



DANIEL HARRIGAN, MAYOR

City of Akron
Consent Decree
Semi Annual Report
January 1, 2016 – June 30, 2016

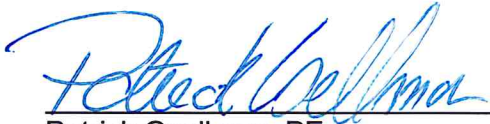
August 16, 2016



Department of Public Service
Akron Engineering Bureau
Environmental Division

**City of Akron
Consent Decree
Semi Annual Report
January 1 – June 30, 2016**

August 15, 2016



Patrick Gsellman, PE,
AWR Program Manager



James Andrew Hewitt, PE
Akron City Engineer



Michelle DiFiore, PE
Interim Environmental Division Manager



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**Semi-Annual Report
January 1 – June 30, 2016**

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List of Abbreviations and Acronyms

AFP	Advanced Facilities Plan
CAG	Community Action Group
CCTV	Closed-Circuit Television
CD	Consent Decree
CIPP	Cured in Place Process
CMOM	Capacity, Management, Operations, and Maintenance
CSO	Combined Sewer Overflow
CSS	Combined Sewer Systems
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
IP	Integrated Plan
IPF	Integrated Planning Framework
IPS	Integrated Plan Stakeholders
LCI	Little Cuyahoga Interceptor
LF	Lineal 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
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
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

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)

Status of Work Plan Development	The Work Plan for Water Pollution Control Station (WPCS) improvements was submitted to EPA on February 10, 2010 per the Consent Decree.
Status of Design and Construction Activities	No activity during this reporting period.
Status of Stress Test Protocol Development	No activity during this reporting period.
Status and Results of Stress Tests	The Final Demonstration Testing Evaluation Report was submitted to EPA on October 15, 2015 per the Consent Decree.
Capacity Achieved at the WPCS After Upgrade	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.
Project Cost Incurred During Reporting Period	Project costs incurred during the reporting period were approximately \$7,667.

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

Activities Undertaken During Reporting Period	Project is complete. Project close out at the end of the one-year guarantee period.
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.2 Rack 25 Separation Project

Activities Undertaken During Reporting Period Project is complete. Project close out at the end of the one-year guarantee period.

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 The project was bid June 16, 2016. Activities to secure funding and necessary permits are ongoing.

Status of Construction Construction will begin on the separation of one of the remaining racks within six (6) years of November 13, 2009 (Date of Lodging).

Date of Anticipated Completion Construction on Rack 21 will be complete within 8 years of November 13, 2009 (Date of Lodging).

Project Cost Incurred During Reporting Period Project costs incurred during the reporting period were approximately \$110,098.

1.C.4 Rack 13 Separation Project**Activities
Undertaken
During Reporting
Period**

The sanitary sewer separation was completed on May 26, 2016. Rack 13 (asset #304586) was complete May 16, 2016. The change from 36" combined sewer to slip lined 8" HDPE DR-17 sanitary for a part of segment # 368589 and all of segment # 368590 (total of 405 LF) was completed May 13, 2016.

**Status of
Construction**

Construction began November 12, 2015.

**Date of
Anticipated
Completion**

Construction will be complete by November 13, 2016.

**Project Cost
Incurred During
Reporting Period**

Project costs incurred during the reporting period were approximately \$1,850,835.99.

1.C.5 Rack 30 Separation Project**Activities
Undertaken
During Reporting
Period**

Design 90% complete. Plans were sent for review on June 2, 2016.

**Status of
Construction**

Construction will begin on the separation of one of the remaining racks within 6 years of November 13, 2009 (Date of Lodging).

**Date of
Anticipated
Completion**

Construction on Rack 30 will be complete within 8 years of November 13, 2009 (Date of Lodging).

**Project Cost
Incurred During
Reporting Period**

Project costs incurred during the reporting period were approximately \$26,765.

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

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

Development of an Integrated Plan

The City's LTCP Update was approved by U.S. EPA 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 subsequently requested the opportunity to participate in the USEPA's Integrated Planning process. The City has continued to comply with the requirements within the Consent Decree, including, but not limited to, the LTCP while it develops and obtains approval of an Integrated Plan.

The City submitted an Integrated Plan on July 31, 2015 in accordance with USEPA's June 5, 2012 Integrated Planning Framework (IPF) Guidance. The following summarizes the Integrated Plan activities that were implemented during this reporting period:

- Technical and legal meetings with USEPA and DOJ to discuss the Integrated Plan and proposed alternative project components that meet the City's goal to achieve environmental benefits at an affordable cost are ongoing. The discussions include:
 - Main Outfall Capping Project
 - WPCS Phase 2 Dates
 - Kelly Optimized Alternative (CSO Rack 3)
 - Hazel Storage Basin (CSO Rack 10/11)
 - Memorial Optimized Alternative (CSO Rack 26/28)
 - Uhler Optimized Alternative (CSO Rack 27/29)
 - Carpenter Optimized Alternative (CSO Rack 30)
 - Northside Interceptor Tunnel Alternative Projects
 - Ohio Canal Interceptor Tunnel – EHRT Enhanced Alternative Projects
 - CMOM Condition Based Approach
- Prepared legal and technical documentation to support the joint motion to the Court for modifications to the LTCP. These projects include the Main Outfall Capping Project to replace the Main Outfall Parallel Sewer and Pump Station, and resequencing the bid and AFO dates for the WPCS Phase 2 projects.
- Successfully received case team support for three alternative projects: Kelly, Hazel, and Uhler.

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. In addition, under USEPA's Integrated Plan Framework, during this reporting period the City also initiated Long Term Control Plan Optimization to evaluate and identify alternative solutions for each of the controls listed in the LTCP Update.

**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	Storage Basin(s)	Bidding of Control Measure – June 30, 2018. Achievement of Full Operation – November 30, 2020.	No advanced facilities planning or design activities were undertaken during this reporting period. Grant applications were submitted for two of the green infrastructure projects.	No costs were incurred during this reporting period.
2	Rack 5 and 7	Storage Basin(s) (converted to green project per Exhibit 3)	Bidding of Control Measure – October 31, 2015. Achievement of Full Operation – October 31, 2017.	Hazen and Sawyer submitted 90% and 100% design documents for the selected alternative, complete sewer separation with green infrastructure. HM Miller was selected as the CMAR and the board of control approved the final GMP on June 6/13/16 and the NTP given on 6/21/16. WPCLF Loan award on 6/30/2016.	Project costs incurred during the reporting period were approximately \$2,104,643.81 (land acquisition not included in cost).
3	Racks 10 and 11	Storage Basin(s)	Bidding of Control Measure – June 30, 2018. Achievement of Full Operation – December 31, 2020.	Advanced facilities planning activities have begun.	Project costs incurred during the reporting period were approximately \$61,525.75.
4	Rack 12	Storage Basin(s)	Bidding of Control Measure – November 30, 2014. Achievement of Full Operation – October 31, 2017.	Construction NTP issued May 29, 2015. Basin exterior walls complete, knee walls complete and diversion structure walls.	Project costs incurred during the reporting period were approximately \$6,602,107.00.
5	Rack 14	Storage Basin(s)	Bidding of Control Measure – October 31, 2014. Achievement of Full Operation – April 30, 2017.	Construction of the 2M gallon basin and the operations building are complete. MEP in the operations building is nearly complete. Final site work has begun.	Project costs incurred during the reporting period were approximately \$2,933,069.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
6	Rack 15	Storage Basin(s)	Bidding of Control Measure – November 30, 2013. Achievement of Full Operation – October 31, 2015.	Project complete. Awaiting final CO and pay application.	Project costs incurred during the reporting period were approximately \$694,066.02.
7	Rack 22	Storage Basin(s) (converted to green project per Exhibit 3)	Bidding of Control Measure – October 31, 2015. Achievement of Full Operation – December 31, 2017.	The design of the selected alternative, sewer separation with an upsized underflow and green infrastructure, continued. 90% and 100% design documents were completed. CMAR construction contract awarded January 4, 2016.	Project costs incurred during the reporting period were approximately \$1,396,268.49.
8	Rack 26 and 28	Storage Basin(s)	Bidding of Control Measure – October 31, 2021. Achievement of Full Operation – December 31, 2022.	No advanced facilities planning or design activities were undertaken during this reporting period.	No costs were incurred during this reporting period.
9	Rack 27 and 29	Storage Basin(s)	Bidding of Control Measure – January 31, 2018. Achievement of Full Operation – December 31, 2019.	No advanced facilities planning or design activities were undertaken during this reporting period.	No costs were incurred during this reporting period.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
10	Rack 36	Storage Basin(s) (converted to green project per Exhibit 3)	Bidding of Control Measure – October 31, 2015. Achievement of Full Operation – October 31, 2017.	The design of the selected alternative, complete sewer separation with green infrastructure, continued. 90% and 100% Design documents were completed. A request for the final GMP was issued on February 29, 2016 and the final GMP was received on March 25, 2016. The PTI was issued on June 13, 2016. The construction Notice to Proceed was issued on June 15, 2016.	Project costs incurred during the reporting period were approximately \$821,511.45.
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.	Bidding of Control Measure – April 30, 2014. Achievement of Full Operation – December 31, 2018.	Notice to proceed was issued November 6, 2015. Construction is on-going.	Project costs incurred during the reporting period were approximately \$28,884,816.53.
11a	Racks 16, 17, 18, 19, 20, 23, 24	Ohio Canal Tunnel – BioACTIFLO™ 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 during this period as part of the Integrated Plan. No advanced facilities planning or design activities were undertaken during this reporting period.	No costs were incurred during this reporting period.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During 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.	Bidding of Control Measure – April 30, 2023. Achievement of Full Operation – December 31, 2026.	LTCP optimization was performed during this period as part of the Integrated Plan. No advanced facilities planning or design activities were undertaken during this reporting period.	No costs were incurred during this 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 completed (see Section 1.A of this Semi Annual Report).	Project costs incurred during the reporting period were approximately \$7,667.
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 this reporting period.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During 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.	<p>Pilot Study Start Date – May 1, 2012.</p> <p>Pilot Study Completion Date – November 30, 2013.</p> <p>Pilot Study Report submitted to EPA by December 31, 2013.</p>	U.S. EPA issued a concurrence letter on April 8, 2015.	No costs were incurred during this reporting period.
15	WPCS Phase 2 – Part 1	Upgrade conventional secondary treatment capacity to 170 MGD	<p>Bidding of Control Measure – February 28, 2019.</p> <p>Achievement of Full Operation – December 31, 2021.</p>	<p>100% Design documents were completed. The PTI was issued on May 11, 2016. A Request for Qualifications was issued on February 2, 2016. Qualification Statements were received on March 1, 2016. A Request for Proposals was issued on April 13, 2016. Proposals were received on June 9, 2016. The contract was awarded to The Great Lakes Construction Company on June 27, 2016.</p> <p>The parties have engaged in technical discussions, and the City has submitted supporting documentation in advance of a formal request to change the sequence of the Phase 2, Part 1 and Part 2 projects.</p>	Project costs incurred during the reporting period were approximately \$715,982.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During 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.	No activities were undertaken during this reporting period.	No costs were incurred during this 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.	Bidding of Control Measure – February 28, 2019. Achievement of Full Operation – December 31, 2021.	U.S. EPA issued an approval of Alternative Plan A on February 11, 2016.	No costs were incurred during this reporting period.

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 BioACTIFLO™ ballasted flocculation to achieve the minimum capacity specified in Alternative Plan A 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.	See Response to Row 17.	No costs were incurred during this reporting period.
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 this 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 this reporting period.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
(2) Collection System Measures					
21	Parallel Relief Interceptor and Pump Station	Installation of parallel relief sewer between Survey Station 88+00 and the WPCS and associated pump station to convey wastewater to WPCS.	<p>Bidding of Control Measures: Parallel Relief Interceptor – July 31, 2015. Pump Station – November 30, 2015.</p> <p>Achievement of Full Operation: November 30, 2017.</p>	<p>Due to physical constraints in the upper end of the MOI, and after consultation with U.S. EPA and Ohio EPA, the City implemented a Pilot Capping Project replacing the brick arch cap on the first 287 feet of the MOI with a rectangular concrete cap. Since the Pilot Capping Project was a component of the overall MOI project, and completed prior to the bid date, the City met the bid date for the MOI Project.</p> <p>Great Lakes Construction Company was given notice to proceed February 3, 2016. Construction of the capping is approximately 35% complete.</p>	Project costs incurred during the reporting period were approximately \$7,135,496.
22	Main Outfall Sewer	Perform inspections 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 the Main Outfall Sewer Supplement to the Approved CMOM Program.	Project complete.	Project closeout costs incurred during the reporting period were approximately \$5,797.

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 and program management of \$4,195,253.00 during the reporting period.

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

The Post-Construction Monitoring Program was submitted on August 15, 2010, in the revised Long Term Control Plan on February 29, 2011, and a revised Program was submitted for review on December 14, 2012.

2.E Listing of All CSO Discharges

CSO discharges from each CSO Outfall for the period January 1, 2016, through June 30, 2016, 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 8, 9, 25, 30, 31, 38 and 39 are not included in the table. Racks 8, 9, 25 and 39 were separated on May 21, 2012, July 27, 2004, April 26, 2012 and August 18, 2000, respectively. Racks 30 and 31 have been consolidated with Rack 40 into the 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! Stakeholder Group – formerly known as the Integrated Plan Stakeholder Group and as the CSO Community Action Group (CAG), prior to that. During the reporting period, the following AWR! Stakeholder group meeting was held:

- AWR! Stakeholders Group Meeting (January 15, 2016 and April 14, 2016)

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

- Multiple Outreach meetings with partners regarding the Cuyahoga Valley Scenic Railroad and Towpath closures (Jan 2016 – March 2016)
- Merriman Separation – Green Project (CSO Rack 36) design update (January 28, 2016)
- Middlebury Separation – Green Project (CSO Rack 5&7) design update (March 1, 2016)
- North Hill Separation – Green Project (CSO Rack 22) design update (March 1, 2016)
- Meeting with NEORSD for best practices (March 1, 2016)
- Walk the Canal Tour with Ohio & Erie Canal (April 2016)
- AWR! Stakeholders Meeting (April 14, 2016)
- Consultant Meet and Greet Outreach (April 18, 2016)
- STEM Introductions for the All Akron Student Engineering Program (April 20, 2016)

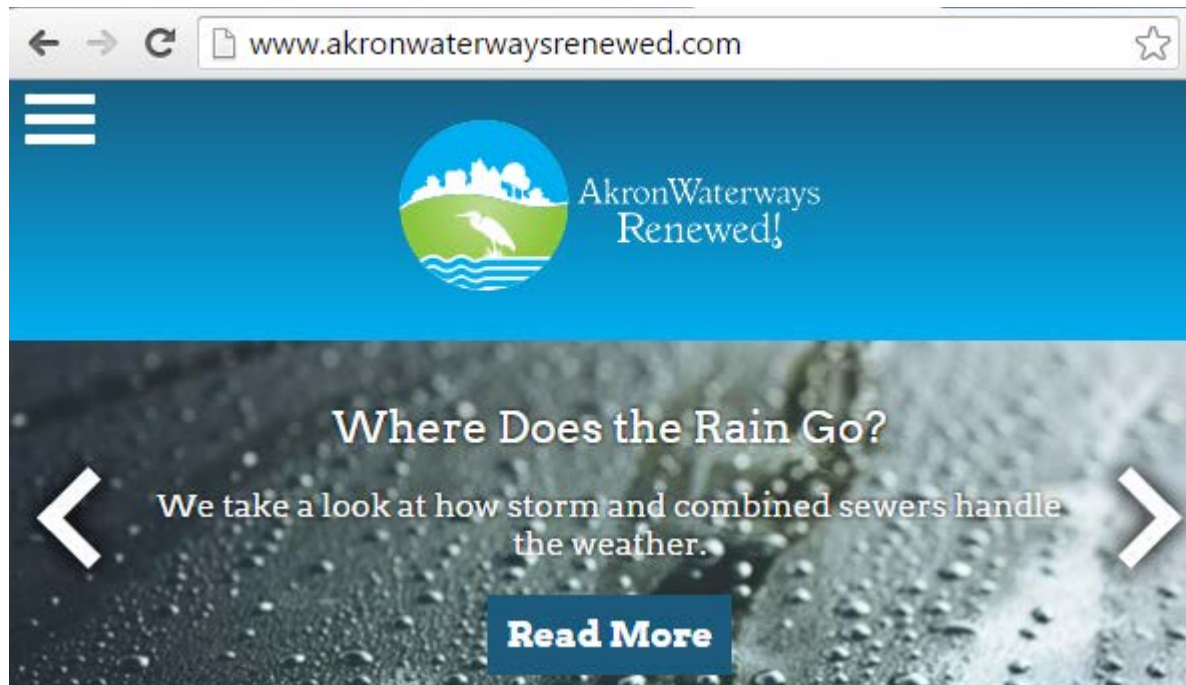
- Mascot Day at the Zoo (April 30, 2016)
- Mascot Day at the RubberDucks game (May 4, 2016)
- 2nd Annual Blue Heron Homecoming (May 7, 2016)
- Neighborhood Meeting for Middlebury Residents (May 17, 2016)
- Northeast Ohio Lakes and Rivers Conference (May 18, 2016)
- AWR! Site tour for Council (June 2016)
- East Akron Communities Foundation Update (June 14, 2016)
- Merriman Separation –Green Project (CSO Rack 36) construction update (June 30, 2016)
- Family Derby Day outreach (June 22, 2016)
- Numerous Council updates over the timeframe
- Quarterly Meetings Hosted by Downtown Akron Partnership for Northside District, Historic Arts District, Canal District, (March 14, 2016, April 14, 2016, May 12, 2016 and June 16, 2016)

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). The website has been redesigned to facilitate ease of use and to incorporate videos. Figure 2-1 is a picture of the home page of the redesigned AWR website.

The City of Akron has also established a Facebook page for the Akron Waterways Renewed Program. The link for this page is 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.



Akron Waterways Renewed!

One of Akron's most valuable assets is its abundant supply of fresh water. It represents an important asset that has benefited the people of Akron for over a century through economic growth and prosperity.

Figure 2-1 Akron Waterways Renewed Home Webpage

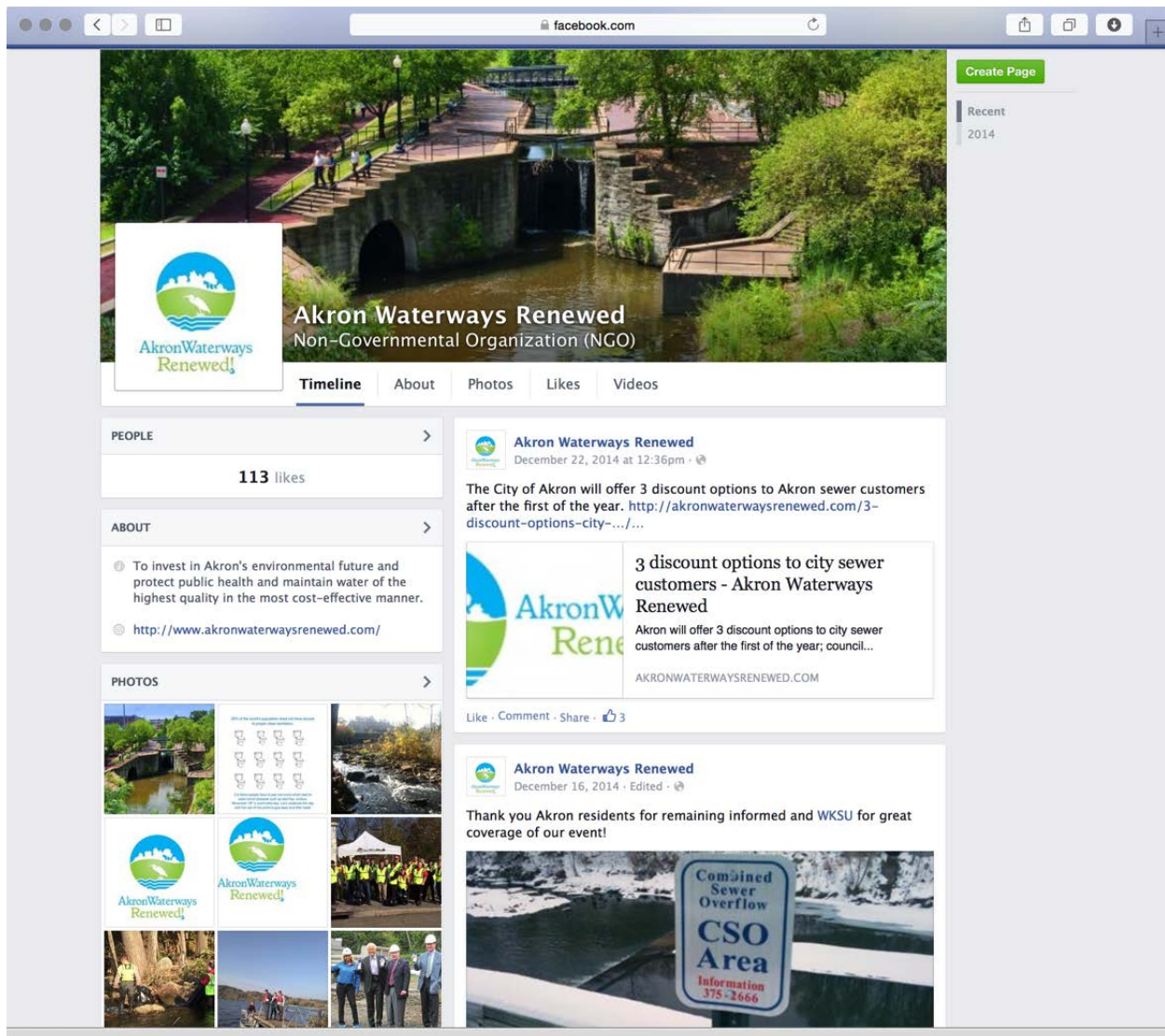


Figure 2-2 Akron Waterways Renewed Facebook Page

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, 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
January 1 - June 30, 2016	41.0	4.8*	202.6	23.9*	202.6	23.9*	243.6	28.7*

*Based on 847.3 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
January 1 - June 30, 2016	2027.0	10.8*	5069.0 ⁺	26.9*	5069.0 ⁺	26.9*	7096.0	37.6*

*Based on 18,849 manholes in system

⁺Due to a reporting error discovered during this reporting period, 142 manhole inspections that were not reported during the previous two semi-annual reports are now included in the table.

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
January 1 - June 30, 2016	41.0	4.8*	202.6	23.9*	202.6	23.9*	243.6	28.7*

*Based on 847.3 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. 2,169 manholes were inspected during the period beginning January 1 through June 30, 2016, and none were documented to have signs of heavy infiltration.
- C. The following sewer construction and rehabilitation projects were completed or are on-going within the City of Akron during the reporting period:
 - a) Sanitary Sewer Reconstruction 2014, Phase I (File 2012-005-00)
To rehabilitate the City's sanitary and combined sewer system, part of the City's annual sewer reconstruction program.
 - b) Sanitary Sewer Reconstruction 2014, Phase II (File 2014-012-00)
To rehabilitate the City's sanitary and combined sewer system, part of the City's annual sewer reconstruction program.
 - c) Shullo Drive/Weathervane Lane Pump Stations (2011-040-00)
Pump station rehabilitation as a result of existing equipment reaching the end of its useful life.
 - d) White Pond Pump Station (2014-013-01)
Pump station rehabilitation as a result of existing equipment reaching the end of its useful life.
 - e) White Pond Parkway Sewer Extension (2015-049-00)
Extend and reconstruct the existing sanitary sewer system to serve the proposed development on White Pond Parkway.
 - f) Dan Street Sewer Separation (CSO Rack 13) (File 2012-060-00)
The existing combined sewer system is being separated into a stormwater system and a sanitary sewer system. This will eliminate combined sewer overflows from the Rack 13 drainage basin.
 - g) Wilbeth Road (Dallas to I77) (File 2009-029-00)
Perform sanitary sewer reconstruction in preparation for roadway improvements.
 - h) Mud Run Pump Station and Storage Basin (File 2012-048-05)
Rehabilitation of the Mud Run Pump Station in addition to the construction of a 1.4 MG storage basin to contain the 10-yr frequency 24-hour duration storm event.
 - i) Mud Run I/I Rehabilitation (File 2012-048-08)
CIPP reconstruction of the sanitary sewer system to reduce/eliminate inflow and infiltration.
 - j) Mud Run I/I Repairs (File 2012-048-07)
Open-cut reconstruction of the sanitary sewer system to reduce/eliminate inflow and infiltration.

- k) Seiberling Street Sewer (2013-030-00)
Construction of a 24" diameter sanitary sewer on Seiberling Street from Innovation Way to Archwood Avenue based on the Sanitary Sewer Master Plan developed in 2009 for the Goodyear Redevelopment Area. In addition, the project will include sewer lining, replacement of a few minor local sewers to maintain service to several existing businesses, and abandonment of sewers that will not be utilized after completion of the project.
- l) CSO Rack 15 Storage Basin (File 2012-030-00)
Construction of a 1.6 MG storage basin to control combined sewer overflows.
- m) CSO Rack 12 Storage Basin (File 2012-066-00)
Construction of a 6.5 MG storage basin to control combined sewer overflows.
- n) CSO Rack 14 Storage Basin (File 2012-067-00)
Construction of a 2.0 MG storage basin to control combined sewer overflows.
- o) Main Outfall Sewer Cap (File 2012-052-00)
Rehabilitation of 7,795 feet of the 90"x144" Main Outfall Sewer by providing a new, reinforced, pneumatically placed mortar cap.

- D. Root control program activities were conducted in accordance with Item 2.K of the approved CMOM program. The Root List, part of the overall Trouble Spot 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.

The City of Akron continues to monitor the pilot program of utilizing a chemical root control for sanitary sewer assets 402255, 402456, 406262, 418222, 432377, and 435635. The City of Akron had contracted with Duke's Root Control Incorporated to perform this application. The City continues to monitor these assets with Duke's Root Control in order to evaluate the results of this program to determine if it is more effective and economical to use this approach versus mechanical cutting, performed by in-house crews, thereby freeing up resources to perform other proactive, system work.

- E. Training activities were conducted on the following topics. Date of training and number of employees receiving training are indicated in Table 3-4.

Table 3-4 Training Activities

Date	Course Title/Description	Number of Employees
1/13, 1/14, 1/15, 1/19/2016	Timing is Everything – Shift Work	39
2/11, 2/12, 2/16, 2/18/2016	Digging Dangers	33

Date	Course Title/Description	Number of Employees
3/15/2016	Sewer Cleaning Definitions – SOP Training	17
3/29, 3/31/2016	CMOM/SORNP Training	22
3/30, 3/31, 4/1/2016	Where are Your Hands	35
4/21, 4/22, 4/25, 4/26/2016	Heavy Equipment Operation	38
5/10/2016	PACP – Re-Certification	9
5/25, 5/26, 5/27, 6/1	Carbon Monoxide	37
6/14, 6/15, 6/19, 6/22/2016	Ohio Canal Interceptor Site Safety	23

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 trouble spots 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 3-5 Releases Caused by Fats, Oils and Grease

Date	Location	Type of Release (SSO, Rack, Property Backup)	Add to FOG Trouble Spot List
2/17/2016	56 Royal Place	SSO	Yes
3/5/2016	1200 West Portage Trail	SSO	Yes
3/21/2016	1614 Hillside Terrace	Property Backup	Yes
4/11/2016	950 Grant 955 Grant	Property Backup	Yes
4/15/2016	730 Home	Property Backup	Yes

3.G.2 List of FOG Trouble Spots

A complete list of FOG Trouble Spots 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. 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.
- B. On May 7, 2016, the City of Akron distributed educational information on the proper disposal of grease to visitors of The Blue Heron Homecoming, an environmental festival and open house. This event, sponsored in part by the City of Akron, allowed visitors to learn about the local eco system and tour the Akron Water Reclamation Facility. The event celebrated the accomplishments of Akron's wastewater treatment plant and the flock of blue herons that for more than a decade has turned the City property into a rookery – a breeding place for heron families. In addition, the City of Akron displayed equipment used to clean and inspect the City's sewer system which included an above ground mockup of a sanitary sewer run between two manholes. This sanitary sewer mockup featured a window cut out of the sewer pipe to allow visitors to view the camera as it performed an inspection within the pipe.

Section 4: Mud Run Pump Station

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

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

4.B Status of Mud Run Pump Station Remedial Report

Status of Remedial Report	The Remedial Report is complete.
Date of Report Completion	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.
Project Cost Incurred During Reporting Period	Report complete. No costs incurred during the reporting period.

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

Projects Status	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

Project	Status
Mud Run Trunk Sewer Lining	Design complete
Sevilla Trunk Sewer Reconstruction	Design 90% 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

Project	Status
Mud Run Trunk Sewer Lining	Construction is 100% complete
Sevilla Trunk Sewer Reconstruction	Bid Fall 2016
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 50% complete
Mud Run District I/I Rehabilitation	Construction is 30% complete
NOTE: *** projects indicate those required for CD compliance.	

Construction of the Mud Run Pump Station and Storage Basin is complete. The contractor is working on the punch list and close-out documentation. The contractor will be complete with punch list in August of 2016.

Mud Run District I/I Repairs started construction in February of 2016. The contractor is currently 50% complete.

Mud Run District I/I Rehabilitation started pre-TV and pre-cleaning in February of 2016. The contractor started lining of sewers in May of 2016. The contractor is currently 30% complete.

The Mud Run District Capacity Improvements project is complete. The completion date was September 16, 2015.

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

Project costs incurred during the reporting period were approximately Mud Run District Capacity Improvements - \$0.00
Mud Run Pump Station & Storage Basin - \$3,825,100.43
Mud Run District I/I Repairs - \$621,060.29
Mud Run District I/I Rehabilitation - \$218,101.50

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. No additional SEP payments are due; therefore, no payments were made during the current reporting period.

Section 6: Other Necessary Information

Not applicable