SANITARY SEWER OVERFLOW
ANNUAL REPORT

DATE: January 14, 2020

FACILITY NAME: City of Lorain

OHIO NPDES PERMIT NO: 3PE00005*LD & 3PD00040*ID/JD

PERIOD COVERED BY REPORT: Jan 1, 2019 - Dec. 31, 2019

CONTACT PERSON

NAME: Douglas E. Dietzel

TITLE: Environmental Manager

MAILING ADDRESS:
1106 First Street
Lorain, OH 44052

TELEPHONE: 440-204-2505

EMAIL: Doug_Dietzel@cityoflorain.org

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION IN THIS REPORT AND ALL ATTACHMENTS. BASED ON MY INQUIRY OF THOSE PERSONS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION CONTAINED IN THE REPORT, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Signature of Official

01/15/2020
Date

Environmental Manager
Title

Click to clear all entered information (on all 5 pages of this form) CLEAR

SSO Annual Report Table 1: SSO Identification Ohio NPDES Permit No.: 3PE00005*LD & 3PD00040*ID

Identification No.[A]	Location Description	Receiving Water[B]	Eliminated[C]
303	Idaho Road Pump Station	Black River	
305	MH - Oberlin Ave & W. 7th St.	Lake Erie	10/18/18
309	MH - Washington Ave & W. 19th St.	Black River	10/18/18
317	MH - Broadway Ave & W. 17th St.	Black River	12/18/18
318	MH - Broadway Ave & W. 12th St.	Black River	12/18/18
319	MH - Broadway Ave & W. 8th St.	Black River	12/18/18
320	First Street, MH - City Hall Place	Black River	12/21/16
320	16S Storage Tunnel	Black River	
322	MH - Erie Ave & Kansas Ave	Lake Erie	
324	MH - Skyline Ave/Marshall Ave	Willow Creek	10/18/18
325	MH - Meister Rd/Marshall Ave	Willow Creek	08/06/15
326	MH - Clinton Ave @ Jay Metals	Black River	04/29/14
327	Pearl Avenue Pump Station	Black River	
329	Tacoma Avenue Pump Station	Black River	
331	MH - Hoover Boulevard	Willow Creek	08/06/15
332	Martin's Run Pump Station	Martin's Run	

A. Assign each SSO location a unique identification by numbering them consecutively, beginning with 301.

B. Enter name of receiving water. If an SSO enters a storm sewer, enter "SS to (name of receiving water)". If an SSO does not reach a receiving water, enter "None".

C. If an SSO has been eliminated, enter the date of elimination (MM/DD/YY).

Use additional pages as needed.

SSO Annual Report Table 2: SSO Event Information Ohio NPDES Permit No.: 3PE00005*LD & 3PD000

Date[A]	Identification No.[B]	Receiving Water[C]	Volume[D]
1/1/19	303	Black River	2.574
1/1/19	320	Black River	1.664
1/2/19	320	Black River	0.945
1/13/19	332	Martin's Run	9.838
1/19/19	332	Martin's Run	11.307
1/20/19	332	Martin's Run	6.255
1/21/19	332	Martin's Run	6.162
1/22/19	332	Martin's Run	6.057
1/23/19	320	Black River	18.382
1/23/19	329	Black River	8.603
1/23/19	332	Martin's Run	4.364
1/24/19	320	Black River	18.463
1/24/19	329	Black River	0.615
1/25/19	320	Black River	9.991
1/26/19	320	Black River	0.326
2/8/19	320	Black River	0.291
2/9/19	320	Black River	0.291
2/20/19	303	Black River	0.003
3/9/19	303	Black River	0.004
3/10/19	303	Black River	0.005
3/14/19	303	Black River	0.002
3/25/19	332	Martin's Run	0.160
3/26/19	332	Martin's Run	0.002
3/30/19	303	Black River	0.004
3/30/19	327	Black River	0.040
3/31/19	303	Black River	0.036
3/31/19	327	Martin's Run	0.003
3/31/19	332	Martin's Run	0.001
4/11/19	332	Martin's Run	0.373
4/12/19	332	Martin's Run	0.438
4/14/19	303	Black River	0.002
4/14/19	327	Black River	0.112
4/14/19	332	Martin's Run	0.252
4/19/19	303	Black River	0.007
4/19/19	327	Black River	0.105
4/19/19	332	Martin's Run	0.252
4/20/19	303	Black River	10.571
4/20/19	327	Black River	1.201

A. Enter date as "MM/DD/YY". Enter "Various" to summarize overflows of less than 1000 gallons from an SSO location.

B. Enter the unique identification assigned in Table 1.

C. Enter name of receiving water. If an SSO enters a storm sewer, enter "SS to (name of receiving water)". If an SSO does not reach a receiving water, enter "None".

D. Enter estimate of volume in MG (millions of gallons). Enter estimate of total volume if summarizing data.

Use additional pages as needed.

SSO Annual Report Table 2: SSO Event Information Ohio NPDES Permit No.: 3PE00005*LD & 3PD000

Date[A]	Identification No.[B]	Receiving Water[C]	Volume[D]
4/20/19	332	Martin's Run	0.190
4/25/19	327	Black River	0.114
4/26/19	303	Black River	0.004
4/26/19	327	Black River	0.020
4/27/19	327	Black River	0.114
4/28/19	303	Black River	0.002
4/28/19	327	Black River	0.143
4/28/19	332	Martin's Run	0.085
4/29/19	303	Black River	3.096
4/29/19	327	Black River	0.160
4/29/19	332	Martin's Run	0.247
4/30/19	303	Black River	0.001
4/30/19	327	Black River	0.167
4/30/19	332	Martin's Run	0.069
5/1/19	303	Black River	0.002
5/1/19	332	Martin's Run	0.227
5/2/19	303	Black River	0.310
5/3/19	303	Black River	0.000
5/3/19	320	Black River	0.480
5/4/19	320	Black River	0.480
5/7/19	332	Martin's Run	0.198
5/8/19	332	Martin's Run	0.315
5/9/19	303	Black River	0.310
5/9/19	332	Martin's Run	0.351
5/10/19	303	Black River	0.280
5/11/19	332	Martin's Run	0.243
5/12/19	303	Black River	0.001
5/12/19	332	Martin's Run	0.229
5/13/19	303	Black River	0.040
5/13/19	332	Martin's Run	0.047
5/14/19	332	Martin's Run	0.150
5/20/19	332	Martin's Run	0.270
5/21/19	332	Martin's Run	0.251
5/22/19	332	Martin's Run	0.234
5/23/19	303	Black River	0.001
5/23/19	327	Black River	0.150
5/26/19	303	Black River	0.001
5/28/19	303	Black River	2.68

A. Enter date as "MM/DD/YY". Enter "Various" to summarize overflows of less than 1000 gallons from an SSO location.

B. Enter the unique identification assigned in Table 1.

C. Enter name of receiving water. If an SSO enters a storm sewer, enter "SS to (name of receiving water)". If an SSO does not reach a receiving water, enter "None".

D. Enter estimate of volume in MG (millions of gallons). Enter estimate of total volume if summarizing data.

Use additional pages as needed.

SSO Annual Report Table 2: SSO Event Information Ohio NPDES Permit No.: 3PE00005*LD & 3PD000

Date[A]	Identification No.[B]	Receiving Water[C]	Volume[D]
5/28/19	327	Black River	3.770
5/28/19	332	Martin's Run	0.232
5/29/19	303	Black River	3.580
5/29/19	320	Black River	4.440
5/29/19	327	Black River	1.180
5/29/19	329	Black River	0.150
5/29/19	332	Martin's Run	0.023
5/30/19	303	Black River	0.170
5/30/19	320	Black River	4.442
5/30/19	327	Black River	0.180
5/30/19	332	Martin's Run	0.340
5/31/19	320	Black River	1.57
6/1/19	303	Black River	0.165
6/1/19	320	Black River	0.030
6/1/19	327	Black River	0.127
6/2/19	303	Black River	24.572
6/2/19	320	Black River	8.433
6/2/19	327	Black River	1.839
6/2/19	332	Martin's Run	0.94
6/3/19	320	Black River	8.437
6/3/19	332	Martin's Run	0.024
6/4/19	320	Black River	0.005
6/5/19	303	Black River	10.670
6/5/19	320	Black River	2.825
6/5/19	327	Black River	0.645
6/5/19	332	Martin's Run	0.278
6/6/19	303	Black River	7.349
6/6/19	320	Black River	4.886
6/7/19	320	Black River	4.358
6/8/19	332	Martin's Run	0.23
6/9/19	332	Martin's Run	0.291
6/10/19	303	Black River	5.828
6/10/19	327	Black River	0.175
6/10/19	332	Martin's Run	0.149
6/11/19	332	Martin's Run	0.026
6/12/19	303	Black River	0.005
6/12/19	332	Martin's Run	0.044
6/13/19	303	Black River	0.734

A. Enter date as "MM/DD/YY". Enter "Various" to summarize overflows of less than 1000 gallons from an SSO location.

B. Enter the unique identification assigned in Table 1.

C. Enter name of receiving water. If an SSO enters a storm sewer, enter "SS to (name of receiving water)". If an SSO does not reach a receiving water, enter "None".

D. Enter estimate of volume in MG (millions of gallons). Enter estimate of total volume if summarizing data.

Use additional pages as needed.

SSO Annual Report Table 2: SSO Event Information Ohio NPDES Permit No.: 3PE00005*LD & 3PD000

Date[A]	Identification No.[B]	Receiving Water[C]	Volume[D]
6/13/19	332	Martin's Run	0.216
6/14/19	303	Black River	0.671
6/14/19	332	Martin's Run	0.047
6/16/19	303	Black River	10.296
6/16/19	332	Martin's Run	0.132
6/17/19	303	Black River	0.416
6/20/19	303	Black River	22.635
6/20/19	320	Black River	11.980
6/20/19	327	Black River	3.828
6/20/19	329	Black River	4.546
6/20/19	332	Martin's Run	0.521
6/21/19	303	Black River	5.743
6/21/19	320	Black River	13.327
6/21/19	332	Martin's Run	0.065
6/22/19	320	Black River	3.269
6/22/19	332	Martin's Run	0.080
6/23/19	320	Black River	0.453
6/24/19	320	Black River	0.453
6/25/19	320	Black River	0.144
6/30/19	332	Martin's Run	0.065
7/2/19	303	Black River	0.003
7/3/19	303	Black River	0.027
7/7/19	327	Black River	0.000
7/7/19	332	Martin's Run	0.094
7/8/19	320	Black River	0.004
7/9/19	320	Black River	0.436
7/10/19	320	Black River	0.436
7/11/19	320	Black River	0.280
7/11/19	332	Martin's Run	0.049
7/12/19	320	Black River	0.416
7/13/19	320	Black River	0.416
7/17/19	303	Black River	0.000
7/19/19	332	Martin's Run	0.502
7/20/19	320	Black River	0.177
7/20/19	332	Martin's Run	0.041
7/21/19	320	Black River	0.225
7/21/19	332	Martin's Run	0.059
7/22/19	320	Black River	0.225

A. Enter date as "MM/DD/YY". Enter "Various" to summarize overflows of less than 1000 gallons from an SSO location.

B. Enter the unique identification assigned in Table 1.

C. Enter name of receiving water. If an SSO enters a storm sewer, enter "SS to (name of receiving water)". If an SSO does not reach a receiving water, enter "None".

D. Enter estimate of volume in MG (millions of gallons). Enter estimate of total volume if summarizing data.

Use additional pages as needed.

SSO Annual Report Table 2: SSO Event Information Ohio NPDES Permit No.: 3PE00005*LD & 3PD000

Date[A]	Identification No.[B]	Receiving Water[C]	Volume[D]
7/22/19	332	Martin's Run	0.061
7/23/19	320	Black River	1.022
7/23/19	332	Martin's Run	0.084
7/24/19	320	Black River	1.022
7/24/19	332	Martin's Run	0.067
8/1/19	320	Black River	0.126
8/6/19	303	Black River	0.001
8/6/19	332	Martin's Run	0.274
8/7/19	303	Black River	0.065
8/7/19	327	Black River	1.374
8/7/19	332	Martin's Run	0.190
8/8/19	332	Martin's Run	0.261
8/13/19	332	Martin's Run	0.241
8/14/19	332	Martin's Run	0.237
8/18/19	303	Black River	0.002
8/18/19	332	Martin's Run	0.151
8/19/19	303	Black River	0.002
8/20/19	303	Black River	0.003
8/22/19	303	Black River	1.200
8/22/19	327	Black River	0.729
8/22/19	329	Black River	0.170
8/22/19	332	Martin's Run	0.205
8/23/19	332	Martin's Run	0.185
8/27/19	332	Martin's Run	0.268
9/1/19	332	Martin's Run	0.213
9/2/19	332	Martin's Run	0.319
9/12/19	303	Black River	0.001
9/12/19	332	Martin's Run	0.121
9/13/19	303	Black River	0.059
9/13/19	332	Martin's Run	0.215
9/14/19	303	Black River	0.013
10/2/19	332	Martin's Run	0.016
10/3/19	332	Martin's Run	0.013
10/12/19	332	Martin's Run	0.028
10/26/19	303	Black River	0.002
10/31/19	303	Black River	0.068
November	-	Issue with Data Collection	-
December	-	Issue with Data Collection	-

A. Enter date as "MM/DD/YY". Enter "Various" to summarize overflows of less than 1000 gallons from an SSO location.

B. Enter the unique identification assigned in Table 1.

C. Enter name of receiving water. If an SSO enters a storm sewer, enter "SS to (name of receiving water)". If an SSO does not reach a receiving water, enter "None".

D. Enter estimate of volume in MG (millions of gallons). Enter estimate of total volume if summarizing data.

Use additional pages as needed.

SSO Annual Report Table 3: Water In Basement Occurrences Ohio NPDES Permit No.: 3PE00005*LD & 3F

Sewershed[A]	WIB Occurrences[B]	Causes[C]
Sewer District A: East Lorain	11	W, R, D & O (Broken Lateral)
Sewer District B: South Lorain	10	D, & O (Broken Lateral & Contractors)
Sewer District C: Broadway Trunk	2	D
Sewer District D: Oberlin Trunk	6	D, G & O (Broken Lateral)
Sewer District E: West Eire Trunk	2	D
Sewer District F: Jeager RD PS	1	O (Broken Lateral)
Sewer District G: Martins Run PS	3	D
Sewer District H: PQM Gravity Sewer	0	-
Sewer District I: Brownhelm PS	0	-
Satellite Sewer District 1	0	-
Satillite Sewer District 2	1	W
Satillite Sewer District 3	0	-
Satillite Sewer District 4: Airport Trunk	0	-
Total Occurrences	~~37~~ 36 dcg 01/15/2020	

A. A sewershed is a specific geographic area, such as a city block or a subdivision, that drains to a common outlet.

B. Enter the total number of water in basement occurences reported for the sewershed.

C. Enter all causes that apply: W = extreme weather; E = equipment failure; P = power failure; D = debris in line; R = roots; G = grease; B = other blockages; L = line deterioration; V = vandalism; O = other, provide details.

Use additional pages as needed.

SSO Annual Report: Water In Basement Narrative Ohio NPDES Permit No.: 3PE00005*LD & 3F

Enter narrative analysis of WIB patterns by location, frequency and cause.

Sewer District A: East Lorain
11 of 36 WIBs (31%)
37% Extreme Weather,
18% Roots,
27% Debris in Line
18% Other (Broken Lateral)

Sewer District B: South Lorain
10 of 36 WIBs (28%)
50% Debris in Line
20% Other (Broken Lateral)
20% Other (Relining Contractors not Reinstating Laterals)
10% Other (Unknown)

Sewer District C: Broadway Trunk
2 of 36 WIBs (5%)
100% Debris in Line

Sewer District D: Oberlin Trunk
6 of 36 WIBs (17%)
67% Debris in line,
17% Grease
17% Broken Lateral

Sewer District E: West Eire Trunk
2 of 36 WIBs (5%)
100% Debris in line,

Sewer District F: Jeager RD PS
1 of 36 WIBs (3%)
100% Broken Lateral

Sewer District G: Martin's Run PS
3 of 36 WIBs (8%)
100% Debris in Line

Satellite Sewer District 2
1 of 36 WIBs (3%)
100% Extreme Weather

In 2019, majority of the WIBs 18 of 36 (50%) were caused by debris in lines. Due the extreme weather in 2019, an increase in intensity of rain from 2018 caused 5 of 37 (14%) WIBs to occur due to overloaded sewers. Additionally with the aging infrastructure of the City, 5 of 36 (14%) WIBs were caused by broken laterals. This can also be seen in majority of WIBs that occurred in Sewer District B: South Lorain, were the majority of the Collection System is over 100 years old. Furthermore, with the City's attempt to reduce I/I and improve the infrastructure 2 of the 36 (6%) of the WIBs were caused by the Relining Contractor not reinstating services properly.

City of Lorain
2019 Sanitary Sewer Overflow Report

Introduction

In compliance with the Administrative Consent Order, EPA Administrative Consent Order Docket No. V-W-13-AO-11, the City of Lorain has prepared a report that documents and outlines all actions taken to mitigate Sanitary Sewer Overflows (SSOs) that directly impact the environment. In addition to providing information regarding SSOs, the City of Lorain has also been requested to present information pertaining to the approved April, 2011 Capacity, Management, Operation, and Maintenance ("CMOM") Program. Found within this report should be all sufficient information that will ensure the City of Lorain's continued compliance with the EPA.

SSO Details *(Item 51, part c & e)*

The City of Lorain currently operates two (2) wastewater treatment facilities, the Black River Wastewater Treatment Plant (BRWWTP, NPDES Permit #3PE00005*LD) and the Philip Q. Maiorana Wastewater Treatment Plant (PQM WWTP, NPDES Permit #3PD00040*ID/JD) PQM's permit was renewed and effective date was December 1, 2019. The City of Lorain currently has six (6) active SSOs that discharge a mixture of sanitary sewage and storm water to surrounding surface waters, such as Lake Erie and the Black River (Appendix A). AS of January 1, 2019; ten (10) of the original fifteen (15) SSO locations have been closed. In 2019, there were a total of one-hundred and ninety-four (194) incidents (increase of 62% from 2018) that resulted in a total discharge of 328.43 MGD to the environment (an increase of 41% from 2018). The primary pollutants suspected in each overflow are Total Suspended Solids (TSS) & Biological Oxygen Demand (BOD). Furthermore, it has been documented that thirty-six (36) Water in basement (WIBs) (a decrease of 3% from 2018) occurred in 2018, with five (5) of those being due to wet weather events (a decrease of 50% from 2018). The increase in overflow volume can be attributed to the increase in intensity of rain fall. Especially in June, 2019; an increase of 4.60 inches (157%) of rain fall from 2018. Even with the increase in rainfall the City was able to capture and send to BRWWTP for treatment approximately 158.09 MGD with the fully operational Storage Tunnel. The Tunnel also assisted in the decrease of WIBs reported. A breakdown by SSO, date, and volume of each overflow event is included with this report (Appendix B). Additionally detailed report of all WIBs incidents is attached to this report (Appendix C).

CMOM Program Progress *(Item 51, part b)*

The City of Lorain submitted in April 2011, a CMOM plan which outlined their current and future actions that would take place to mitigate and reduce the effects of SSOs in and around the City's collection system. The program elements are summarized from the April 2011, report as follows:

Table 1 – Program Elements

Program Element	Summary
SSO Abatement Projects	Complete construction of Contract 16S Storage Tunnel
Public Information	Develop formal public information program
Joint Sewer Use Agreement with Sheffield Lake	Renegotiate agreement as part of Capacity Assessment Plan (CAP)
Cleaning, Inspection, and Assessment (CIA) Program	Enhance current CIA practices to support the CAP
SSO Emergency Response	Update current SSO emergency response procedures
Flow Monitoring Program (FMP)	Develop permanent flow monitoring program to optimize 16S Tunnel with overall in-system storage
Capacity Assessment Plan (CAP)	Develop overall CAP in accordance with updated AO from USEPA
Sewer Rates and Budgets	Enact rate ordinance, effective in 2012 to fund 16S Tunnel, CIA program, FMP, and development of CAP
Program Monitoring and Measurement	Data tracking and monitoring to measure progress and adjust programs as required to achieve service level goals

From Table 1, there are nine (9) program elements of the CMOM Program undertaken by the City of Lorain. Each program element requires specific action to be taken so that its primary objective can be completed. Since 2011, significant progress has been made to address the CMOM Program's elements. Each program element and associated progress is addressed as follows:

1) SSO Abatement Projects

The 16S Storage Tunnel was completed on June 30, 2017. The Storage Tunnel holds approximately 13 MGD of sanitary sewage and stormwater that would have previously been discharged to the Black River via the First Street SSO (#320). After a wet weather event, the wastewater that has been diverted to the Storage Tunnel is pumped back into the collection system and conveyed to the Black River WWTP for treatment. It should be mentioned that a bypass was designed into the Storage Tunnel. This bypass is considered an SSO and is designated as #320. Table 2 shows the annual amount of flow that was captured and treated by the Storage Tunnel.

Table 2 –16S Storage Tunnel Annual Flow Captured

Year	Total Captured (MGD)
2017	35.58
2018	199.36
2019	158.09

2) Public Information

Currently, no formal public engagement protocol has been developed but throughout 2018. Numerous tours were given of the Black River and PQM WWTP, to give those in attendance a direct look at the problems and issues currently faced to continue effective and efficient treatment. Additionally, the City gives formal notice to allow the public to review the Annual SSO Report. A Copy of the formal public notice is attached to this report (Appendix D).

3) Joint Sewer Use Agreement with Sheffield Lake

All sanitary wastewater from Sheffield Lake is conveyed to the City of Lorain through a Parshall Flume located along Root Road. A flow meter is continuously monitors the volume of wastewater sent from Sheffield Lake for billing purposes. Information gathered at this location during wet weather will aid in determining if mechanical restrictions should be made on the flow being received by the City of Lorain. In August 2016, the City of Lorain had the flow meter at Root Road certified to ensure that total flow being documented is correct and the meter is well within calibration parameters.

In 2017, data was compiled and preliminary talks were held with officials of Sheffield Lake in regards to increased flows during wet weather events. Presently, data is still being compiled in anticipation of contract negotiation talks in 2019. The City of Lorain still is interested in limiting the influence of I/I from Sheffield Lake during wet weather events, however, we do not want to cause flooding upstream of the Sheffield Lake and Lorain border.

4) Cleaning, Inspection, and Assessment (CIA) Program

In regards to the CIA program, an aggressive stance has been taken by the City to resolve matters of I/I (Inflow & Infiltration). Utilizing the resources of the Sewer Collections Department (i.e. Vacuum Truck and Camera Truck), the City has deployed these resources to inspect sections of the sanitary and storm lines. Inspection typically check the collection system for any blockages and breakages that can contribute to I/I and system backups. The City's Sewer Department has begun a preventative maintenance schedule in areas that have been known to have sewer pipes inundated with grease buildup and plugs. This will be a difficult task moving forward as a majority of the City's collection system is near or more than 100 years old. Starting in 2018 a comprehensive annual sewer relining project will begin in South Lorain to help address the City's continuing issue with I/I.

System inspections are a vital maintenance procedure that can identify any problems that may exist between the sanitary main and the connecting residential lateral. Besides maintaining the integrity of the collection system; the identification and remediation of areas observed having I/I occur is a primary goal of these inspections too. If I/I is discovered during these inspections, it is properly documented and passed along through the proper channels (i.e. Engineering Department) to make sure it

is eliminated in a timely fashion. A breakdown of the work that has been conducted in 2019 is as follows:

Table 3 – Sewer Relining and Manhole Rehabilitation

Year of Project	Relined Quantity	Manhole Quantity
2018	24,456 feet	105
2019	8,480 feet	50

Table 4 – 2019 Sanitary Sewer Televised, Cleaning & Inspection

Description	Televised Quantity	Cleaned Quantity
Sanitary Sewers Mains	124,060 feet	332,377 feet
Sanitary Sewer Laterals	5,501 feet	-
Sanitary Manholes Inspected	2,285	-

Table 5 – 2019 Storm Sewer Televised, Cleaning & Inspection

Description	Televised Quantity	Cleaned Quantity
Storm Sewers	3,837 feet	11,678 feet
Catch Basin	-	511
Ditches	-	1,533,784 feet

From 2018 to 2019 there was an increase in the quantity of Sanitary Sewers televised, cleaned and inspection (67%). This increase can be attributed to the efforts of the Sewer Collections Department in the implementation of a preventative maintenance schedule. Along with the continuous work of the City to repair its aging infrastructure.

The City will continue to monitor and install flow monitoring equipment as needed. It is expected that in 2020, more emphasis will be made towards the detection and effect I/I from satellite communities has on the collection system. In 2020, the continuation of the City's relining project in South Lorain will be expanded to additional areas where I/I has been more frequently observed and detected.

5) SSO Emergency Response

The current emergency response procedure for SSOs is to document the occurrence (i.e. volume discharged and duration) and on a monthly basis to report these findings to the Ohio EPA. For SSOs that occur from locations not on the City's documented list of known active SSOs, a 5-Day Report is completed and submitted within the required timeframe. In 2019, there were five (5) SSO events that occurred from locations not pre-established and assigned an SSO number. This is a decrease from 2018 by 55%. Additional detailed report of all 5-Day incidents is attached to this report (Appendix E). Additionally to the City's SSO Emergency Response, the City's Sewer Department receives calls from the public and other City Departments in regards to potential SSO events or Water in Basements (WIBs). An on-call Sewer Crew Leader responds to the emergency calls after work day hours and

assesses the situation to determine if further action is warranted. On occasion, an entire crew is brought out to inspect the sewer main and sometimes the lateral of the resident from which the call originated.

6) Flow Monitoring Program (FMP)

An additional method that has been conducted in past years to abate SSOs include a large-scale Flow Monitoring Program (FMP) to identify areas throughout the City of Lorain in need of focus to reduce I/I and to minimize SSOs. Externally, a Technical Optimization Report has been completed which outlines various methodologies that can be used to optimize wastewater conveyance through the City's collection system during wet weather events as well as provide effective treatment at the BRWWTP. The FMP has allowed the City to analyze data and determine the most effective course of action to take in order to begin closing SSOs. The FMP also allows the City to reevaluate the pre-existing CIA and CAP programs currently being implemented.

7) Capacity Assessment Plan (CAP)

On July 8, 2016, the first submittal of the City's Capacity Assessment Report was submitted to the U.S. EPA. This report outlined the City's capacity within the sewerage system as well as discussed information in regards to the hydraulic capacity report presented by, EmNet, LLC. Provided with the Capacity Assessment Report was a document titled, Technical Memorandum Report, which gave further insight into ways the City can optimize the capacity of the collection system and reduce SSOs. This Technical Memorandum Report also provided information to identify areas that become hydraulically overwhelmed during periods of extreme wet weather. The latest revision and final Administrative Order on Consent (AOC) of the City's Capacity Assessment Plan was accepted by to the U.S. EPA on November 18, 2019.

Another part of the CAP asked the City to focus on areas identified as being directly or indirectly affected by rain derived inflow and infiltration (RDII). Within the report, the City elaborated on how presently flow from Satellite Communities impacts the City of Lorain's collection system and may in turn increase the amount of SSOs and WIBs. Specific sub-basins and sewer segments were also identified within the CAP. These areas have become the focus of the City's Sewer Department to continue conducting an aggressive maintenance program that will provide valuable information to the City's Engineering Department to determine sections of the sewerage system in immediate need of relining/rebuilding.

8) Sewer Rates and Budgets

In 2017, the City of Lorain City Council passed a sewer rate increase that will take place annually over a twelve (12) year timeframe ending in 2030. The new rates went into effect on August 1, 2017. These new rates will support the Utilities Department Budget for years to come and allow much needed improvements for infrastructure and equipment to take place. In 2020, our budget was passed without obstacles and currently has projects for sewer relining, increased maintenance, pump station improvements, WWTP upgrade and improvement at both facilities.

9) Program Monitoring and Measurement

Presently, the City of Lorain utilizes a mixture of paper-based and electronic spreadsheet information tracking for cleanings, inspections, video capture of sewer lines, work orders, etc. The majority of maintenance is still done on a reactionary basis until manpower and infrastructure is increased and updated, respectively. The Environmental Manager assesses SSOs and WIBs on a monthly basis, and coordinates with the Sewer Department Administration for maintenance actions. Additionally, the Environmental Manager also gathers information from the WWTP Superintendents regarding pump stations issues and maintenance concerns that possibly stem from the collection system.

NPDES & ACO Update *(Item 51, part a, d, f, & g)*

In 2019, the City of Lorain wastewater treatment plants experienced thirty-one (31) bypass events, all occurring at the BRWWTP during times of significant wet weather. A breakdown of the dates and quantity of each event is provided:

Table 5 – Bypass Events

Date	Hours Bypass	Bypass Quantity (MGD)
1/23/2019	34.50	12.16
2/6/2019	12.50	3.20
2/7/2019	11.75	3.45
2/12/2019	20.00	5.29
3/30/2019	17.00	5.13
4/19/2019	30.25	11.18
4/26/2019	10.25	2.04
4/28/2019	8.25	1.78
4/26/2019	8.25	2.09
5/1/2019	24.00	7.30
5/9/2019	8.50	2.61
5/13/2019	4.75	1.33
5/28/2019	22.75	8.06
5/30/2019	7.25	1.94
6/1/2019	19.00	6.95
6/5/2019	29.00	9.92
6/10/2019	10.00	3.24
6/13/2019	6.50	1.49
6/14/2019	4.00	1.14
6/16/2019	21.00	5.91
6/20/2019	30.00	9.51
7/3/2019	1.50	0.28
7/21/2019	2.50	0.55
7/22/2019	6.00	2.06
8/6/2019	6.00	1.19

8/7/2019	5.25	1.76
8/22/2019	11.50	5.33
8/27/2019	2.00	0.48
9/13/2019	3.50	1.29
10/31/2019	12.50	2.50
11/11/2019	5.00	1.13

Total Events	31
Total Hours Bypassed	395.25
Total MGD Bypassed	122.29

In closing, the City of Lorain has completed all reports required by their Administrative Consent Order, EPA ACO Docket No. V-W-13-AO-11, outside of the Capacity Assurance Report.

Appendices

Appendix A – SSO Identification

Appendix B – 2018 SSO Event Information

Appendix C – 2018 WIB Occurrences

Appendix D – 2018 Public Notice of SSO and WIB Report

Appendix E – 2018 SSO 5 Day Reports

Appendix A
SSO Identification

Identification No.	Location Description	Receiving Water	Eliminated
303	Idaho Road Pump Station	Black River	
305	MH - Oberlin Ave & West 7th Street	Lake Erie	10/18/2018
309	MH - Washington Ave & West 19th Street	Black River	10/18/2018
317	MH - Broadway Ave & West 17th Street	Black River	12/18/2018
318	MH - Broadway Ave & West 12th Street	Black River	12/18/2019
319	MH - Broadway Ave & West 8th Street	Black River	12/18/2019
320	First Street, MH - City Hall Place	Black River	12/21/2016
320	16S Storage Tunnel	Black River	
322	MH - Erie Ave & Kansas Ave	Lake Erie	
324	MH - Skyline Avenue/Marshall Avenue	Martin's Run	10/18/2018
325	MH - Meister Road/Marshall Avenue	Martin's Run	8/6/2015
326	Jay Metals	Black River	4/29/2014
327	Pearl Avenue Pump Station	Black River	
329	Tacoma Avenue Pump Station	Black River	
331	MH - Hoover Boulevard	Martin's Run	8/6/2015
332	Martin's Run Pump Station	Martin's Run	

Appendix B
2018 SSO Event Information

SSO Event Information for the Year of: 2019 for the City of Lorain, Ohio

#3PE000005*LD		Date	Hours	Volume (MG)	Date	Hours	Volume (MG)	Date	Hours	Volume (MG)	Date	Hours	Volume (MG)
Idaho	*303*	1-Jan	4:45	2.574	20-Feb	0:45	0.00329	9-Mar	1:00	0.00435	10-Mar	0:30	0.00483
		14-Mar	0:45	0.00221	30-Mar	4:15	0.00376	31-Mar	11:55	0.03620	14-Apr	1:10	0.00204
		19-Apr	3:45	0.00655	20-Apr	15:15	10.57125	26-Apr	0:50	0.00415	28-Apr	1:05	0.00183
		29-Apr	6:15	3.09580	30-Apr	0:15	0.00066	29-Apr	6:15	3.09580	1-May	1:20	0.002
		2-May	5:50	0.31	3-May	0:05	0.00001	9-May	5:10	0.31	10-May	3:55	0.28
		12-May	0:50	0.001	13-May	2:20	0.04	23-May	0:15	0.0004	26-May	0:20	0.0002
		28-May	6:05	2.68	29-May	16:20	3.58	30-May	4:35	0.17	1-Jun	2:35	0.165
Total Volume (MG):		2-Jun	15:55	24.572	5-Jun	15:10	10.67	6-Jun	8:25	7.349	10-Jun	10:05	5.828
117.314		12-Jun	0:45	0.00535	13-Jun	6:05	0.734	14-Jun	3:35	0.671	16-Jun	9:25	10.296
		17-Jun	2:05	0.416	20-Jun	10:35	22.635	21-Jun	8:30	5.743	2-Jul	0:50	0.003
		3-Jul	1:00	0.027	17-Jul	0:15	0.00003	6-Aug	0:30	0.001	7-Aug	0:35	0.065
		18-Jul	0:20	0.002	19-Aug	0:40	0.002	20-Aug	0:30	0.003	22-Aug	5:00	1.200
		12-Sep	0:35	0.001	13-Sep	2:25	0.059	14-Sep	0:55	0.013	26-Oct	1:40	0.002
		31-Oct	7:45	0.068									
		November and December: Issue with Data Collection. Once all issues have been resolved and data can be collected the Annual SSO Report will be updated and submitted.											
Oberlin/7th	*305*	Permanently Closed 10/18/18											
Wash/19th	*309*	Permanently Closed 10/18/18											
Broadway/8th	*319*	Permanently Closed 12/18/18											
First Street	*320*	Permanently Closed 12/21/16											

#3PD00040*HD		Date	Hours	Volume (MG)	Date	Hours	Volume (MG)	Date	Hours	Volume (MG)	Date	Hours	Volume (MG)
Tunnel Overflow	*320*	1-Jan	-	1.664	2-Jan	-	0.945	23-Jan	-	18.382	24-Jan	-	18.463
		25-Jan	-	9.991	26-Jan	-	0.326	8-Feb	-	0.291	9-Feb	-	0.291
		3-May	-	0.48	4-May	-	0.48	29-May	-	4.44	30-May	-	4.442
		31-May	-	1.57	1-Jun	-	0.03	2-Jun	-	8.433	3-Jun	-	8.437
Total Volume (MG):		4-Jun	-	0.00451	5-Jun	-	2.825	6-Jun	-	4.886	7-Jun	-	4.358
125.147		20-Jun	-	11.980	21-Jun	-	13.327	22-Jun	-	3.269	23-Jun	-	0.453
		24-Jun	-	0.452	25-Jun	-	0.144	8-Jul	-	0.004	9-Jul	-	0.436
		10-Jul	-	0.436	11-Jul	-	0.280	12-Jul	-	0.416	13-Jul	-	0.416
		20-Jul	-	0.177	21-Jul	-	0.225	22-Jul	-	0.225	23-Jul	-	1.022
		24-Jul	-	1.022	1-Aug	-	0.126	No Oveflows in Sept, Oct, Nov, and Dec.					
Erie/Kansas	**322**	No SSO Events in 2019											
Pearl	*327*	30-Mar	0:35	0.03994	31-Mar	0:10	0.00246	14-Apr	1:05	0.11237	19-Apr	3:10	0.10511
		20-Apr	3:45	1.20144	25-Apr	0:05	0.11412	26-Apr	0:30	0.197812	27-Apr	0:10	0.11412
		28-Apr	1:35	0.142953	29-Apr	0:25	0.159771	30-Apr	0:15	0.167379	23-May	0:10	0.15
Total Volume (MG):		28-May	0:40	3.77	29-May	1:50	1.18	30-May	0:10	0.18	1-Jun	0:35	0.127
16.35535		2-Jun	3:35	1.839	5-Jun	1:50	0.645	10-Jun	0:15	0.175	20-Jun	9:10	3.828
		7-Jul	0:05	0.00002	7-Aug	0:50	1.374	22-Aug	1:05	0.729			
		November and December: Issue with Data Collection. Once all issues have been resolved and data can be collected the Annual SSO Report will be updated and submitted.											
Tacoma	*329*	23-Jan	1:10	8.603	24-Jan	3:10	0.615	29-May	2:25	0.15	20-Jun	7:30	4.546
Total Volume (MG): 14.086		22-Aug	3:40	0.170									
		November and December: Issue with Data Collection. Once all issues have been resolved and data can be collected the Annual SSO Report will be updated and submitted.											
Broadway/17th	*317*	Permanently Closed 12/18/18											
Broadway/12th	*318*	Permanently Closed 10/12/18											
Jay Metals	*326*	Permanently Closed 4/29/14											

BR Total Occurrences 119

#3PD00040*HD		Date	Hours	Volume (MG)	Date	Hours	Volume (MG)	Date	Hours	Volume (MG)	Date	Hours	Volume (MG)
Skyline/Marsh	*324*	Permanently Closed 10/18/18											
Meister/Marsh	*325*	Permanently Closed 8/6/15											
Hoover	*331*	Permanently Closed 8/6/15											
Martin'sRun PS	*332*	13-Jan	12:50	9.838	19-Jan	4:25	11.307	20-Jan	6:35	6.255	21-Jan	6:35	6.162
		22-Jan	3:25	6.057	23-Jan	14:30	4.364	25-Mar	9:40	0.160	26-Mar	1:10	0.002
		31-Mar	0:20	0.0003	11-Apr	15:10	0.373	12-Apr	7:50	0.438	14-Apr	5:55	0.2520
		19-Apr	5:40	0.252	20-Apr	8:05	0.190049	28-Apr	2:15	0.085	29-Apr	4:20	0.246594
		30-Apr	0:30	0.068473	1-May	6:35	0.227	7-May	5:35	0.198	8-May	14:10	0.3150
		9-May	11:35	0.351	11-May	2:00	0.243	12-May	16:05	0.229	13-May	1:15	0.047
		14-May	3:25	0.15	20-May	8:00	0.27	21-May	2:35	0.251	22-May	1:00	0.234
		28-May	2:30	0.232	29-May	0:10	0.023	30-May	0:10	0.34	2-Jun	2:35	0.094
		3-Jun	1:55	0.024	5-Jun	2:25	0.278	8-Jun	11:30	0.323	9-Jun	3:15	0.291
Total Volume (MG):		10-Jun	6:45	0.149	11-Jun	1:20	0.026	12-Jun	1:05	0.044	13-Jun	4:00	0.216
55.407		14-Jun	3:10	0.047	16-Jun	2:35	0.132	21-Jun	7:15	0.521	21-Jun	6:35	0.064717
		22-Jun	0:30	0.079886	30-Jun	1:10	0.064717	7-Jul	14:30	0.094	11-Jul	0:40	0.049
		19-Jul	5:25	0.502	20-Jul	0:50	0.041	21-Jul	9:25	0.059	22-Jul	8:15	0.061
		23-Jul	10:50	0.084	24-Jul	3:30	0.067	6-Aug	0:40	0.274	7-Aug	0:30	0.190
		8-Aug	1:20	0.261	13-Sep	0:35	0.241	14-Aug	0:25	0.237	18-Aug	0:55	0.151
		22-Aug	1:25	0.205	23-Aug	7:40	0.185	27-Aug	7:10	0.268	1-Sep	6:00	0.213
		2-Sep	2:32	0.319	12-Sep	1:10	0.121	13-Sep	17:05	0.215	2-Oct	1:35	0.016
		3-Oct	6:30	0.013	12-Oct	3:05	0.028						
		November and December: Issue with Data Collection. Once all issues have been resolved and data can be collected the Annual SSO Report will be updated and submitted.											
Jaeger Rd PS		23-Jan	2:34	0.025	1-Jun	7:30	0.025	5-Jun	1:30	0.025	20-Jun	4:37	0.025
Total Volume (MG): 0.125		22-Aug	3:15	0.025									

PQM Total Occurrences 75

BR Total 2019 SSO Flow

272.90 MGD

PQM Total 2019 SSO Flow

55.53 MGD

City of Lorain Total 2019 SSO Flow

328.43 MGD

Total WIB's in 2019: 36 of which 5 were weather related overload

All SSO events were due to wet weather and resulting inflow/infiltration.

The overflow from the sanitary sewer consists of typical domestic wastewater diluted by infiltrated rainwater.

Primary pollutants would be suspended solids & BOD.

An ongoing SSO abatement program is in place to reduce, eliminate, and prevent reoccurences of overflows and to mitigate the effects.

*All 5-Day Reports from 2019 SSOs are attached to this report.

(Appendix E)

Data compiled by Douglas E. Dietzel, Environmental Manager, City of Lorain Utilities Department

Appendix C
2018 WIB Occurrences

2019 Water In Basement (WIBs)

Date	Address	Reason
January 23, 2019	1018 W 19TH ST	Plugged Sewer
January 23, 2019	971 Cooper Foster	Back Up
January 23, 2019	4119 Woodward Ave	Back Up
January 27, 2019	4240 Camden Ave	Broken Lateral / Distribution
February 4, 2019	1018 W 2nd	Plugged Sewer
February 12, 2019	3413 Dallas	Plugged Sewer
February 12, 2019	3455 Dallas	Plugged Sewer
March 20, 2019	2233 E 34th	Plugged Sanitary
April 3, 2019	333 Kentucky Ave	-
April 13, 2019	1895 E 33rd	Plugged Sewer
April 16, 2019	1336 Westwood Dr	Plugged Sewer
April 17, 2019	1022 W 19th	Plugged Sewer
April 20, 2019	3274 Oakdale	Plugged Sewer
April 20, 2019	104 Waverly	Plugged Sewer
April 20, 2019	426 W12th	Plugged Sewer
April 29, 2019	4221 Camden Ave	-
May 25, 2019	2101 W 41st	Plugged Sewer
May 27, 2019	1336 Westwood	Plugged Sewer
May 29, 2019	1517 Cedar Dr	Overloaded
May 29, 2019	4630 Willow Ave	Overloaded
May 29, 2019	Colorado & G St	Overloaded
May 29, 2019	3343 McLinley	Overloaded
May 29, 2019	3254 E Erie	Overloaded
June 3, 2019	1302 Missouri Ave	Plugged Sewer
July 11, 2019	2156 E 42nd	-
July 16, 2019	1342 E Erie Ave	-
August 2, 2019	835-845 S Central	Plugged Sewer
August 7, 2019	1242 Root	Plugged Sewer
August 24, 2019	3447 McKinley	Plugged Sewer
September 12, 2019	4350 Kolbe	Plugged Sewer
September 16, 2019	5506 Williamsburg	Plugged Sewer
November 16, 2019	437 Augusta	Plugged Sewer
November 19, 2019	1650 E 30th St	Back Up
November 20, 2019	1624 E 32nd St	Back Up
December 14, 2019	424 Oberlin Ave	Back Up
December 30, 2019	823 F St	Plugged Sewer

Appendix D
2018 Public Notice of SSO and WIB Report

PUBLIC NOTICE OF SSO AND WIB REPORT

The 2019 Sanitary Sewer Overflows (SSO) and Water in Basement (WIB) Annual Report for the City of Lorain is complete and can be viewed online at www.cityoflorain.org or at the City of Lorain's; Utility Department, 1106 W. 1st Street, Lorain, OH 44052. Viewing times are from 8:00 am to 3:00 pm Monday thru Friday, or by appointment by calling 440-204-2505.

This notice is pursuant to requirements set forth in the Ohio EPA Permits to Discharge issued to the City of Lorain for the Black River and PQM Wastewater Treatment Plants.

Appendix E
2018 SSO 5 Day Reports

OhioEPA

State of Ohio Environmental Protection Agency

Ohio EPA Form 4237
Issued 08/04

Sanitary Sewer Overflow 5-Day Follow Up Report

Report Submitted by:	
Date	01/23/19
Facility Name	City of Lorain - Philip Q. Maiorana WWTP
Ohio NPDES Permit No.	3PD00040*ID
Period Covered by Report	01/23/19 (1515 hrs) through 01/23/19 (1749 hours); Total of 2hrs 34min
Contact Person Name	Douglas Dietzel
Contact PersonTitle	Environmental Manager
Mailing Address	1106 First Street
City, State, Zip	Lorain, OH 44107
County	Lorain
Telephone No.	440-204-2505
E-mail Address	Doug_Dietzel@cityoflorain.org

Signature required at end of form

Overflow Information	
Event start date and time – if multiple locations, include information for each	Event started at 1515 hrs on 01/23/19
Event end date and time	Event ended at 1749 hrs on 01/23/19
Location(s) the SSO – include unique ID number if one exists	Jaeger Road Pump Station - 4751 Kolbe Road Lorain, OH 44053
Destination(s) of overflow	☐ Basement or building ☒ Ground ☐ Storm sewer to receiving water ☐ Directly to receiving water
Specific receiving water(s) (if applicable)	Intermittent storm drainage ditch that is tributary to Beaver Creek (See Map)
Estimated volume (million gallons) – if multiple locations, include volume for each	0.025 MGD or 25,000 gpd
Sewer system component(s) from which release occurred	☐ Manhole ☐ Constructed overflow ☐ Pipe crack ☒ Pump station ☐ Other (explain)
Cause(s) of overflow	☒ Extreme weather ☐ Equipment failure ☐ Power failure ☐ Debris in line ☐ Roots ☐ Grease ☐ Other blockages ☐ Line deterioration ☐ Vandalism ☐ Other (explain)

Click to clear all entered information (on both pages of this form) CLEAR

Steps taken or planned to eliminate and/or reduce the overflow – include schedule of major milestones	Process underway to develop plan to resize pump station and/or increase size of force main pipe that pump station discharges through. These actions may in turn prevent further overflows like this.
Steps taken or planned to prevent reoccurrence of the overflow(s) – include schedule of major milestones	See above
Steps taken or planned to mitigate the impact(s) of the overflow(s) – include schedule of major milestones	See above
Additional information (attach additional pages, maps, etc. as needed)	Map of Area attached

I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION IN THIS REPORT AND ALL ATTACHMENTS. I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Signature

01/18/19
Date

Environmental Manager
Title


Jaeger Rd
Jaeger Rd
N Main St
N Main St
N Main St

OhioEPA

State of Ohio Environmental Protection Agency

Ohio EPA Form 4237
Issued 08/04

Sanitary Sewer Overflow 5-Day Follow Up Report

Report Submitted by:	
Date	06/03/19
Facility Name	City of Lorain - Philip Q. Maiorana WWTP
Ohio NPDES Permit No.	3PD00040*ID
Period Covered by Report	06/01/19 (2000hrs) through 06/02/19 (0330 hours); Total of 7hrs 30min
Contact Person Name	Douglas Dietzel
Contact PersonTitle	Environmental Manager
Mailing Address	1106 First Street
City, State, Zip	Lorain, OH 44107
County	Lorain
Telephone No.	440-204-2505
E-mail Address	Doug_Dietzel@cityoflorain.org

Signature required at end of form

Overflow Information	
Event start date and time – if multiple locations, include information for each	Event started at 2000 hrs on 06/01/19
Event end date and time	Event ended at 0330 hrs on 06/02/19
Location(s) the SSO – include unique ID number if one exists	Jaeger Road Pump Station - 4751 Kolbe Road Lorain, OH 44053
Destination(s) of overflow	☐ Basement or building ☒ Ground ☐ Storm sewer to receiving water ☐ Directly to receiving water
Specific receiving water(s) (if applicable)	Intermittent storm drainage ditch that is tributary to Beaver Creek (See Map)
Estimated volume (million gallons) – if multiple locations, include volume for each	0.025 MGD or 25,000 gpd
Sewer system component(s) from which release occurred	☐ Manhole ☐ Constructed overflow ☐ Pipe crack ☒ Pump station ☐ Other (explain)
Cause(s) of overflow	☒ Extreme weather ☐ Equipment failure ☐ Power failure ☐ Debris in line ☐ Roots ☐ Grease ☐ Other blockages ☐ Line deterioration ☐ Vandalism ☐ Other (explain)

Click to clear all entered information (on both pages of this form) CLEAR

Steps taken or planned to eliminate and/or reduce the overflow – include schedule of major milestones	Process underway to develop plan to resize pump station and/or increase size of force main pipe that pump station discharges through. These actions may in turn prevent further overflows like this.
Steps taken or planned to prevent reoccurrence of the overflow(s) – include schedule of major milestones	See above
Steps taken or planned to mitigate the impact(s) of the overflow(s) – include schedule of major milestones	See above
Additional information (attach additional pages, maps, etc. as needed)	Map of Area attached

I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION IN THIS REPORT AND ALL ATTACHMENTS. I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Signature

06/03/19
Date

Environmental Manager
Title


Jaeger Rd
Jaeger Rd
N Main St
N Main St
N Main St

OhioEPA

State of Ohio Environmental Protection Agency

Ohio EPA Form 4237
Issued 08/04

Sanitary Sewer Overflow 5-Day Follow Up Report

Report Submitted by:	
Date	06/05/19
Facility Name	City of Lorain - Philip Q. Maiorana WWTP
Ohio NPDES Permit No.	3PD00040*ID
Period Covered by Report	06/05/19 (11:30hrs) through 06/05/19 (1300 hours); Total of 1hrs 30min
Contact Person Name	Douglas Dietzel
Contact PersonTitle	Environmental Manager
Mailing Address	1106 First Street
City, State, Zip	Lorain, OH 44107
County	Lorain
Telephone No.	440-204-2505
E-mail Address	Doug_Dietzel@cityoflorain.org

Signature required at end of form

Overflow Information	
Event start date and time – if multiple locations, include information for each	Event started at 1130 hrs on 06/05/19
Event end date and time	Event ended at 1300 hrs on 06/05/19
Location(s) the SSO – include unique ID number if one exists	Jaeger Road Pump Station - 4751 Kolbe Road Lorain, OH 44053
Destination(s) of overflow	☐ Basement or building ☒ Ground ☐ Storm sewer to receiving water ☐ Directly to receiving water
Specific receiving water(s) (if applicable)	Intermittent storm drainage ditch that is tributary to Beaver Creek (See Map)
Estimated volume (million gallons) – if multiple locations, include volume for each	0.025 MGD or 25,000 gpd
Sewer system component(s) from which release occurred	☐ Manhole ☐ Constructed overflow ☐ Pipe crack ☒ Pump station ☐ Other (explain)
Cause(s) of overflow	☒ Extreme weather ☐ Equipment failure ☐ Power failure ☐ Debris in line ☐ Roots ☐ Grease ☐ Other blockages ☐ Line deterioration ☐ Vandalism ☐ Other (explain)

Click to clear all entered information (on both pages of this form) CLEAR

Steps taken or planned to eliminate and/or reduce the overflow – include schedule of major milestones	Process underway to develop plan to resize pump station and/or increase size of force main pipe that pump station discharges through. These actions may in turn prevent further overflows like this.
Steps taken or planned to prevent reoccurrence of the overflow(s) – include schedule of major milestones	See above
Steps taken or planned to mitigate the impact(s) of the overflow(s) – include schedule of major milestones	See above
Additional information (attach additional pages, maps, etc. as needed)	Map of Area attached

I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION IN THIS REPORT AND ALL ATTACHMENTS. I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Signature

06/05/19
Date

Environmental Manager
Title


Jaeger Rd
Jaeger Rd
N Main St
N Main St
N Main St

OhioEPA

State of Ohio Environmental Protection Agency

Sanitary Sewer Overflow 5-Day Follow Up Report

Ohio EPA Form 4237
Issued 08/04

Report Submitted by:	
Date	06/20/19
Facility Name	City of Lorain - Philip Q. Maiorana WWTP
Ohio NPDES Permit No.	3PD00040*ID
Period Covered by Report	06/20/19 (1538hrs) through 06/20/19 (2015 hours); Total of 4hrs 37min
Contact Person Name	Douglas Dietzel
Contact PersonTitle	Environmental Manager
Mailing Address	1106 First Street
City, State, Zip	Lorain, OH 44107
County	Lorain
Telephone No.	440-204-2505
E-mail Address	Doug_Dietzel@cityoflorain.org

Signature required at end of form

Overflow Information	
Event start date and time – if multiple locations, include information for each	Event started at 1538 hrs on 06/20/19
Event end date and time	Event ended at 2015 hrs on 06/20/19
Location(s) the SSO – include unique ID number if one exists	Jaeger Road Pump Station - 4751 Kolbe Road Lorain, OH 44053
Destination(s) of overflow	☐ Basement or building ☒ Ground ☐ Storm sewer to receiving water ☐ Directly to receiving water
Specific receiving water(s) (if applicable)	Intermittent storm drainage ditch that is tributary to Beaver Creek (See Map)
Estimated volume (million gallons) – if multiple locations, include volume for each	0.025 MGD or 25,000 gpd
Sewer system component(s) from which release occurred	☐ Manhole ☐ Constructed overflow ☐ Pipe crack ☒ Pump station ☐ Other (explain)
Cause(s) of overflow	☒ Extreme weather ☐ Equipment failure ☐ Power failure ☐ Debris in line ☐ Roots ☐ Grease ☐ Other blockages ☐ Line deterioration ☐ Vandalism ☐ Other (explain)

Click to clear all entered information (on both pages of this form) CLEAR

Steps taken or planned to eliminate and/or reduce the overflow – include schedule of major milestones	Process underway to develop plan to resize pump station and/or increase size of force main pipe that pump station discharges through. These actions may in turn prevent further overflows like this.
Steps taken or planned to prevent reoccurrence of the overflow(s) – include schedule of major milestones	See above
Steps taken or planned to mitigate the impact(s) of the overflow(s) – include schedule of major milestones	See above
Additional information (attach additional pages, maps, etc. as needed)	Map of Area attached

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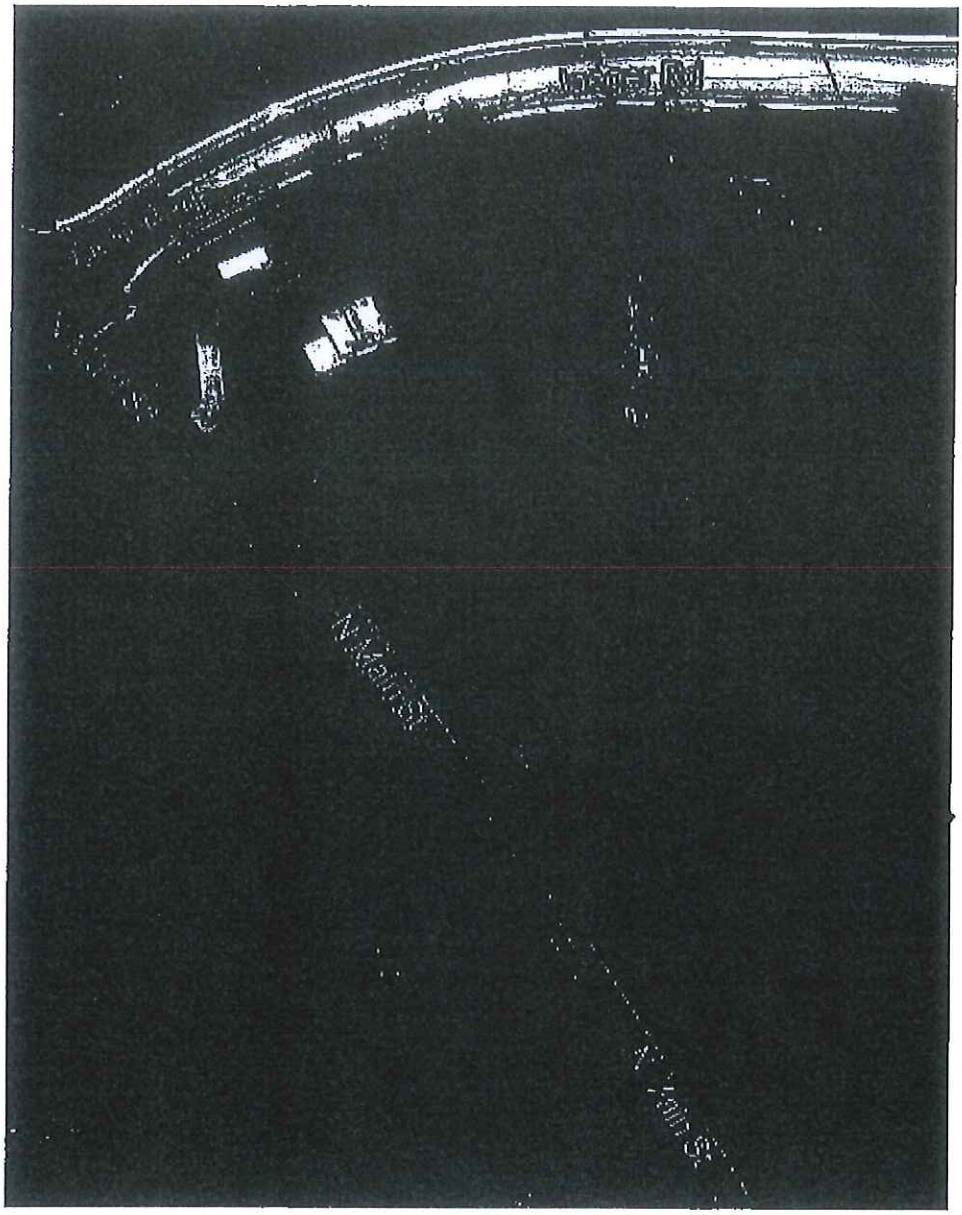
Signature

06/21/19

Date

Environmental Manager

Title



OhioEPA

State of Ohio Environmental Protection Agency

Ohio EPA Form 4237
Issued 08/04

Sanitary Sewer Overflow 5-Day Follow Up Report

Report Submitted by:	
Date	08/22/19
Facility Name	City of Lorain - Philip Q. Maiorana WWTP
Ohio NPDES Permit No.	3PD00040*ID
Period Covered by Report	08/22/19 (0300hrs) through 06/02/1908/22/19 (0615 hours); Total of 3hrs 15min
Contact Person Name	Douglas Dietzel
Contact PersonTitle	Environmental Manager
Mailing Address	1106 First Street
City, State, Zip	Lorain, OH 44107
County	Lorain
Telephone No.	440-204-2505
E-mail Address	Doug_Dietzel@cityoflorain.org

Signature required at end of form

Overflow Information	
Event start date and time – if multiple locations, include information for each	Event started at 0300hrs on 08/22/19
Event end date and time	Event ended at 0615 hrs on 08/22/19
Location(s) the SSO – include unique ID number if one exists	Jaeger Road Pump Station - 4751 Kolbe Road Lorain, OH 44053
Destination(s) of overflow	☐ Basement or building ☒ Ground ☐ Storm sewer to receiving water ☐ Directly to receiving water
Specific receiving water(s) (if applicable)	Intermittent storm drainage ditch that is tributary to Beaver Creek (See Map)
Estimated volume (million gallons) – if multiple locations, include volume for each	0.025 MGD or 25,000 gpd
Sewer system component(s) from which release occurred	☐ Manhole ☐ Constructed overflow ☐ Pipe crack ☒ Pump station ☐ Other (explain)
Cause(s) of overflow	☒ Extreme weather ☐ Equipment failure ☐ Power failure ☐ Debris in line ☐ Roots ☐ Grease ☐ Other blockages ☐ Line deterioration ☐ Vandalism ☐ Other (explain)

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Steps taken or planned to eliminate and/or reduce the overflow – include schedule of major milestones	Process underway to develop plan to resize pump station and/or increase size of force main pipe that pump station discharges through. These actions may in turn prevent further overflows like this.
Steps taken or planned to prevent reoccurrence of the overflow(s) -- include schedule of major milestones	See above
Steps taken or planned to mitigate the impact(s) of the overflow(s) – include schedule of major milestones	See above
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Signature

08/23/19
Date

Environmental Manager
Title


Jaeger Rd
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N Main St
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