

# **2021 ANNUAL NOTICE**

## **COMBINED SEWER OVERFLOW NOTIFICATION PLAN**

**for the**

**City of Akron  
Water Reclamation Services**



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# **COMBINED SEWER OVERFLOW NOTIFICATION PLAN**

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### ***Table of Contents***

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<b>SECTION</b>	<b>PAGE</b>
Introduction and Background .....	3
Overview of Annual Notice .....	3
CSO Discharge Point Locations .....	4
CSO Occurrences and Overflow Volume .....	5
Dry Weather Overflows .....	5
Other CSO Monitoring.....	5
Public Access Areas.....	6
Representative Precipitation Data .....	6
Permittee Contact Information.....	6
Nine Minimum Controls Implementation .....	7
Long-term CSO Control Plan Implementation.....	9

### ***Appendices***

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Appendix A	CSO Occurrences, Overflow Volumes and Precipitation Data 2021
Appendix B	Consent Decree Semi-Annual Report #24 (July 1 2021 - December 31 2021)

## Introduction and Background

The City of Akron has developed a Combined Sewer Overflow Notification Plan (CSONP) to comply with the requirements of 40 C.F.R. § 122.38. This regulation requires that a permittee authorized to discharge combined sewer overflows (“CSOs”) to the Great Lakes Basin must provide public notification, as described within the rule, as well as develop a notification plan.

The City of Akron sewer collection system includes both separate sanitary sewers and combined sewers (i.e. sewers that carry both sanitary flows and stormwater in the same pipe). The combined sewers are located within the older central core of the City. The combined sewer system includes CSO outfalls that discharge to surface waters when the flow exceeds the capacity of the combined sewers. Intercepted flows are theoretically controlled by drop inlet or “limiting pipe” racks located in the invert of the combined sewer trunks at their connection points to the Ohio Canal Interceptor (OCI), the Little Cuyahoga Interceptor, the Northside Interceptor, the Camp Brook Trunk Sewer, and the Main Outfall Sewer. These racks function as static control devices, which intercept all dry weather flow, while limiting flow to the interceptor sewers during rainfall events. The “limiting pipe” consists of a small diameter conduit connecting the drop inlet to the interceptor sewer and serves as a connection between the interceptor sewers and the combined sewer system. The drop inlet is covered with a horizontal bar rack to prevent clogging of the connection. The bar rack accounts for the name “Rack” that is given to each regulator.

The City of Akron’s Water Reclamation Facility (WRF) and sewer collection system is regulated under a National Pollution Discharge Elimination System (NPDES) permit that has been issued by the Ohio EPA (Permit #3PF00000). This permit authorizes the discharges of CSOs at certain locations within the system.

The City is in the process of installing controls to reduce the volume and frequency of CSOs from the sewer system. The controls are being installed in accordance with a federal Consent Decree and a CSO Long Term Control Plan that has been approved by both the U.S. Environmental Protection Agency (USEPA) and the Ohio EPA.

## Overview of the Annual Notice

The USEPA adopted 40 C.F.R. §122.38 to implement section 425 of the Consolidated Appropriations Act of 2016, which requires U.S. EPA to work with the Great Lakes States to establish public notification requirements for CSO discharges to the Great Lakes Basin.

The requirements of the regulation include providing an Annual Notice that is designed to describe and summarize the CSO discharges from the permittee’s discharge point(s) that occurred in the previous calendar year. This Annual Notice includes data for 2021.

Copies of the CSONP Annual Notice will be posted to the CSO Notification web page at [Overflow Status | Akron Waterways Renewed!](#) and distributed to the following departments and functional positions:

- U.S. EPA (email sent to: [NPDES\\_CS0@epa.gov](mailto:NPDES_CS0@epa.gov))
- Ohio EPA, David Brumbaugh – Environmental Specialist II (Central Office)
- Ohio EPA, Ermelindo Gomes – Environmental Engineer (Northeast District Office)
- Summit County Public Health, Health Commissioner
- Summit Metro Parks, Superintendent

- Cuyahoga Valley National Park
- City of Akron, Water Reclamation Services
- City of Akron, Director of Public Service
- City of Cuyahoga Falls, City Engineer

The elements that must be included within this Annual Notice are set forth in 40 C.F.R. § 122.38(b). Each required element is discussed in the following sections.

## CSO Discharge Point Locations

(1) A description of the location and receiving water for each CSO discharge point and, if applicable, any treatment provided;

Table 1. CSO Discharge Point Locations

Permit Outfall Number	Location	Latitude			Longitude			Receiving Water
		DEG	MIN	SEC	DEG	MIN	SEC	
3PF00000046	Rack 3 – Kelly Ave.	41	03	50.4	81	28	52.5	Little Cuyahoga River
3PF00000047	Rack 4 – Mill St.	41	05	01.1	81	31	13.0	Ohio and Erie Canal
3PF00000049	Rack 6 – Factory St.	41	03	54.1	81	29	04.8	Little Cuyahoga River
3PF00000053	Rack 10 – Case Ave. – Newton St. District	41	04	29.6	81	29	03.4	Little Cuyahoga River
3PF00000054	Rack 11 – Hazel St. – District 4	41	04	45.4	81	29	08.7	Little Cuyahoga River
3PF00000055	Camp Brook Storage Basin (Former Rack 12)	41	05	34.5	81	29	00.7	Camp Brook
3PF00000057	Forge Field Storage Basin (Former Rack 14)	41	05	07.6	81	29	43.1	Little Cuyahoga River
3PF00000058	Cascade Village Storage Basin (Former Rack 15)	41	05	26.7	81	30	15.8	Little Cuyahoga River
3PF00000059	Rack 16 – Wolf Ledges Trunk	41	04	44.8	81	31	22.5	Ohio and Erie Canal
3PF00000060	Rack 17 – Exchange St.	41	04	44.8	81	31	22.5	Ohio and Erie Canal
3PF00000061	Rack 18 – Willow Run Trunk	41	05	10.9	81	31	08.7	Ohio and Erie Canal
3PF00000062	Rack 19 – West Market St.	41	05	10.5	81	31	08.6	Ohio and Erie Canal
3PF00000065	Howard Street Storage Basin (Former Rack 22)	41	05	34.3	81	31	05.3	Little Cuyahoga River
3PF00000067	Rack 24 – West Market St Outlet @ Ravine St.	41	05	41.1	81	31	22.1	Little Cuyahoga River
3PF00000069	Rack 26 – Aqueduct St outlet East of Hickory St.	41	06	05.4	81	31	39.9	Little Cuyahoga River
3PF00000070	Rack 27 – Uhler Ave. @ Memorial Parkway	41	06	14.7	81	31	38.1	Little Cuyahoga River
3PF00000071	Rack 28 – Memorial Parkway @ Hickory St.	41	06	14.6	81	31	39.5	Little Cuyahoga River
3PF00000072	Rack 29 – Uhler Ave. – Carpenter St. Outlet	41	06	29.9	81	31	39.5	Little Cuyahoga River
3PF00000075	Rack 32 – Carpenter Heights District @ Cascade Park Rd.	41	07	03.6	81	31	19.5	Cuyahoga River
3PF00000076	Rack 33 – North Side Interceptor @ Cuyahoga River & Main St.	41	07	23.0	81	30	38.3	Cuyahoga River
3PF00000077	Rack 34 – Riverside Dr. District @ Metroparks Easement Rd.	41	07	23.6	81	29	54.7	Cuyahoga River
3PF00000078	Rack 35 – Gorge Blvd. District @ Front St. Bridge	41	07	04.4	81	29	37.6	Cuyahoga River
3PF00000080	Rack 37 – S. Main St. @ Lock 3	41	04	49.8	81	31	12.1	Ohio and Erie Canal
3PF00000081	Goodyear Retention Tank (Former Racks 2N & 2S)	41	03	33.8	81	28	29.2	Little Cuyahoga River
3PF00000083	Cuyahoga Street Storage Facility (Former Racks 31/40)	41	06	46.3	81	31	39.4	Little Cuyahoga River
3PF00000084	Ohio Canal Interceptor Tunnel (OCIT)	41	05	40.9	81	31	21.1	Little Cuyahoga River

## CSO Occurrences and Overflow Volume

(2) *The date, location, approximate duration, measured or estimated volume and cause (e.g., rainfall, snowmelt) of each CSO discharge during the past calendar year.*

CSO Occurrences and Overflow Volume are contained in Appendix A.

## Dry Weather Overflows

(3) *The date, location, approximate duration, measured or estimated volume, and cause of each dry weather CSO discharge during the past calendar year.*

There were two dry weather overflows at CSO discharge points in 2021.

Table 2. CSO Dry Weather Overflows

Date of Incident	Location Address/Structure Name	Duration In hours	Estimated Volume In Gallons	Cause (FOG, Roots, etc.) * = added to PM trouble list	24-Hour Notification Provided to OEPA	Date of Written Notification
4/8/21	CSO Rack 34	16min	3300	Debris/sticks	4/8/21	4/12/21
4/9/21	CSO Rack 33	1hr 18 min	1500	Debris/sticks	4/9/21	4/12/21

## Other CSO Monitoring

(4) *A summary of available monitoring data for CSO discharges from the past calendar year.*

CSO Occurrences and Overflow Volume are contained in Appendix A.

All other CSO monitoring is required to be performed during the recreation season (May – October) for total suspended solids, ammonia (NH<sub>3</sub>), E. Coli and CBOD<sub>5</sub>. The City is required to set up a rotating schedule to sample at least five stations each month. For each of the five stations, a sample is collected and the data reported for the day when the discharge from the station was sampled. Sampling for these parameters is required during normal working hours.

The following is the results from the monitoring at CSO discharge points from 2021.

Table 3. 2021 CSO Monitoring Data

Location	Outfall #	Date	TSS (mg/L)	CBOD5 (mg/L)	Ammonia (mg/L)	E Coli.
R06	3PF00000049	7/7/2021	216	28.2	0.8718	123,000
R06	3PF00000049	8/25/2021	186	0.4289	26.2	70,800
R26	3PF00000069	5/26/2021	246	58.2	0.912	283,000
R26	3PF00000069	6/7/2021	290	48.7	0.9703	1,030,000
R26	3PF00000069	8/25/2021	265	0.6858	66.8	1,370,000
R26	3PF00000069	9/22/2021	610	1.244	>150	>2,419,600
R26	3PF00000069	10/29/2021	58	0.632	12.9	313,000
R32	3PF00000075	6/7/2021	430	65.7	3.65	>4,840,000
R32	3PF00000075	7/8/2021	166	18	0.4996	3,470,000
R32	3PF00000075	9/22/2021	200	0.3957	43.9	365,400
R32	3PF00000075	10/29/2021	44	0.733	16.2	141,360
R33	3PF00000076	5/3/2021	217	33	2.92	>242,000
R33	3PF00000076	6/3/2021	56	26.7	1.51	>484,000
R33	3PF00000076	7/8/2021	130	31.1	0.3997	172,000
R33	3PF00000076	8/11/2021	92	2.727	14.6	>242,000
R33	3PF00000076	10/29/2021	36	1.62	18.9	241,960
R34	3PF00000077	5/26/2021	158	33.2	0.845	103,000
R34	3PF00000077	6/3/2021	30	19.4	2.685	>484,000
R34	3PF00000077	7/8/2021	132	30	2.852	977,000
R34	3PF00000077	8/11/2021	15	0.4729	12.6	>242,000
R34	3PF00000077	9/22/2021	143	0.261	42.1	241,960

## Public Access Areas

(5) A description of any public access areas potentially impacted by each CSO discharge;

There are currently no public access areas that are impacted by CSO discharges.

## Representative Precipitation Data

(6) Representative precipitation data in total inches to the nearest 0.1 inch that resulted in a CSO discharge, if precipitation was the cause of the discharge identified in (§ 122.38(b)(2));

Precipitation data collected at the 13 City owned rain gauges is included in Appendix A.

## Permittee Contact Information

(7) Permittee contact information, if not listed elsewhere on the website where this annual notice is provided; and

Permittee contact information is included on the CSO Notification Web page <https://www.akronwaterwaysrenewed.com/overflow-status> and elsewhere on the Akron Waterways Renewed (AWR!) website.

## Nine Minimum Controls Implementation

(8) *A concise summary of implementation of the nine minimum controls and the status of implementation of the long-term CSO control plan (or other plans to reduce or prevent CSO discharges), including:*

The USEPA's Combined Sewer Overflow (CSO) Control Policy identifies nine minimum controls (NMC) that must be implemented to reduce CSO discharges and their effect on receiving waters.

### NMC #1 – Provide Proper Operation and Maintenance for the Collection System and Combined Sewer Overflow Points

On a daily basis, the City inspects and cleans if necessary, static combined sewer overflow racks (bar screens), or regulating structures, in efforts to minimize the potential for dry weather overflow events from occurring. The CSO racks are remotely monitored via a Supervisory Control and Data Acquisition (SCADA) system that alerts the Water Reclamation Facility operator of a possible dry weather overflow event that may require immediate investigation.

In addition, the City inspects and cleans, if necessary, the sanitary and combined sewer system on a 5-year frequency. Specific segments are inspected and cleaned more often as a result of roots, fats, oils, and grease, or other operational defects.

### NMC #2 – Provide Maximum Use of the Collection System for Storage of Wet Weather Flow Prior to Allowing Overflows

The City operates and maintains seven CSO storage basins and one storage and conveyance tunnel throughout the collection system that have the ability to store approximately 57. MG. One additional storage and conveyance tunnel, the Northside Interceptor Tunnel (NSIT), is scheduled to be placed in service by the end of 2026.

In addition, the City implements a real-time control decision support system to optimize the available capacity in both the collection system and at the Water Reclamation Facility during wet-weather events.

### NMC #3 - Review and Modify the Pretreatment Program to Minimize the Impact of Non-Domestic Discharges from CSOs

The City of Akron implements an aggressive goal-oriented pretreatment program which has received commendation from the OEPA. The program undertakes the following measures to ensure continued compliance:

- Develop and initiate Pollution Prevention Programs with tributary industries
- Conduct industrial workshops
- Develop a work plan for integrated data management system for tracking pretreatment program activities
- Formalize spill response requirements with tributary industries
- Continuous updates to the City's industrial database, identifying major pollutant contributors upstream of overflows

- Establish and maintain a database of priority industries in terms of type of discharge, specifically hazardous or deleterious contaminants upstream of overflows
- Regular monitoring of the discharge of industries with particular emphasis on priority industries
- Ongoing enforcement of discharge reduction programs

#### NMC #4 - Maximize Flow to the Publically Owned Treatment Works (POTW) for Treatment

The City inspects and cleans, if necessary, the sanitary and combined sewer system on a 5-year frequency. Specific segments are inspected and cleaned more often as a result of roots, fats, oils, and grease, or other operational defects.

In addition, the City is designing a real-time control decision support system to optimize the available capacity in the collection system during wet-weather events.

#### NMC #5 - Prohibit CSO Discharges During Dry Weather

On a daily basis, the City inspects and cleans if necessary, static combined sewer overflow racks (bar screens), or regulating structures, in efforts to minimize the potential for dry weather overflow events from occurring. The CSO racks are remotely monitored via a Supervisory Control and Data Acquisition (SCADA) system that alerts the Water Reclamation Facility operator of a possible dry weather overflow event that may require immediate investigation.

#### NMC #6 - Control Solid and Floatable Materials in CSO Discharges

Floatable material and solids control exist at the majority of the CSO storage basins with the use of mechanically-raked bar screens. This screening allows the majority of the floatables and solids to stay in the sewer system to be transported and removed at the Water Reclamation Facility.

#### NMC #7 – Conduct Required Inspection, Monitoring and Reporting of CSOs

On a daily basis, the City inspects and cleans if necessary, static combined sewer overflow racks (bar screens), or regulating structures, in efforts to minimize the potential for dry weather overflow events from occurring. The CSO racks are remotely monitored via a Supervisory Control and Data Acquisition (SCADA) system that alerts the Water Reclamation Facility operator of a possible dry weather overflow event that may require immediate investigation.

#### NMC #8 – Implement Pollution Prevention Programs that Focus on Reducing the Level of Contaminants in CSOs

As described in NMC #3, the City has established measures for pollution prevention at its regulated industries.



In addition, in 2013, a Fats, Oils, and Grease (FOG) control program was established to eliminate the discharge of FOG substances into the sewer system by Food Service Establishments (FSEs).

### NMC #9 – Implement a Public Notification Program for Areas Affected by CSOs

The City developed a Combined Sewer Overflow Notification Plan (the “Plan”) to comply with the requirements of 40 C.F.R. § 122.38. This regulation requires that a permittee authorized to discharge combined sewer overflows (“CSOs”) to the Great Lakes Basin must provide public notification, as described within the rule, as well as develop a notification plan.

As part of its Plan, the City of Akron created a CSO Notification web page, which can be found at <https://www.akronwaterwaysrenewed.com/overflow-status>, that the public can visit 24-hours per day to learn if a CSO discharge(s) is occurring, or has occurred in the past. The Web Page will display the initial notification as soon as possible, but no later than four hours after the City becomes aware that a CSO discharge has occurred. Shortly after the end of the day in which CSO discharges have occurred, the web page will display supplemental information that includes the measured or estimated volume of discharge(s) and the approximate time(s) the discharge(s) ended.

## **Long-term CSO Control Plan (LTCP) Implementation**

- i. A description of key milestones remaining to complete implementation of the plan; and*

A summary of the key milestones remaining to complete implementation of the LTCP is contained in the following table. A complete report on the status of implementation of the long-term CSO control plan is included in the “City of Akron Consent Decree Semi-Annual Report No. 24” in Appendix B.

- ii. A description of the average annual number of CSO discharges anticipated after implementation of the long-term control plan (or other plan relevant to reduction of CSO overflows) is completed.*

After implementation of the long-term control plan, the performance criteria for all CSO Control Measures is to have zero untreated combined sewer overflows in the typical year, as defined by the Consent Decree.

## Status of Implementation of the Long-Term Control Plan

Control Measure Location	Description	Critical Milestones	Progress During Reporting Period
Rack 3	Green infrastructure plus optimized conveyance	<p>Bidding of Control Measure – June 30, 2018.</p> <p>Achievement of Full Operation – November 30, 2020.</p>	<p>The Court entered the Second Amendment to the Consent Decree December 17, 2019 which replaced the storage basin with Green infrastructure plus optimized conveyance.</p> <p>Kelly Conveyance (CSO Rack 3) Notice to Proceed was issued on December 5, 2019. Achievement of Full Operation occurred on November 9, 2020.</p> <p>Chittenden Green Project (CSO Rack 3) Notice to Proceed was issued on May 7, 2019. Achievement of Full Operation occurred on May 5, 2020.</p> <p>Duane Green Project (CSO Rack 3) Notice to Proceed was issued on January 14, 2020. Achievement of Full Operation occurred on November 25, 2020.</p> <p>Work continues on remaining punch list items.</p>
Rack 3	Develop and implement GI O&M Plans	<p>Submit O&amp;M Plan in accordance with Exhibit 7, no later than August 30, 2020</p>	<p>The City submitted the required GI O&amp;M Plan on August 26, 2020. U.S. EPA provided the City of Akron with written comments to the GI O&amp;M Plan on November 18, 2020 and the parties discussed U.S. EPA's comments on November 19, 2020. The City of Akron then revised the GI O&amp;M Plan to address U.S. EPA's comments, and provided the revised version to U.S. EPA on December 10, 2020. On December 17, 2020, U.S. EPA informed the City of Akron that the revised plan was acceptable. The City will formally submit the revised O&amp;M Plan.</p>
Rack 5 and 7	Green Infrastructure and Sewer Separation (Per Exhibit 3)	<p>Bidding of Control Measure – October 31, 2015.</p> <p>Achievement of Full Operation – October 31, 2017.</p>	<p>Construction Notice to Proceed was issued on June 21, 2016.</p> <p>Achievement of Full Operation occurred on October 26, 2017.</p> <p>Sub-final punch list is complete.</p>
Racks 10 and 11	Storage Basin(s)	<p>Bidding of Control Measure – June 30, 2018.</p> <p>Achievement of Full Operation – December 31, 2020.</p>	<p>The Court entered the Second Amendment to the Consent Decree December 17, 2019 which increased the size of the storage basin from 2.5 to 4.5 MG.</p> <p>Construction Notice to Proceed was issued on September 24, 2018.</p> <p>Achievement of Full Operation occurred on July 23, 2020.</p> <p>Remaining punch list work continues.</p>

<b>Control Measure Location</b>	<b>Description</b>	<b>Critical Milestones</b>	<b>Progress During Reporting Period</b>
Rack 12	Storage Basin(s)	Bidding of Control Measure – November 30, 2014.  Achievement of Full Operation – October 31, 2017.	Construction Notice to Proceed was issued on May 29, 2015.  Achievement of Full Operation occurred on October 30, 2017.  Work continues on remaining punch list items.
Rack 14	Storage Basin(s)	Bidding of Control Measure – October 31, 2014.  Achievement of Full Operation – April 30, 2017.	Project complete.  Achievement of Full Operation occurred on January 3, 2017.
Rack 15	Storage Basin(s)	Bidding of Control Measure – November 30, 2013.  Achievement of Full Operation – October 31, 2015.	Project complete.  Project placed in service on October 30, 2015.  Achievement of Full Operation occurred on February 17, 2016.
Rack 22	Storage Basin(s)	Bidding of Control Measure – October 31, 2015.  Achievement of Full Operation – December 31, 2017.	Project complete.  Achievement of Full Operation occurred on November 29, 2017.  Construction is complete.
Rack 26 and 28	Green infrastructure plus optimized conveyance	Bidding of Control Measure – October 31, 2021.  Achievement of Full Operation – December 31, 2022.	The Court entered the Second Amendment to the Consent Decree December 17, 2019 which replaced the storage basin with Green infrastructure plus optimized conveyance.  Construction was completed for one aspect of the IP alternative, called Aqueduct Green Street Improvements.  The Rack 26 work is being designed in house. The Rack 28 work is proceeding as a change order to the Uhler project to coordinate with other work on Memorial Parkway. The Permit to Install was issued on August 12, 2021.
Rack 26 and 28	Develop and implement GI O&M Plans	Submit O&M Plan in accordance with Exhibit 7, no later than March 1, 2019	U.S. EPA issued an approval of the City's O&M Plan on October 23, 2019. GI performance reporting is provided in Appendix H.

<b>Control Measure Location</b>	<b>Description</b>	<b>Critical Milestones</b>	<b>Progress During Reporting Period</b>
Rack 27	Optimized conveyance	<p>Bidding of Control Measure – January 31, 2018.</p> <p>Achievement of Full Operation – December 31, 2019.</p>	<p>The Court entered the Second Amendment to the Consent Decree December 17, 2019 which replaced the storage basin with optimized conveyance.</p> <p>The notice to proceed was issued on November 5, 2018.</p> <p>Achievement of Full Operation occurred on December 21, 2019.</p> <p>Final site work and punch list work is ongoing.</p>
Rack 29	Optimized conveyance	<p>Bidding of Control Measure – January 31, 2018.</p> <p>Achievement of Full Operation – December 31, 2019.</p>	<p>See Row 9 above for project update.</p>
Rack 36	Green Infrastructure and Sewer Separation (Per Exhibit 3)	<p>Bidding of Control Measure – October 31, 2015.</p> <p>Achievement of Full Operation – October 31, 2017.</p>	<p>Project is in the warranty period.</p> <p>Achievement of Full Operation occurred on October 30, 2017.</p> <p>Construction was substantially complete as of September 15, 2017.</p> <p>Final punch list work is completed.</p>
Racks 4, 16, 17, 18, 19, 20, 23, 24, 37	Ohio Canal Tunnel – Construct a 28-foot internal diameter tunnel, 5,500 feet in length, or any other combination of diameter and length that achieves the design criteria.	<p>Bidding of Control Measure – April 30, 2014.</p> <p>Achievement of Full Operation – December 31, 2018.</p>	<p>Notice to Proceed was issued on November 6, 2015.</p> <p>The OCIT was placed into operation in stages. The racks controlled by the OCIT were tied into, and then controlled by, the OCIT beginning on March 3, 2020. As of May 29, 2020, over 90% of the flow from the racks was tied into and being controlled by the OCIT. The remaining racks were tied into the OCIT as of June 13, 2020. See table 2-3 below for the tie in dates of the racks and the associated percentage of total flow.</p> <p>Achievement of Full Operation occurred on June 29, 2020 with the submission of O&amp;M Plans.</p> <p>Construction was substantially complete as of June 7, 2021.</p>

Control Measure Location	Description	Critical Milestones	Progress During Reporting Period
Racks 16, 17, 18, 19, 20, 23, 24	Ohio Canal Tunnel – ACTIFLO™ Ballasted Flocculation Unit or equivalent technology that meets the Design and Performance Criteria and Disinfection.	Bidding of Control Measure – April 30, 2024.  Achievement of Full Operation – October 31, 2027.	LTCP optimization was performed as part of the Integrated Plan in 2015. No advanced facilities planning or design activities were undertaken during the reporting period.  The City updated the model to account for the actual OCIT configuration and engaged in flow monitoring activities to recalibrate the model. The parties engaged in multiple discussions regarding the reduced overflow volume at the OCIT and whether or not it is cost effective to treat the remaining overflows.
Racks 32, 33, 34, 35	Northside Interceptor Tunnel – Construct a 20-foot internal diameter tunnel, 10,000 feet in length or any other combination of diameter and length that achieves the design criteria.	Bidding of Control Measure – April 30, 2023.  Achievement of Full Operation – December 31, 2026.	The City executed a contract to further planning activities for the Integrated Plan project. Activities completed during this period include flow, groundwater and rainfall monitoring; modeling, soil borings, survey, private property I/I evaluations, coordination with utilities and stakeholders, constructability reviews, public outreach, and initial evaluation of alternatives.  Most of the field work for the foregoing was completed during the reporting period for the second half of 2020. The City completed the update and recalibration of the model for the NSI drainage basin during the first half of 2021. The parties engaged in several calls to discuss the City's plans to replace the currently required NSIT with a 16 foot diameter tunnel.
WPCS Phase 1	Upgrade conventional secondary treatment capacity to 130MGD by implementing step feed operation in Train 6, as described in Paragraph 10.A of the Consent Decree.	Bidding of Control Measure – October 31, 2011.  Achievement of Full Operation – October 15, 2013.	Project complete (see Section 1.A of this Semi-Annual Report).
WPCS Phase 1	Upgrade conventional secondary treatment capacity to 130MGD by performing the upgrades identified in the Consent Decree in Section V.10.C.	Bidding of Control Measure – January 15, 2016.  Achievement of Full Operation – October 15, 2017.	Since the Final Demonstration Testing Evaluation Report concluded that the step feed and clarifier upgrades to Unit 6 have achieved 30 MGD of wet weather treatment capacity, this Consent Decree item is not required.
WPCS Phase 1 BioACTIFLO™ Wet Weather Treatment Pilot Study (the "Pilot Study")	Conduct the Pilot Study in accordance with Exhibit 1 to this Long Term Control Plan Update.	Pilot Study Start Date – May 1, 2012.  Pilot Study Completion Date – November 30, 2013.  Pilot Study Report submitted to EPA by December 31, 2013.	Study is complete. USEPA issued a concurrence letter on April 8, 2015.

Control Measure Location	Description	Critical Milestones	Progress During Reporting Period
WPCS Phase 2 – Part 1*	Upgrade conventional secondary treatment capacity to 170 MGD.	Bidding of Control Measure –February 28, 2019.  Achievement of Full Operation – December 31, 2021.	This project was replaced by WPCS Alternative Plan A Phase 2 – Part 1 per US EPA approval of Alternate Plan A on February 11, 2016.
WPCS Phase 2 – Part 2*	Install BioACTIFLO™ ballasted flocculation to treat all flow that does not receive conventional secondary treatment. In addition, all flows receiving BioACTIFLO™ shall receive disinfection.	Bidding of Control Measure – April 30, 2017.  Achievement of Full Operation – April 30, 2019.	This project was replaced by WPCS Alternative Plan A Phase 2 – Part 2 per US EPA approval of Alternate Plan A on February 11, 2016.
WPCS Alternative Plan A – Phase 2 – Part 1*	Upgrade conventional secondary treatment capacity to achieve the minimum sustained capacity specified in Alternative Plan A approved by USEPA.	Bidding of Control Measure –April 30, 2017.  Achievement of Full Operation – April 30, 2019.	USEPA issued an approval of Alternative Plan A on February 11, 2016 to upgrade conventional secondary treatment capacity to 220 MGD.  The construction Notice to Proceed was issued on August 24, 2016.  Construction is complete. Achievement of Full Operation occurred on April 30, 2019.  The sequence of the WPCS Alternative A Phase 2, Part 1(Row 17) and Phase 2 Part 2 projects was changed under the First Amendment to the Consent Decree, entered on September 20, 2016. The revised dates are shown in this report.
WPCS Alternative Plan A – Phase 2 – Part 2*	Install – BioCEPT to achieve a minimum capacity of 60 MGD. In addition, all flows receiving BioCEPT shall receive disinfection during the recreation season.	Bidding of Control Measure – February 28, 2019.  Achievement of Full Operation – December 31, 2021.	BioCEPT is to achieve a minimum sustained capacity of 60 MGD.  Achievement of Full Operation occurred on December 27, 2021.  Work on the punch list is ongoing.  The sequence of the WPCS Alternative A Phase 2, Part 1 (Row 17) and Phase 2 Part 2 projects was changed under the First Amendment to the Consent Decree, entered on September 20, 2016. The revised dates are shown in this report.  The Court entered the Second Amendment to the Consent Decree December 17, 2019 which replaced the BioACTIFLO facility with a BioCEPT facility and an additional demonstration study. The replacement project was approved by USEPA and Ohio EPA, see Section 2.A.2.

<b>Control Measure Location</b>	<b>Description</b>	<b>Critical Milestones</b>	<b>Progress During Reporting Period</b>
WPCS Alternative Plan B – Phase 2 – Part 1*	Upgrade conventional secondary treatment capacity to achieve the minimum sustained capacity specified in Alternative Plan B approved by USEPA.	Bidding of Control Measure –December 31, 2019.  Achievement of Full Operation – December 31, 2021.	Not Applicable
WPCS Alternative Plan B – Phase 2 – Part 2*	Install BioACTIFLO™ ballasted flocculation to achieve the minimum capacity specified in Alternative Plan B approved by USEPA. In addition, all flows receiving BioACTIFLO™ shall receive disinfection.	Bidding of Control Measure –April 30, 2017.  Achievement of Full Operation – April 30, 2019.	Not Applicable

## **Appendix A**

CSO Occurrences, Overflow Volumes and  
Precipitation Data 2021



CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	1/1/2021		1/2/2021		1/3/2021		1/24/2021		1/30/2021		2/4/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	0	0
049/R06	Factory St.	0	0	0	0	0	0	0	0	0	0	0	0
053/R10	Case Ave. – Newton St. District	0	0	0	0	0	0	0	0	0	0	0	0
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	1.34	0.1232	0	0	0	0	0	0	0	0	0	0
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0	0	0	0	0	0	0	0
071/R28	Memorial Parkway @ Hickory St.	1.32	0.1086	0	0	0	0	0	0	0	0	0	0
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0	0	0	0	0	0	0	0
075/R32	Carpenter Heights District	2.4	0.01	0	0	0	0	0	0	0	0	0	0
076/R33	North Side Interceptor @ Main St.	9.06	0.0703	0.66	0.0005	1.61	0.0047	0.09	<0.0005	2.9	<0.0005	3.2	<0.0005
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0.3	0.0324	0	0	0	0	0	0	0	0	0	0
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	0.9	0.0009	0	0	0	0	0	0	0	0	0	0
080/R37	Bowery St.	0	0	0	0	0	0	0	0	0	0	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.
G1	2644 Cordelia Ave.	0.97	3.17	0.01	0.08	0.14	1.00	0.00	0.00	0.00	0.00	0.06	0.50
G2	1532 Peckham St.							0.00	0.00	0.00	0.00	0.00	0.00
G3	1668 Merriman Rd.	0.86	3.92	0.03	0.25	0.10	0.75	0.00	0.00	0.00	0.00	0.09	0.75
G4	1200 Firestone Pkwy.	0.57	2.42	0.01	0.08	0.15	1.08	0.00	0.00	0.00	0.00	0.08	0.67
G5	177 S. Broadway St.	0.41	2.42	0.02	0.17	0.14	1.00	0.00	0.00	0.00	0.00	0.07	0.58
G6	574 E. Cuyahoga Falls Ave.	0.78	1.83	0.02	0.17	0.13	0.92	0.00	0.00	0.00	0.00	0.04	0.33
G7	1436 Triplett Blvd.	0.82	2.67	0.02	0.17	0.15	1.08	0.00	0.00	0.00	0.00	0.04	0.33
G8	2100 Eastwood Ave.	0.85	1.75	0.02	0.17	0.16	1.25	0.00	0.00	0.00	0.00	0.01	0.08
G9	3487 S. Smith Rd.	0.63	1.67	0.05	0.42	0.10	0.75	0.00	0.00	0.00	0.00	0.06	0.42
G10	3061 Albrecht Ave.	0.90	2.08	0.02	0.17	0.16	1.25	0.00	0.00	0.00	0.00	0.06	0.42
G11	89 E. Howe Rd.	0.26	1.42	0.04	0.33	0.15	1.08	0.00	0.00	0.00	0.00	0.01	0.08
G12	1100 Graham Circle	0.80	2.17	0.04	0.33	0.12	0.92	0.00	0.00	0.00	0.00	0.02	0.17
G13	10 Ascot Pkwy.	0.69	1.08	0.04	0.33	0.10	0.75	0.00	0.00	0.00	0.00	0.05	0.42

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

## CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	2/27/2021		2/28/2021		3/11/2021		3/18/2021		3/28/2021		4/8/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	0	0
049/R06	Factory St.	0	0	0	0	0	0	0	0	0	0	0	0
053/R10	Case Ave. – Newton St. District	0	0	0	0	0	0	0	0	0	0	0	0
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0	0	0	0	0	0	0	0	0	0	0	0
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0	0	0	0	0	0	0	0
071/R28	Memorial Parkway @ Hickory St.	0	0	0	0	0	0	0	0	0	0	0	0
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0	0	0	0	0	0	0	0
075/R32	Carpenter Heights District	0	0	0	0	0	0	0	0	0	0	0	0
076/R33	North Side Interceptor @ Main St.	0.53	<0.0005	4.71	0.0104	0.4	0.0002	7.45	0.0182	0.07	<0.0005	0	0
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0	0	0	0	0.3	0.023	0	0	0	0	0.3	0.0033
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	0	0	0.9	0.1478	0	0	0.49	0.0063	0	0	0	0
080/R37	Bowery St.	0	0	0	0	0	0	0	0	0	0	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.
G1	2644 Cordelia Ave.	0.18	1.42	0.53	3.83				0.00		0.00		0.00
G2	1532 Peckham St.	0.13	1.00	0.42	3.17	0.13	0.67	0.84	6.92	0.20	1.50	0.11	0.33
G3	1668 Merriman Rd.	0.12	0.92	0.44	3.42	0.13	0.67	0.78	6.25	0.19	1.33	0.06	0.33
G4	1200 Firestone Pkwy.	0.12	1.00	0.38	3.17	0.11	0.83	0.43	3.58	0.18	1.50	0.04	0.33
G5	177 S. Broadway St.	0.15	1.17	0.45	3.25							0.06	0.33
G6	574 E. Cuyahoga Falls Ave.	0.12	0.92	0.38	3.00								
G7	1436 Triplett Blvd.	0.14	1.17	0.46	3.42								
G8	2100 Eastwood Ave.	0.15	1.08	0.47	3.42	0.14	0.67	0.78	6.50	0.29	2.08	0.01	0.08
G9	3487 S. Smith Rd.	0.11	0.83	0.47	3.58								
G10	3061 Albrecht Ave.	0.16	1.33	0.49	3.58	0.12	0.58	0.90	6.92	0.27	1.92	0.02	0.17
G11	89 E. Howe Rd.	0.14	1.00	0.46	3.42	0.13	0.67	0.80	6.58	0.27	1.92	0.01	0.08
G12	1100 Graham Circle	0.13	1.00	0.45	3.42	0.11	0.58	0.80	6.42	0.21	1.50	0.01	0.08
G13	10 Ascot Pkwy.	0.11	0.83	0.44	3.25	0.12	0.67	0.69	5.67	0.21	1.50	0.02	0.17

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	4/9/2021		4/10/2021		4/12/2021		4/28/2021		4/29/2021		5/3/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	0	0
049/R06	Factory St.	0	0	0	0	0	0	0	0	0.35	0.0012	0	0
053/R10	Case Ave. – Newton St. District	0	0	0	0	0	0	0	0	0	0	0	0
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0	0	0	0	0	0	0	0	1.89	0.1133	0.13	0.0008
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0	0	0	0	0	0	0	0
071/R28	Memorial Parkway @ Hickory St.	0	0	0.73	0.0396	0	0	0	0	1.9	0.0572	0.3	0.0015
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0	0	0	0	0	0	0	0
075/R32	Carpenter Heights District	0.08	<0.0005	0	0	0	0	0	0	0.22	<0.0005	0	0
076/R33	North Side Interceptor @ Main St.	6.35	0.0474	0	0	0.94	0.0005	0.18	0.0401	6.2	0.0895	3.55	0.0177
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0.44	0.054	0	0	0	0	0	0	3.1	0.065	0.05	<0.0005
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	0.21	<0.0005	0	0	0	0	0	0	3.65	0.3613	0.75	0.0105
080/R37	Bowery St.	0	0	0	0	0	0	0	0	0	0	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.
G1	2644 Cordelia Ave.		0.00		0.00		0.00					0.62	3.92
G2	1532 Peckham St.	0.26	1.33	0.73	2.58	0.34	2.42	0.00	0.00	1.09	4.67	0.56	3.83
G3	1668 Merriman Rd.	0.26	1.58	0.77	2.25	0.15	1.25	0.00	0.00	1.27	5.25	0.53	4.17
G4	1200 Firestone Pkwy.	0.13	1.08	0.07	0.58	0.03	0.25	0.00	0.00	0.38	3.17	0.37	3.08
G5	177 S. Broadway St.	0.25	1.33	0.51	2.50	0.26	2.00	0.00	0.00	1.04	4.58	0.56	4.00
G6	574 E. Cuyahoga Falls Ave.									1.13	4.83	0.46	3.25
G7	1436 Triplett Blvd.									0.78	3.17	0.60	4.17
G8	2100 Eastwood Ave.	0.25	1.25	0.36	2.50	0.19	1.58	0.00	0.00	1.01	4.42	0.58	4.08
G9	3487 S. Smith Rd.		0.00							1.30	5.42	0.55	4.33
G10	3061 Albrecht Ave.	0.28	1.00	0.36	2.42	0.59	3.00	0.00	0.00	0.71	3.67	0.60	4.00
G11	89 E. Howe Rd.	0.26	1.33	0.38	2.58	0.18	1.50	0.00	0.00	1.11	4.67	0.52	3.67
G12	1100 Graham Circle	0.19	1.00	0.59	2.75	0.24	1.25	0.00	0.00	1.35	5.67	0.52	3.67
G13	10 Ascot Pkwy.	0.17	1.00	0.61	2.42	0.25	1.42	0.00	0.00	1.23	5.67	0.50	3.58

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	5/4/2021		5/5/2021		5/7/2021		5/9/2021		5/10/2021		5/26/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	0.3	0.0052
049/R06	Factory St.	0	0	0	0	0	0	0.37	0.0012	0	0	0	0
053/R10	Case Ave. – Newton St. District	0	0	0	0	0	0	5	6.755	0	0	0.5	0.9971
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	1.8	0.72	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	1	0.7158	0	0	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0	0	0	0	0	0	6.92	0.3563	0	0	0.42	0.0665
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0	0	0	0	0	0	0.1	0.0073
071/R28	Memorial Parkway @ Hickory St.	0	0	0	0	0	0	7.32	0.3567	0	0	0.39	0.0176
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0	0	0	0	0	0	0.3	0.039
075/R32	Carpenter Heights District	0	0	0	0	0	0	2.45	0.0168	0	0	0	0
076/R33	North Side Interceptor @ Main St.	3.62	0.0099	0.4	<0.0005	5.55	0.0151	13.2	0.0166	0	0	1.67	0.0052
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0	0	0	0	0	0	5.13	0.042	0	0	0.27	0.014
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	0.36	0.0126	0	0	0	0	8.2	0.5147	0	0	0.86	0.0504
080/R37	Bowery St.	0	0	0	0	0	0	0	0	0	0	0.2	0.0058
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	8.8	26.428	0.4	0.119	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	6	76.45	0	0	0	0

Rain Gauge	Location	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.
G1	2644 Cordelia Ave.	0.36	1.67	0.11	0.92	0.51	4.08	2.04	10.08	0.01	0.08	0.83	1.17
G2	1532 Peckham St.	0.27	1.67	0.09	0.75	0.51	4.08	2.05	9.83	0.01	0.08	0.52	1.42
G3	1668 Merriman Rd.	0.22	1.50	0.08	0.67	0.48	3.75	1.84	9.25	0.00	0.00	0.61	1.42
G4	1200 Firestone Pkwy.	0.08	0.67	0.04	0.33	0.02	0.17	0.01	0.08	0.02	0.17	0.18	0.92
G5	177 S. Broadway St.	0.34	1.83	0.09	0.75	0.48	3.75	1.97	9.75	0.00	0.00	0.62	1.00
G6	574 E. Cuyahoga Falls Ave.	0.30	2.08	0.09	0.75	0.47	3.83	1.73	9.08	0.00	0.00	0.50	1.17
G7	1436 Triplett Blvd.	0.43	2.75	0.02	0.17	0.00	0.00	0.00	0.00	1.65	1.17	0.58	1.17
G8	2100 Eastwood Ave.	0.32	1.75	0.11	0.92	0.45	3.67	1.87	9.42	0.01	0.08	0.58	1.00
G9	3487 S. Smith Rd.	0.12	0.92	0.09	0.75	0.54	4.17	1.93	9.33	0.01	0.08	0.36	1.17
G10	3061 Albrecht Ave.	1.18	2.33	0.11	0.92	0.45	3.67	1.87	10.17	0.01	0.08	0.32	0.92
G11	89 E. Howe Rd.	0.32	1.92	0.08	0.67	0.49	3.92	1.87	8.92	0.01	0.08	0.44	1.08
G12	1100 Graham Circle	0.30	1.58	0.08	0.67	0.42	3.50	1.68	8.67	0.00	0.00	0.67	1.33
G13	10 Ascot Pkwy.	0.24	1.33	0.08	0.67	0.40	3.25	1.59	8.50	0.01	0.08	0.49	1.42

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	5/28/2021		5/29/2021		6/3/2021		6/7/2021		6/9/2021		6/10/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	0	0
049/R06	Factory St.	0	0	0	0	0	0	0.1	0.0064	0.09	0.0006	0	0
053/R10	Case Ave. – Newton St. District	0	0	0	0	0	0	0	0	0	0	0	0
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0.2	0.0008	0	0	0.34	0.0427	0.7	0.0197	0	0	0	0
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0	0	0	0	0	0	0	0
071/R28	Memorial Parkway @ Hickory St.	0.25	0.0015	0	0	0.3	0.0103	0.6	0.323	0	0	0	0
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0	0	0	0	0	0	0	0
075/R32	Carpenter Heights District	0	0	0	0	0.05	0.0021	0.1	0.6302	0	0	0	0
076/R33	North Side Interceptor @ Main St.	13.4	0.0405	19.1	0.0728	1.17	0.0068	1.9	0.0156	0.43	<0.0005	1.24	0.0073
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0.13	0	0	0	0.16	0.001	0.6	0.0059	0	0	0	0
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	1.88	0.0861	0	0	0.59	0.021	0.9	0.0525	0	0	0.69	0.0294
080/R37	Bowery St.	0	0	0	0	0	0	0	0	0	0	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.
G1	2644 Cordelia Ave.	0.11	0.92			0.35	2.50	0.28	1.00	0.13	0.42	1.38	1.58
G2	1532 Peckham St.	0.79	4.75	0.00	0.00	0.02	0.17	0.00	0.00	0.00	0.00	0.00	0.00
G3	1668 Merriman Rd.	0.85	5.67	0.00	0.00	0.29	2.08	0.45	1.08	0.02	0.17	0.03	0.25
G4	1200 Firestone Pkwy.	0.55	4.25	0.00	0.00	0.42	2.50	0.43	1.08	0.48	0.83	0.95	1.08
G5	177 S. Broadway St.	0.83	5.25	0.00	0.00	0.57	2.42	0.54	1.25	0.00	0.00		
G6	574 E. Cuyahoga Falls Ave.	0.77	5.33	0.00	0.00	0.43	2.00	0.39	1.08	0.11	0.42	0.24	1.00
G7	1436 Triplett Blvd.	0.87	5.83	0.00	0.00	0.53	2.67	0.42	1.50	0.94	0.50	0.75	1.25
G8	2100 Eastwood Ave.	0.82	5.67	0.00	0.00	0.56	2.92	0.38	1.42	0.43	0.67	0.08	0.67
G9	3487 S. Smith Rd.	0.84	5.33	0.01	0.08	0.37	2.42	0.61	0.92	0.02	0.17	0.24	0.67
G10	3061 Albrecht Ave.	0.80	5.33	0.02	0.17	0.87	3.42	0.65	1.83	0.00	0.00	0.53	1.08
G11	89 E. Howe Rd.	0.83	5.50	0.00	0.00	0.05	0.42	0.00	0.00	0.03	0.25	0.01	0.08
G12	1100 Graham Circle	0.85	5.67	0.01	0.08	0.25	1.75	0.60	1.33	0.00	0.00	0.21	1.08
G13	10 Ascot Pkwy.	0.81	5.42	0.00	0.00	0.26	2.00	0.61	1.25	0.00	0.00	0.06	0.42

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	6/13/2021		6/18/2021		6/20/2021		6/21/2021		6/29/2021		6/30/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume	Dur.	Volume
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0.5	1.4473	0	0	0	0
049/R06	Factory St.	0	0	0	0	0	0	0.41	0.0287	0	0	0	0
053/R10	Case Ave. – Newton St. District	0	0	0	0	0	0	1	1.4831	0	0	0.7	1.4923
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0.5	0.0154	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0	0	0	0	0.3	0.0172	0.62	0.0345	0.22	0.0123	0.74	0.0821
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0	0	0	0	0	0	0	0
071/R28	Memorial Parkway @ Hickory St.	0	0	0	0	0.4	0.0132	0.44	0.0279	0.19	0.0389	0.46	0.0088
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0	0	0.5	0.0384	0	0	0	0
075/R32	Carpenter Heights District	0	0	0	0	0.25	0.0021	0	0	0	0	0	0
076/R33	North Side Interceptor @ Main St.	0.66	<0.0005	0.44	<0.0005	0.3	0.0155	1.6	0.0016	0.89	0.0026	3.72	0.0135
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0	0	0	0	0.31	0.012	0.37	0.005	0.1	<0.0005	0.28	0.011
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	0	0	0	0	0.91	0.042	1.02	0.0525	0.82	0.042	2.01	0.0924
080/R37	Bowery St.	0	0	0	0	0	0	0.5	0.04512	0	0	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.	Depth	Dur.
G1	2644 Cordelia Ave.	0.14	0.67	0.14	0.92	0.00	0.00	1.17	1.17	0.00	0.00		
G2	1532 Peckham St.	0.27	1.25	0.13	0.83	0.07	0.25	0.74	1.25	0.31	0.75	0.65	1.67
G3	1668 Merriman Rd.	0.12	0.83	0.16	1.00	0.09	0.42	0.44	1.08	0.09	0.67	0.38	2.17
G4	1200 Firestone Pkwy.	0.23	0.83	0.11	0.75	0.00	0.00	0.68	1.17	0.18	0.75	0.46	1.58
G5	177 S. Broadway St.												
G6	574 E. Cuyahoga Falls Ave.	0.12	0.67	0.12	0.83	0.41	0.50	0.33	0.83	0.00	0.00		
G7	1436 Triplett Blvd.	0.15	1.08	0.10	0.67	0.03	0.08	0.55	1.08	0.00	0.00		
G8	2100 Eastwood Ave.	0.08	0.67	0.10	0.75	0.02	0.17	0.85	1.08	0.14	0.58	0.44	2.17
G9	3487 S. Smith Rd.	0.19	1.17	0.16	1.00	0.06	0.42	0.45	0.92	0.00	0.00		
G10	3061 Albrecht Ave.	0.09	0.75	0.10	0.75	0.30	0.17	0.46	0.92	0.12	0.58	0.17	1.25
G11	89 E. Howe Rd.	0.13	0.92	0.01	0.08	0.00	0.00	0.00	0.00	0.06	0.33	0.21	1.25
G12	1100 Graham Circle	0.13	0.83	0.14	0.92	0.11	0.33	0.38	0.92	0.12	0.75	0.31	1.83
G13	10 Ascot Pkwy.	0.10	0.83	0.14	0.92	0.02	0.17	0.44	1.00	0.13	0.67	0.26	1.83

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	7/1/2021		7/7/2021		7/8/2021		7/9/2021		7/11/2021		7/12/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0.3	0.4438	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	0	0
049/R06	Factory St.	0	0	0.22	0.0053	0	0	0	0	0.79	0.0305	0	0
053/R10	Case Ave. – Newton St. District	0.1	0.0377	0.3	0.0436	0.3	0.0653	0.3	0.0661	1.1	1.8104	0	0
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0.8	2.86	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0.2	1.6638	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	0	0	1.3	3.9643	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0	0	0	0	0.3	0.0846	0.8	0.2094	3.43	0.6716	0.67	0.1979
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0	0	0.2	0.0253	0.1	0.0008	0	0
071/R28	Memorial Parkway @ Hickory St.	0	0	0	0	0.57	0.0191	0.5	0.0323	3.4	0.1233	0.75	0.022
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0	0	0	0	0	0	0	0
075/R32	Carpenter Heights District	0	0	0	0	0.08	0	0	0	1.36	0.0252	0.4	0.0273
076/R33	North Side Interceptor @ Main St.	1.08	0.0016	0	0	0.9	0.0052	2.4	0.0391	6.72	0.1348	3.8	0.0276
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0.18	0.003	0	0	0.4	0.0048	0.5	0.0701	3.08	0.191	0.34	0.037
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	0.53	0.0315	0	0	0.6	0.0273	1.7	0.1407	3.93	0.1491	0.79	0.0294
080/R37	Bowery St.	0	0	0	0	0	0	0	0	0	0	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	4.4	14.645	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	2.2	31.5688	0	0

Rain Gauge	Location	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur
G1	2644 Cordelia Ave.	0.16	0.67	0.21	0.42	0.83	1.50	0.19	0.50	2.22	4.08	0.50	1.75
G2	1532 Peckham St.	0.05	0.42	0.05	0.17	0.33	1.17	0.95	0.92	1.89	4.33	0.53	1.58
G3	1668 Merriman Rd.	0.38	1.00	0.00	0.00	0.49	1.42	0.13	0.42	1.86	4.17	0.34	1.00
G4	1200 Firestone Pkwy.	0.09	0.58	0.27	0.67	0.73	1.58	0.15	0.67	1.79	4.08	0.38	1.08
G5	177 S. Broadway St.	0.20	0.67	0.00	0.00	0.00	0.00	0.52	2.17	0.00	0.00	0.00	0.00
G6	574 E. Cuyahoga Falls Ave.	0.28	0.83	0.01	0.08	0.42	1.17	0.98	1.00	1.72	4.17	0.41	1.50
G7	1436 Triplett Blvd.												
G8	2100 Eastwood Ave.	0.21	0.67	0.15	0.67	0.42	1.25	0.75	0.83	1.79	4.17	0.23	1.00
G9	3487 S. Smith Rd.	0.42	1.00	0.00	0.00	0.91	1.33	0.10	0.42	2.02	4.00	0.26	0.67
G10	3061 Albrecht Ave.	0.19	1.00	0.06	0.50	0.47	1.58	0.06	0.42	2.02	4.50	0.50	1.25
G11	89 E. Howe Rd.	0.35	1.08	0.07	0.42	0.37	1.17	1.10	1.08	1.58	4.25	0.16	0.75
G12	1100 Graham Circle	0.51	1.33	0.00	0.00	1.35	1.92	0.01	0.08	1.75	3.92	0.90	1.50
G13	10 Ascot Pkwy.	0.49	1.00	0.00	0.00	0.78	1.33	0.01	0.08	1.61	4.00	0.66	1.08

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	7/13/2021		7/16/2021		7/17/2021		7/24/2021		7/25/2021		7/29/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	0	0
049/R06	Factory St.	0	0	0	0	0	0	0	0	0	0	0.2	0.0018
053/R10	Case Ave. – Newton St. District	0	0	0.1	0.0361	0.1	0.0398	0	0	0	0	0.4	1.1129
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0.2	0.0018	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	0	0	0	0	1.2	1.7711
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0.28	0.0222	0.13	0.0049	2.49	0.1404	0.29	0.0172	0	0	0.38	0.1388
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0.2	0.032	0	0	0	0	0	0
071/R28	Memorial Parkway @ Hickory St.	0.3	0.0006	0.29	0.0073	2.81	0.0749	0.36	0.0206	0	0	0.47	0.0264
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0	0	0	0	0	0	0	0
075/R32	Carpenter Heights District	0.3	0.0168	0.17	0.0042	0	0	0.41	0.0399	0	0	0.89	0.126
076/R33	North Side Interceptor @ Main St.	2.16	0.0213	2.11	0.0042	8.97	0.0718	2.05	0.0182	0.67	0.0005	2.21	0.0395
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0.39	0.037	0	0	0.9	0.0189	0.46	0.001	0	0	0.51	0.07
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	0.89	0.0315	0	0	3.84	0.2122	0.88	0.0567	0	0	1.49	0.0819
080/R37	Bowery St.	0.3	0.0233	0	0	0	0	0	0	0	0	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur
G1	2644 Cordelia Ave.	0.42	0.92	0.10	0.58	1.27	4.25	0.69	2.50	0.13	0.92	0.01	0.08
G2	1532 Peckham St.	0.12	0.33	0.31	1.33	1.13	4.58	0.64	2.42	0.11	0.83	0.12	0.42
G3	1668 Merriman Rd.	0.46	0.83	0.76	2.33	1.54	5.17	0.53	1.92	0.11	0.75	0.74	1.25
G4	1200 Firestone Pkwy.	0.39	1.08	0.16	0.83	0.90	4.25	0.52	2.25	0.10	0.67	0.32	0.33
G5	177 S. Broadway St.							0.70	0.92	0.18	0.33	0.44	1.00
G6	574 E. Cuyahoga Falls Ave.	0.47	0.92	0.32	1.58	1.11	4.08	0.47	1.92	0.10	0.75	0.18	1.17
G7	1436 Triplett Blvd.											0.22	0.25
G8	2100 Eastwood Ave.	0.19	1.00	0.34	1.33	0.98	4.42	0.35	1.67	0.11	0.75	0.97	1.17
G9	3487 S. Smith Rd.	0.37	0.58	0.71	2.75	1.56	5.00	0.65	2.17	0.12	0.83	0.49	0.50
G10	3061 Albrecht Ave.	0.32	1.42	0.13	0.75	1.00	4.42	0.28	1.58	0.10	0.75	0.45	0.58
G11	89 E. Howe Rd.	0.80	1.58	0.19	1.25	0.92	4.00	0.47	2.08	0.13	1.00		
G12	1100 Graham Circle	0.67	1.33	0.82	2.50	1.34	4.92	0.39	1.67	0.21	1.42	0.13	0.33
G13	10 Ascot Pkwy.	0.58	0.92	0.70	2.58	1.68	5.33	0.47	1.75	0.16	1.17	0.22	0.33

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches



CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	8/8/2021		8/9/2021		8/10/2021		8/11/2021		8/12/2021		8/13/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.
046/R03	Kelly Ave.	1	0.0174	0	0	1	0.0065	0	0	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	0	0
049/R06	Factory St.	0.4	0.0321	0	0	0.8	0.0343	0	0	0	0	0.1	0.0006
053/R10	Case Ave. – Newton St. District	0.7	2.2415	0.5	0.0371	0.5	0.3651	0	0	0.5	0.0498	0.5	1.0251
054/R11	Hazel St. – District 4	0.7	0.2291	0	0	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0.2	0.0062	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	0	0	0	0	0.1	0.0662
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0.4	0.0729	0	0	0.4	0.1766	0	0	0.5	0.2347	1.3	0.4141
070/R27	Uhler Ave. @ Memorial Parkway	0.3	0.1785	0	0	0.3	0.0777	0	0	0.3	0.1756	0.2	0.0512
071/R28	Memorial Parkway @ Hickory St.	0.4	0	0	0	0.5	0.028	0	0	0	0	0	0
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0	0	0	0	0	0	0	0
075/R32	Carpenter Heights District	0.4	0.1471	0.2	0.0788	0.8	0.0285	0.1	0.0056	0.39	0.1512	0	0
076/R33	North Side Interceptor @ Main St.	0.4	0.0143	1.9	0.0325	2.5	0.0016	0.06	0.0005	2.2	0.2892	4.15	0.0889
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0.3	0.0745	0.3	0.0288	1	0.0747	0.1	0.0129	0.4	0.0841	0	0
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	0.9	0.0008	0	0	1.1	0.0668	0	0	0.9	0.2135	0	0
080/R37	Bowery St.	0.2	0.0169	0	0	0	0	0.1	0.0026	0	0	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur
G1	2644 Cordelia Ave.	0.17	0.50	0.02	0.17	0.64	1.08	0.31	0.83	0.00	0.00	0.09	0.42
G2	1532 Peckham St.												
G3	1668 Merriman Rd.	0.50	0.83	0.03	0.25	0.71	1.42	0.64	1.17	0.25	0.33	0.87	1.17
G4	1200 Firestone Pkwy.	0.31	0.67	0.09	0.33	0.66	1.00	0.33	1.17	0.00	0.00	0.17	0.33
G5	177 S. Broadway St.	0.00	0.00	0.00	0.00	0.31	0.50	0.16	0.50	0.00	0.00	0.00	0.00
G6	574 E. Cuyahoga Falls Ave.	0.94	1.00	0.41	0.33	0.66	1.08	0.15	1.00	0.64	0.42	1.09	1.17
G7	1436 Triplett Blvd.	0.35	0.67	0.24	0.50	0.52	1.17	0.37	1.25	0.02	0.17	0.08	0.33
G8	2100 Eastwood Ave.	0.94	0.83	0.39	0.58	0.79	1.42	0.13	0.92	0.39	0.58	0.70	1.08
G9	3487 S. Smith Rd.	0.41	0.67	0.03	0.25	1.17	1.25	0.31	1.08	0.00	0.00	0.40	0.75
G10	3061 Albrecht Ave.	0.68	1.00	0.26	0.50	0.38	0.92	0.36	1.08	0.04	0.17	0.26	0.58
G11	89 E. Howe Rd.												
G12	1100 Graham Circle	0.16	1.00	0.44	0.50	0.67	1.17	0.56	1.33	0.08	0.17	0.80	1.17
G13	10 Ascot Pkwy.	0.29	1.08	0.11	0.50	0.58	1.17	0.44	1.08	0.10	0.33	0.86	0.83

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	8/14/2021		8/16/2021		8/18/2021		8/25/2021		8/26/2021		8/29/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0	0	1	0.5799
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	1	0.0647
049/R06	Factory St.	0	0	0	0	0	0	0.1	0.0091	0	0	0.7	<0.0005
053/R10	Case Ave. – Newton St. District	0	0	0.5	0.0371	0	0	0.5	0.0384	0	0	0.5	4.2432
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0	0	1	0.8327
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0	0	0.2	0.0036	0	0	0.4	0.1313	0.57	0.2011	0.2	0.0289
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0	0	0	0	0.3	0.045	0	0
071/R28	Memorial Parkway @ Hickory St.	0	0	0.2	0.0058	0	0	0.4	<0.0005	0.71	0.0308	0.2	0.0333
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0	0	0	0	0	0	0	0
075/R32	Carpenter Heights District	0	0	0	0	0	0	0	0	0	0	0	0
076/R33	North Side Interceptor @ Main St.	1.5	0.0011	2.15	0.0062	1.7	0.0024	0	0	0.93	0.0052	0.8	0.0006
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0	0	0.9	0.0053	0	0	0	0	0.1	<0.0005	0.26	0.001
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	0	0	0.78	0.0714	0	0	0	0	0	0	0.6	0.0774
080/R37	Bowery St.	0	0	0	0	0	0	0	0	0	0	0.2	0.0211
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur
G1	2644 Cordelia Ave.	0.12	0.83	0.32	2.00	0.22	1.75	0.11	0.67	0.01	0.08	0.25	0.42
G2	1532 Peckham St.												
G3	1668 Merriman Rd.	0.10	0.50	0.21	1.33	0.14	1.17	0.61	1.17	0.04	0.25	0.26	0.67
G4	1200 Firestone Pkwy.	0.09	0.67	0.35	1.50	0.24	2.00	0.09	0.50	0.02	0.08	0.18	0.33
G5	177 S. Broadway St.	0.28	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G6	574 E. Cuyahoga Falls Ave.	0.10	0.67	0.41	2.08	0.18	1.50	0.12	0.58	0.06	0.42	0.25	0.58
G7	1436 Triplett Blvd.	0.06	0.50	0.57	2.00	0.34	2.83	0.21	0.42	0.00	0.00	0.76	0.75
G8	2100 Eastwood Ave.	0.08	0.58	0.21	1.33	0.44	3.00	0.14	0.25	0.00	0.00	1.29	1.17
G9	3487 S. Smith Rd.	0.12	0.58	0.19	1.33	0.08	0.67	0.63	1.50	0.34	0.42	0.23	0.58
G10	3061 Albrecht Ave.	0.03	0.25	0.31	1.83	0.36	3.00	0.02	0.17	0.00	0.00	0.61	0.92
G11	89 E. Howe Rd.												
G12	1100 Graham Circle	0.10	0.50	0.17	1.42	0.41	2.00	0.06	0.50	0.45	0.50	0.20	0.83
G13	10 Ascot Pkwy.	0.10	0.50	0.29	1.67	0.14	1.17	0.29	0.75	0.09	0.75	0.20	0.67

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	8/30/2021		9/1/2021		9/15/2021		9/21/2021		9/22/2021		10/1/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.
046/R03	Kelly Ave.	0	0	0	0	0	0	0.2	0.5961	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	0	0
049/R06	Factory St.	0	0	0	0	0.27	0.017	0	0	0.67	0.1002	0	0
053/R10	Case Ave. – Newton St. District	0	0	0	0	0.2	0.0781	0	0	0.6	3.4943	0	0
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0.6	0.5082	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0	0	0.2	0.0705	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	0	0	0.7	0.0261	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0	0	0	0	0	0	0	0	1.1	0.1929	0	0
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0	0	0	0	0.2	0.0043	0	0
071/R28	Memorial Parkway @ Hickory St.	0	0	0	0	0.13	<0.0005	0	0	1.09	0.0719	0	0
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0	0	0	0	0	0	0	0
075/R32	Carpenter Heights District	0	0	0	0	0	0	0	0	0.36	0.042	0	0
076/R33	North Side Interceptor @ Main St.	0.9	0.0004	0	0	1.51	0.0036	0.53	<0.0005	5.56	0.1223	0.81	<0.0005
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	1.8	0.0299	0.07	<0.0005	0.13	0.001	0	0	0.9	0.105	0	0
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	0	0	0	0	0.77	0.0777	0	0	2.18	0.1617	0	0
080/R37	Bowery St.	0	0	0	0	0	0	0	0	0.2	0.0102	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur
G1	2644 Cordelia Ave.	0.07	0.08	0.00	0.00	0.18	1.42	0.00	0.00	0.00	0.00		
G2	1532 Peckham St.					0.11	0.58	0.17	1.33	1.05	3.50	0.00	0.00
G3	1668 Merriman Rd.	0.20	0.42	0.00	0.00	0.02	0.17	0.20	1.25	1.02	3.50	0.01	0.08
G4	1200 Firestone Pkwy.	0.04	0.17	0.00	0.00	0.59	1.58	0.19	1.50	1.23	3.58	0.00	0.00
G5	177 S. Broadway St.	0.00	0.00					0.10	0.08	1.32	3.67	0.00	0.00
G6	574 E. Cuyahoga Falls Ave.	0.15	0.33	0.00	0.00	0.32	0.58	0.14	1.17	1.17	3.25	0.01	0.08
G7	1436 Triplett Blvd.	0.02	0.08	0.00	0.00	0.79	1.67	0.19	1.50	1.07	3.00	0.00	0.00
G8	2100 Eastwood Ave.	0.01	0.08	0.00	0.00	0.65	1.67	0.31	1.92	1.64	3.42	0.00	0.00
G9	3487 S. Smith Rd.	0.15	0.33	0.00	0.00	0.02	0.17	0.10	0.83	1.21	3.67	0.00	0.00
G10	3061 Albrecht Ave.	0.02	0.17	0.00	0.00	0.63	1.75	0.23	1.83	1.35	3.75	0.00	0.00
G11	89 E. Howe Rd.							0.15	0.50	1.30	2.92	0.00	0.00
G12	1100 Graham Circle	0.19	0.58	0.00	0.00	0.05	0.42	0.19	1.25	1.20	3.58	0.00	0.00
G13	10 Ascot Pkwy.	0.18	0.50	0.00	0.00	0.02	0.17	0.20	1.42	1.08	3.00	0.00	0.00

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

## CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	10/15/2021		10/16/2021		10/21/2021		10/24/2021		10/25/2021		10/26/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	0	0
049/R06	Factory St.	0	0	0	0	0.1	<0.0005	0	0	0	0	0	0
053/R10	Case Ave. – Newton St. District	0	0	0	0	0.15	0.0646	0.11	0.0196	0	0	0	0
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0.18	0.3603	0	0	0	0	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0.28	0.014	0	0	0.26	0.0632	1	0.0616	0	0	0	0
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0.09	0.0618	0	0	0	0	0.2	0.1331
071/R28	Memorial Parkway @ Hickory St.	0.35	0.0161	0.18	<0.0005	0.31	0.0147	1.22	0.0895	0	0	0	0
072/R29	Uhler Ave. – Carpenter St. Outlet	0	0	0	0	0.09	0.235	0	0	0	0	0	0
075/R32	Carpenter Heights District	0	0	0	0	0.25	0.0126	0	0	0	0	0	0
076/R33	North Side Interceptor @ Main St.	1.68	0.0026	1.34	0.0052	2.51	0.012	3.53	0.0364	0.46	<0.0005	0.34	<0.0005
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0.29	0.0007	0.05	<0.0005	0.3	0.0066	1.03	0.014	0	0	0	0
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	0.7	0.0483	0.36	0.0147	0.92	0.0546	1.44	0.1197	0	0	0	0
080/R37	Bowery St.	0	0	0	0	0	0	0	0	0	0	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur
G1	2644 Cordelia Ave.	0.23	0.83	0.13	0.50	0.07	0.58	0.00	0.00	0.05	0.42	0.00	0.00
G2	1532 Peckham St.	0.36	1.08	0.23	1.33	0.40	1.25	0.72	2.92	0.28	1.33	0.15	1.25
G3	1668 Merriman Rd.	0.30	1.00	0.23	1.42	0.33	1.25	0.77	3.17	0.28	1.67	0.06	0.50
G4	1200 Firestone Pkwy.	0.28	0.92	0.22	1.50	0.28	1.25	0.66	3.00	0.20	1.33	0.04	0.33
G5	177 S. Broadway St.	0.39	1.00	0.33	2.00	0.41	1.42	0.63	3.00	0.08	0.67	0.14	0.92
G6	574 E. Cuyahoga Falls Ave.	0.28	1.08	0.23	1.42	0.49	1.08	0.65	2.92	0.10	0.83	0.09	0.75
G7	1436 Triplett Blvd.	0.01	0.08	0.32	2.17	0.30	1.08			0.20	1.08	0.07	0.58
G8	2100 Eastwood Ave.	0.18	0.50	0.29	1.92	0.44	1.08	0.69	3.00	0.10	0.83	0.16	1.33
G9	3487 S. Smith Rd.	0.47	0.83	0.27	1.67	0.26	1.08			0.45	1.83	0.29	2.00
G10	3061 Albrecht Ave.	0.00	0.00	0.39	2.33	0.26	0.92	0.77	3.33	0.06	0.50	0.13	1.08
G11	89 E. Howe Rd.	0.28	1.08	0.25	1.75	0.50	1.17			0.15	0.67	0.17	1.42
G12	1100 Graham Circle	0.38	1.08	0.22	1.25	0.27	1.08	0.69	2.92	0.13	0.92	0.22	1.83
G13	10 Ascot Pkwy.	0.38	0.83	0.21	1.33	0.21	1.17	0.69	2.83	0.24	1.00	0.15	1.25

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	10/29/2021		11/11/2021		11/12/2021		11/18/2021		12/1/2021		12/6/2021	
CSO Discharges													
Station/Rack	Location	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0	0	0
049/R06	Factory St.	0	0	0	0	0	0	0	0	0	0	0.32	0.0598
053/R10	Case Ave. – Newton St. District	0	0	0.2	0.0178	0	0	0	0	0	0	0	0
054/R11	Hazel St. – District 4	0	0	0	0	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	0	0	0	0	0	0	0	0	0	0	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0.35	0.0041	0	0	0	0	0	0	0	0	0.4	0.0398
070/R27	Uhler Ave. @ Memorial Parkway	0	0	0	0	0	0	0	0	0	0	0	0
071/R28	Memorial Parkway @ Hickory St.	0.49	0.0132	0.37	0.0015	0	0	0	0	0	0	0.45	0.0264
072/R29	Uhler Ave. – Carpenter St. Outlet	0.2	0.0756	0	0	0	0	0	0	0	0	0	0
075/R32	Carpenter Heights District	0	0	0	0	0	0	0	0	0	0	0.34	0.2752
076/R33	North Side Interceptor @ Main St.	6.83	0.0338	2.87	0.0234	0.96	<0.0005	1.74	<0.0005	2.14	0.0016	5.54	0.0395
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	0.39	0.004	0.08	<0.0005	0	0	0	0	0	0	0.69	0.0479
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	1.57	0.1197	1.36	0.1134	0	0	0	0	0	0	0	0
080/R37	Bowery St.	0	0	0	0	0	0	0	0	0	0	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	0	0	0	0	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0	0	0	0	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur
G1	2644 Cordelia Ave.									0.37	2.25	0.58	2.83
G2	1532 Peckham St.	0.70	4.75	0.48	2.75	0.01	0.08	0.26	2.08	0.26	2.00	0.53	2.83
G3	1668 Merriman Rd.	0.71	4.92	0.45	2.83	0.02	0.17	0.28	2.25	0.21	1.75	0.55	2.67
G4	1200 Firestone Pkwy.	0.66	4.58	0.59	2.67	0.00	0.00	0.24	2.00	0.32	2.17	0.45	2.58
G5	177 S. Broadway St.	0.76	5.17	0.58	2.92	0.00	0.00	0.28	2.17	0.30	2.17	0.50	3.17
G6	574 E. Cuyahoga Falls Ave.									0.21	1.75	0.43	2.67
G7	1436 Triplett Blvd.	0.68	4.92	0.70	3.25	0.01	0.08	0.31	2.42	0.28	1.83	0.46	2.67
G8	2100 Eastwood Ave.	0.76	5.17	0.63	3.00	0.01	0.08	0.29	2.25	0.28	2.00		
G9	3487 S. Smith Rd.	0.68	4.92	0.44	2.83	0.01	0.08			0.23	1.67	0.57	2.67
G10	3061 Albrecht Ave.	0.75	5.25	0.65	3.25	0.01	0.08	0.35	2.75	0.30	2.08	0.51	3.08
G11	89 E. Howe Rd.	0.78	5.50	0.61	3.00	0.01	0.08	0.30	2.50	0.24	1.92	0.46	2.83
G12	1100 Graham Circle	0.67	4.92	0.50	2.83	0.02	0.17	0.29	2.33	0.23	1.83	0.55	2.67
G13	10 Ascot Pkwy.	0.75	4.25	0.01	0.08	0.06	0.50	0.31	2.50	0.22	1.83	0.64	2.75

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

CSO Occurrences, Overflow Volumes and Precipitation Data, 1/1/2021 - 12/31/21

	Date:	12/11/2021		12/18/2021		12/25/2021		12/27/2021		12/28/2021	
CSO Discharges											
Station/Rack	Location	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.	Dur.	Vol.
046/R03	Kelly Ave.	0	0	0	0	0	0	0	0	0	0
047/R04	Mill St.	0	0	0	0	0	0	0	0	0	0
049/R06	Factory St.	0	0	0	0	0.37	0.0041	0	0	0	0
053/R10	Case Ave. – Newton St. District	3.3	3.0637	0	0	0.17	0.0767	0	0	0	0
054/R11	Hazel St. – District 4	2.8	1.455	0	0	0	0	0	0	0	0
055/R12	Camp Brook Storage Basin	1.74	0.4	0	0	0	0	0	0	0	0
057/R14	Forge Field Storage Basin	0	0	0	0	0	0	0	0	0	0
058/R15	Cascade Village Storage Basin	0	0	0	0	0	0	0	0	0	0
059/R16	Wolf Ledges Trunk	0	0	0	0	0	0	0	0	0	0
060/R17	Exchange St.	0	0	0	0	0	0	0	0	0	0
061/R18	Willow Run Trunk	0	0	0	0	0	0	0	0	0	0
062/R19	West Market St.	0	0	0	0	0	0	0	0	0	0
065/R22	Howard Street Storage Basin	2	3.7177	0	0	0	0	0	0	0	0
067/R24	West Market St Outlet @ Ravine St.	0	0	0	0	0	0	0	0	0	0
069/R26	Aqueduct St. Outlet E. of Hickory St.	0.7	0.3834	0	0	1	0.0034	0	0	0	0
070/R27	Uhler Ave. @ Memorial Parkway	0.3	0.2151	0	0	0	0	0	0	0	0
071/R28	Memorial Parkway @ Hickory St.	2.8	0.0895	0	0	1.13	0.0631	0.26	0.0015	0	0
072/R29	Uhler Ave. – Carpenter St. Outlet	0.7	0.7851	0	0	0	0	0	0	0	0
075/R32	Carpenter Heights District	0.34	0.0945	0	0	0	0	0	0	0	0
076/R33	North Side Interceptor @ Main St.	12.19	0.1681	4.47	0.0099	0	0	0	0	4.22	0.0177
077/R34	Riverside Dr. Dist. @ MetroParks Rd.	1.65	0.1389	0	0	0.6	0.0029	0.42	0.0129	0	0
078/R35	Gorge Blvd. Dist. @ Front St. Bridge	4.51	0.2626	0	0	1.43	0.1092	0.87	0.0483	0	0
080/R37	Bowery St.	0.1	0.0032	0	0	0	0	0	0	0	0
081/R02	Goodyear Retention Tank 1376 9th Ave.	0	0	0	0	0	0	0	0	0	0
083/R40	Cuyahoga Street Storage Facility	8.07	15.579	0	0	0	0	0	0	0	0
084/OCIT	Ohio Canal Interceptor Tunnel	0.5	2.93	0	0	0	0	0	0	0	0

Rain Gauge	Location	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur	Depth	Dur
G1	2644 Cordelia Ave.			0.40	3.33	0.85	4.33	0.27	1.58	0.42	3.33
G2	1532 Peckham St.	1.59	4.25	0.41	3.25	0.80	4.50	0.26	1.50	0.36	2.83
G3	1668 Merriman Rd.	1.78	4.58	0.42	3.42	0.61	4.42	0.24	1.33	0.31	2.58
G4	1200 Firestone Pkwy.	1.16	3.92	0.37	3.08	0.71	3.75	0.28	1.58	0.36	2.92
G5	177 S. Broadway St.	1.57	4.50	0.41	3.42	0.86	4.58	0.29	1.50	0.37	2.92
G6	574 E. Cuyahoga Falls Ave.	1.56	4.08	0.39	3.33	0.65	4.25	0.25	1.42	0.33	2.67
G7	1436 Triplett Blvd.	1.14	3.17	0.39	3.08	0.73	3.67	0.25	1.33	0.39	2.92
G8	2100 Eastwood Ave.	1.52	4.08	0.40	3.33	0.77	4.58	0.29	1.67	0.39	3.17
G9	3487 S. Smith Rd.	2.05	4.67	0.47	3.58	0.74	4.58	0.30	1.83	0.35	2.92
G10	3061 Albrecht Ave.	0.84	2.92	0.37	3.08	0.76	4.00	0.28	1.67	0.37	3.00
G11	89 E. Howe Rd.	1.51	3.92	0.42	3.50	0.69	4.67	0.28	1.58	0.36	3.00
G12	1100 Graham Circle	1.53	4.25	0.45	3.58	0.64	4.42	0.30	1.67	0.32	2.50
G13	10 Ascot Pkwy.	1.77	4.42	0.45	3.58	0.67	4.67	0.28	1.67	0.29	2.42

Units: Duration-Hours; Volume-Million Gallons; Depth-Inches

## **Appendix B**

Consent Decree Semi-Annual Report #24  
(July 1, 2021 - December 31, 2021)



DANIEL HARRIGAN, MAYOR

**City of Akron**  
**Consent Decree**  
**Semi-Annual Report No. 24**  
**July 1, 2021 – December 31, 2021**

February 15, 2022



Department of Public Service  
Akron Engineering Bureau  
Environmental Division

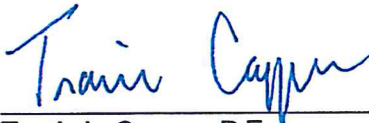


**City of Akron**  
**Consent Decree**  
**Semi-Annual Report No. 24**  
**July 1, 2021 – December 31, 2021**

February 15, 2022



Patrick D. Gsellman, P.E.  
AWR Program Manager



Travis L. Capper, P.E.  
Acting City Engineer



Genny Hanna, P.E.  
Environmental Division Manager



Robert Scarlatelli, P.E.  
Acting Manager, Water Reclamation Services

Document prepared by:  
**G. Stephens, Inc.**  
133 N. Summit St.  
Akron, OH 44304

**Semi-Annual Report No. 24**  
**July 1, 2021 – December 31, 2021**

Table of Contents

	<u>Page No.</u>
1. SPECIFIC ACTION PROJECTS .....	1
2. CSO AND WPCS CONTROL MEASURES .....	4
3. CMOM, GREASE CONTROL & EMERGENCY RESPONSE PROGRAMS ....	26
4. MUD RUN PUMP STATION .....	31
5. SUPPLEMENTAL ENVIRONMENTAL PROJECT .....	33
6. OTHER NECESSARY INFORMATION .....	33

APPENDICES

- A. EPA Correspondence
- B. Listing of all CSO Discharges
- C. Public Participation
- D. SSOs, CSS Releases, Building/Property Backups
- E. List of Defects
- F. List of Defects – Acute Only
- G. FOG Trouble Spots Cleaned/Inspected
- H. Green Infrastructure Performance Reporting

### List of Abbreviations and Acronyms

AFO	Achievement of Full Operation
AFP	Advanced Facilities Plan
AASEP	All-Akron Student Engineering Program
AWR!	Akron Waterways Renewed!
CAG	Community Action Group
CCTV	Closed-Circuit Television
CD	Consent Decree
CEPT	Chemically Enhanced Primary Treatment
CIPP	Cured in Place Process
CMOM	Capacity, Management, Operations, and Maintenance
CSO	Combined Sewer Overflow
CSS	Combined Sewer Systems
EHRT	Enhanced High Rate Treatment
EPA	Environmental Protection Agency
FOG	Fats, Oils and Grease
FSE	Food Service Establishments
GI	Green Infrastructure
GIS	Geographic Information System
HVAC	Heating, Ventilation, and Air Conditioning
ID	Identification
I/I	Infiltration/Inflow
IP	Integrated Plan
IPF	Integrated Planning Framework
IPS	Integrated Plan Stakeholders
LCI	Little Cuyahoga Interceptor
LF	Linear Feet
LTCP	Long Term Control Plan
Mg/l	Milligrams per Liter
MGD	Million Gallons per Day
MH	Manhole
MLSS	Mixed Liquor Suspended Solids
MOI	Main Outfall Interceptor
NASSCO	National Association of Sewer Service Companies
NFA	No Feasible Alternative
No.	Number
NOI	Notice of Intent
NSI	Northside Interceptor
NTP	Notice To Proceed
OCI	Ohio Canal Interceptor
OCIT	Ohio Canal Interceptor Tunnel
OHPO	Ohio Historic Preservation Office
OSHA	Occupational Safety and Health Administration
PER	Preliminary Engineering Report
PID	Project Identification
PTI	Permit to Install
QAPP	Quality Assurance Project Plan
RAS	Return Activated Sludge
RCA	Root Cause Analysis
RIO	Remote Input/Output
SCPHD	Summit County Public Health Department
SEP	Supplemental Environmental Project
SOP	Standard Operating Procedure
SORNP	Sewer Overflow and Response Notification Plan

### **List of Abbreviations and Acronyms**

SSO	Sanitary Sewer Overflow
SWPPP	Stormwater Pollution Prevention Plan
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
WAS	Waste Activated Sludge
WPCLF	Water Pollution Control Loan Fund
WPCS	Water Pollution Control Station
WRF	Water Reclamation Facility (See: WPCS)

## Section 1: Specific Action Projects

### 1.A Upgrade of the WPCS (Phase 1)

<b>Status of Work Plan Development</b>	The Work Plan for Water Pollution Control Station (WPCS) improvements was submitted to EPA on February 10, 2010 per the Consent Decree.
<b>Status of Design and Construction Activities</b>	Design and construction are complete. Certificate of Achievement of Full Operation was issued and acknowledged on September 20, 2013.
<b>Status of Stress Test Protocol Development</b>	Stress Tests are complete.
<b>Status and Results of Stress Tests</b>	Stress Tests are complete. The Final Demonstration Testing Evaluation Report was submitted to EPA on October 15, 2015, per the Consent Decree.
<b>Capacity Achieved at the WPCS After Upgrade</b>	The Final Demonstration Testing Evaluation Report concluded that the step feed and clarifier upgrades to Unit 6 have achieved 30 MGD of wet weather treatment capacity.
<b>Project Cost Incurred During Reporting Period</b>	No project costs were incurred during the reporting period.

### 1.B Upgrade of the WPCS (Contingency Projects)

The Final Demonstration Testing Evaluation Report concluded that the step feed and clarifier upgrades to Unit 6 achieved 30 MGD of wet weather treatment capacity, therefore, this Consent Decree item is not applicable.

### 1.C Status of Sewer Separation Projects

#### 1.C.1 Rack 8 Separation Project

<b>Activities Undertaken During Reporting Period</b>	Project is complete.
<b>Status of Construction</b>	Construction is complete.
<b>Date of Anticipated Completion</b>	Achievement of Full Operation occurred on December 14, 2012.

**Project Cost Incurred During Reporting Period** No project costs were incurred during the reporting period.

### ***1.C.2 Rack 25 Separation Project***

**Activities Undertaken During Reporting Period** Project is complete.

**Status of Construction** Construction is complete.

**Date of Anticipated Completion** Achievement of Full Operation occurred on December 14, 2012.

**Project Cost Incurred During Reporting Period** No project costs were incurred during the reporting period.

### ***1.C.3. Rack 21 Separation Project***

**Activities Undertaken During Reporting Period** Project is complete.

**Status of Construction** Construction is complete.

**Date of Anticipated Completion** Achievement of Full Operation occurred on November 9, 2017.  
Construction was substantially complete November 13, 2017.

**Project Cost Incurred During Reporting Period** No project costs were incurred during the reporting period.

### ***1.C.4 Rack 13 Separation Project***

**Activities Undertaken During Reporting Period** Project is complete.

**Status of Construction** Construction is complete.

**Date of Anticipated Completion** Achievement of Full Operation occurred on October 14, 2016.

**Project Cost Incurred During Reporting Period** No project costs were incurred during the reporting period.

***1.C.5 Rack 30 Separation Project***

**Activities Undertaken During Reporting Period** Project is complete.

**Status of Construction** Construction is complete.

**Date of Anticipated Completion** Achievement of Full Operation occurred on November 9, 2017. Construction on Rack 30 was substantially complete November 13, 2017.

**Project Cost Incurred During Reporting Period** No project costs were incurred during the reporting period.

## Section 2: CSO and WPCS Control Measures

### 2.A Status of Document Preparation

Table 2-1 shows the current status of documents as listed in Table 1 in Paragraph 17 of the Consent Decree. Documents listed in **bold** have been completed as of the end date of this reporting period.

**Table 2-1 Status of Document Preparation**

<b>Document</b>	<b>Consent Decree Due Date</b>	<b>Date Submitted or Date of Anticipated Completion</b>
<b>Updated NFA and supplement</b>	November 30, 2009	November 25, 2009
<b>Preliminary Report on Modeling to Predict Size and Number of Overflows</b>	January 15, 2010	January 13, 2010
<b>Preliminary Report on Cost/Benefit Comparison to Predict Sizes and Number of Overflows</b>	March 15, 2010	March 12, 2010
<b>CSO Control Measure Cost/Benefit Tables at Appendix 2 of Attachment A</b>	May 15, 2010	May 14, 2010
<b>Updated Financial Capability Information</b>	May 15, 2010	May 14, 2010
<b>Post-Construction Monitoring Program</b>	August 15, 2010	August 16, 2010
<b>Proposed Long Term Control Plan Update</b>	August 15, 2010	August 16, 2010
<b>Proposed Long Term Control Plan Update Report</b>	August 15, 2010	August 16, 2010
<b>Final Long-Term Control Plan Update</b>	October 15, 2010	October 15, 2010 Revised: February 28, 2011
<b>Final Long-Term Control Plan Update Report</b>	October 15, 2010	October 15, 2010 Revised: February 28, 2011 Revised: November 15, 2011 USEPA Approved: November 16, 2011 Ohio EPA Approved: April 11, 2012
<b>Report on Revising WPCS Control Measure(s) if Akron achieves 130 MGD through secondary treatment using step feed</b>	October 15, 2016	October 14, 2016
<b>Report on Revising WPCS Control Measure(s) if Akron constructs the WPCS Contingency Project</b>	October 15, 2017	N/A



### ***2.A.1 Development of an Integrated Plan***

The City's LTCP Update was approved by USEPA on November 16, 2011 and Ohio EPA on April 11, 2012. The LTCP Update was incorporated into the court-approved Consent Decree on January 17, 2014.

The City submitted an Integrated Plan on July 31, 2015 in accordance with USEPA's June 5, 2012 Integrated Planning Framework (IPF) Guidance. The parties participated in several conferences and exchanged several documents regarding the City's proposed Integrated Plan. The City continued to comply with the requirements within the Consent Decree, including, but not limited to, the LTCP Update, during the ongoing discussions of the proposed Integrated Plan.

The parties subsequently agreed to suspend further discussions over the proposed Integrated Plan. At the same time, it was understood that the City would submit requests to modify the LTCP Update, independent of the integrated planning process. Those proposed modifications are discussed in the following section.

### ***2.A.2 Consent Decree Modifications***

As a result of ongoing Consent Decree negotiations, modifications were made pursuant to Exhibit 2 and Exhibit 3 of the Consent Decree, and the Court has approved the First Amendment to Consent Decree and the Second Amendment to Consent Decree. Those modifications are discussed below.

The City received modification approval letters under Exhibit 3 of the LTCP for the following green infrastructure ("GI") projects:

- Rack 36 – approval letter issued on October 30, 2015;
- Rack 5/7 – approval letter issued on December 7, 2015;
- Rack 22 – approval letter issued on December 7, 2015.

Based upon a subsequent agreement of the parties, the City has constructed the original Rack 22 storage basin in lieu of the approved green infrastructure project.

On January 15, 2016 the City submitted an Alternative Plan to the Sizing of Secondary Treatment Capacity under Exhibit 2 of the LTCP Update. USEPA approved the City's Alternative Plan on February 11, 2016. Based on this approval, the WPCS Phase 2 projects were then subject to the requirements of the LTCP Update Rows 17 and 18.

The Court entered the First Amendment to the Consent Decree on September 20, 2016, which modified the Consent Decree as follows: (1) changed the sequencing of the WPCS Phase 2 projects and (2) replaced the MOI parallel relief sewer project with the MOI capping project. The First Amendment to Consent Decree switched the deadlines for the projects in LTCP Update Rows 17 and 18, and replaced the original LTCP Update Rows 21 and 22 with new Rows 21, 22 and 23.

The Court entered the Second Amendment to the Consent Decree on December 17, 2019 which further modified the Consent Decree as follows: (1) replaced the requirement for the BioACTIFLO facility in LTCP Update Row 18 with a BioCEPT facility and a demonstration study as now required in new LTCP Update Rows 18 and 18.a., respectively; and (2) replaced the Racks 3, 26/28 and

27/29 storage basins required in LTCP Update Rows 1, 8 and 9 with upsized underflow drains and pipes (“optimized conveyance”) and two GI projects, including GI operation and maintenance (“O&M”) requirements, and increased the size of the Rack 10/11 storage basin required in Row 3 from 2.5 MG to 4.5 MG. LTCP Update Rows 1, 3, 8 and 9 are now replaced with amended Rows 1, 3, 8 and 9 and new Rows 1.a., 8.a., and 9.a.

The City previously proposed to modify the requirement for the EHRT unit in LTCP Update Row 11a, as well as to replace the NSI tunnel in Row 12 with an alternative set of controls referred to as the NSI Projects. In 2017, the City informed USEPA and Ohio EPA of its decision to defer those requests to a later date. In 2020 the City informed U.S. EPA and Ohio EPA that it wanted to renew its request to eliminate the requirement for the EHRT and to replace the NSI tunnel with the NSI Projects and incorporated these modifications into a Third Amendment to the Consent Decree. The City subsequently informed U.S. EPA and Ohio EPA of the City’s intent to propose a 16 foot diameter tunnel in lieu of the NSI Projects as part of the modification involving LTCP Update Row 12. During this reporting period the Parties continued to engage in routine calls to discuss these proposed modifications.

## ***2.B Progress Towards Completing Milestones in Approved LTCP Update***

Progress on completing milestones, including status of progress toward Achievement of Full Operation, for each of the WPCS and CSO Control Measures set forth in the approved LTCP Update is provided in Table 2-2. The Consent Decree was entered January 17, 2014 and amendments were entered on September 20, 2016 and December 17, 2019. In addition, under USEPA’s Integrated Plan Framework, during this reporting period the City continued with Long Term Control Plan Optimization to evaluate and identify alternative solutions for the controls listed in the LTCP Update that have yet to be constructed.

Completed projects or rows that are no longer applicable are shaded gray.

**Table 2-2 Status of Progress and Cost Incurred During Reporting Period  
For Control Measures Set Forth in Approved LTCP Update**

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
1	Rack 3	Green infrastructure plus optimized conveyance	<p>Bidding of Control Measure – June 30, 2018.</p> <p>Achievement of Full Operation – November 30, 2020.</p>	<p>The Court entered the Second Amendment to the Consent Decree December 17, 2019 which replaced the storage basin with Green infrastructure plus optimized conveyance.</p> <p>Kelly Conveyance (CSO Rack 3) Notice to Proceed was issued on December 5, 2019. Achievement of Full Operation occurred on November 9, 2020.</p> <p>Chittenden Green Project (CSO Rack 3) Notice to Proceed was issued on May 7, 2019. Achievement of Full Operation occurred on May 5, 2020.</p> <p>Duane Green Project (CSO Rack 3) Notice to Proceed was issued on January 14, 2020. Achievement of Full Operation occurred on November 25, 2020.</p> <p>Work continues on remaining punch list items for Duane, all other projects are complete. .</p>	<p>Project costs incurred during the reporting period for all Kelly (CSO Rack 3) projects were approximately \$2,074,705.37</p>

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
1.a.	Rack 3	Develop and implement GI O&M Plans	Submit O&M Plan in accordance with Exhibit 7, no later than August 30, 2020	The City submitted the required GI O&M Plan on August 26, 2020. U.S. EPA provided the City of Akron with written comments to the GI O&M Plan on November 18, 2020, and the parties discussed U.S. EPA's comments on November 19, 2020. The City of Akron then revised the GI O&M Plan to address U.S. EPA's comments and provided the revised version to U.S. EPA on December 10, 2020. On December 17, 2020, U.S. EPA informed the City of Akron that the revised plan was acceptable. The City formally submitted the revised O&M Plan on January 27, 2021, and U.S. EPA subsequently issued a formal approval.	
2	Rack 5 and 7	Green Infrastructure and Sewer Separation (Per Exhibit 3)	Bidding of Control Measure – October 31, 2015.  Achievement of Full Operation – October 31, 2017.	Project complete.  Achievement of Full Operation occurred on October 26, 2017.	Project costs incurred during the reporting period were approximately \$1,081,391.77
3	Racks 10 and 11	Storage Basin(s)	Bidding of Control Measure – June 30, 2018.  Achievement of Full Operation – December 31, 2020.	The Court entered the Second Amendment to the Consent Decree December 17, 2019, which increased the size of the storage basin from 2.5 to 4.5 MG.  Achievement of Full Operation occurred on July 23, 2020.  Punch list is complete, finalizing remaining costs.	Project costs incurred during the reporting period were approximately \$1,912,083.20

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
4	Rack 12	Storage Basin(s)	Bidding of Control Measure – November 30, 2014.  Achievement of Full Operation – October 31, 2017.	Project Complete.  Achievement of Full Operation occurred on October 30, 2017.	Project costs incurred during the reporting period were approximately \$6,666.71.
5	Rack 14	Storage Basin(s)	Bidding of Control Measure – October 31, 2014.  Achievement of Full Operation – April 30, 2017.	Project complete.  Achievement of Full Operation occurred on January 3, 2017.	No costs were incurred during the reporting period.
6	Rack 15	Storage Basin(s)	Bidding of Control Measure – November 30, 2013.  Achievement of Full Operation – October 31, 2015.	Project complete.  Project placed in service on October 30, 2015.  Achievement of Full Operation occurred on February 17, 2016.	No costs were incurred during the reporting period.
7	Rack 22	Storage Basin(s)	Bidding of Control Measure – October 31, 2015.  Achievement of Full Operation – December 31, 2017.	Project complete.  Achievement of Full Operation occurred on November 29, 2017.  Construction is complete.	No costs were incurred during the reporting period.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
8	Rack 26 and 28	Green infrastructure plus optimized conveyance	<p>Bidding of Control Measure – October 31, 2021.</p> <p>Achievement of Full Operation – December 31, 2022.</p>	<p>The Court entered the Second Amendment to the Consent Decree December 17, 2019 which replaced the storage basin with Green infrastructure plus optimized conveyance.</p> <p>Construction was completed for one aspect of the IP alternative, called Aqueduct Green Street Improvements.</p> <p>The Rack 26 work design work continued.</p> <p>The Rack 28 work is proceeding as a change order to the Uhler project to coordinate with other work on Memorial Parkway. The Permit to Install was issued on August 12, 2021. Construction Continues.</p>	Project costs incurred during the reporting period were approximately \$31,391.91
8.a.	Rack 26 and 28	Develop and implement GI O&M Plans	Submit O&M Plan in accordance with Exhibit 7, no later than March 1, 2019	U.S. EPA issued an approval of the City's O&M Plan on October 23, 2019. GI performance reporting is provided in Appendix H.	Costs are reported in Section 2C as part of the overall Program costs.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
9	Rack 27	Optimized conveyance	<p>Bidding of Control Measure – January 31, 2018.</p> <p>Achievement of Full Operation – December 31, 2019.</p>	<p>The Court entered the Second Amendment to the Consent Decree December 17, 2019 which replaced the storage basin with optimized conveyance.</p> <p>The notice to proceed was issued on November 5, 2018.</p> <p>Achievement of Full Operation occurred on December 21, 2019.</p> <p>Final site work and punch list work is ongoing.</p>	Project costs incurred during the reporting period, for both Racks 27 and 29, were approximately \$245,295.71
9.a.	Rack 29	Optimized conveyance	<p>Bidding of Control Measure – January 31, 2018.</p> <p>Achievement of Full Operation – December 31, 2019.</p>	See Row 9 above for project update.	See Row 9 above for project costs.
10	Rack 36	Green Infrastructure and Sewer Separation (Per Exhibit 3)	<p>Bidding of Control Measure – October 31, 2015.</p> <p>Achievement of Full Operation – October 31, 2017.</p>	<p>Achievement of Full Operation occurred on October 30, 2017.</p> <p>Construction was substantially complete as of September 15, 2017.</p> <p>Final punch list work is completed.</p>	Project costs incurred during the reporting period were approximately \$780,734.09

11	Racks 4, 16, 17, 18, 19, 20, 23, 24, 37	Ohio Canal Tunnel – Construct a 28-foot internal diameter tunnel, 5,500 feet in length, or any other combination of diameter and length that achieves the design criteria.	<p>Bidding of Control Measure – April 30, 2014.</p> <p>Achievement of Full Operation – December 31, 2018.</p>	<p>Notice to Proceed was issued on November 6, 2015.</p> <p>On September 21, 2017, the City submitted a notification that the City has reason to believe that the Ohio Canal Interceptor Tunnel (OCIT) project will not meet the Achievement of Full Operation deadline. The City submitted an amendment to this notification on October 17, 2017. The parties then participated in a conference call on November 29, 2017 and further discussed the status of the schedule of the project. The parties agreed that the City would submit periodic updates on the status of the schedule of the project. The City continued to provide U.S. EPA and Ohio EPA with updated during this reporting period.</p> <p>The OCIT was placed into operation in stages. The racks controlled by the OCIT were tied into, and then controlled by, the OCIT beginning on March 3, 2020. As of May 29, 2020, over 90% of the flow from the racks was tied into and being controlled by the OCIT. The remaining racks were tied into the OCIT as of June 13, 2020. See table 2-3 below for the tie in dates of the racks and the associated percentage of total flow.</p> <p>Achievement of Full Operation occurred on June 29, 2020 with the submission of O&amp;M Plans.</p> <p>Construction was substantially complete as of June 7, 2021.</p>	Project costs incurred during the reporting period were approximately \$12,325,764.22
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Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
11a	Racks 16, 17, 18, 19, 20, 23, 24	Ohio Canal Tunnel – ACTIFLO™ Ballasted Flocculation Unit or equivalent technology that meets the Design and Performance Criteria and Disinfection.	<p>Bidding of Control Measure – April 30, 2024.</p> <p>Achievement of Full Operation – October 31, 2027.</p>	<p>LTCP optimization was performed as part of the Integrated Plan in 2015. No advanced facilities planning or design activities were undertaken during the reporting period.</p> <p>The City updated the model to account for the actual OCIT configuration and engaged in flow monitoring activities to recalibrate the model. The parties engaged in multiple discussions regarding the reduced overflow volume at the OCIT and whether or not it is cost effective to treat the remaining overflows.</p>	No costs were incurred during the reporting period.
12	Racks 32, 33, 34, 35	Northside Interceptor Tunnel – Construct a 20-foot internal diameter tunnel, 10,000 feet in length or any other combination of diameter and length that achieves the design criteria.	<p>Bidding of Control Measure – April 30, 2023.</p> <p>Achievement of Full Operation – December 31, 2026.</p>	<p>The City executed a contract to further planning activities for the Integrated Plan project. These activities included flow, groundwater and rainfall monitoring; modeling, soil borings, survey, private property I/I evaluations, coordination with utilities and stakeholders, constructability reviews, public outreach, and initial evaluation of alternatives.</p> <p>Most of the field work for the foregoing was completed during the reporting period for the second half of 2020. The City completed the update and recalibration of the model for the NSI drainage basin during the first half of 2021. The parties engaged in several calls to discuss the City's plans to replace the currently required NSIT with a 16 foot diameter tunnel.</p>	Project costs incurred during the reporting period were approximately \$2,260,444.37

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
13a	WPCS Phase 1	Upgrade conventional secondary treatment capacity to 130MGD by implementing step feed operation in Train 6, as described in Paragraph 10.A of the Consent Decree.	Bidding of Control Measure – October 31, 2011.  Achievement of Full Operation – October 15, 2013.	Project complete (see Section 1.A of this Semi-Annual Report).	No costs were incurred during the reporting period.
13b	WPCS Phase 1	Upgrade conventional secondary treatment capacity to 130MGD by performing the upgrades identified in the Consent Decree in Section V.10.C.	Bidding of Control Measure – January 15, 2016.  Achievement of Full Operation – October 15, 2017.	Since the Final Demonstration Testing Evaluation Report concluded that the step feed and clarifier upgrades to Unit 6 have achieved 30 MGD of wet weather treatment capacity, this Consent Decree item is not required.	No costs were incurred during the reporting period.
14	WPCS Phase 1 BioACTIFLO™ Wet Weather Treatment Pilot Study (the “Pilot Study”)	Conduct the Pilot Study in accordance with Exhibit 1 to this Long Term Control Plan Update.	Pilot Study Start Date – May 1, 2012.  Pilot Study Completion Date – November 30, 2013.  Pilot Study Report submitted to EPA by December 31, 2013.	Study is complete. USEPA issued a concurrence letter on April 8, 2015.	No costs were incurred during the reporting period.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
15	WPCS Phase 2 – Part 1*	Upgrade conventional secondary treatment capacity to 170 MGD.	Bidding of Control Measure – February 28, 2019.  Achievement of Full Operation – December 31, 2021.	This project was replaced by WPCS Alternative Plan A Phase 2 – Part 1 per US EPA approval of Alternate Plan A on February 11, 2016.	No costs were incurred during the reporting period.
16	WPCS Phase 2 – Part 2*	Install BioACTIFLO™ ballasted flocculation to treat all flow that does not receive conventional secondary treatment. In addition, all flows receiving BioACTIFLO™ shall receive disinfection.	Bidding of Control Measure – April 30, 2017.  Achievement of Full Operation – April 30, 2019.	This project was replaced by WPCS Alternative Plan A Phase 2 – Part 2 per US EPA approval of Alternate Plan A on February 11, 2016.	No costs were incurred during the reporting period.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
17	WPCS Alternative Plan A – Phase 2 – Part 1*	Upgrade conventional secondary treatment capacity to achieve the minimum sustained capacity specified in Alternative Plan A approved by USEPA.	<p>Bidding of Control Measure – April 30, 2017.</p> <p>Achievement of Full Operation – April 30, 2019.</p>	<p>USEPA issued an approval of Alternative Plan A on February 11, 2016 to upgrade conventional secondary treatment capacity to 220 MGD.</p> <p>The construction Notice to Proceed was issued on August 24, 2016.</p> <p>Construction is complete. Achievement of Full Operation occurred on April 30, 2019.</p> <p>The sequence of the WPCS Alternative A Phase 2, Part 1(Row 17) and Phase 2 Part 2 projects was changed under the First Amendment to the Consent Decree, entered on September 20, 2016. The revised dates are shown in this report.</p>	Project costs incurred during the reporting period were approximately \$86,528.77.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
18	WPCS Alternative Plan A – Phase 2 – Part 2*	Install – BioCEPT to achieve a minimum capacity of 60 MGD. In addition, all flows receiving BioCEPT shall receive disinfection during the recreation season.	Bidding of Control Measure – February 28, 2019.  Achievement of Full Operation – December 31, 2021.	BioCEPT is to achieve a minimum sustained capacity of 60 MGD.  Achievement of Full Operation occurred on December 27, 2021.  Work on the punch list is ongoing.  The sequence of the WPCS Alternative A Phase 2, Part 1 (Row 17) and Phase 2 Part 2 projects was changed under the First Amendment to the Consent Decree, entered on September 20, 2016. The revised dates are shown in this report.  The Court entered the Second Amendment to the Consent Decree December 17, 2019 which replaced the BioACTIFLO facility with a BioCEPT facility and an additional demonstration study. The replacement project was approved by USEPA and Ohio EPA, see Section 2.A.2.	Project costs incurred during the reporting period were approximately \$12,782,276.15.
19	WPCS Alternative Plan B – Phase 2 – Part 1*	Upgrade conventional secondary treatment capacity to achieve the minimum sustained capacity specified in Alternative Plan B approved by USEPA.	Bidding of Control Measure – December 31, 2019.  Achievement of Full Operation – December 31, 2021.	Not Applicable	No costs were incurred during the reporting period.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
20	WPCS Alternative Plan B – Phase 2 – Part 2*	Install BioACTIFLO™ ballasted flocculation to achieve the minimum capacity specified in Alternative Plan B approved by USEPA. In addition, all flows receiving BioACTIFLO™ shall receive disinfection.	Bidding of Control Measure – April 30, 2017.  Achievement of Full Operation – April 30, 2019.	Not Applicable	No costs were incurred during the reporting period.

\*Alternative Plan to Upgrading Conventional Secondary Treatment to 170 MGD:

- 1) If US EPA approves in writing an Alternative Plan A, in accordance with Exhibit 2 to the LTCP update, then Akron shall implement the control measures specified in the First Amendment in Rows 17 and 18, instead of the control measures specified in Rows 15 and 16
- 2) If US EPA approves in writing an Alternative Plan B, in accordance with attachment to the LTCP update, then Akron shall implement the control measures specified in the First Amendment in Rows 19 and 20, instead of the control measures specified in Rows 15 and 16

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
<b>(2) Collection System Measures</b>					
21	Main Outfall Sewer Upgrades – Phase I	Installation of pneumatically placed, steel reinforced mortar cap over the entire length of the brick-arch section of the Main Outfall Interceptor (“MOI”) that runs between Survey Station 83+00 and the rectangular bridge section that is located upstream of the WPCS (“the Bridge Section”). The Bridge Section is not of brick-arch construction, and the approximately 400-foot portion of the MOI between the Bridge Section and the WPCS is covered with soil. As part of Phase I, a limited amount of additional soil will be added to the brick-arch portion of the MOI between the Bridge Section and the WPCS headworks.	Bidding of Control Measures: May 4, 2016  Achievement of Full Operation: November 30, 2017.	Project complete.  Achievement of Full Operation occurred on November 22, 2016.	No costs were incurred during the reporting period

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
22	Main Outfall Sewer Upgrades – Phase II	Additional soil will be added to the soil cap on the brick-arch portion of the MOI between the Bridge Section and the WPCS headworks, after the completion of, and subject to the results of, a geotechnical and engineering evaluation will be to determine the amount of additional soil cover, up to 2 feet, that can be placed on the remaining brick-arch portion of the MOI between the Bridge Section and the existing WPCS headworks without causing excessive settlement of that portion of the MOI. The parties understand that the City may eliminate and/or improve some of the brick-arch portion of the MOI between the Bridge Section and the existing WPCS headworks project. Any improvements to the brick-arch portion of the MOI between the Bridge Section and the existing WPCS headworks through construction of a proposed WPCS headworks project. Any improvements to the brick-arch portion of the MOI between the Bridge Section and the existing WPCS headworks project shall ensure structural integrity such that the improved portion of the enclosed conduit of the MOI withstands at least 5 feet of surcharge.	<p>Completion of engineering evaluation: May 30, 2017</p> <p>Completion of placement of additional soil: November 30, 2017</p>	<p>Project complete.</p> <p>Engineering evaluation completed and submitted to EPA on May 22, 2017.</p> <p>Achievement of Full Operation for the Soil Cap occurred on November 15, 2017.</p>	No costs were incurred during the reporting period.



Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
23	Main Outfall Sewer Inspection	Perform inspection and rehabilitation consistent with the Main Outfall Sewer Supplement to the Approved CMOM Program as outlined in Section VII of the Consent Decree	Full Operation shall be maintained consistent with Main Outfall Sewer Supplement to the Approved CMOM Program	Project complete.	No costs were incurred during the reporting period.

Table 2-3 Ohio Canal Interceptor Tunnel (OCIT) Flow Release Dates as of June 15, 2020

SEWER	FINAL RELEASE DATES	OVERALL	APRIL STORM	JULY STORM	AUGUST STORM
RACK 18	3/9/2020	28.81%	33.75%	26.68%	27.16%
RACK 19	4/16/2020	7.32%	5.98%	7.85%	7.83%
RACK 16 EAST	4/28/2020				
RACK 4	4/30/2020	2.71%	1.99%	3.03%	2.93%
RACK 17	5/5/2020	9.72%	8.33%	10.37%	10.11%
RACK 23	5/7/2020	0.35%	0.29%	0.37%	0.37%
RACK 37	5/13/2020	2.66%	2.52%	2.71%	2.70%
RACK 20	5/13/2020	0.47%	0.50%	0.46%	0.47%
RACK 38	5/21/2020				
RACK 16 WEST	5/29/2020	38.55%	31.89%	42.31%	39.75%
RACK 4 underflow	5/30/2020				
OCI	6/3/2020				
MARKET ST.	6/10/2020	1.43%	1.71%	1.23%	1.44%
RACK 24	6/13/2020	6.98%	12.27%	3.94%	6.11%
<b>TOTAL</b>		<b>99.00%</b>	<b>99.23%</b>	<b>98.95%</b>	<b>98.87%</b>

## **2.C Project Cost Incurred**

Project costs incurred by the City during the reporting period for each of the WPCS and CSO Control Measures set forth in the approved LTCP Update are provided in Table 2-2. The City incurred additional costs for regulatory support, design management, program controls, technical and right of way support, GI operation and maintenance and program management \$ 828,974.90 during the reporting period.

## **2.D Status of Implementation of the Post-Construction Monitoring Program**

The Post-Construction Monitoring Program (PCMP) was submitted on August 15, 2010, and in the revised Long-Term Control Plan on February 29, 2011. In response to comments from U.S. EPA, the City submitted a revised Program on December 14, 2012. U.S. EPA has recently asked the City to update the PCMP to reflect the changes in control measures due to the First and Second Amendment of the Consent Decree. The City is in the process of updating the PCMP accordingly.

## **2.E Listing of All CSO Discharges**

CSO discharges from each CSO Outfall for the period July 1, 2021 through December 31, 2021 are listed in Appendix B. The listing also provides data on the depth and duration of rainfall at each of the City's thirteen (13) rain gauges. Racks 5, 7, 8, 9, 13, 20, 21, 23, 25, 30, 31, 36, 38 and 39 are not included in the table. Racks 13, 8, 25, 9 and 39 were separated on June 14, 2016, May 21, 2012, April 26, 2012, July 27, 2004 and August 18, 2000, respectively. Racks 5, 7, 21 and 36 were separated on October 13, 2017, October 3, 2017, July 18, 2017 and August 16, 2017, respectively. Rack 30 was separated on November 9, 2017. Racks 20 and 23 were tied into the OCIT and the discharge point eliminated on May 13, 2020 and May 7, 2020, respectively. Rack 31 discharges are included with Rack 40 (Cuyahoga Street Storage Facility). Rack 38 is a diversion chamber that routes flow within the combined sewer system.

## **2.F Status of Development of the Supplemental Compliance Plan**

As of this reporting period, the Supplemental Compliance Plan is not required.

## **2.G Status of Public Participation Plan Implementation**

The City of Akron continued its public participation program with regular updates to the AWR! Stakeholders Group, formally known as the Integrated Plan Stakeholder Group and as the CSO Community Action Group (CAG), prior to that. During the reporting period, the following IP Stakeholder group meeting was held:

- AWR! Stakeholders Meeting – August 2021

The City's public participation efforts also included presentations made at the following events and public meetings during the reporting period:

- AASEP Akron Water Reclamation Facility Tour (July 2021)
- AASEP Water Supply Plant Tour (July 2021)
- AWR! Bonfire Instructional Outreach Event (July 2021)
- AASEP Closing Program (August 2021)

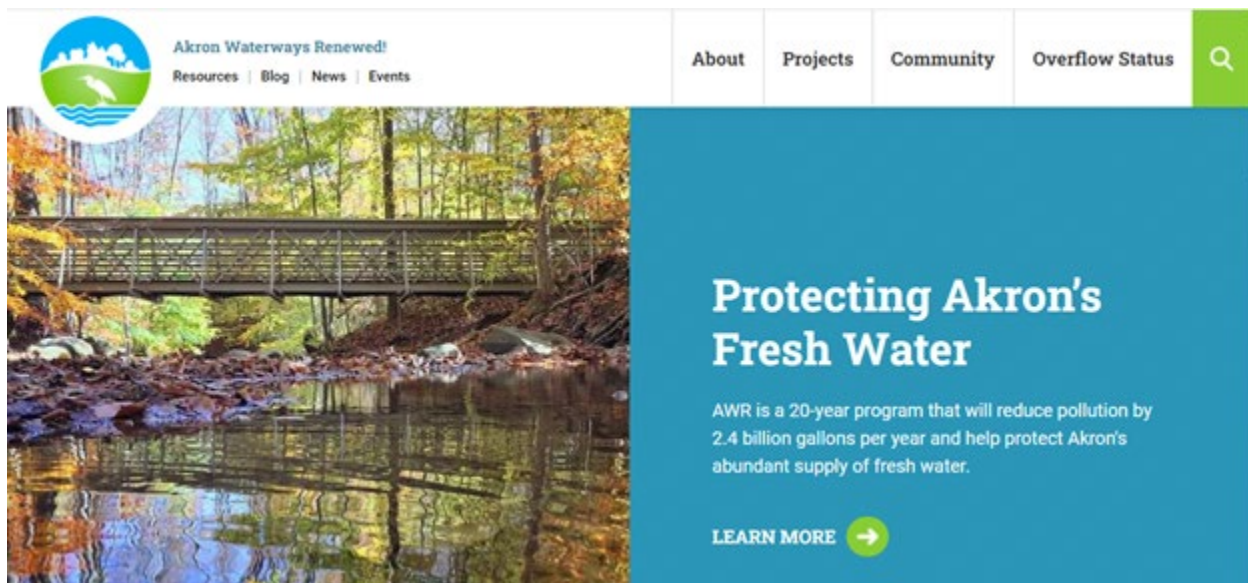
- AWR! Bus tours (August-October 2021)
- AWR! Rain Garden Growing Kit Giveaway (October 2021)
- AWR! Northside Cleanup Event (November 2021)
- University of Akron Honors, AWR! Update, (November 2021)
- AASEP Winter STEM Fest: Embracing your BHAG (December 2021)
- AWR! Ohio EPA director tour (December 2021)
- Published several press releases, social media, and blogs (July-December 2021)

Copies of presentations and distributed materials are included in Appendix C.

The City of Akron has posted updated program information to the Akron Waterways Renewed (AWR!) website ([www.akronwaterwaysrenewed.com](http://www.akronwaterwaysrenewed.com)), in addition the website has been redesigned. Figure 2-1 is a picture of the home page of the AWR! website.

The City of Akron also maintains a Facebook page for the Akron Waterways Renewed! Program. The link for this page is [www.facebook.com/akronwaterwaysrenewed](https://www.facebook.com/akronwaterwaysrenewed). Figure 2-2 represents the Facebook page for the program.

A Twitter account has been established to communicate program updates and general interest topics. The account is @AkronWaterways. Instagram @AkronWaterwaysRenewed has allowed the program to share and showcase the many improvements that are a result of the projects and stakeholder collaborations. Figure 2-3 is a picture of the Twitter page for AWR!



**Figure 2-1 Akron Waterways Renewed Home Webpage**

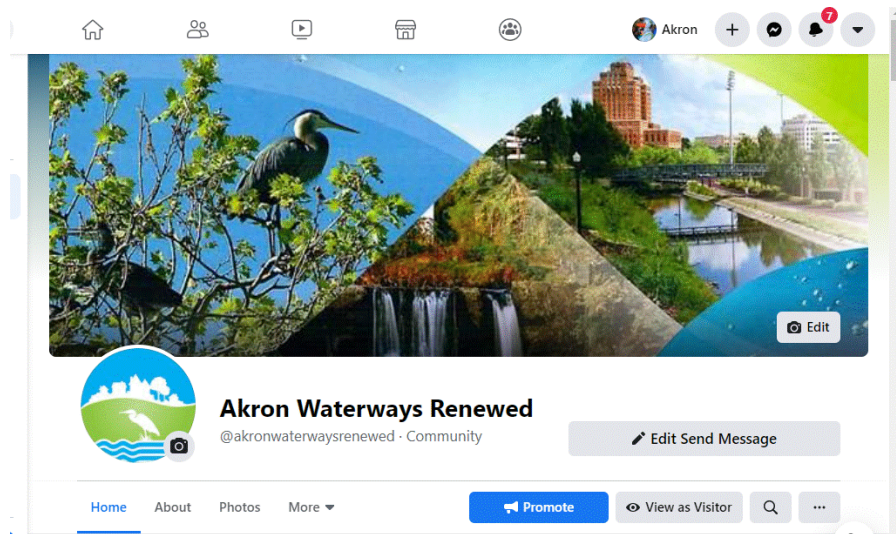


Figure 2-2 Akron Waterways Renewed Facebook Page



Figure 2-3 Akron Waterways Renewed Twitter Page

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## **Section 3: CMOM, Grease Control, and Emergency Response Programs**

### **3.A *List of all SSO and CSS Releases During Reporting Period***

Appendix D provides a list of SSOs and CSS Releases, including Building/Property Backups, during the reporting period.

### **3.B *System Inspection***

Table 3-1 provides the number of miles and percent of system inspected during the reporting period.

### **3.C *Manhole Inspection***

Table 3-2 provides the number and percent of manholes inspected during the reporting period.

### **3.D *System Cleaning***

The number of miles and percent of system cleaned during the reporting period is provided in Table 3-3.

### **3.E *List of Defects***

The comprehensive list of defects identified in Akron's system, and a list identifying acute defects, and a schedule to repair the defects (including date repaired if the defect has already been repaired) are included in Appendices E and F.

Table 3-1 System Inspection

Period	Current Reporting Period		Previous Year		Previous Five Years		Accumulative Totals	
	Miles Inspected	Percentage Inspected	Miles Inspected	Percentage Inspected	Miles Inspected	Percentage Inspected	Miles Inspected	Percentage Inspected
July 1 - December 31, 2021	107.69	12.83*	194.35	23.16*	323.86	38.59*	431.55	51.42*

\*Based on 839.2 miles in system

Table 3-2 Manhole Inspection

Period	Current Reporting Period		Previous Year		Previous Five Years		Accumulative Totals	
	Manholes Inspected	Percentage Inspected	Manholes Inspected	Percentage Inspected	Manholes Inspected	Percentage Inspected	Manholes Inspected	Percentage Inspected
July 1 - December 31, 2021	4574	24.12**	5900	31.11**	8570	45.18**	13144	69.30**

\*\*Based on 18,967 manholes in system

Table 3-3 System Cleaning

Period	Current Reporting Period		Previous Year		Previous Five Years		Accumulative Totals	
	Miles Cleaned	Percentage Cleaned	Miles Cleaned	Percentage Cleaned	Miles Cleaned	Percentage Cleaned	Miles Cleaned	Percentage Cleaned
July 1 - December 31, 2021	107.69	12.83*	194.35	23.16*	323.86	38.59*	431.55	51.42*

\*Based on 839.2 miles in system

### 3.F Maintenance and Training Activities

- A. Pump station and force main preventive maintenance activities were conducted in accordance with Item 2.E of the approved CMOM program.
- B. 4,574 manholes were inspected during the period beginning July 1, 2021 through December 31, 2021, and four were documented to have signs of heavy infiltration. If confirmed to be in need of repairs, it will be included in a future capital improvement plan.

**Table 3-4 Manholes Documented with Heavy Infiltration**

Manhole Asset ID	Location
311271	PPN 6717361
308535	Inman St. & Reed Avenue
303374	PPN 6702036
311059	PPN 6729742

- C. The following sewer construction and rehabilitation projects were completed or are ongoing within the City of Akron during the reporting period:
  - a) Sourek Road Pump Station Reconstruction (2014-013-00)  
The Sourek Road Pump Station Project consists of construction of a new pump station enclosure, replacement of pumps, equipment, appurtenances, etc. The existing wet well will be rehabilitated and reused.
  - b) Quaker Ridge Pump Station Reconstruction (2018-048-00)  
The Quaker Ridge Pump Station Reconstruction project is the full replacement of the existing sanitary sewer pump station. Additional gravity sewer will be extended approximately 300' west to pick up new replacement force main in Ridgewood Road.
  - c) Sanitary Sewer Reconstruction 2019 Small Diameter Lining (File 2018-018-01)  
To rehabilitate the City's sanitary and combined sewer system, part of the City's annual sewer reconstruction program.
  - d) Canton Road Market Street Intersection (File 2016-002-00)  
This project consists of the removal of the traffic signals at the intersections of Canton Rd/Market St and Canton Rd /Paxton. The intersection of Canton Rd/Market St shall be realigned and converted to a hybrid multilane roundabout while the intersection of Canton Rd/Paxton Ave shall have restricted right in – right out access enforced by installation of a traffic island. Additional work shall consist of sidewalks, driveways, drainage improvements, sanitary sewer improvements, vehicular and pedestrian signing, pavement markings and parking lot reconfiguration at Walgreens.
  - e) Main Street Corridor Phase 2  
Full improvements including full depth pavement, concrete curbs and walks, cycle track, landscaping, permeable pavers, traffic signalization,



lighting and other aesthetic items. Combination sewers were lined with the limits of the project.

- D. Root control program activities were conducted in accordance with Item 2.K of the approved CMOM program. As a component of the Accelerated Cleaning and Inspection Program, the Root List requires more frequent attention than the system wide maintenance activities. The City's approach is to inspect each of these root list locations on a modified schedule and provide cleaning only when it is determined those pipes are in need of maintenance.
- E. Training activities were conducted on the following topics. Date of training and number of employees receiving training are indicated in Table 3-5.

**Table 3-5 Training Activities**

<b>Date</b>	<b>Course Title/Description</b>	<b>Number of Employees</b>
7/14/21	Enhanced FOG Removal for Enhanced Operational Savings	1
7/26/21, 8/2/21, 8/10/21, 12/30/21	Excavating and Trenching Safety	4
7/27/21	City of Akron Benefits and FMLA Update	18
8/9/21, 12/30/21	New Employee Training	2
8/31/21	MEAT (Medical Emergency Awareness Training)	33
9/15/21	Hobas Pipe USA from Fiberglass pipes to Fittings to Manhole Structures	5
9/25/21	IDDE and SWP3 Training	33
9/29/21	Maintaining Aging Ditches	4
10/21/21	Advances in Stormwater Monitoring and the Development of BMPs for Treatment	4
10/26/21	Cold Weather Safety	27
11/9/21	Value of Single-Source Providers of Emerging Contaminant Removal	2
12/14/21	VAC-CON Training	7

### 3.G Grease Control Program

In accordance with Grease Control provisions in the approved CMOM program, this program includes inspection and/or cleaning of the known FOG trouble locations, part of the Accelerated Cleaning and Inspection Program, on what was previously called the “Speed Rodder List.”

#### 3.G.1 List of SSO and CSS Releases Caused by Fats, Oils, and Grease (FOG)

**Table 3-6 Releases Caused by Fats, Oils and Grease**

<b>Date</b>	<b>Location</b>	<b>Type of Release (SSO, Rack, Property Backup)</b>	<b>Add to FOG Trouble Spot List</b>
12/2/21	111 N Main St	SSO	Yes

#### 3.G.2 List of FOG Locations

A complete list of FOG Locations inspected and/or cleaned during the reporting period is included in Appendix G.

As stated in previous Semi-Annual Reports, to optimize the current schedule for the cleaning of locations suspected to have recurring grease accumulation, in 2013, the City began the CCTV inspection of each grease location on or around the next scheduled cleaning cycle to determine if significant grease accumulation has occurred. Based on the findings of the CCTV inspection, the frequency of cleaning at each grease location is adjusted accordingly. With the improvements initiated to control FOG at the source, it is anticipated that scheduled cleaning will be less efficient than periodic inspection, and cleaning only when needed.

#### 3.G.3 FOG Education Efforts Undertaken During Reporting Period

The following educational efforts were undertaken and completed during the reporting period:

- A. The City of Akron developed a website (<https://www.akronohio.gov/>) which includes a FOG page (<https://www.akronohio.gov/cms/site/FOG/index.html>) identifying the effects of fats, oils, and grease discharged into the sewer system and things property owners can do to prevent aforementioned discharges.
- B. Akron Waterways Renewed Team developed a Program website (<http://akronwaterwaysrenewed.com>) which includes a link to the City’s educational FOG brochure, among the topics covered was that of the proper handling of fats, oils, and grease.

### 3.H Green Infrastructure Performance Reporting

Green Infrastructure Performance Reporting can be found in Appendix H.

## Section 4: Mud Run Pump Station

### 4.A Status of Mud Run Study and Report of Findings

<b>Status of Study and Report of Findings</b>	No activity during this reporting period. The Report of Findings was submitted to USEPA on January 15, 2012.
<b>Date of Report Completion</b>	No activity during this reporting period. Report of Findings submitted on January 15, 2012, per the Consent Decree.
<b>Project Cost Incurred During Reporting Period</b>	Report complete. No costs incurred during the reporting period.

### 4.B Status of Mud Run Pump Station Remedial Report

<b>Status of Remedial Report</b>	The Remedial Report is complete.
<b>Date of Report Completion</b>	The Remedial Report was completed on October 15, 2012. Additional comments were received after completion and were included in the revised Remedial Report submitted on August 13, 2013. Final written approval dated February 26, 2014 was received via email on March 3, 2014.
<b>Project Cost Incurred During Reporting Period</b>	Report complete. No costs incurred during the reporting period.

### 4.C Status of Mud Run Pump Station Design and Construction of Projects

<b>Projects Status</b>	Table 4-1 shows the current status of the Mud Run Pump Station design projects. Table 4-2 shows the current status of the Mud Run Pump Station construction projects.
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**Table 4-1 Status of Mud Run Pump Station Design Projects**

<b>Project</b>	<b>Status</b>
Mud Run Trunk Sewer Lining	Design complete
Sevilla Trunk Sewer Reconstruction	Design complete
Mud Run Pump Station Improvements	Design complete
Mud Run Storage Basin Improvements	Design complete
Mud Run District Capacity Improvements	Design complete
Mud Run District Infiltration/Inflow Improvements	Design complete

**Table 4-2 Status of Mud Run Pump Station  
Construction Projects**

<b>Project</b>	<b>Status</b>
Mud Run Trunk Sewer Lining	Construction is 100% complete
Sevilla Trunk Sewer Reconstruction	Substantially complete as of December 24, 2021
Mud Run Pump Station and Storage Basin Improvements***	Construction is 100% complete
Mud Run District Capacity Improvements***	Construction is 100% complete
Mud Run District I/I Repairs	Construction is 100% complete
Mud Run District I/I Rehabilitation	Construction is 100% complete
NOTE: *** projects indicate those required for CD compliance.	

Construction of the Mud Run Pump Station and Storage Basin is complete.

Mud Run District I/I Repairs is complete.

Mud Run District I/I Rehabilitation is complete.

The Mud Run District Capacity Improvements project is complete.

**Anticipated Date  
of Report  
Completion**

The Report of Findings was completed on January 15, 2012. The Remedial Report was submitted on August 13, 2013. Approval of the Remedial Report was issued on February 26, 2014. On October 31, 2014, a letter was issued by USEPA that agrees to extend the October 15, 2015 construction deadline set forth in paragraph 25 of the Consent Decree to January 8, 2016 in order to construct and achieve full operation of the projects approved under the Mud Run Pump Station Remedial Report. The projects marked with \*\*\* will require an Achievement of Full Operation date of January 8, 2016 to be in compliance with the Consent Decree. The other projects are not required to be completed by January 8, 2016 since the anticipated I/I reductions were not used in determining the required storage basin capacity to meet the Consent Decree requirements.

**Project Cost  
Incurred During  
Reporting Period**

Mud Run District Capacity Improvements - Project complete  
Mud Run Pump Station & Storage Basin - Project complete  
Mud Run District I/I Repairs - Project complete  
Mud Run District I/I Rehabilitation - Project complete  
Sevilla Trunk Sewer Reconstruction - \$1,207,779.70

## Section 5: Supplemental Environmental Project

The City's third and final payment to the Supplemental Environmental Project (SEP) escrow account was made during the January – July 2011 reporting period. At the request of the State of Ohio, the City transferred the funds in the SEP escrow account (\$905,972.49) to the Friends of the Crooked River, via wire transfer. The wire transfer occurred on October 13, 2017, and the State of Ohio was provided with confirmation of the wire transfer. The City is not required to do anything further regarding the SEP.

## Section 6: Other Necessary Information

On October 31, 2014, U.S. EPA and Ohio EPA approved the City's request to remove certain manholes and sewer segments from the City's CMOM inspection and cleaning program. The list included three sewer segments that are tributary to the Ohio Canal Interceptor, and were scheduled to be abandoned at the time that the OCIT becomes operational. (Subsequent to receiving the October 31, 2014 letter, the City renumbered segment ID 367480 to 755830.) Page 3 of the letter includes the following provision related to the three specific sewer segments that are tributary to the Ohio Canal Interceptor:

If the City chooses not to abandon or eliminate these sewers by December 31, 2018, you must notify EPA and OEPA of this decision in writing, and you will have to inspect, clean, provide a conditional assessment and correct deficiencies in compliance with Attachment C, Section 2 of the CD no later than April 30, 2019.

The City was unable to abandon these lines until the OCIT project had been completed and the tunnel became operational. The City submitted its original request to remove these segments from the CMOM inspection and cleaning cycle because these segments carry high velocity flows that prevent the City from inspecting and cleaning the segments. Due to the high velocity flows, it is believed that these sewer segments are self-cleaning.

The City determined to abandon two of these segments at the time the OCIT tunnel became fully operational on June 13, 2020. Segment 368243 will not be abandoned. On August 3, 2020, the segment was inspected and defects to the invert of the brick sewer were identified. As a result of the inspection that City was able to confirm that this segment was self-cleaning due to the high velocity flows. As a result, no additional cleaning was required for this segment. Invert repairs were made on September 24, 2020 and the segment was reinspected on September 29, 2020. This segment was lined in March 2021.