

Bucyrus WWTP CSO ANNUAL REPORT

DATE: 4-29-19

NPDES Permit Holder: City of Bucyrus WWTP

OHIO NPDES PERMIT NO: 2PD00021*LD

PERIOD COVERED BY REPORT: 11/07/18 thru 12/31/18

CONTACT PERSON

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TITLE: Wastewater Foreman Class III

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4-30-18

Date

Tim Wood

Signature of Official

1. CSO dry weather Discharge

- No dry weather discharges during reporting period

2. Monitoring Data

- One event was sampled during reporting period on 11-15-18
 - Cso 19 Tss 139.5 Cbod 50.3
 - Cso 22 Tss 85 Cbod AE
 - Cso 25 Tss 88 Cbod 33.3

3. Public access area potentially impacted by Cso discharge

- The City does not promote river access with the exception of a drive through the river in Aumiller Park. This drive could be a potentially impacted public access area due to the fact that there could be a CSO event but the depth of the river is not enough for the City to close driving access. This drive is for vehicles only with a pedestrian walkway over the river 50' upstream of the drive. The drive is located approximately 200' downstream of CSO 20 and 2' upstream of

CSO 21. The sign for CSO 21 is visible from both sides of the river at the drive. The City Service Garage is in charge of park maintenance with the supervisor also overseeing the Sewer and Drain Department.

4. Description of location

- Attached

5. Duration, Volume, cause, precipitation data.

- Attached

6. Summary of implementation of nine minimum controls and status of AO.

- Nine minimum controls
 - Proper operation and regular maintenance programs for the sewer system and CSO outfalls - All CSO locations are inspected weekly. Any damage of either the CSO structure or the signs is reported for repair or replacement. The City Service Garage also maintains access lanes and area around CSO outfalls to keep brush and weeds cut back to ensure they are not obstructed from view.
 - Maximum use of the collection system for storage - *In progress through the Administrative Order.* The sewer separation projects in the current Administrative Order are reducing the wet weather flows in the collection system and therefore prioritizing capacity in the sewers for sanitary flows.
 - Review and modification of pretreatment requirements to ensure that CSO impacts are minimized
 - Maximization of flow to the POTW for treatment – *In progress through the Administrative Order.* The sewer separation projects

in the current Administrative Order are reducing the wet weather flows in the collection system and therefore prioritizing sanitary flows to the WWTP.

- Elimination of CSOs during dry weather – In progress through the Administrative Order
- Control of solid and floatable materials in CSOs
- Pollution prevention programs to reduce containments in CSOs
- Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts – In effect via the City's website
- Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls – The City's current NPDES regulations for CSO monitoring have a rotating schedule for at least five (5) stations being monitored during each storm event, with samples to be collected during the first 30 minutes of discharge when the WWTP is staffed. The operators will check the CSOs when the influent flow reaches 5.0 MGD. If any CSOs are overflowing then the sample is tested for TSS and CBOD with the Overflow Volume and duration being estimated.

For the purposes of this new regulation, the City is utilizing data from new rain gauge data loggers and flow charts provided by Arcadis based off of sewer modeling. The city is currently using flow charts for volume of all cso's and duration of all cso's except 24,25,26. 24,25,26 are directly behind plant and are physically checked for ending time. Per the Administrative Order from the US EPA, a new sewer model will be developed in 2020 to assess the separation progress and submit the Phase II Feasibility Report. Until the sewer model is updated, the City will periodically conduct physical inspections during rain events to evaluate the accuracy of the current sewer model and plant flow level.

- **Administrative order**

- **Administrative Order – Milestones and schedule**

See the attached Gantt for the latest Administrative Order Schedule and Milestones.

○ **Description of the average annual number of CSO discharges anticipated upon completion of the Administrative Order.**

The current Administrative Order (AO) was issued on September 28, 2015 and outlines the Phase I projects that will help aid the City's efforts to reduce CSOs. As several of the projects are still in progress, the actual benefit in terms of CSO reductions is not known yet. The AO does require the City to perform Post Construction Monitoring (PCM) which is scheduled to occur in the Spring of 2020. The PCM data will allow the City to quantify the reduction in CSO activations and volumes as compared to the pre-construction flow monitoring that was completed as part of the AO in 2016. The flow monitoring data will also be utilized to update the hydrologic and hydraulic (H&H) model. The H&H model will then be used to evaluate the performance of the system improvements and to quantify the remaining CSO activations during the typical year. The H&H model will also be used to evaluate the necessary Phase II improvements to further reduce CSO activations to comply with the Clean Water Act. The current AO

CSO Station Number	CSO Location	Receiving Water Body	Date	Estimated Duration Hours	Estimated Volume MG	Cause of Discharge	Amount of Rain in.
003	150 ft east of North End of Highland Lat: 40 48' 12" Long: 82 57' 36"	Sandusky River	11-24-18	2.5	0.1	rain	0.6
			12-1-18	1	.025	rain	.4
			12-16-18	1	.025	rain	.45
			12-21-18	4	.2	rain	.81
			12-31-19	9.5	.25	rain	1.55
005	North of side River 180ft E of old Nye RR tracks Lat: 40 48' 46" Long: 82 58' 04"	Sandusky River	11-24-18	2.5	0.025	rain	0.6
			12-1-19	1	.01	rain	.4
			12-16-19	1	.01	rain	.45
			12-21-18	4	.1	rain	.81
			12-31-18	8.5	.125	rain	1.55
006	East side of River. 250ft West of old Nye RR tracks Lat: 40 48' 17" Long: 82 58' 06"	Sandusky River	11-24-18	3.0	0.1	rain	0.6
			12-1-18	2.0	.025	rain	.4
			12-16-18	2	.025	rain	.45
			12-21-18	3.5	.3	rain	.81
			12-31-18	15	.5	rain	1.55
007	Mary St between Lane and Mansfield St Lat: 40 48' 39" Long: 82 58' 12"	Sandusky River	11-24-18	4.5	0.2	rain	0.6
			12-1-18	2.5	.15	rain	.4
			12-16-18	2.5	.15	rain	.45
			12-21-18	6	.5	rain	.81
			12-31-18	21	.95	rain	1.55
008	Southeast corner of Lane and Clinton St. Lat: 40 48' 43" Long: 82 58' 18"	Sandusky River	11-24-18	2.5	0.02	rain	0.6
			12-1-22	1.5	.005	rain	.4
			12-16-18	1.	.005	rain	.45
			12-21-18	4	.08	rain	.81
			12-31-18	8.5	.075	rain	1.55

009	North of River across from Walnut St Lan: 40 48' 48" Long: 82 58' 27"	Sandusky River	11-15-18 11-24-18 12-1-18 12-16-18 12-22-18 12-31-18	3.5 5 4.5 4.5 8.5 23	0.25 1 .75 .75 2 4.3	Rain rain rain rain rain rain	0.3 .6 .4 .45 .81 1.55
011	South of River at Sandusky Avenue, under bridge Lan: 40 48' 46" Long: 82 58' 27"	Sandusky River					
012	250ft South of intersection of River St and Plants Way Lan: 40 48' 46" Long: 82 58' 37"	Sandusky River	11-24-18 12-16-18 12-21-18 12-31-18	2.5 1 3.5 9.5	0.02 .005 .175 .15	rain rain rain rain	0.6 .45 .81 1.55
013	West of River at Mary St Lan: 40 48' 38" Long: 82 58' 46"	Sandusky River	11-15-18 11-24-18 12-1-18 12-16-18 12-21-18 12-31-18	2.5 5 4 4 6 23	0.1 .4 .2 .2 .8 1.85	Rain rain rain rain rain rain	.3 .6 .4 .45 .81 1.55
015	North of River at Mansfield St Lan: 40 48' 34" Long: 82 58' 55"	Sandusky River					
016	South of River at Mansfield St 40 48' 32" Long: 82 58' 53" Lat:	Sandusky River					
017	East side of river West Rensselaer St at extension Lat: 40 48' 26" Long: 82 59' 04"	Sandusky River	11-15-18 11-24-18 12-1-18 12-16-18 12-21-18 12-31-18	3.0 5 4.5 4.5 8.5 25	0.5 2 1 1 4.25 9	Rain Rain rain rain rain rain	0.3 .6 .4 .45 .81 1.55
018	East side of river at Warren St and Kramer Ave 40 48' 24" Long: 82 59' 09" Lat:	Sandusky River					

019	East side of river 200ft West at Kramer St at Charles St Lat: 40 48' 19" Long: 82 59' 13"	Sandusky River	11-9-18	3.3	0.1	Rain	0.25
			11-15-18	4	.2	Rain	.3
			11-24-18	5.5	.4	rain	.6
			12-1-18	5.0	.25	rain	.4
			12-16-18	5	.25	rain	.45
020	East of River on East Dr at Gay St 40 48' 13" Long: 82 59' 13" Lat:	Sandusky River	12-21-18	9	.75	rain	.75
			12-31-18	26	2	rain	1.55
			11-24-18	2.0	0.01	rain	0.6
			12-16-18	1	.01	rain	.45
			12-21-18	3.5	.175	rain	.81
021	East of River on East Dr on Martin Ave 40 48' 16" Long: 82 59' 14" Lat:	Sandusky River	12-31-18	9.5	.2	rain	1.55
			11-24-18	3.5	0.05	rain	0.6
			12-16-18	2.5	.02	rain	.45
			12-21-18	6	.125	rain	.81
			12-31-18	20	.27	rain	1.55
022	East side of river North of Oakwood Cemetery 400ft South at Wise St Lat: 40 48' 05" Long: 82 59' 12"	Sandusky River	11-9-18	4	0.25	Rain	0.25
			11-15-18	4.5	.5	Rain	.3
			11-24-18	5.5	.8	rain	.6
			12-1-18	5.5	.5	rain	.4
			12-16-18	5.5	.5	rain	.45
023	South side of river NW Quad of Oakwood Cemetery 800ft SW of Wise Lat: 40 49' 04" Long: 82 59' 16"	Sandusky River	12-21-18	11.5	1.8	rain	.81
			12-31-18	31	4.75	rain	1.55
			11-9-18	4	0.05	Rain	0.25
			11-15-18	4.5	.1	Rain	.3
			11-24-18	5.5	2.5	rain	.6

024	South of River 400ft NE of WWTP influent structure Lat: 40 48' 09" Long: 82 59' 39"	Sandusky River	11-9-18 11-15-18 11-24-18 12-21-18 12-16-18 12-21-18 12-31-18	3 5.5 8 7 7 15 37	0.2 .2 .6 .4 .4 1 3.75	Rain Rain rain rain rain rain rain	0.25 .3 .6 .4 .45 .81 1.55
025	North of River 500ft NE of WWTP influent structure Lat: 40 48' 12" Long: 82 59' 41"	Sandusky River	11-9-18 11-15-18 11-24-18 12-1-18 12-16-18 12-22-18 12-31-18	4 4.5 7 6 6 13 35	0.15 .15 .4 .25 .25 .4 2	Rain Rain rain rain rain rain rain	0.25 .3 .6 .4 .45 .81 1.55
026	North of River across from WWTP outfall Lat: 40 48' 43" Long 82 59' 47"	Sandusky River	11-9-18 11-15-18 11-24-18 12-1-18 12-16-18 12-21-18 12-31-18	5 5.5 9 8 8 17 40	0.4 .6 1 .75 .75 1.75 4.5	Rain Rain rain rain rain rain rain	0.25 .3 .6 .4 .45 .81 1.55
027	on NW trunk S of Mansfield and N of RR tracks Lat: 40 48' 34" Long: 82 58' 55"	Unnamed Tributary of Sandusky River					

