



**THE VILLAGE OF GREENWICH
STATE OF OHIO
COUNTY OF HURON**

**2020 ANNUAL COMBINED SEWER
NOTIFICATION
FOR THE YEAR 2019**

INTRODUCTION

Per Ohio NPDES permit number 2PB00059*JD, the Village of Greenwich is required to provide an annual CSO Notification report summarizing the Combined Sewer Overflow (CSO) activity. In accordance with the Village's NPDES permit, this report is required to be submitted May 1st of each year.

2019 CSO ACTIVATIONS AND VOLUMES

The following tables state the number of overflow events and total volume:

CSO #2PB00059002 (TOWNSEND ST. LIFT STATION)			* CSO #2PB00059018 (NEW ST. OVERFLOW) *		
MONTH	# OF EVENTS	TOTAL VOLUME (MG)	MONTH	# OF EVENTS	TOTAL VOLUME (MG)
JAN 19	1	1.276	JAN 19	0	0
FEB 19	3	2.374	FEB 19	0	0
MAR 19	3	0.300	MAR 19	1	0.025
APR 19	3	0.568	APR 19	3	0.017
MAY 19	4	1.403	MAY 19	0	0
JUN 19	5	1.372	JUN 19	3	0.104
JUL 19	5	0.969	JUL 19	4	0.419
AUG 19	4	0.079	AUG 19	0	0
SEPT 19	3	0.213	SEPT 19	0	0
OCT 19	2	0.298	OCT 19	0	0
NOV 19	0	0	NOV 19	0	0
DEC 19	4	1.198	DEC 19	0	0
CSO #2PB00059022 (COUNTRYSIDE DR. OVERFLOW)			CSO #2PB00059023 (MAIN ST. LIFT STATION)		
MONTH	# OF EVENTS	TOTAL VOLUME (MG)	MONTH	# OF EVENTS	TOTAL VOLUME (MG)
JAN 19	1	1.175	JAN 19	1	0.391
FEB 19	3	5.604	FEB 19	3	0.103
MAR 19	3	2.226	MAR 19	3	0.108
APR 19	3	1.405	APR 19	3	0.156
MAY 19	3	1.327	MAY 19	3	0.034
JUN 19	5	5.565	JUN 19	6	0.954
JUL 19	3	2.546	JUL 19	4	0.561
AUG 19	4	0.368	AUG 19	4	0.65
SEPT 19	2	0.708	SEPT 19	2	0.238
OCT 19	2	0.356	OCT 19	2	0.089
NOV 19	0	0	NOV 19	0	0
DEC 19	4	2.091	DEC 19	4	0.094

Greenwich Rainfall amounts
Rainfall from 1/1/2019 to 1/1/2020

Device Time	Rainfall Amount (inches)	Temperature (°F)	
		Min	Max
1/1/2019	0	0	0
1/2/2019	0.01	0	0
1/3/2019	0	0	0
1/4/2019	0	0	0
1/5/2019	0	0	0
1/6/2019	0	0	0
1/7/2019	0.04	0	0
1/8/2019	0.06	0	0
1/9/2019	0	0	0
1/10/2019	0	0	0
1/11/2019	0	0	0
1/12/2019	0	0	0
1/13/2019	0.11	0	0
1/14/2019	0	0	0
1/15/2019	0	0	0
1/16/2019	0.03	0	0
1/17/2019	0.02	0	0
1/18/2019	0.06	0	0
1/19/2019	0	0	0
1/20/2019	0	0	0
1/21/2019	0	0	0
1/22/2019	0.01	0	0
1/23/2019	1.33	0	0
1/24/2019	0.03	0	0
1/25/2019	0	0	0
1/26/2019	0.03	0	0
1/27/2019	0	0	0
1/28/2019	0.11	0	0
1/29/2019	0	0	0
1/30/2019	0	0	0
1/31/2019	0	0	0
2/1/2019	0	0	0

2/2/2019	0.05	0	0
2/3/2019	0	0	0
2/4/2019	0.1	0	0
2/5/2019	0.01	0	0
2/6/2019	0.43	0	0
2/7/2019	0.47	0	0
2/8/2019	0	0	0
2/9/2019	0	0	0
2/10/2019	0	0	0
2/11/2019	0.18	0	0
2/12/2019	0.86	0	0
2/13/2019	0	0	0
2/14/2019	0	0	0
2/15/2019	0.01	0	0
2/16/2019	0	0	0
2/17/2019	0	0	0
2/18/2019	0	0	0
2/19/2019	0.02	0	0
2/20/2019	0.6	0	0
2/21/2019	0	0	0
2/22/2019	0	0	0
2/23/2019	0	0	0
2/24/2019	0.06	0	0
2/25/2019	0	0	0
2/26/2019	0	0	0
2/27/2019	0	0	0
2/28/2019	0	0	0
3/1/2019	0	0	0
3/2/2019	0	0	0
3/3/2019	0	0	0
3/4/2019	0	0	0
3/5/2019	0	0	0
3/6/2019	0	0	0
3/7/2019	0	0	0
3/8/2019	0	0	0
3/9/2019	0.43	0	0
3/10/2019	0.55	0	0
3/11/2019	0	0	0
3/12/2019	0	0	0

3/13/2019	0	0	0
3/14/2019	0.6	0	0
3/15/2019	0.01	0	0
3/16/2019	0.01	0	0
3/17/2019	0	0	0
3/18/2019	0.01	0	0
3/19/2019	0	0	0
3/20/2019	0	0	0
3/21/2019	0.04	0	0
3/22/2019	0.03	0	0
3/23/2019	0	0	0
3/24/2019	0	0	0
3/25/2019	0.02	0	0
3/26/2019	0	0	0
3/27/2019	0	0	0
3/28/2019	0	0	0
3/29/2019	0.37	0	0
3/30/2019	1.1	0	0
3/31/2019	0	0	0
4/1/2019	0.1	0	0
4/2/2019	0	0	0
4/3/2019	0	0	0
4/4/2019	0.04	0	0
4/5/2019	0.01	0	0
4/6/2019	0	0	0
4/7/2019	0.01	0	0
4/8/2019	0	0	0
4/9/2019	0	0	0
4/10/2019	0	0	0
4/11/2019	0	0	0
4/12/2019	0.05	0	0
4/13/2019	0	0	0
4/14/2019	0.84	0	0
4/15/2019	0.07	0	0
4/16/2019	0	0	0
4/17/2019	0.01	0	0
4/18/2019	0.01	0	0
4/19/2019	0.79	0	0
4/20/2019	0.41	0	0

4/21/2019	0.01	0	0
4/22/2019	0	0	0
4/23/2019	0	0	0
4/24/2019	0	0	0
4/25/2019	0.59	0	0
4/26/2019	0.79	0	0
4/27/2019	0.3	0	0
4/28/2019	0.25	0	0
4/29/2019	0.08	0	0
4/30/2019	0.27	0	0
5/1/2019	0.62	0	0
5/2/2019	0.29	0	0
5/3/2019	0.11	0	0
5/4/2019	0.02	0	0
5/5/2019	0	0	0
5/6/2019	0	0	0
5/7/2019	0	0	0
5/8/2019	0	0	0
5/9/2019	0.35	0	0
5/10/2019	0	0	0
5/11/2019	0.03	0	0
5/12/2019	0.48	0	0
5/13/2019	0.27	0	0
5/14/2019	0	0	0
5/15/2019	0	0	0
5/16/2019	0	0	0
5/17/2019	0.02	0	0
5/18/2019	0.19	0	0
5/19/2019	0.19	0	0
5/20/2019	0	0	0
5/21/2019	0	0	0
5/22/2019	0.06	0	0
5/23/2019	0.02	0	0
5/24/2019	0	0	0
5/25/2019	0.02	0	0
5/26/2019	0.31	0	0
5/27/2019	0.18	0	0
5/28/2019	0.11	0	0
5/29/2019	0.01	0	0

5/30/2019	0.14	0	0
5/31/2019	0	0	0
6/1/2019	0.69	0	0
6/2/2019	0.46	0	0
6/3/2019	0	0	0
6/4/2019	0	0	0
6/5/2019	1.12	0	0
6/6/2019	0	0	0
6/7/2019	0	0	0
6/8/2019	0	0	0
6/9/2019	0.01	0	0
6/10/2019	0.4	0	0
6/11/2019	0	0	0
6/12/2019	0.85	0	0
6/13/2019	0.58	0	0
6/14/2019	0	0	0
6/15/2019	0.63	0	0
6/16/2019	0.74	0	0
6/17/2019	0.3	0	0
6/18/2019	1.36	0	0
6/19/2019	0.06	0	0
6/20/2019	1.18	0	0
6/21/2019	0	0	0
6/22/2019	0	0	0
6/23/2019	0	0	0
6/24/2019	0.16	0	0
6/25/2019	0	0	0
6/26/2019	0	0	0
6/27/2019	0	0	0
6/28/2019	0	0	0
6/29/2019	0	0	0
6/30/2019	0	0	0
7/1/2019	0	0	0
7/2/2019	0	0	0
7/3/2019	0.15	0	0
7/4/2019	0	0	0
7/5/2019	0.16	0	0
7/6/2019	1.26	0	0
7/7/2019	3.28	0	0

7/8/2019	0	0	0
7/9/2019	0	0	0
7/10/2019	0	0	0
7/11/2019	0	0	0
7/12/2019	0	0	0
7/13/2019	0	0	0
7/14/2019	0	0	0
7/15/2019	0	0	0
7/16/2019	0.44	0	0
7/17/2019	0.82	0	0
7/18/2019	0.02	0	0
7/19/2019	0	0	0
7/20/2019	0.07	0	0
7/21/2019	0.77	0	0
7/22/2019	0.73	0	0
7/23/2019	0	0	0
7/24/2019	0.01	0	0
7/25/2019	0	0	0
7/26/2019	0	0	0
7/27/2019	0	0	0
7/28/2019	0	0	0
7/29/2019	0.18	0	0
7/30/2019	0.12	0	0
7/31/2019	0	0	0
8/1/2019	0	0	0
8/2/2019	0	0	0
8/3/2019	0	0	0
8/4/2019	0	0	0
8/5/2019	0.03	0	0
8/6/2019	0.82	0	0
8/7/2019	0	0	0
8/8/2019	0.01	0	0
8/9/2019	0	0	0
8/10/2019	0	0	0
8/11/2019	0	0	0
8/12/2019	0.05	0	0
8/13/2019	0.34	0	0
8/14/2019	0	0	0
8/15/2019	0.01	0	0

8/16/2019	0	0	0
8/17/2019	0	0	0
8/18/2019	0.93	0	0
8/19/2019	0.06	0	0
8/20/2019	0.58	0	0
8/21/2019	0	0	0
8/22/2019	0.57	0	0
8/23/2019	0	0	0
8/24/2019	0	0	0
8/25/2019	0	0	0
8/26/2019	0.07	0	0
8/27/2019	0.11	0	0
8/28/2019	0	0	0
8/29/2019	0	0	0
8/30/2019	0	0	0
8/31/2019	0	0	0
9/1/2019	1.18	0	0
9/2/2019	0	0	0
9/3/2019	0	0	0
9/4/2019	0	0	0
9/5/2019	0	0	0
9/6/2019	0	0	0
9/7/2019	0	0	0
9/8/2019	0	0	0
9/9/2019	0	0	0
9/10/2019	0	0	0
9/11/2019	0	0	0
9/12/2019	0.09	0	0
9/13/2019	0.32	0	0
9/14/2019	0	0	0
9/15/2019	0	0	0
9/16/2019	0	0	0
9/17/2019	0	0	0
9/18/2019	0	0	0
9/19/2019	0	0	0
9/20/2019	0	0	0
9/21/2019	0	0	0
9/22/2019	0	0	0
9/23/2019	0.22	0	0

9/24/2019	0	0	0
9/25/2019	0	0	0
9/26/2019	0	0	0
9/27/2019	0	0	0
9/28/2019	0.13	0	0
9/29/2019	0.03	0	0
9/30/2019	1.91	0	0
10/1/2019	0	0	0
10/2/2019	0.12	0	0
10/3/2019	0.01	0	0
10/4/2019	0	0	0
10/5/2019	0	0	0
10/6/2019	0.07	0	0
10/7/2019	0.01	0	0
10/8/2019	0	0	0
10/9/2019	0	0	0
10/10/2019	0	0	0
10/11/2019	0.07	0	0
10/12/2019	0.15	0	0
10/13/2019	0	0	0
10/14/2019	0	0	0
10/15/2019	0	0	0
10/16/2019	0.36	0	0
10/17/2019	0	0	0
10/18/2019	0	0	0
10/19/2019	0	0	0
10/20/2019	0	0	0
10/21/2019	0.26	0	0
10/22/2019	0	0	0
10/23/2019	0	0	0
10/24/2019	0	0	0
10/25/2019	0	0	0
10/26/2019	0.67	0	0
10/27/2019	0.08	0	0
10/28/2019	0	0	0
10/29/2019	0	0	0
10/30/2019	0.49	0	0
10/31/2019	0.8	0	0
11/1/2019	0.01	0	0

11/2/2019	0.07	0	0
11/3/2019	0	0	0
11/4/2019	0	0	0
11/5/2019	0	0	0
11/6/2019	0	0	0
11/7/2019	0.08	0	0
11/8/2019	0	0	0
11/9/2019	0	0	0
11/10/2019	0	0	0
11/11/2019	0.43	0	0
11/12/2019	0	0	0
11/13/2019	0	0	0
11/14/2019	0.24	0	0
11/15/2019	0	0	0
11/16/2019	0	0	0
11/17/2019	0	0	0
11/18/2019	0	0	0
11/19/2019	0	0	0
11/20/2019	0	0	0
11/21/2019	0	0	0
11/22/2019	0.01	0	0
11/23/2019	0.13	0	0
11/24/2019	0.11	0	0
11/25/2019	0	0	0
11/26/2019	0	0	0
11/27/2019	0.43	0	0
11/28/2019	0	0	0
11/29/2019	0	0	0
11/30/2019	0	0	0
12/1/2019	0.32	0	0
12/2/2019	0.06	0	0
12/3/2019	0	0	0
12/4/2019	0	0	0
12/5/2019	0	0	0
12/6/2019	0	0	0
12/7/2019	0	0	0
12/8/2019	0	0	0
12/9/2019	0.5	0	0
12/10/2019	0	0	0

12/11/2019	0	0	0
12/12/2019	0	0	0
12/13/2019	0	0	0
12/14/2019	0.48	0	0
12/15/2019	0.01	0	0
12/16/2019	0.04	0	0
12/17/2019	0	0	0
12/18/2019	0	0	0
12/19/2019	0	0	0
12/20/2019	0	0	0
12/21/2019	0	0	0
12/22/2019	0	0	0
12/23/2019	0	0	0
12/24/2019	0	0	0
12/25/2019	0	0	0
12/26/2019	0	0	0
12/27/2019	0	0	0
12/28/2019	0	0	0
12/29/2019	0	0	0
12/30/2019	0	0	0
12/31/2019	0	0	0
Total:	45.87		

On March 22nd 2019, A significant amount of surface water was removed by installing a culvert tile across New St and connecting it to a storm tile. This allowed for the removal of a storm receiver connected to the combined sewer system. This storm water removal was upstream of CSO station 2PB00059018.

It is the opinion of the Village of Greenwich that no current CSO locations can be closed without negatively impacting users.

Since the inception of the process initiated by the 2007 revised LTCP, Greenwich has implemented administrative initiatives to help address CSOs in the sewer collection system. These include:

- Requirement for septic system inspections by licensed contractors**
- Requirement for septic system documentation for new property owners, enforced as a requirement before water service activation**
- Prohibitive legislation concerning storm and sanitary sewer cross-connections**
- Electronic monitoring of CSO outfalls to record overflow volumes and event times**

The Village of Greenwich has an established Combined Sewer System Operational Plan (Combined Sewer Collection System; Operation and Maintenance Manual CSCSO&M, GGJ) as submitted to the Ohio EPA in May of 2003. The development of the plan was based on the Nine Minimum Controls as described below;

- 1) Provide proper operation and maintenance for the collection system and**

the combined sewer overflow points

- 2) Provide the maximum use of the collection system for storage of wet weather flow prior to allowing overflows**
- 3) Review and modify the pretreatment program to minimize the impact of non-domestic discharges from combined sewer overflows; or if there is no pretreatment program review and modify local programs to minimize the impact of non-domestic discharges from combined sewer overflows**
- 4) Maximize the capabilities of the POTW to treat wet weather flows, and maximize the wet weather flow to the wastewater treatment plant within the limits of the plant's capabilities**
- 5) Prohibit dry weather overflows**
- 6) Control solid and floatable materials in the combined sewer overflow discharge**
- 7) Conduct required inspection, monitoring and reporting of CSOs**
- 8) Implement pollution prevention programs that focus on reducing the level of contaminants in CSOs**
- 9) Implement a public notification program for areas affected by CSOs especially beaches and recreation areas**

This project is part of an ongoing Village effort to separate sewers and reduce overflow events. In addition to the administrative improvements listed above, the Village has implemented stormwater source removal projects at numerous locations since 2008. In addition to constructing new sewer mains, stormwater laterals have been disconnected from existing combined sewers and reconnected to new storm sewers as new storm sewers have been installed.

2020 IMPLEMENTATION

- 1. Continuation of Pre and Post Construction Monitoring of existing four (4) CSO Locations.**
- 2. A robust GIS system was created that is continually updated as work is performed and new information about the system becomes known.**

The Village is considering eliminating CSO 023 instead of CSO 022. A survey of the elevations determined the CSO 023 is slightly higher in elevation than CSO 022. The factors of this proposal is that the creek level and it's downstream culvert elevation is bound by two sets of railroad tracks. This prevents us from lowering the CSO 023.

YEAR END STATUS

The following table states the location of all currently active CSO's:

STATION NUMBER	DESCRIPTION			STATUS
2PB00059002	LS #1 OVERFLOW. A MH LOCATED ON WEST SIDE OF TOWNSEND ST. AS LS #1			ACTIVE
2PB00059018	CONCRETE STRUCTURE LOCATED ON WEST SIDE OF NEW ST.			ACTIVE
2PB00059022	MH LOCATED SOUTHEAST OF THE SUNSET/SEMINARY ST. INTERSECTION JUST NORTH OF THE TRIBUTARY AND SLIGHTLY WEST OF THE STREAMS WESTWARD BEND,			ACTIVE
2PB00059023	LS #2 OVERFLOW			ACTIVE

The Village IT administrator is currently responsible for maintaining the website.

Norman Reed, Greenwich IT Administrator 419-566-5007 techsupport@villageofgreenwich.com