

# Combined Sewer Overflow 2019 Annual Report

## City of Fostoria Wastewater Treatment Plant

NPDES Permit No. 2PD00031\*PD

### General Description

The City of Fostoria provides wastewater and stormwater service to approximately 13,441 people in a nine (9) square mile service area. The Village of New Riegel adds wastewater flow from approximately 249 people. The collection system consists of approximately 69% combined sewers (both storm water and sanitary flow) and 31% separate sewers. During dry weather the capacity of the combined sewer system has the capacity to convey the dry weather flow to the wastewater treatment plant. During certain rainfall events the combined storm water and wastewater flow exceeds the capacity of the combined sewer system and the wastewater treatment plant. The excess flow is discharged through combined sewer overflows (CSO's) to the East Branch Portage River and Caples -Flack Ditch. There are three major drainage areas in the combined sewer system with four (4) CSO outfalls. These outfalls, their location and the receiving waters are listed in Table 1.

**Table 1 – Permitted CSO Outfalls**

Station Number	Description	Receiving Stream
2PD00031004 (CSO #1)	72" - Thomas Street	East Branch Portage River
2PD00031005 (CSO #2)	60" - Berkshire Drive	East Branch Portage River
2PD00031006 (CSO #3)	60" - Parkway Drive	East Branch Portage River
2PD00031008 (CSO #5)	68" X 106" - Circle Drive	Caples-Flack Ditch

## Long Term Control Plan

The City has developed a Long Term Control Plan (LTCP) to improve the water quality in the receiving streams by eliminating 85% of the CSO's observed and to limit the overflow events to four (4) per year for the average year. The LTCP is a 20-year, \$30 million plan consisting of seven major projects. Two (2) of the seven projects have been completed and three (3) have been started. These projects are summarized in Table 2.

**Table 2 – CSO LTCP Estimated Cost and Schedule Summary**

Project	CSO LTCP Component	Estimated Cost	Start Date	End Date	CSO Removal (MG)
1*	WWTP Upgrades (Final Clarifiers/Digester)	\$5,090,000	01/01/2011	12/31/2013	0
2*	Large Diameter Sewer Cleaning	\$5,170,000	01/01/2011	12/31/2014	105
3**	CSO No. 2 and CSO #3 Elimination and Structure Modification	\$9,280,000	04/01/2017	12/31/2020	150
4**	CSO No. 1 Weir Raising and Backwater	\$1,950,000	01/01/2016	12/31/2021	76
5	CSO No. 5 Elimination and Structure Modification (Weir, Separation, Backflow)	\$2,310,000	01/01/2022	12/31/2024	24
6**	WWTP Upgrades – Phase 2 (Headworks, Grit Chamber, Controls, Screw Pumps)	\$4,160,000	01/01/2024	12/31/2027	20
7	CSO Reduction and River Intrusion Mitigation	\$2,060,000	01/01/2028	12/31/2029	300

\* Project Completed

\*\* Project Started

## Nine Minimum Controls

The EPA has established nine minimum controls for the correction of CSO's. The City has implemented those controls as follows:

1. Proper Operation and Maintenance for the Collection System and the Combined Sewer Overflow Points

The City operates and maintains the wastewater treatment plant and the collection system. The City cleans and televises the collection system on a routine basis. CSO outfalls are checked daily and throughout wet weather events.

2. Maximum Use of the Collection System for Storage

Routine cleaning of the collection system maximizes the storage in the existing collection system.

3. Review and Modification of Pretreatment Requirements to Minimize the Impact of Non-domestic Discharges from Combined Sewer Overflows

The City has an industrial pretreatment program in place. This program is currently under review for potential modification. Most industrial users are currently in compliance. There have been minor violations that have not impacted the collection system.

4. Maximize the Capabilities of the POTW to Treat Wet Weather Flows and Maximize Wet Weather Flow to the POTW within the Limits of the Plant's Capabilities.

The wastewater treatment plant has two influent screw pumps which are rated at 12.7 MGD each. The wastewater plant is rated for an average of 8.25 MGD and a maximum of 12.7 MGD limiting the influent pumping to the use of one screw pump at a time. The plant can treat the maximum flow while remaining in compliance with its NPDES permit.

5. Prohibit Dry Weather Overflows

The CSO outfalls are inspected daily during dry weather and have revealed no indication of dry weather overflows.

6. Control of Solid and Floatable Materials in CSO Discharges

Catch basins are inspected and cleaned regularly. Street sweeping is performed on a weekly basis from March 1 to November 1. Known problem areas are inspected and cleaned more frequently as needed.

7. Pollution Prevention

Catch basins are inspected and cleaned regularly. Street sweeping is performed on a weekly basis from March 1 to November 1. Known problem areas are inspected and cleaned more frequently as needed.

8. Public Notification to Ensure the public Receives Adequate Notification of CSO Occurrences and Impacts.

In November of 2018 the City implemented a CSO Notification Plan in accordance with the US EPA's Public Notification Requirements for Combined Sewer Overflows to the Great Lakes. Signs are also posted at the outfall locations.

9. Monitoring to Effectively Characterize CSO Impacts and the Efficacy of CSO Controls

CSO's #1, #2 and #3 are equipped with level sensors that record overflow events and volume of CSO discharge. In accordance with the City's NPDES permit, samples are taken once per month and tested for cBOD and Total Suspended Solids (TSS). CSO #5 is inspected during dry and wet weather flows. Discharges have occurred from this CSO within the last year. The discharge volume is estimated based on the size of the outlet pipe.

## Public Access

Discharges from CSO's have the potential to impact public access areas in recreational waters. Table 3 identifies public areas that may be impacted by CSO events.

**Table 3 – Potential Impacted Public Access Areas**

<b>Station Number</b>	<b>Description</b>	<b>Potential Impacted Public Parks</b>
2PD00031004 (CSO #1)	72" - Thomas Street	Portage Park
2PD00031005 (CSO #2)	60" - Berkshire Drive	Portage Park
2PD00031006 (CSO #3)	60" - Parkway Drive	Portage Park
2PD00031008 (CSO #5)	68" X 106" - Circle Drive	None

## CSO Event Information and Annual Summary

Tables 4, 5, 6, 7, 8, and 9 contain detailed information about the CSO occurrences from January 1, 2019 through December 31, 2019. This information includes overflow event dates, duration, rainfall and overflow volumes. A summary of the monthly and annual totals of overflow volumes, rainfall and number of events are included as well. For further information regarding this report please direct questions through the Safety Service Director's office at (419) 435-2561 or [ssd@fostoriaohio.gov](mailto:ssd@fostoriaohio.gov).

**Table 4 – CSO Event Information**

Date	Station Number	Occurrence	Event Start Time	Event End Time	Duration (Hrs.)	Volume (MG)	Cause of Discharge	Precipitation (Inches)
1/1/19	2PD00031004	1	12:00 AM	11:30 AM	11.5	1.1500	precipitation	0.01
1/23/19	2PD00031004	1	5:30 AM	12:45 AM	19.25	13.3030	precipitation	1.63
1/24/19	2PD00031004		12:00 AM	12:00 AM	24	4.6860	precipitation	0
1/25/19	2PD00031004		12:00 AM	2:04 AM	2.08	0.0050	precipitation	0
1/23/19	2PD00031005	1	4:30 AM	12:00 AM	19.5	6.8830	precipitation	1.63
1/24/19	2PD00031005		12:00 AM	4:04 PM	16.08	0.6770	precipitation	0
1/25/19	2PD00031005		12:00 AM	12:49 AM	0.83	0.0010	precipitation	0
2/6/19	2PD00031004	1	4:40 AM	5:28 AM	19:33	7.6620	precipitation	0.9
2/7/19	2PD00031004		12:00 AM	12:00 AM	24	5.3040	precipitation	0.45
2/8/19	2PD00031004		12:00 AM	5:40 PM	17.67	1.3830	precipitation	0
2/12/19	2PD00031004	1	5:55 AM	12:05 AM	18.17	8.4560	precipitation	0.61
2/13/19	2PD00031004		12:00 AM	10:34 AM	10.58	0.7390	precipitation	0
2/20/19	2PD00031004	1	6:00 PM	11:49 PM	5.83	1.4999	precipitation	0.49
2/21/19	2PD00031004	1	12:00 PM	12:00 PM	0.01	0.0010	precipitation	0.21
2/24/19	2PD00031004	1	2:20 AM	6:09 AM	3.83	0.0000	precipitation	0.2
2/4/19	2PD00031005	1	4:10 AM	4:55 AM	0.75	0.0010	precipitation	0.14
2/5/19	2PD00031005		9:35 AM	11:15 AM	1.67	0.0030	precipitation	0
2/6/19	2PD00031005	1	4:05 AM	4:45 PM	12.67	2.1910	precipitation	0.86
2/7/19	2PD00031005		3:05 AM	2:35 PM	11.5	0.8890	precipitation	0.4
2/8/19	2PD00031005		12:35 AM	2:45 AM	2.17	0.0160	precipitation	0
2/20/19	2PD00031005	1	5:10 AM	9:10 AM	4	0.3780	precipitation	0.49
2/21/19	2PD00031005		2:10 AM	3:44 AM	1.58	0.0070	precipitation	0
2/24/19	2PD00031005	1	1:25 AM	1:55 AM	0.5	0.0090	precipitation	0.2
3/9/19	2PD00031004	1	7:00 PM	10:25 PM	3.42	0.9630	precipitation	0.63
3/10/19	2PD00031004		1:10 AM	3:25 AM	2.25	0.2820	precipitation	0.13
3/14/19	2PD00031004	1	12:00 AM	6:49 AM	6.83	2.0310	precipitation	0.76
3/15/19	2PD00031004		12:00 AM	2:54 AM	2.9	0.0170	precipitation	0.03
3/21/19	2PD00031004	1	1:25 AM	3:14 AM	1.82	0.0080	precipitation	0.16
3/30/19	2PD00031004	1	10:20 AM	10:45 PM	12.42	3.5200	precipitation	0.99
3/31/19	2PD00031004		12:00 AM	12:00 AM	24	3.8450	precipitation	0.03
3/9/19	2PD00031005	1	5:55 AM	9:10 AM	3.25	0.4170	precipitation	0.63
3/10/19	2PD00031005		12:15 AM	3:40 AM	3.42	0.2490	precipitation	0.13
3/14/19	2PD00031005	1	8:20 AM	1:09 PM	4.83	0.5950	precipitation	0.76
3/15/19	2PD00031005		12:35 AM	12:45 AM	0.17	0.0020	precipitation	0.03
3/20/19	2PD00031005	1	10:05 AM	11:30 AM	1.42	0.0350	precipitation	0.32
3/21/19	2PD00031005		2:10 AM	2:40 AM	0.5	0.0090	precipitation	0.16
3/29/19	2PD00031005	1	8:50 AM	9:24 AM	0.58	0.0130	precipitation	0.35
3/30/19	2PD00031005		9:40 AM	6:46 PM	9.1	1.0880	precipitation	0.99
3/31/19	2PD00031005		12:00 AM	6:45 AM	6.75	0.4290	precipitation	0.03
3/14/19	2PD00031006	1	5:00 PM	5:19 PM	0.33	0.0110	precipitation	0.76
4/12/19	2PD00031004	1	9:25 AM	12:10 PM	2.75	0.0820	precipitation	0
4/14/19	2PD00031004	1	7:25 AM	12:40 PM	5.25	0.4140	precipitation	0.65
4/19/19	2PD00031004	1	5:50 AM	3:09 PM	9.33	1.5450	precipitation	0.61
4/20/19	2PD00031004	1	7:50 AM	11:54 PM	16.08	7.1350	precipitation	0.72
4/21/19	2PD00031004		12:00 AM	11:45 AM	11.75	0.3320	precipitation	0
4/25/19	2PD00031004	1	9:20 PM	9:54 PM	0.58	1.2750	precipitation	1.29
4/26/19	2PD00031004		12:00 AM	12:00 AM	24	19.3880	precipitation	0.83
4/27/19	2PD00031004		12:00 AM	6:00 PM	18	2.1320	precipitation	0.39
4/28/19	2PD00031004		12:00 AM	12:00 AM	24	6.1060	precipitation	0.3
4/29/19	2PD00031004	1	6:45 PM	11:40 PM	4.92	0.4990	precipitation	0.25
4/30/19	2PD00031004		1:20 PM	5:09 PM	3.82	0.4320	precipitation	0.22

Date	Station Number	Occurrence	Event Start Time	Event End Time	Duration (Hrs.)	Volume (MG)	Cause of Discharge	Precipitation (Inches)
4/12/19	2PD00031005	1	8:50 AM	10:23 AM	1.55	0.4060	precipitation	0
4/14/19	2PD00031005	1	6:00 AM	9:45 AM	3.75	0.6110	precipitation	0.62
4/18/19	2PD00031005	1	11:30 PM	12:00 AM	0.5	0.1080	precipitation	0.3
4/19/19	2PD00031005		12:00 AM	4:15 AM	4.25	0.9030	precipitation	0.61
4/20/19	2PD00031005	1	6:34 AM	4:53 PM	10.33	3.1050	precipitation	0.72
4/25/19	2PD00031005	1	7:45 AM	12:00 PM	4.25	2.0210	precipitation	1.29
4/26/19	2PD00031005		12:00 AM	9:25 PM	21.42	9.8620	precipitation	0.93
4/27/19	2PD00031005		12:40 AM	6:52 AM	6.2	0.2390	precipitation	0.39
4/28/19	2PD00031005		12:00 AM	9:45 AM	9.75	1.0300	precipitation	0.3
4/29/19	2PD00031005	1	5:15 PM	6:34 PM	1.33	0.3970	precipitation	0.25
4/30/19	2PD00031005		12:25 PM	1:43 PM	1.3	0.2880	precipitation	0.22
4/20/19	2PD00031006	1	8:15 AM	9:19 AM	1.08	0.0350	precipitation	0.72
4/25/19	2PD00031006	1	11:20 PM	11:54 PM	0.58	0.5880	precipitation	1.29
4/26/19	2PD00031006		12:00 AM	1:49 AM	1.83	0.5590	precipitation	0.83
5/1/19	2PD00031004	1	5:40 AM	7:22 AM	1.7	0.0820	precipitation	0.38
5/2/19	2PD00031004		12:40 AM	10:40 AM	10	1.2910	precipitation	0.16
5/9/19	2PD00031004	1	7:15 PM	8:34 PM	1.33	0.0220	precipitation	0.33
5/19/19	2PD00031004	1	5:20 PM	10:00 PM	4.67	0.7920	precipitation	0.68
5/20/19	2PD00031004		12:00 AM	1:00 AM	1	0.0110	precipitation	0
5/27/19	2PD00031004	1	11:40 PM	11:59 PM	0.33	0.0950	precipitation	0.55
5/28/19	2PD00031004		12:00 AM	5:18 AM	5.3	1.4650	precipitation	0.43
5/1/19	2PD00031005	1	4:20 PM	6:08 PM	1.8	0.2400	precipitation	0.38
5/2/19	2PD00031005		12:00 AM	2:10 AM	2.17	0.3870	precipitation	0.16
5/9/19	2PD00031005	1	12:35 PM	2:30 PM	1.92	0.4510	precipitation	0.33
5/13/19	2PD00031005	1	9:20 AM	9:45 AM	0.42	0.0020	precipitation	0.17
5/18/19	2PD00031005	1	5:15 AM	6:00 AM	0.75	0.0580	precipitation	0.23
5/19/19	2PD00031005	1	4:35 PM	6:54 PM	2.33	1.2390	precipitation	0.68
5/25/19	2PD00031005	1	2:05 PM	3:00 PM	0.92	0.3880	precipitation	0.18
5/26/19	2PD00031005	1	7:45 AM	8:45 AM	1	0.2170	precipitation	0.43
5/27/19	2PD00031005	1	10:55 PM	11:55 PM	1	0.6350	precipitation	0.55
5/28/19	2PD00031005		12:00 AM	2:19 AM	2.33	0.8490	precipitation	0.43
5/28/19	2PD00031006	1	5:50 AM	6:08 AM	0.3	0.0120	precipitation	0.45
6/1/19	2PD00031004	1	6:20 PM	11:39 PM	5.3	4.9280	precipitation	2.95
6/2/19	2PD00031004		12:00 AM	12:00 AM	24	24.3400	precipitation	0.58
6/3/19	2PD00031004		12:00 AM	2:55 PM	14.92	2.8520	precipitation	0
6/5/19	2PD00031004	1	8:30 AM	7:10 PM	10.67	1.9790	precipitation	0.87
6/6/19	2PD00031004		12:40 PM	4:10 PM	3.5	0.2900	precipitation	0
6/12/19	2PD00031004	1	11:20 PM	12:00 AM	0.67	0.0050	precipitation	0.37
6/13/19	2PD00031004		12:00 AM	4:04 AM	4.08	0.3240	precipitation	0.59
6/14/19	2PD00031004		12:00 AM	1:40 AM	1.67	0.0130	precipitation	0
6/15/19	2PD00031004	1	5:15 PM	6:15 PM	1	0.0040	precipitation	0.5
6/16/19	2PD00031004	1	3:40 AM	9:25 AM	5.75	0.0390	precipitation	0.36
6/20/19	2PD00031004	1	12:55 PM	11:40 PM	10.75	14.2540	precipitation	0.02
6/21/19	2PD00031004		12:00 AM	12:00 AM	24	7.6490	precipitation	2.52
6/22/19	2PD00031004		12:00 AM	6:04 AM	6.08	0.0450	precipitation	0
6/1/19	2PD00031005	1	6:00 PM	10:00 PM	4	9.3280	precipitation	2.75
6/2/19	2PD00031005		12:00 AM	12:00 AM	24	17.0400	precipitation	0.58
6/3/19	2PD00031005		12:00 AM	2:15 AM	2.25	0.3640	precipitation	0
6/5/19	2PD00031005	1	7:55 AM	12:50 PM	4.92	1.1100	precipitation	0.87
6/6/19	2PD00031005		1:45 AM	10:00 AM	8.25	1.0760	precipitation	0

Date	Station Number	Occurrence	Event Start Time	Event End Time	Duration (Hrs.)	Volume (MG)	Cause of Discharge	Precipitation (Inches)
6/12/19	2PD00031005	1	10:04 PM	11:00 PM	0.92	0.1010	precipitation	0.37
6/13/19	2PD00031005	1	10:04 AM	1:30 PM	3.42	0.3140	precipitation	0.59
6/14/19	2PD00031005	1	7:55 AM	9:15 AM	1.33	0.0020	precipitation	0
6/15/19	2PD00031005	1	5:45 PM	7:30 PM	1.74	0.1170	precipitation	0.5
6/16/19	2PD00031005	1	6:00 AM	11:15 AM	5.25	0.3220	precipitation	1.36
6/20/19	2PD00031005	1	12:25 PM	11:55 PM	11.5	14.1800	precipitation	0.02
6/21/19	2PD00031005		12:00 AM	8:04 AM	8.08	0.8950	precipitation	2.52
6/1/2019	2PD00031006	1	6:15 PM	10:00 PM	3.75	2.3623	precipitation	2.95
6/2/2019	2PD00031006		12:00 AM	12:00 PM	12	6.8520	precipitation	0.58
6/3/2019	2PD00031006		12:00 AM	12:15 AM	0.25	0.0020	precipitation	0
6/5/2019	2PD00031006	1	12:00 PM	8:00 PM	8	0.0494	precipitation	0.87
6/20/2019	2PD00031006	1	12:40 PM	7:14 PM	6.58	6.7050	precipitation	0.02
6/1/2019	2PD00031008	1	12:00 PM	12:00 PM	24	22.1110	precipitation	2.52
6/20/2019	2PD00031008	1	12:00 PM	12:00 PM	24	29.1270	precipitation	0.02
7/2/2019	2PD00031008	1	12:00 AM	12:00 AM	24	3.9880	precipitation	0.85
7/10/2019	2PD00031008	1	12:00 AM	12:00 AM	24	1.4780	precipitation	0.63
7/18/2019	2PD00031008	1	12:00 AM	12:00 AM	24	2.4040	precipitation	0.47
7/2/2019	2PD00031004	1	6:05 PM	11:30 PM	5.42	1.9780	precipitation	0.85
7/3/2019	2PD00031004	1	12:35 AM	12:24 PM	11.83	3.1370	precipitation	0.75
7/4/2019	2PD00031004	1	12:00 AM	5:34 AM	5.58	0.7230	precipitation	0
7/5/2019	2PD00031004	1	12:50 AM	7:20 AM	6.50	0.8900	precipitation	0.94
7/10/2019	2PD00031004	1	8:05 PM	11:09 PM	3.08	1.0580	precipitation	0.63
7/11/2019	2PD00031004	1	12:00 AM	12:45 AM	0.75	0.0030	precipitation	0
7/16/2019	2PD00031004	1	5:20 PM	11:15 PM	5.9	0.4270	precipitation	0.51
7/17/2019	2PD00031004	1	2:05 AM	5:15 AM	3.17	0.2170	precipitation	0.45
7/18/2019	2PD00031004	1	4:15 PM	8:30 PM	4.25	1.0310	precipitation	0.47
7/21/2019	2PD00031004	1	8:15 PM	12:00 AM	3.75	1.8770	precipitation	1.22
7/22/2019	2PD00031004		12:00 AM	5:24 PM	17.41	4.3100	precipitation	0.52
7/2/2019	2PD00031005	1	5:35 PM	8:15 PM	2.67	2.3780	precipitation	0.85
7/3/2019	2PD00031005	1	12:25 AM	5:05 AM	4.67	0.2740	precipitation	0.75
7/5/2019	2PD00031005	1	12:20 AM	3:30 AM	3.17	1.7230	precipitation	0.94
7/10/2019	2PD00031005	1	10:35 AM	12:05 PM	1.50	1.5120	precipitation	0.63
7/14/2019	2PD00031005	1	5:45 AM	5:49 AM	0.08	0.0010	precipitation	0.17
7/16/2019	2PD00031005	1	5:05 PM	8:39 PM	3.58	0.4230	precipitation	0.51
7/17/2019	2PD00031005	1	1:05 AM	3:00 AM	1.92	0.3510	precipitation	0.51
7/18/2019	2PD00031005	1	3:50 PM	5:39 PM	1.83	1.2070	precipitation	0.45
7/21/2019	2PD00031005	1	7:40 PM	11:13 PM	3.56	1.9500	precipitation	0.47
7/22/2019	2PD00031005		12:00 AM	8:34 AM	8.58	2.3430	precipitation	1.22
7/2/2019	2PD00031006	1	17:40	6:59 PM	1.33	0.5332	precipitation	0.52
7/5/2019	2PD00031006	1	12:25 AM	2:13 AM	1.80	0.3230	precipitation	0.85
7/10/2019	2PD00031006	1	20:40	9:29 PM	0.83	0.3910	precipitation	0.94
7/18/2019	2PD00031006	1	16:00	4:30 PM	0.5	0.2040	precipitation	0.63
7/21/2019	2PD00031006	1	19:45	8:15 PM	0.5	0.1660	precipitation	0.47
7/22/2019	2PD00031006	1	5:30	6:00 AM	0.5	0.1460	precipitation	1.22
8/6/2019	2PD00031004	1	1:30 PM	6:00 PM	4.5	0.3810	precipitation	0.52
8/18/2019	2PD00031004	1	5:00 AM	12:00 PM	7	0.9650	precipitation	1.62
8/19/2019	2PD00031004		12:00 AM	4:04 AM	4.08	0.7600	precipitation	0.06
8/20/2019	2PD00031004	1	5:50 PM	8:05 PM	2.25	0.0950	precipitation	0.5
8/22/2019	2PD00031004	1	1:40 AM	2:20 PM	12.67	3.2650	precipitation	0
8/23/2019	2PD00031004	1		12:00 AM		0.0010	precipitation	0.06
8/6/2019	2PD00031005	1	12:55 PM	2:59 PM	2.08	0.6010	precipitation	0.76



Date	Station Number	Occurrence	Event Start Time	Event End Time	Duration (Hrs.)	Volume (MG)	Cause of Discharge	Precipitation (Inches)
8/12/2019	2PD00031005	1	11:40 AM	11:44 AM	0.08	0.0010	precipitation	0.59
8/18/2019	2PD00031005		4:15 AM	8:15 AM	4.00	2.1820	precipitation	1.62
8/19/2019	2PD00031005	1	12:00 AM	1:25 AM	1.42	0.4320	precipitation	0.06
8/20/2019	2PD00031005		5:25 PM	6:29 PM	1.08	0.5040	precipitation	0.5
8/22/19	2PD00031005	1	1:25 AM	8:20 PM	18.92	4.8400	precipitation	0
8/23/19	2PD00031005		12:00 AM	2:04 AM	2.08	0.0520	precipitation	0.06
8/18/19	2PD00031006	1	4:30 AM	5:25 AM	0.92	0.1862	precipitation	1.62
8/20/19	2PD00031006	1	5:35 PM	5:45 PM	0.17	0.0015	precipitation	0.5
8/22/19	2PD00031006	2	1:50 AM	2:20 AM	0.5	0.0190	precipitation	0
9/1/2019	2PD00031004	1	3:40 PM	4:58 PM	1.3	0.0040	precipitation	0.37
9/13/2019	2PD00031004	1	9:50 PM	11:20 PM	1.5	0.2050	precipitation	0.49
9/30/2019	2PD00031004	1	3:00 AM	9:25 AM	6.42	0.9430	precipitation	1.17
9/1/2019	2PD00031005	1	2:45 PM	3:40 PM	0.92	0.0970	precipitation	0.37
9/13/2019	2PD00031005	1	7:20 PM	9:09 PM	1.83	0.7060	precipitation	0.49
9/23/2019	2PD00031005	1	8:55 AM	9:35 AM	0.67	0.1130	precipitation	0.26
9/27/2019	2PD00031005	1	8:15 PM	8:55 PM	0.67	0.0120	precipitation	0.24
9/30/2019	2PD00031005	1	2:40 AM	6:10 AM	3.5	1.8490	precipitation	1.17
9/30/2019	2PD00031006	1	3:05	3:50 AM	0.75	0.0619	precipitation	1.17
10/26/2019	2PD00031004	1	3:40 PM	11:07 PM	7.45	0.5810	precipitation	0.9
10/30/2019	2PD00031004	1	3:45 PM	11:12 PM	7.45	0.6360	precipitation	0.92
10/31/2019	2PD00031004	1	9:05 AM	6:53 PM	9.8	2.2040	precipitation	0.82
10/21/2019	2PD00031005	1	10:04 AM	10:42 AM	0.63	0.0160	precipitation	0.27
10/26/2019	2PD00031005	1	2:50 PM	4:45 PM	1.92	0.8970	precipitation	0.9
10/30/2019	2PD00031005	1	12:20 PM	5:20 PM	5	0.8710	precipitation	0.72
10/31/2019	2PD00031005	1	8:15 AM	2:10 PM	5.92	1.7060	precipitation	0.82
11/1/2019	2PD00031005	1	12:00 AM	12:45 AM	0.75	0.0010	precipitation	0.01
12/9/2019	2PD00031004	1	10:40 AM	12:44 PM	2.08	0.0050	precipitation	0.67
12/29/2019	2PD00031004	1	7:45 AM	12:30 PM	4.75	0.2000	precipitation	0.91
12/30/2019	2PD00031004	1	12:00 AM	4:45 AM	4.75	0.0690	precipitation	0.26
12/9/2019	2PD00031005	1	8:50 AM	11:54 AM	3.08	0.1910	precipitation	0.67
12/29/2019	2PD00031005	1	7:05 AM	12:24 PM	5.33	0.7600	precipitation	0.91
12/30/2019	2PD00031005	1	5:05 AM	10:30 AM	5.42	0.2350	precipitation	0.26

Station Number	Overflow Frequency	Estimated Volume (MG)
2PD00031004 (CSO #1)	52	180.6409
2PD00031005 (CSO #2)	56	110.4040
2PD00031006 (CSO #3)	18	19.2075
2PD00031008 (CSO #5)	5	59.1080
Total	131	369.3604

**Table 5 – Annual Overflow per Combined Sewer**

**Table 6 – Annual Precipitation Totals**

Month	Total Precipitation (Inches)	Overflow Frequency	Estimated Volume (MG)
January	1.64	3	26.705
February	2.66	9	28.5389
March	2.73	9	13.514
April	5.26	14	59.492
May	3.36	13	8.236
June	8.76	19	168.7797
July	6.34	28	37.4462
August	3.02	13	14.2856
September	2.53	9	3.9909
October	2.91	7	6.911
November	0.68	2	0.006
December	1.17	5	1.455
Total	41.06	131	369.3603