059	3/30/25 10:30 PM	3/31/25 1:05 AM	0.19	2.6

Event 16^{1 2}: 0.77 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	4/2/25 9:40 AM	4/2/25 11:00 AM	0.23	1.3
RRES 1145	4/2/25 10:00 AM	4/2/25 1:05 PM	0.26	3.1
LEWS 1055	4/2/25 10:10 AM	4/2/25 1:00 PM	0.33	2.8
CSO-056B	4/2/25 10:10 AM	4/2/25 2:15 PM	1.27	4.1
CSO-052	4/2/25 10:20 AM	4/2/25 1:35 PM	2.01	3.3
LEWS 1040	4/2/25 10:45 AM	4/2/25 12:30 PM	0.26	1.8
CSO-059	4/2/25 10:45 AM	4/2/25 3:30 PM	0.97	4.8
LEWS 1070	4/2/25 10:45 AM	4/2/25 3:50 PM	0.16	5.1
RRES 1180	4/2/25 11:10 AM	4/2/25 11:25 AM	0.04	0.3
CSO-056A	4/2/25 11:25 AM	4/2/25 2:45 PM	0.23	3.3
RRES 1165B	4/2/25 12:10 PM	4/2/25 12:20 PM	0.06	0.2

Event 17^{1 2}: 0.64 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	4/3/25 12:00 AM	4/3/25 1:50 AM	0.26	1.8
RRES 1145	4/3/25 12:20 AM	4/3/25 3:10 AM	0.16	2.8
CSO-056B	4/3/25 12:35 AM	4/3/25 5:55 AM	1.19	5.3
LEWS 1055	4/3/25 12:40 AM	4/3/25 4:15 AM	0.30	3.6
LEWS 1040	4/3/25 12:45 AM	4/3/25 3:20 AM	0.26	2.6
CSO-052	4/3/25 12:45 AM	4/3/25 4:55 AM	2.14	4.2
LEWS 1070	4/3/25 1:15 AM	4/3/25 8:05 AM	0.19	6.8
CSO-056A	4/3/25 1:45 AM	4/3/25 6:10 AM	0.27	4.4
CSO-059	4/3/25 1:55 AM	4/3/25 7:25 AM	1.36	5.5

Event 18^{1 2}: 0.67 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	4/5/25 1:35 AM	4/5/25 3:05 AM	0.03	1.5
RRES 1145	4/5/25 1:50 AM	4/5/25 5:55 AM	0.12	4.1
CSO-056B	4/5/25 2:10 AM	4/5/25 7:45 AM	0.94	5.6
LEWS 1055	4/5/25 2:20 AM	4/5/25 6:25 AM	0.17	4.1
CSO-052	4/5/25 2:20 AM	4/5/25 7:20 AM	1.63	5.0
LEWS 1040	4/5/25 2:30 AM	4/5/25 5:35 AM	0.07	3.1
CSO-056A	4/5/25 3:25 AM	4/5/25 8:15 AM	0.27	4.8
CSO-059	4/5/25 3:40 AM	4/5/25 9:10 AM	1.06	5.5
LEWS 1070	4/5/25 3:50 AM	4/5/25 10:40 AM	0.19	6.8
LEWS 1045	4/5/25 4:05 AM	4/5/25 7:10 AM	0.02	3.1

Event 19^{1 2}: 0.17 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	4/5/25 6:30 PM	4/5/25 7:15 PM	0.08	0.8
CSO-056B	4/5/25 6:30 PM	4/5/25 7:20 PM	0.02	0.8
LEWS 1070	4/5/25 7:40 PM	4/5/25 9:20 PM	0.02	1.7

Event 20^{1 2}: 0.16 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	4/19/25 7:35 AM	4/19/25 9:35 AM	0.05	2.0
CSO-056B	4/19/25 7:55 AM	4/19/25 8:35 AM	0.05	0.7
CSO-052	4/19/25 8:00 AM	4/19/25 8:40 AM	0.12	0.7

Event 21¹²: 0.41 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	4/25/25 4:20 PM	4/25/25 7:50 PM	0.07	3.5
CSO-056B	4/25/25 4:30 PM	4/25/25 7:25 PM	0.12	2.9
CSO-052	4/25/25 4:40 PM	4/25/25 7:15 PM	0.30	2.6
LEWS 1070	4/25/25 7:20 PM	4/25/25 9:00 PM	0.03	1.7
CSO-059	4/25/25 7:35 PM	4/25/25 8:25 PM	0.03	0.8

Event 22¹²: 0.12 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-056B	5/1/25 3:30 PM	5/1/25 4:05 PM	0.02	0.6
CSO-052	5/1/25 3:45 PM	5/1/25 4:15 PM	0.05	0.5

Event 23¹²: 0.24 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	5/2/25 12:20 PM	5/2/25 12:50 PM	0.01	0.5
RRES 1145	5/2/25 12:50 PM	5/2/25 2:35 PM	0.02	1.8
CSO-056B	5/2/25 1:00 PM	5/2/25 2:15 PM	0.16	1.3
LEWS 1040	5/2/25 1:00 PM	5/2/25 3:10 PM	0.08	2.2
CSO-052	5/2/25 1:05 PM	5/2/25 2:25 PM	0.43	1.3
LEWS 1070	5/2/25 2:45 PM	5/2/25 3:45 PM	0.01	1.0

Event 24¹²: 0.57 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	5/3/25 9:30 AM	5/3/25 12:40 PM	0.34	3.2
CSO-056B	5/3/25 9:30 AM	5/3/25 2:30 PM	0.15	5.0
LEWS 1040	5/3/25 10:15 AM	5/3/25 5:35 PM	0.05	7.3
LEWS 1070	5/3/25 10:55 AM	5/3/25 5:45 PM	0.11	6.8
CSO-059	5/3/25 11:10 AM	5/3/25 2:05 PM	0.04	2.9

Event 25 ^{1 2}: 0.68 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-056B	5/5/25 8:20 PM	5/6/25 1:45 AM	0.98	5.4
CSO-055	5/5/25 8:25 PM	5/5/25 10:55 PM	0.06	2.5
RRES 1145	5/5/25 9:00 PM	5/6/25 1:00 AM	0.12	4.0
CSO-052	5/5/25 9:20 PM	5/6/25 1:30 AM	1.51	4.2
LEWS 1040	5/5/25 9:20 PM	5/6/25 3:15 AM	0.09	5.9
LEWS 1130	5/5/25 10:15 PM	5/6/25 1:20 AM	0.06	3.1
CSO-059	5/5/25 10:25 PM	5/6/25 3:05 AM	0.97	4.7
LEWS 1070	5/5/25 10:35 PM	5/6/25 4:15 AM	0.16	5.7
LEWS 1045	5/5/25 10:40 PM	5/6/25 2:50 AM	0.09	4.2

Event 26 ^{1 2}: 0.13 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	5/13/25 6:10 AM	5/13/25 6:50 AM	0.07	0.7
LEWS 1040	5/13/25 7:00 AM	5/13/25 8:05 AM	0.03	1.1

Event 27 ^{1 2}: 0.33 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	5/15/25 8:05 AM	5/15/25 9:00 AM	0.09	0.9
RRES 1145	5/15/25 9:00 AM	5/15/25 10:50 AM	0.08	1.8
CSO-056B	5/15/25 9:05 AM	5/15/25 10:35 AM	0.25	1.5
CSO-052	5/15/25 9:25 AM	5/15/25 10:30 AM	0.39	1.1
LEWS 1040	5/15/25 9:30 AM	5/15/25 11:25 AM	0.08	1.9
CSO-059	5/15/25 10:35 AM	5/15/25 11:45 AM	0.12	1.2
LEWS 1070	5/15/25 10:45 AM	5/15/25 12:15 PM	0.03	1.5

Event 28 ^{1 2}: 0.51 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
RRES 1145	5/20/25 9:45 PM	5/21/25 4:25 AM	0.06	6.7
CSO-055	5/21/25 1:35 AM	5/21/25 2:00 AM	0.03	0.4
LEWS 1040	5/21/25 1:35 AM	5/21/25 6:35 AM	0.11	5.0
CSO-052	5/21/25 2:35 AM	5/21/25 5:20 AM	0.43	2.8
CSO-056B	5/21/25 2:40 AM	5/21/25 5:25 AM	0.18	2.8
LEWS 1130	5/21/25 3:45 AM	5/21/25 4:10 AM	0.01	0.4
CSO-059	5/21/25 3:45 AM	5/21/25 5:25 AM	0.02	1.7
CSO-056A	5/21/25 3:45 AM	5/21/25 6:05 AM	0.04	2.3
LEWS 1070	5/21/25 4:20 AM	5/21/25 7:00 AM	0.06	2.7

Event 29^{1 2}: 0.91 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	5/21/25 1:10 PM	5/21/25 2:30 PM	0.09	1.3
RRES 1145	5/21/25 2:05 PM	5/21/25 7:50 PM	0.12	5.8
CSO-052	5/21/25 2:10 PM	5/21/25 10:15 PM	2.06	8.1
CSO-056B	5/21/25 2:10 PM	5/21/25 10:40 PM	1.03	8.5
LEWS 1040	5/21/25 2:10 PM	5/22/25 1:30 AM	0.41	11.3
LEWS 1130	5/21/25 3:10 PM	5/21/25 8:35 PM	0.02	5.4
CSO-059	5/21/25 3:15 PM	5/21/25 9:35 PM	0.61	6.3
CSO-056A	5/21/25 3:15 PM	5/21/25 11:30 PM	0.23	8.3
LEWS 1070	5/21/25 3:20 PM	5/22/25 12:30 AM	0.17	9.2

Event 30^{1 2}: 0.56 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-056B	5/22/25 8:50 AM	5/22/25 5:25 PM	0.49	8.6
RRES 1145	5/22/25 8:50 AM	5/22/25 5:40 PM	0.01	8.8
CSO-056A	5/22/25 8:55 AM	5/22/25 5:05 PM	0.15	8.2
CSO-052	5/22/25 9:10 AM	5/22/25 5:15 PM	0.99	8.1
LEWS 1040	5/22/25 9:35 AM	5/22/25 8:00 PM	0.45	10.4
LEWS 1070	5/22/25 10:15 AM	5/22/25 9:15 PM	0.26	11.0
CSO-059	5/22/25 10:30 AM	5/22/25 7:25 PM	0.61	8.9

Event 31^{1 2}: 0.37 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	6/9/25 7:25 AM	6/9/25 7:50 AM	0.04	0.4
CSO-052	6/9/25 8:30 AM	6/9/25 9:20 AM	0.24	0.8
CSO-056A	6/9/25 8:30 AM	6/9/25 9:55 AM	0.06	1.4
LEWS 1040	6/9/25 8:35 AM	6/9/25 10:50 AM	0.13	2.3
RRES 1145	6/9/25 9:25 AM	6/9/25 3:25 PM	0.02	6.0
CSO-056B	6/9/25 9:30 AM	6/9/25 11:00 AM	0.17	1.5
CSO-059	6/9/25 9:35 AM	6/9/25 11:00 AM	0.04	1.4
LEWS 1070	6/9/25 10:05 AM	6/9/25 11:35 AM	0.03	1.5

Event 32^{1 2}: 1.94 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	6/14/25 1:20 AM	6/14/25 7:55 AM	0.67	6.6
LEWS 1040	6/14/25 2:00 AM	6/14/25 2:10 PM	1.97	12.2
CSO-056A	6/14/25 2:15 AM	6/14/25 11:50 AM	0.68	9.6
CSO-052	6/14/25 2:25 AM	6/14/25 11:50 AM	3.80	9.4
RRES 1145	6/14/25 3:05 AM	6/14/25 12:20 PM	0.11	9.3
CSO-056B	6/14/25 3:10 AM	6/14/25 1:20 PM	3.07	10.2
CSO-059	6/14/25 3:30 AM	6/14/25 1:30 PM	2.72	10.0
LEWS 1130	6/14/25 3:40 AM	6/14/25 10:10 AM	0.07	6.5
LEWS 1070	6/14/25 3:55 AM	6/14/25 2:55 PM	0.34	11.0
LEWS 1045	6/14/25 4:05 AM	6/14/25 1:15 PM	0.17	9.2

Event 33^{1 2}: 0.25 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	6/17/25 1:20 PM	6/17/25 1:50 PM	0.03	0.5
CSO-052	6/17/25 2:15 PM	6/17/25 3:20 PM	0.27	1.1
CSO-056A	6/17/25 2:25 PM	6/17/25 3:20 PM	0.04	0.9
LEWS 1040	6/17/25 2:35 PM	6/17/25 4:15 PM	0.08	1.7
RRES 1145	6/17/25 2:50 PM	6/17/25 3:55 PM	0.02	1.1
CSO-056B	6/17/25 3:05 PM	6/17/25 4:25 PM	0.12	1.3
CSO-059	6/17/25 3:35 PM	6/17/25 4:25 PM	0.02	0.8
LEWS 1070	6/17/25 3:45 PM	6/17/25 4:55 PM	0.02	1.2

Event 34^{1 2}: 1.52 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	6/18/25 4:20 PM	6/18/25 10:55 PM	0.07	6.6
CSO-056A	6/18/25 5:25 PM	6/19/25 12:10 AM	0.08	6.8
LEWS 1040	6/18/25 6:05 PM	6/19/25 1:10 AM	0.23	7.1
CSO-056B	6/18/25 6:25 PM	6/19/25 1:20 AM	0.50	6.9
LEWS 1070	6/18/25 6:30 PM	6/18/25 11:45 PM	0.09	5.3
LEWS 1055	6/18/25 6:30 PM	6/19/25 1:20 AM	0.11	6.8
CSO-059	6/18/25 6:35 PM	6/18/25 10:55 PM	0.28	4.3
RRES 1145	6/18/25 7:00 PM	6/19/25 1:00 AM	0.05	6.0
CSO-052	6/18/25 7:00 PM	6/19/25 1:10 AM	0.68	6.2
CSO-055	6/19/25 5:40 AM	6/19/25 1:15 PM	0.24	7.6
CSO-056A	6/19/25 6:45 AM	6/19/25 5:40 PM	0.22	10.9
RRES 1145	6/19/25 7:40 AM	6/19/25 4:30 PM	0.10	8.8
CSO-056B	6/19/25 7:45 AM	6/19/25 7:25 PM	1.80	11.7
LEWS 1055	6/19/25 7:50 AM	6/19/25 5:35 PM	0.37	9.8
LEWS 1040	6/19/25 7:50 AM	6/19/25 8:35 PM	1.08	12.8
CSO-052	6/19/25 7:55 AM	6/19/25 7:20 PM	2.52	11.4
CSO-059	6/19/25 11:45 AM	6/19/25 7:55 PM	1.75	8.2
LEWS 1070	6/19/25 11:50 AM	6/19/25 9:35 PM	0.29	9.8
LEWS 1130	6/19/25 12:20 PM	6/19/25 7:10 PM	0.04	6.8

Event 35^{1 2}: 0.23 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	6/20/25 4:50 PM	6/20/25 5:15 PM	0.03	0.4
CSO-056A	6/20/25 6:00 PM	6/20/25 6:45 PM	0.03	0.8
LEWS 1040	6/20/25 6:00 PM	6/20/25 7:45 PM	0.07	1.8
RRES 1145	6/20/25 6:45 PM	6/20/25 11:00 PM	0.05	4.3
LEWS 1055	6/20/25 6:50 PM	6/20/25 7:30 PM	0.02	0.7
CSO-056B	6/20/25 6:50 PM	6/20/25 7:55 PM	0.11	1.1
CSO-052	6/20/25 6:55 PM	6/20/25 8:00 PM	0.29	1.1
LEWS 1130	6/20/25 7:00 PM	6/20/25 7:35 PM	0.01	0.6
LEWS 1070	6/20/25 7:20 PM	6/20/25 8:35 PM	0.02	1.3

Event 36^{1 2}: 0.17 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	6/24/25 9:05 PM	6/24/25 9:30 PM	0.06	0.4
LEWS 1040	6/24/25 10:20 PM	6/24/25 11:55 PM	0.06	1.6
RRES 1145	6/24/25 11:05 PM	6/24/25 11:25 PM	0.03	0.3
CSO-056B	6/24/25 11:10 PM	6/24/25 11:55 PM	0.08	0.8
LEWS 1055	6/24/25 11:15 PM	6/24/25 11:45 PM	0.02	0.5
CSO-052	6/24/25 11:15 PM	6/25/25 12:05 AM	0.11	0.8

Event 37^{1 2}: 0.15 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	6/30/25 1:35 PM	6/30/25 1:55 PM	0.02	0.3
CSO-056A	6/30/25 2:40 PM	6/30/25 3:15 PM	0.01	0.6
LEWS 1040	6/30/25 2:45 PM	6/30/25 4:10 PM	0.04	1.4
RRES 1145	6/30/25 3:35 PM	6/30/25 4:00 PM	0.01	0.4
CSO-056B	6/30/25 3:40 PM	6/30/25 4:15 PM	0.06	0.6
CSO-052	6/30/25 3:40 PM	6/30/25 4:30 PM	0.14	0.8

Event 38^{1 2}: 0.97 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	7/16/25 10:05 AM	7/16/25 11:05 AM	0.06	1.0
CSO-056A	7/16/25 11:15 AM	7/16/25 12:15 PM	0.06	1.0
LEWS 1040	7/16/25 11:20 AM	7/16/25 1:05 PM	0.18	1.8
CSO-059	7/16/25 11:20 AM	7/16/25 1:25 PM	0.07	2.1
LEWS 1070	7/16/25 11:40 AM	7/16/25 12:50 PM	0.02	1.2
RRES 1145	7/16/25 12:10 PM	7/16/25 12:55 PM	0.04	0.8
LEWS 1045	7/16/25 12:10 PM	7/16/25 11:10 PM	0.18	11.0
CSO-052	7/16/25 12:15 PM	7/16/25 1:20 PM	0.48	1.1
CSO-056B	7/16/25 12:15 PM	7/16/25 1:20 PM	0.20	1.1
CSO-055	7/16/25 6:15 PM	7/16/25 7:30 PM	0.11	1.3
CSO-056A	7/16/25 7:20 PM	7/16/25 8:45 PM	0.11	1.4
RRES 1145	7/16/25 7:25 PM	7/16/25 9:00 PM	0.07	1.6
LEWS 1070	7/16/25 7:25 PM	7/16/25 9:30 PM	0.05	2.1
LEWS 1040	7/16/25 7:25 PM	7/16/25 9:45 PM	0.26	2.3
CSO-059	7/16/25 7:30 PM	7/16/25 9:55 PM	0.31	2.4
CSO-052	7/16/25 8:20 PM	7/16/25 9:50 PM	0.69	1.5
CSO-056B	7/16/25 8:20 PM	7/16/25 9:55 PM	0.50	1.6

Event 39^{1 2}: 1.32 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	7/24/25 7:30 PM	7/24/25 9:40 PM	0.19	2.2
CSO-056A	7/24/25 8:35 PM	7/24/25 11:15 PM	0.19	2.7
LEWS 1070	7/24/25 8:35 PM	7/25/25 12:15 AM	0.13	3.7
LEWS 1040	7/24/25 8:35 PM	7/25/25 1:00 AM	1.06	4.4
CSO-059	7/24/25 8:40 PM	7/25/25 12:35 AM	0.80	3.9
RRES 1145	7/24/25 8:45 PM	7/24/25 11:20 PM	0.13	2.6
LEWS 1180	7/24/25 9:00 PM	7/24/25 9:25 PM	0.04	0.4
LEWS 1045	7/24/25 9:00 PM	7/25/25 2:05 AM	0.22	5.1
LEWS 1130	7/24/25 9:20 PM	7/24/25 10:45 PM	0.01	1.4
CSO-056B	7/24/25 9:35 PM	7/25/25 12:20 AM	1.07	2.8
CSO-052	7/24/25 9:35 PM	7/25/25 2:00 AM	0.58	4.4

Event 40^{1 2}: 0.31 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	7/26/25 2:40 AM	7/26/25 4:45 AM	0.04	2.1
CSO-056A	7/26/25 4:30 AM	7/26/25 6:15 AM	0.09	1.8
LEWS 1040	7/26/25 4:35 AM	7/26/25 6:50 AM	0.08	2.3
LEWS 1070	7/26/25 5:00 AM	7/26/25 7:00 AM	0.05	2.0
RRES 1145	7/26/25 5:10 AM	7/26/25 8:05 AM	0.01	2.9
CSO-056B	7/26/25 5:20 AM	7/26/25 7:25 AM	0.27	2.1
CSO-059	7/26/25 5:25 AM	7/26/25 7:30 AM	0.19	2.1
LEWS 1045	7/26/25 6:00 AM	7/26/25 7:20 AM	0.02	1.3

Event 41^{1 2}: 0.40 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	7/27/25 12:30 AM	7/27/25 1:15 AM	0.03	0.8
LEWS 1040	7/27/25 1:30 AM	7/27/25 3:55 AM	0.24	2.4
CSO-056A	7/27/25 1:40 AM	7/27/25 2:40 AM	0.04	1.0
RRES 1145	7/27/25 1:40 AM	7/27/25 3:05 AM	0.03	1.4
CSO-059	7/27/25 1:45 AM	7/27/25 3:50 AM	0.04	2.1
LEWS 1070	7/27/25 2:10 AM	7/27/25 3:25 AM	0.02	1.3
LEWS 1045	7/27/25 2:25 AM	7/27/25 4:45 AM	0.06	2.3
CSO-052	7/27/25 2:40 AM	7/27/25 3:15 AM	0.21	0.6
CSO-056B	7/27/25 2:40 AM	7/27/25 3:50 AM	0.14	1.2

Event 42^{1 2}: 1.52 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	7/28/25 3:45 PM	7/28/25 6:15 PM	0.11	2.5
RRES 1145	7/28/25 4:15 PM	7/28/25 7:55 PM	0.60	3.7
LEWS 1040	7/28/25 4:20 PM	7/28/25 9:50 PM	0.94	5.5
CSO-002	7/28/25 4:30 PM	7/28/25 5:15 PM	0.06	0.8
CSO-059	7/28/25 4:30 PM	7/28/25 9:35 PM	0.98	5.1
LEWS 1130	7/28/25 4:40 PM	7/28/25 6:45 PM	0.02	2.1
CSO-056A	7/28/25 4:55 PM	7/28/25 7:55 PM	0.27	3.0
LEWS 1070	7/28/25 5:00 PM	7/28/25 9:45 PM	0.14	4.8
LEWS 1045	7/28/25 5:15 PM	7/28/25 10:15 PM	0.21	5.0
CSO-056B	7/28/25 5:35 PM	7/28/25 9:30 PM	1.54	3.9
CSO-052	7/28/25 5:45 PM	7/28/25 8:40 PM	1.36	2.9

Event 43^{1 2}: 0.71 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	7/31/25 3:20 AM	7/31/25 9:15 AM	0.18	5.9
CSO-056A	7/31/25 4:40 AM	7/31/25 11:00 AM	0.14	6.3
LEWS 1040	7/31/25 4:40 AM	7/31/25 12:40 PM	0.42	8.0
LEWS 1130	7/31/25 4:50 AM	7/31/25 10:10 AM	0.03	5.3
CSO-052	7/31/25 4:55 AM	7/31/25 10:55 AM	0.83	6.0
RRES 1145	7/31/25 5:35 AM	7/31/25 10:50 AM	0.04	5.3
CSO-056B	7/31/25 5:35 AM	7/31/25 12:15 PM	0.63	6.7
CSO-059	7/31/25 5:45 AM	7/31/25 12:35 PM	0.50	6.8
LEWS 1070	7/31/25 9:10 AM	7/31/25 12:30 PM	0.09	3.3
LEWS 1045	7/31/25 9:30 AM	7/31/25 1:05 PM	0.12	3.6

Event 44^{1 2}: 0.39 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	8/13/25 1:25 AM	8/13/25 2:10 AM	0.03	0.8
LEWS 1040	8/13/25 2:30 AM	8/13/25 6:25 AM	0.14	3.9
CSO-052	8/13/25 2:50 AM	8/13/25 7:10 AM	0.48	4.3
CSO-056B	8/13/25 3:35 AM	8/13/25 5:40 AM	0.11	2.1
CSO-059	8/13/25 3:40 AM	8/13/25 5:20 AM	0.01	1.7
CSO-056A	8/13/25 3:40 AM	8/13/25 5:30 AM	0.02	1.8
LEWS 1045	8/13/25 4:10 AM	8/13/25 6:25 AM	0.05	2.3
LEWS 1070	8/13/25 5:05 AM	8/13/25 6:15 AM	0.02	1.2

Event 45^{1 2}: 0.71 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	8/19/25 10:25 AM	8/19/25 4:50 PM	0.07	6.4
LEWS 1040	8/19/25 11:35 AM	8/19/25 9:55 PM	0.44	10.3
CSO-052	8/19/25 12:00 PM	8/19/25 11:00 PM	1.35	11.0
CSO-056B	8/19/25 12:35 PM	8/19/25 7:20 PM	0.33	6.8
CSO-056A	8/19/25 12:40 PM	8/19/25 7:10 PM	0.08	6.5
CSO-059	8/19/25 5:00 PM	8/19/25 7:25 PM	0.21	2.4
LEWS 1070	8/19/25 5:00 PM	8/19/25 7:55 PM	0.05	2.9
LEWS 1045	8/19/25 5:20 PM	8/19/25 9:55 PM	0.15	4.6

Event 46^{1 2}: 0.88 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	8/25/25 3:00 AM	8/25/25 3:50 AM	0.01	0.8
LEWS 1040	8/25/25 4:15 AM	8/25/25 11:45 AM	0.11	7.5
CSO-052	8/25/25 4:40 AM	8/25/25 1:20 PM	0.47	8.7
CSO-056B	8/25/25 5:20 AM	8/25/25 11:25 AM	0.10	6.1
CSO-056A	8/25/25 5:25 AM	8/25/25 11:20 AM	0.01	5.9
CSO-055	8/25/25 5:35 PM	8/25/25 9:35 PM	0.07	4.0
LEWS 1040	8/25/25 7:00 PM	8/26/25 12:45 AM	0.37	5.8
CSO-059	8/25/25 7:05 PM	8/26/25 12:00 AM	0.25	4.9
LEWS 1070	8/25/25 7:05 PM	8/26/25 12:30 AM	0.09	5.4
LEWS 1130	8/25/25 7:10 PM	8/25/25 10:15 PM	0.01	3.1
RRES 1145	8/25/25 7:50 PM	8/25/25 11:10 PM	0.02	3.3
CSO-056A	8/25/25 7:55 PM	8/25/25 11:45 PM	0.14	3.8
CSO-056B	8/25/25 7:55 PM	8/25/25 11:55 PM	0.41	4.0
CSO-052	8/25/25 8:25 PM	8/26/25 1:50 AM	1.40	5.4
LEWS 1045	8/25/25 8:55 PM	8/26/25 12:45 AM	0.13	3.8

Event 47^{1 2}: 0.28 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	9/4/25 6:40 AM	9/4/25 9:55 AM	0.07	3.3
CSO-056B	9/4/25 8:45 AM	9/4/25 9:10 AM	0.02	0.4
CSO-052	9/4/25 8:45 AM	9/4/25 10:55 AM	0.17	2.2

Event 48^{1 2}: 0.11 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-055	9/21/25 1:00 PM	9/21/25 3:25 PM	0.04	2.4
CSO-056B	9/21/25 2:20 PM	9/21/25 2:50 PM	0.04	0.5
CSO-052	9/21/25 2:20 PM	9/21/25 3:15 PM	0.04	0.9

Event 49^{1 2}: 0.16 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-056B	9/22/25 8:20 PM	9/22/25 8:50 PM	0.02	0.5
CSO-052	9/22/25 8:25 PM	9/22/25 9:30 PM	0.06	1.1

Event 50^{1 2}: 0.21 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	9/24/25 1:40 PM	9/24/25 2:10 PM	0.02	0.5
LEWS 1040	9/24/25 1:45 PM	9/24/25 2:40 PM	0.08	0.9
CSO-056B	9/24/25 1:50 PM	9/24/25 2:15 PM	0.01	0.4
CSO-059	9/24/25 1:50 PM	9/24/25 3:25 PM	0.01	1.6

Event 51^{1 2}: 0.48 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	10/7/25 4:55 AM	10/7/25 9:20 AM	0.15	4.4
CSO-052	10/7/25 5:15 AM	10/7/25 9:50 AM	0.33	4.6
CSO-056B	10/7/25 5:20 AM	10/7/25 6:50 AM	0.11	1.5
CSO-055	10/7/25 6:00 AM	10/7/25 6:25 AM	0.01	0.4
CSO-059	10/7/25 6:10 AM	10/7/25 7:55 AM	0.03	1.8
LEWS 1070	10/7/25 6:15 AM	10/7/25 7:20 AM	0.02	1.1
CSO-056A	10/7/25 7:00 AM	10/7/25 7:45 AM	0.03	0.8

Event 52^{1 2}: 0.16 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	10/7/25 7:05 PM	10/7/25 7:35 PM	0.01	0.5
CSO-052	10/7/25 7:05 PM	10/7/25 8:15 PM	0.08	1.2

Event 53^{1 2}: 0.86 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	10/19/25 11:00 AM	10/19/25 12:35 PM	0.04	1.6
CSO-056B	10/19/25 11:10 AM	10/19/25 11:50 PM	0.42	12.7
CSO-052	10/19/25 11:10 AM	10/20/25 12:05 AM	0.66	12.9
LEWS 1070	10/19/25 12:20 PM	10/20/25 12:20 AM	0.13	12.0
LEWS 1040	10/19/25 6:45 PM	10/19/25 11:45 PM	0.17	5.0
CSO-056A	10/19/25 7:55 PM	10/20/25 12:20 AM	0.11	4.4
CSO-059	10/19/25 9:10 PM	10/20/25 12:40 AM	0.29	3.5

Event 54^{1 2}: 0.76 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
RRES 1145	10/23/25 7:40 AM	10/23/25 10:35 AM	0.01	2.9
LEWS 1040	10/23/25 7:45 AM	10/23/25 1:55 PM	0.34	6.2
CSO-056B	10/23/25 7:45 AM	10/23/25 2:00 PM	0.88	6.3
CSO-052	10/23/25 7:45 AM	10/23/25 2:35 PM	0.44	6.8
CSO-055	10/23/25 7:50 AM	10/23/25 10:10 AM	0.11	2.3
LEWS 1070	10/23/25 8:10 AM	10/23/25 12:45 PM	0.13	4.6
CSO-056A	10/23/25 8:50 AM	10/23/25 2:50 PM	0.23	6.0
CSO-059	10/23/25 9:10 AM	10/23/25 1:10 PM	0.83	4.0

Event 55^{1 2}: 0.62 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-056B	10/23/25 9:50 PM	10/24/25 1:25 AM	0.75	3.6
CSO-055	10/23/25 9:55 PM	10/24/25 12:25 AM	0.19	2.5
CSO-052	10/23/25 9:55 PM	10/24/25 2:10 AM	0.52	4.3
LEWS 1040	10/23/25 10:00 PM	10/24/25 2:05 AM	0.30	4.1
LEWS 1070	10/23/25 10:45 PM	10/24/25 2:30 AM	0.09	3.8
RRES 1145	10/23/25 10:50 PM	10/24/25 1:20 AM	0.03	2.5
CSO-056A	10/23/25 10:55 PM	10/24/25 2:10 AM	0.16	3.3
CSO-059	10/24/25 12:10 AM	10/24/25 2:30 AM	0.62	2.3

Event 56^{1 2}: 1.64 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	10/30/25 12:20 AM	10/30/25 9:15 PM	1.66	20.9
LEWS 1040	10/30/25 12:40 AM	10/30/25 8:40 PM	1.07	20.0
CSO-056B	10/30/25 12:55 AM	10/30/25 8:30 PM	1.98	19.6
LEWS 1070	10/30/25 1:20 AM	10/30/25 9:10 PM	0.46	19.8
CSO-056A	10/30/25 2:05 AM	10/30/25 2:50 PM	0.57	12.8
CSO-059	10/30/25 2:30 AM	10/30/25 5:15 PM	2.43	14.8
CSO-055	10/30/25 3:00 AM	10/30/25 7:55 AM	0.02	4.9

Event 57²: 0.09 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	11/7/25 12:30 PM	11/7/25 1:40 PM	0.04	1.2

Event 58^{1 2}: 0.69 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	11/9/25 8:35 AM	11/9/25 10:30 PM	0.42	13.9
LEWS 1040	11/9/25 8:50 AM	11/9/25 8:40 PM	0.13	11.8
CSO-056B	11/9/25 9:00 AM	11/9/25 10:45 AM	0.22	1.8
LEWS 1070	11/9/25 9:25 AM	11/9/25 11:15 AM	0.04	1.8
CSO-059	11/9/25 10:30 AM	11/9/25 11:45 AM	0.15	1.3

Event 59^{1 2}: 0.27 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	11/25/25 10:40 AM	11/25/25 12:10 PM	0.05	1.5
CSO-052	11/25/25 10:40 AM	11/25/25 1:10 PM	0.14	2.5
CSO-056B	11/25/25 11:05 AM	11/25/25 12:20 PM	0.07	1.3
LEWS 1070	11/25/25 11:40 AM	11/25/25 12:50 PM	0.02	1.2
CSO-056A	11/25/25 12:25 PM	11/25/25 1:10 PM	0.01	0.8

Event 60²: 0.07 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	11/26/25 8:20 AM	11/26/25 8:55 AM	0.03	0.6

Event 61^{1 2}: 0.19 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	11/30/25 7:15 AM	11/30/25 12:30 PM	0.16	5.3
LEWS 1040	11/30/25 9:00 AM	11/30/25 9:45 AM	0.01	0.8

Event 62^{1 2}: 0.50 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	12/10/25 6:40 AM	12/10/25 8:25 PM	0.96	13.8
LEWS 1040	12/10/25 7:00 AM	12/10/25 5:40 PM	0.15	10.7
CSO-056B	12/10/25 7:05 AM	12/10/25 5:40 PM	0.28	10.6
LEWS 1070	12/10/25 7:40 AM	12/10/25 6:35 PM	0.17	10.9
CSO-056A	12/10/25 8:20 AM	12/10/25 6:15 PM	0.03	9.9
CSO-059	12/10/25 9:35 AM	12/10/25 6:35 PM	0.16	9.0

Event 63^{1 2}: 0.53 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	12/18/25 2:00 PM	12/19/25 9:40 AM	0.62	19.7
LEWS 1040	12/18/25 11:55 PM	12/19/25 6:10 AM	0.44	6.3
CSO-056B	12/19/25 12:10 AM	12/19/25 5:40 AM	0.75	5.5
LEWS 1070	12/19/25 12:40 AM	12/19/25 6:50 AM	0.16	6.2
CSO-056A	12/19/25 1:25 AM	12/19/25 6:15 AM	0.23	4.8
CSO-059	12/19/25 1:45 AM	12/19/25 6:45 AM	0.82	5.0

Event 64²: 0.12 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
CSO-052	12/26/25 2:40 PM	12/26/25 5:00 PM	0.04	2.3

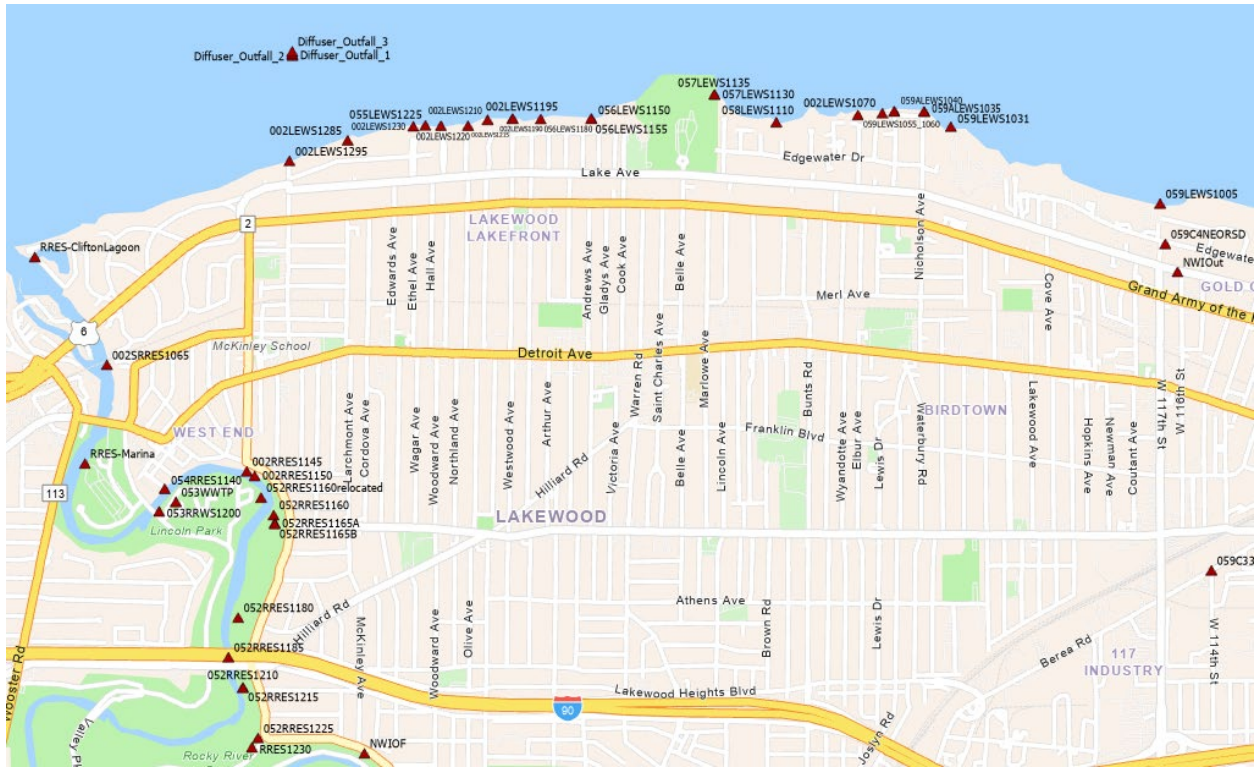
Event 65^{1 2}: 0.32 in. Total Rain

Location	Event Start	Event End	Total Volume (MG)	Duration (Hrs)
LEWS 1040	12/28/25 8:15 AM	12/28/25 9:40 AM	0.14	1.4
CSO-052	12/28/25 8:15 AM	12/28/25 3:00 PM	0.23	6.8
CSO-056B	12/28/25 8:20 AM	12/28/25 9:50 AM	0.19	1.5
LEWS 1070	12/28/25 8:40 AM	12/28/25 10:25 AM	0.03	1.8
CSO-055	12/28/25 8:45 AM	12/28/25 9:10 AM	0.03	0.4
CSO-056A	12/28/25 9:25 AM	12/28/25 10:40 AM	0.05	1.3
CSO-059	12/28/25 9:25 AM	12/28/25 10:50 AM	0.08	1.4

¹ Clifton Beach and Edgewater Beach (both Bathing Waters) – potentially impacted public access area

² Rocky River (Primary Contact Recreation) and Rocky River Marina - potentially impacted public access area

Figure 1: Map of the CSO Outfalls



The City of Lakewood has an Integrated Wet Weather Improvement Plan (IWWIP) that will reduce combined sewer overflow events to four or less in a typical year of rainfall at each CSO. The City submitted the IWWIP to the EPA on March 1, 2019, and currently incorporates:

- 1) the installation of a high-rate treatment (HRT) facility for CSO-002 (substantially completed in March 2022);
- 2) combined sewer overflow storage tank project for CSO-052 (currently in construction) which would discharge to the WWTP once the plant has recovered from the rain event;
- 3) sewer manhole separation projects that reduce infiltration to the sewers at both the public and private levels;
- 4) combined sewer overflow storage tank project for CSO-059 (preliminary engineering underway) which would discharge back to the Lakewood Interceptor Sewer once its water level has receded after a rain event; and,
- 5) increasing permeable surfaces where appropriate.

The City's IWWIP is continually progressing.

In addition to the 2019 IWWIP submittal improvements, the City has completed the re-lining of the interceptor.

The federal district court entered the interim partial consent decree for the City of Lakewood, the United States (US EPA) and the State of Ohio (Ohio EPA) on January 31, 2023.

For more information, contact:

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Compliance With EPA's Nine Minimum Controls

The City of Lakewood operates and maintains its collection system in accordance with the U.S. EPA's 1994 nine minimum controls (Federal Register / Vol.59, No.75 / Tuesday, April 19, 1994 / Notices Section II B. page 18691). A brief description of the controls and Lakewood's activities for this reporting year follows:

Control 1—Reducing CSOs through Operation and Maintenance

Lakewood continued to implement its operation and maintenance program for the combined sewer collection system, including cleaning and televising sewer mains, catch basins and manholes. In 2023 the interceptor rehabilitation work began and is expected to continue throughout 2026.

Control 2—Storing CSOs in Collection System

To maximize as much sewage storage as possible in the collection system, the interceptor is filled prior to any CSO discharge to the greatest extent possible. This is routinely done to reduce the magnitude, frequency, and duration of CSOs. In 2019, Lakewood modified several overflow structures within the collection system (raised weirs, etc.) to store more flow within in the pipes before an overflow occurs. The data for 2021 demonstrated a reduction in overflow number and volume. In 2022, Lakewood raised a weir to reduce overflows at RRES1180 to further store combined sewage in the collection system.

Control 3—Optimizing Pretreatment Program

Lakewood monitored the industrial pretreatment discharges. This was done to minimize CSO pollutants from the discharges of non-domestic users.

Control 4—Maximizing Flow through the Treatment Plant

Lakewood continued to operate the WWTP at its maximum treatable flow rate during wet weather flow conditions. This is routinely done to reduce the magnitude, frequency, and duration of CSOs. In 2022, Lakewood substantially completed the High Rate Treatment (HRT) facility at the WWTP. The HRT reduces CSOs at CSO-002 to four or less in a typical year.

Control 5—Preventing Dry-Weather Overflows

There were no dry weather overflows at Lakewood's CSO outfalls during this reporting year.

Control 6—Controlling Solids and Floatables

Lakewood maintains street sweeping from March – November every year as well as catch basin and sewer main cleaning.

Control 7—Preventing Pollution of Receiving Water Bodies

To reduce the impact of CSOs, the first flush during the CSO event is routed to additional treatment capacity at the plant. The City also implements sewer improvement projects as a part of most public works improvements projects. These sewer improvement components include manhole separation and CIPP sewer lining where necessary to reduce flow communication between “over” and “under” sewers. The City’s “under” sewers route to the WWTP, whereas the “over” sewers generally route to receiving waters.

Control 8—Notifying the Public

The public notification process continued to inform the EPA, Cuyahoga County Board of Health and interested citizens when CSOs occur. CSOs are publicly reported here: <https://cso.lakewoodoh.gov/>.

Control 9—Monitoring CSO Outfalls to Confirm the Effectiveness of CSO Controls

Lakewood continued to monitor the CSO outfalls to characterize CSO discharges. Monitoring included metering the volume of the CSO discharge, visually inspecting the overflow for floatables, and sampling the initial overflow for pollutant concentrations.