Mayor

Jeff Fusco
Service Director
John O. Moore

City of Akron

Consent Decree Semi Annual Report January 1, 2015 – June 30, 2015

August 14, 2015

Department of Public Service Akron Engineering Bureau **Environmental Division**

City of Akron Consent Decree Semi Annual Report January 1 – June 30, 2015

August 14, 2015

Environmental Division Manager

Akron City Engineer

Michael Musgrave, Program Director

Water Reclamation Services Manager

Prepared by:

MWH Global 146 South High Street, Suite 800 Akron, OH 44308

AEB Project Manager: Patrick D. Gsellman, PE AEB Environmental Division City Engineer: James Andrew Hewitt, PE City of Akron

Semi-Annual Report January 1 – June 30, 2015

Table of Contents

		Page No.
1.	SPECIFIC ACTION PROJECTS	1
2.	CSO AND WPCS CONTROL MEASURES	4
3.	CMOM, GREASE CONTROL & EMERGENCY RESPONSE PROGRAMS	21
4.	MUD RUN PUMP STATION	79
5.	SUPPLEMENTAL ENVIRONMENTAL PROJECT	82
6.	OTHER NECESSARY INFORMATION	82
APPE	NDICIES	
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	

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

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 The Technical Memorandum for the detailed clarifier test procedures to be used during the Year 2 Evaluation was completed.

Status and Results of Stress Tests Testing during Wet Weather events are ongoing. Additional Clarifier Testing was completed in April 2015. Progress meetings were held on February 6 and June 4, 2015 to review the testing results.

Capacity Achieved at the WPCS After Upgrade

Information will be provided based on the testing results.

Project Cost Incurred During Reporting Period Project costs incurred during the reporting period were approximately \$62,230.

1.B Upgrade of the WPCS (Contingency Projects)

Per the Akron Consent Decree 2009 Modifying Train 6 to Step Feed Mode Work Plan, dated February 10, 2010, the scope of the WPCS Contingency Project will be defined after the limitations of upgrading Secondary Treatment Train 6 to step feed mode are better understood.

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 quarantee period.

Status of Construction is complete.

Construction

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 Project is complete. Project close out at the end of the one-year guarantee period.

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 Integrated Plan Long Term Control Plan Optimization was initiated in February 2015 to identify and evaluate opportunities and other alternative solutions for CSO reduction. Design is approximately 85% complete.

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 \$45,392.

1.C.4 Rack 13 Separation Project

Activities Undertaken During Reporting The Integrated Plan Long Term Control Plan Optimization was initiated in March 2015 to identify and evaluate opportunities and other alternative solutions for CSO reduction.

Period Design is complete. The City is currently soliciting proposals (bids) for

the construction of the project.

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 13 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

\$8,448.

1.C.5 Rack 30 Separation Project

Activities
Undertaken
During Reporting
Period

Design on hold.

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

a \$500.

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 Date of Anticipated Completion
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 Withdrawn: December 17, 2013
Report on Revising WPCS Control Measure(s) if Akron achieves 130 MGD through secondary treatment using step feed	October 15, 2016	October 15, 2016
Report on Revising WPCS Control Measure(s) if Akron constructs the WPCS Contingency Project	October 15, 2017	October 15, 2017

Development of an Integrated Plan

On December 17, 2013, the City of Akron withdrew its Long Term Control Plan (LTCP) Update due to significant prolonged delay in the entry of the proposed Consent Decree and the increase in the cost to implement the City's program. However, the LTCP Update was incorporated into a court-approved Consent Decree on January 17, 2014. The City has continued to comply with all requirements within the Consent Decree, including, but not limited to, the LTCP. The City subsequently requested the opportunity to participate in the USEPA's Integrated Planning process. As a result, the City has been developing and Integrated Plan 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:

- Continued LTCP project optimization activities, including:
 - Conducting additional flow monitoring
 - Completing recalibration of the hydraulic modeling based on the latest flow monitoring data
 - o Identifying and evaluating potential "green infrastructure" opportunities
 - Modeling the impacts of identified alternative LTCP projects versus originally defined LTCP projects
 - Conducting additional water quality modeling based on the alternative LTCP hydraulic modeling inputs and on stream sampling results
- Conducting IP Stakeholder Group meetings and workshops (see Section 2.G), including:
 - Finalizing benefit criteria and weights based on stakeholder input
 - Reviewing the potential range of green infrastructure alternatives along with identified specific green infrastructure project options
 - Discussing specific project details with affected subgroups of stakeholders
- Evaluating LTCP projects, LTCP alternative projects and IP projects, including
 - Developing project description summaries for each project on the IP Project List
 - Completing project scoring for each proposed project on the IP Project List based on the project scoring definitions
 - Updating cost estimates and project durations for the IP Project List projects
- Defining and evaluating possible IP project scenarios to find an overall project integration plan that meets the City's goal to achieve environmental benefits at an affordable cost
- Developing a prioritized schedule for IP project scenarios using an optimization decisionmaking software tool (i.e., Expert Choice Comparion™)

Affordability Analysis

The IP team completed a baseline financial capability assessment (FCA) of the 2010 LTCP updated with costs for 2014. The current state of affordability as evaluated under 1997 EPA Guidance for the City's residential customers was compared with the FCA completed in 2011. Calculations of the residential indicator (RI) and financial capability indicators were prepared that show a higher cost per household given the escalation in the 2010 LTCP costs and required projects. Subsequent financial analyses and reports were submitted to USEPA on July

16, 2014, and on September 11, 2014. The later reports included a Weighted Average Residential Index (WARi™) analysis that demonstrates income skew in the City based on neighborhood or census tract. The WARi approach uses actual customer billing data calculated for each census tract resulting in a more accurate depiction of the real financial impacts of individual households in neighborhoods over time as rates increase. This new index concludes that LTCP program costs will have a disproportionate burden on lower and fixed income households in the City.

USEPA Region 5 requested that the City's Master Meter customer information be included in the calculations of affordability. Since that request, the IP team has been working with the City and its Master Meter customers to compile the financial and customer data for inclusion in the FCA calculations. Due to the complexity of the data and the number of Master Meter customers involved, it has taken some time to assemble the required data and complete the analyses requested by USEPA.

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 activities were undertaken during this reporting period	No costs were incurred during this reporting period.
				The Long Term Control Plan Optimization and Technical Memorandum were completed. The Advanced Facilities Plan Update was completed. Complete sewer separation with green infrastructure was the selected alternative.	
2	Rack 5 and 7	Storage Basin(s)	Bidding of Control Measure – October 31, 2015. Achievement of Full Operation – October 31, 2017.	A modification request pursuant to Exhibit 3 of the LTCP Update was submitted to USEPA and Ohio on April 7, 2015. Since the submission of the modification request, the City has participated in multiple technical calls with USEPA and Ohio EPA, and the City has submitted additional documentation in response to requests from USEPA. USEPA and Ohio EPA team members have informed the City that a recommendation for approval of the modification request will be made to their respective superiors. The City will supplement the modification request to address USEPA's and Ohio EPA's remaining comments.	Project costs incurred during the reporting period were approximately \$21,260.
				A contract for the design of the selected alternative is being negotiated.	

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period	
3	Racks 10 and 11	Storage Basin(s)	Bidding of Control Measure – June 30, 2018. Achievement of Full Operation – December 31, 2020.	No activities were undertaken during this reporting period.	No costs were incurred during this reporting period.	
			Bidding of Control Measure – November 30, 2014.	Construction NTP issued May 29, 2015.	Project costs incurred	
4	Rack 12	Storage Basin(s)	Achievement of Full Operation – October 31, 2017.	Sitework was completed and excavation for the storage basin is underway.	during the reporting period were approximately \$188,214.	
			Bidding of Control Measure – October 31, 2014	Construction NTP issued March 27, 2015.	Project costs incurred during the reporting	
5	Rack 14	Storage Basin(s)	Achievement of Full Operation – April 30, 2017.	Sitework was completed and construction of basin walls is in progress.	period were approximately \$1,120,473.	
			Bidding of Control Measure – November 30, 2013.	Construction NTP issued July 14, 2014.	Project costs incurred	
6	Rack 15	Rack 15 Sto	Storage Basin(s)	Achievement of Full Operation – October 31, 2015.	Sewer separation is complete. The mud mat for the basin was completed and rebar for the floor is being installed.	during the reporting period were approximately \$536,102.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
				The Long Term Control Plan Optimization and Technical Memorandum were completed. The Advanced Facilities Plan Update was completed. Partial sewer separation with offloading GI and an upsized underflow was the selected alternative.	
7	Rack 22	Storage Basin(s)	Bidding of Control Measure – October 31, 2015. Achievement of Full Operation – December 31, 2017.	A modification request pursuant to Exhibit 3 of the LTCP Update was submitted to USEPA on March 16, 2015. Since the submission of the modification request, the City has participated in multiple technical calls with USEPA and Ohio EPA, and the City has submitted additional documentation in response to requests from USEPA. The City continues to work with USEPA and Ohio EPA to respond to their questions regarding the modification request.	Project costs incurred during the reporting period were approximately \$21,383.
				Parallel designs were initiated for both the selected alternative that is the subject of the modification request, as well as the storage basin listed in Row 7 of the LTCP Update.	
8	Rack 26 and 28	Storage Basin(s)	Bidding of Control Measure – October 31, 2021. Achievement of Full Operation – December 31, 2022.	No 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
9	Rack 27 and 29	Storage Basin(s)	Bidding of Control Measure – January 31, 2018. Achievement of Full Operation – December 31, 2019.	No activities were undertaken during this reporting period.	No costs were incurred during this reporting period.
				The Long Term Control Plan Optimization and Technical Memorandum were completed. The Advanced Facilities Plan Update was completed. Complete sewer separation with green infrastructure was the selected alternative.	
10	Rack 36	Storage Basin(s)	Bidding of Control Measure – October 31, 2015. Achievement of Full Operation – October 31, 2017.	A modification request pursuant to Exhibit 3 of the LTCP Update was submitted to USEPA on February 19, 2015. Since the submission of the modification request, the City has participated in multiple technical calls with USEPA and Ohio EPA, and the City has submitted additional documentation in response to requests from USEPA.	Project costs incurred during the reporting period were approximately \$247,378.
				USEPA and Ohio EPA team members have informed the City that a recommendation for approval of the modification request will be made to their respective superiors. The City will supplement the modification request to address USEPA's and Ohio EPA's remaining comments.	
				The design of the selected alternative was initiated.	

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
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.	RFP for OCIT issued May 14, 2015.	Project costs incurred during the reporting period were approximately \$7,535,555.
11a	Racks 16, 17, 18, 19, 20, 23, 24	Ohio Canal Tunnel – BioACTIFLO TM 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 – October31, 2027.	No activities were undertaken during this reporting period.	No costs were incurred during this 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.	No 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
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.	The progress during reporting period for the WPCS Phase 1 – Upgrade of the WPCS is reported in Section 1.A of this Semi Annual Report.	Project costs incurred during the reporting period were approximately \$94,077.
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.	Not required. No activities were undertaken during this reporting period. Completed in item 13a above.	No costs were incurred during this reporting period.
14	WPCS Phase 1 BioACTIFLO TM 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.	Awaiting approval letter for the final report.	No costs were incurred during this 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.	30% Design documents were completed. Design activities continue.	Project costs incurred during the reporting period were approximately \$639,184.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
16	WPCS Phase 2 – Part 2	Install BioACTIFLO TM ballasted flocculation to treat all flow that does not receive conventional secondary treatment. In addition, all flows receiving BioACTIFLO TM 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.	No activities were undertaken during this reporting period.	No costs were incurred during this reporting period.
18	WPCS Alternative Plan A – Phase 2 – Part 2	Install BioACTIFLO TM ballasted flocculation to achieve the minimum capacity specified in Alternative Plan A approved by USEPA. In addition, all flows receiving BioACTIFLO TM 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.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During 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.	No activities were undertaken during this reporting period.	No costs were incurred during this reporting period.
20	WPCS Alternative Plan B – Phase 2 – Part 2	Install BioACTIFLO TM ballasted flocculation to achieve the minimum capacity specified in Alternative Plan B approved by USEPA. In addition, all flows receiving BioACTIFLO TM 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.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
(2) Co	ollection System Me	easures			
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	Bidding of Control Measures: Parallel Relief Interceptor – July 31, 2015. Pump Station – November 30, 2015. Achievement of Full Operation – November 30, 2017.	A modification request for this project was submitted to USEPA and Ohio EPA on February 4, 2015. Since the submission of the modification request, the City has participated in multiple technical calls with USEPA and Ohio EPA, and the City has submitted additional documentation in response to requests from USEPA. USEPA and Ohio EPA team members have informed the City that a recommendation for approval of the modification request will be made to their respective superiors. The City will supplement the modification request to address USEPA's and Ohio EPA's remaining comments. Cap replacement pilot project was completed on April 2, 2015, except for the realignment of the Towpath Trail, which is currently in progress. Design of the cap replacement project was progressed towards the 60% design level, while evaluating alternative capping methods.	Project costs incurred during the reporting period were approximately \$487,820.

Row #	Control Measure Location	Description	Critical Milestones	Progress During Reporting Period	Costs Incurred During Reporting Period
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.	Substantial completion occurred September 22, 2014.	Project costs incurred during the reporting period were approximately \$1,539.

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 approximately \$8,757,831 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. No construction of control measures was completed during the reporting period; therefore no post-construction monitoring activities were initiated.

2.E Listing of All CSO Discharges

CSO discharges from each CSO Outfall for the period January 1, 2015, through June 30, 2015, 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 Integrated Plan Stakeholder Group – formerly known as the CSO Community Action Group (CAG). During the reporting period, the following IP Stakeholder group meetings were held:

- IP Stakeholders Green Infrastructure Subcommittee Meeting (January 27, 2015)
- IP Stakeholders Group Meeting (March 19, 2015)
- IP Stakeholders Group Meeting (June 4, 2015)

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

- The Akron Public School Science Fair (January 24, 2015)
- AWR Public Meeting -- Merriman Sewer Separation Project/Rack 36 (January 28, 2015)
- AWR OCIT Pre-SOQ Meeting & Contractors Networking Event (February 17, 2015)
- Ward 8 Community Meeting (February 18, 2015)
- University of Akron's 2015 Spring Engineering and Science Career Fair (February 24, 2015)
- Professional Design and Engineering Outreach Networking Event (February 27, 2015)
- Women in Engineering Kids Career Day Event (February 28, 2015)

- AWR Professional Consultants Outreach Event (March 4, 2015)
- AWR Pre-Apprenticeship Program Site Tours (March 5, 2015)
- Cascade Village Scholars Club Recognition Event (March 5, 2015)
- AWR Local Contractors Panel Discussion Event (March 10, 2015)
- AWR Construction Workforce Pre-Apprenticeship Outreach Program (CWPOP) Graduation Ceremony (March 12, 2015)
- Ward 8 Community Meeting (March 18, 2015)
- AWR Public Meeting North Hill Separation-Green Project/Rack 22 (March 25, 2015)
- AWR Public Meeting Middlebury Separation-Green Project/Rack 5/7 (April 7, 2015)
- AWR Participation River Rat Revelry Cleanup (April 9, 2015)
- AWR Business Owners Meeting Main Outfall Interceptor Cap Pilot Project (April 14, 2015)
- AWR Participation Akron Zoo Event (April 18, 2015)
- AWR Participation Middlebury Park Cleanup (April 18, 2015)
- Ward 1 Community Meeting (April 25, 2015)
- Ohio Erie Canal Cleanup (April 25, 2015)
- The University of Akron Committee for the Future of Civil Engineering (CFCE) Awards Breakfast (April 30, 2015)
- AWR Participation 7th Annual Green Fair (May 1, 2015)
- AWR Community Meeting Cuyahoga Street/Hickory Street/Otto Street Community Event (May 6, 2015)
- AWR First Annual Blue Heron Homecoming Event (May 9, 2015)
- AWR Tree Planting Program (2-for-1) Kick-off (May 9, 2015)
- AWR OCIT and Local Contractors & DBE/EDGE/MBE/WBE Outreach Event (May 12, 2015)
- AWR OCIT Pre-Proposal Meeting and Networking Event (May 28, 2015)
- AWR Participation NCIT Stakeholders Meeting (June 3, 2015)
- AWR Ohio Canal Interceptor Tunnel Boring Machine Downtown Preview (June 23, 2015)

Copies of presentations are included in Appendix C.

The City of Akron has posted updated CSO information to its updated Akron CSO Program website (www.akronwaterwaysrenewed.com). Figure 2-1 represents the home page view of Akron's new CSO Program website.

The City of Akron has also established a Facebook page for the Akron CSO Program. The link for this page is www.facebook.com/akronwaterwaysrenewed. Figure 2-2 represents the Facebook page for the program.

Figure 2-1 New City of Akron CSO Program Website

Figure 2-2 Akron Waterways Renewed Facebook Page

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

General:

The City of Akron and USEPA have discussed buried manholes and inaccessible sewer segments in several technical conference calls and in a June 20, 2014 letter to the USEPA, the City requested removal of certain manholes and sewer segments that will be abandoned after 2014 from the City's CMOM cleaning and inspection cycle. This letter also requested postponement of cleaning and inspection until the end of 2015 of known inaccessible sewer system assets to allow time for the necessary construction work, and until the end of 2016 the postponement of cleaning and inspection of additional inaccessible sewer system segments discovered during the completion of the current cleaning/inspection cycle in 2014. However, USEPA required, after review and approval, all necessary construction, cleaning and inspection of all inaccessible sewer segments discovered in 2014 be completed by the end of 2015.

Table 3-1a summarizes the inaccessible sewer segments discovered during previous semiannual reporting periods and a description of the proposed construction solution or strategy for establishing access in order to clean and inspect the sewer segment. Table 3-1a also identifies which segments have been cleaned and inspected, as well as a change in status of some segments, whether reported segments were found to be privately owned or abandoned, since discovered to be inaccessible.

Table 3-1b summarizes the inaccessible manholes discovered during previous semi-annual reporting periods and a description of the proposed solution or strategy for inspection. Most of the manholes on this list are located on segments identified as inaccessible in Table 3-1a and these will be addressed in conjunction with the segment. Table 3-1b also identifies manholes that have been inspected since discovered to be inaccessible.

City of Akron Semi Annual Report

Table 3-1a Sewer Segments Needing Access to Complete Inspection/Cleaning Status Update.

Cleaning and inspection has been completed since identified as inaccessible

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
421978	113 Hall St	8	Vitrified Clay Pipe	298.2	
366937	615 Blanche St	15	Vitrified Clay Pipe	202.2	
418912	879W Thornton St	8	Vitrified Clay Pipe	359.9	
415203	1656 SW 13th St	8	Unknown	94.5	
419379	1455 East Ave	12	Vitrified Clay Pipe	451.8	
404713	709 Sharon St (Viewland Terrace Easement)	8	Unknown	59.8	
420177	673-709 Viewland Terrace (Easement)	8	Unknown	120.1	
420175	673-709 Viewland Terrace (Easement)	8	Unknown	121.5	

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
420386	670-686 Viewland Terrace (Easement)	8	Vitrified Clay Pipe	157.3	
765700	670-686 Viewland Terrace (Easement)	8	Vitrified Clay Pipe	72.6	
366881	1135 Herman Ave	15	Unknown	16.8	
411815	611 W. Wilbeth Rd (Easement)	8	Vitrified Clay Pipe	269.3	
411436	1050-1030 Eagon St	8	Vitrified Clay Pipe	650.6	Segment has no downstream access. Cannot clean against the flow from upstream manhole 287188 due to the risk of flooding adjacent steel fabricator warehouses in close proximity to the segment. Plan to construct downstream manhole(s).
414274	1544 S Hawkins Ave	6	Vitrified Clay Pipe	102.7	
404052	1511-1529 Overlook Ave	8	Vitrified Clay Pipe	148.6	Unable to complete inspection from downstream manhole 289189 due to steep grade of sewer. Upstream manhole 289400 is buried. Plan to locate and raise upstream manhole.

Color
Key
Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
420238	2065 Manchester Rd.	10	Vitrified Clay Pipe	355.2	Downstream manhole 289411 is buried. Cannot clean backward against the flow from upstream manhole 289400 due to risk of flooding bathrooms of nearby office building. Plan to locate and raise downstream manhole.
419748	620 Indian Trail (Easement)	8	Vitrified Clay Pipe	140.7	Both manholes are buried in heavily wooded easement area. Plan to clear out easement area, construct access road, and locate and raise manhole(s).
419752	620 Indian Trail (Easement)	8	Vitrified Clay Pipe	224.8	Both manholes are buried in heavily wooded easement area. Plan to clear out easement area, construct access road, and locate and raise manhole(s).
412773	809 W. Waterloo Rd (Easement)	12	Vitrified Clay Pipe	264.9	Downstream manhole 288949 is buried next to railroad track. Plan to coordinate with railroad company to locate and raise buried manhole.
401710	630 Koerber Ave (Easement)	12	Vitrified Clay Pipe	310.7	Unable to complete cleaning and inspection due to sag in the sewer. Unable to access downstream manhole 288973. Plan to perform point repair at sag location and install access drive for downstream manhole.
413907	659 Allenford St	8	Vitrified Clay Pipe	301.2	Unable to complete cleaning and inspection due to sag in the sewer. Unable to access downstream manhole 288973. Plan to perform point repair at sag location and install access drive for downstream manhole.
420452	473-463 Harvey Ave	8	Vitrified Clay Pipe	228.5	
418862	443-437 Russell Ave	8	Vitrified Clay Pipe	261	Pipe diameter changes from 8" to 12" part way through segment. 12" portion of sewer has pipe defects preventing completion of inspection. Sewer is flowing adequately. Plan to replace 12" portion of sewer.

Key

Color Asset determined to be private or abandoned, therefore removed from inaccessible list

Cleaning and inspection has been completed since identified as inaccessible

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
400964	309 Sandhurst (Easement)	24	Vitrified Clay Pipe	464.8	Asset is located at the bottom of a steep ravine with no access and parallels Sand Run Creek. Plan to utilize existing bench areas along ravine to install access road for cleaning and inspection equipment access.
400966	341-371 Mowbray (Easement)	24	Vitrified Clay Pipe	276.4	Asset is located at the bottom of a steep ravine with no access and parallels Sand Run Creek. Plan to utilize existing bench areas along ravine to install access road for cleaning and inspection equipment access.
401930	441 Mowbray Road (Easement)	24	Vitrified Clay Pipe	193	Asset is located at the bottom of a steep ravine with no access and parallels Sand Run Creek. Plan to utilize existing bench areas along ravine to install access road for cleaning and inspection equipment access.
426193	600 Earl St (Easement)	36	Vitrified Clay Pipe	45.4	This segment is adjacent to the Little Cuyahoga River at the base of a steep rocky hill. Neither manhole is accessible. Plan to clear easement area and install access road.
367547	600 Earl St (Easement)	54	Brick	370.1	Upstream manhole 304769 is buried and downstream manhole 304579 is under an awning in the entry way of a hardware store. Plan to construct a new manhole approximately 100' upstream of manhole 304579.
741081	1931 Gregg Rd (Easement)	15	Vitrified Clay Pipe	207.3	
741082	1931 Gregg Rd (Easement)	15	Vitrified Clay Pipe	207	

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
741083	1920 Gregg Road (Easement)	18	Vitrified Clay Pipe	130.3	
741084	1920 S.Gregg Rd (Easement)	18	Vitrified Clay Pipe	348	
741085	2029 S Plaza Dr - 1920 Gregg Ave (Easement)	18	Vitrified Clay Pipe	630.6	
741086	2011-2025 Plaza Dr (Easement)	18	Vitrified Clay Pipe	282.8	
741097	2021 S. Plaza Drive (easement)	8	Vitrified Clay Pipe	8.7	
741093	1951 S. Gregg Ave (Easement)	8	Vitrified Clay Pipe	6.1	
741094	1951 S. Gregg Ave (Easement)	8	Vitrified Clay Pipe	6.7	

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
741095	1951 S. Gregg Ave (Easement)	8	Vitrified Clay Pipe	18.9	
741096	1920 S. Gregg Ave (Easement)	8	Vitrified Clay Pipe	6.4	
411847	1655 S Main St (Bridgestone Headquarters Complex)	8	Vitrified Clay Pipe	201.1	Unable to complete cleaning and inspection due to risk of doing further damage to broken pipe. Sewer is flowing adequately. Plan to perform point repair of broken pipe.
419991	1655 S Main St (Bridgestone Headquarters Complex)	8	Vitrified Clay Pipe	258.4	
413200	1746 Marigold Ave. (Easement)	8	Vitrified Clay Pipe	318.1	Segment has no upstream access. Unable to complete cleaning and inspection due to heavy roots and potential of a basement backup through floor drain of nearby house during cleaning process. Plan to construct an upstream manhole.
435801	783-807 Waterloo Rd.	8	Vitrified Clay Pipe	262.2	Pipe defects prevent completion of cleaning and inspection. Sewer is flowing adequately. Plan to replace at least 150' section of broken and fractured pipe.
433983	1400 S. Arlington St (Easement)	12	Vitrified Clay Pipe	164.9	

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
433935	1178 -1198 S. Arlington along E. Wilbeth Rd.	8	Vitrified Clay Pipe	244.5	
425900	1200-1230 S. Arlington St.	10	Vitrified Clay Pipe	289.8	
423588	68 W Exchange St	8	Unknown	138.7	Concrete at 9.8' upstream of manhole 300842. Plan to perform point repair and remove chunks of concrete from upstream manhole.
427104	230 W Center St	8	Vitrified Clay Pipe	303.7	
426086	S Main St at E Mill St	12	Vitrified Clay Pipe	314.3	
426677	77 E Mill St	12	Vitrified Clay Pipe	51.9	
413386	West of 102 Charles St (Easement)	8	Vitrified Clay Pipe	53.9	Downstream manhole 301849 is buried and segment has defect 22' from upstream manhole 301848 preventing completion of inspection. Sewer is flowing adequately. Plan to perform point repair and locate and raise manhole 301849.
413389	West of 102 Charles St (Easement)	8	Vitrified Clay Pipe	44.9	Upstream manhole 301849 is buried. Slope of segment is too great for crawler to climb from downstream manhole 301850. Plan to locate and raise upstream manhole.

Key

Cleaning and inspection has been completed since identified as inaccessible Color

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
429184	166 N Union Street	8	Vitrified Clay Pipe	430.6	
729665	165 N Union Street	8	Vitrified Clay Pipe	37.1	
369872	683 E Exchange Street	8	Vitrified Clay Pipe	300.8	Defect 47.5' upstream of manhole 312209 prevents completion of inspection. Sewer is flowing adequately. Plan to perform point repair and install upstream manhole if necessary.
425042	95 Arch Street	8	Vitrified Clay Pipe	50.2	Segment has no downstream access. Offset joint 16' from upstream manhole 301619 prevents completion of inspection. Plan to perform point repair and install downstream manhole if necessary.
423705	520 N. Arlington (Easement)	18	Unknown	302.1	Downstream manhole 302157 is at the base of a steep rocky hill next to the Little Cuyahoga River with no access. Defect in sewer 141.2' from upstream manhole 302267 prevents completion of inspection. Sewer is flowing adequately. Plan to perform point repair on sewer.
426195	520 N. Arlington (Easement)	18	Vitrified Clay Pipe	357.6	Both manholes are buried next to Little Cuyahoga River at the base of a steep rocky hill with no access. Plan to perform point repair of upstream segment 423705 (see above segment) to gain access to this sewer.
431080	16 S. Arlington Street	8	Unknown	327.2	Segment has no downstream access. Unable to clean from upstream manhole 308979 due to risk of sewer backups in adjacent buildings. Plan to construct downstream manhole(s).

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
731330	16 S. Arlington Street	15	Unknown	91.2	No access available. Plan to construct manholes to allow access to sewer.
426396	750 E Tallmadge Ave	8	Vitrified Clay Pipe	298.4	
431028	1144 E Market St	8	Unknown	547.2	Pipe defect prevents completion of inspection. Sewer is flowing adequately. Plan to replace sewer.
430045	60 Goodyear Blvd	8	Unknown	280.6	
370294	241-293 Martha Ave (Easement)	15	Unknown	157.1	Upstream manhole 312728 is raised 15' above ground level on the side of a hill and downstream manhole 312727 is next to railroad track with no utility road access. Plan to lower upstream manhole and construct access road to allow cleaning truck access.
428006	1606 Newton St	8	Vitrified Clay Pipe	196.4	
433584	2363 Bellfield Ave	8	Vitrified Clay Pipe	25.3	Both access manholes are buried. Plan to locate and raise manholes.
432069	2423 Mogadore Rd - 2350 Gilchrist Rd (Easement)	8	Vitrified Clay Pipe	96.5	Upstream manhole 311356 is buried. Segment has defect in pipe 59' from downstream manhole 297971. Sewer is flowing adequately. Plan to perform point repair and locate and raise upstream manhole if necessary.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
430639	2942 Albrecht Ave	8	Vitrified Clay Pipe	351.2	
516970	752 Abington Rd	8	Vitrified Clay Pipe	270.2	No upstream access. Downstream location is a clean out. Plan to install manhole(s).
367602	47 E State St	8	Vitrified Clay Pipe	42.9	
429058	1896 Buchholzer Blvd	15	Vitrified Clay Pipe	58.5	
424260	294 S High St	6	Vitrified Clay Pipe	197.4	
424262	272 S High St	6	Vitrified Clay Pipe	218.2	
426687	1 S Main St	24	Vitrified Clay Pipe	24.3	Segment has no downstream access. Manned entry required to place crawler into upstream manhole 301447 to perform inspection. Heavy steam and high temperature in manhole prevents manned entry. Plan to coordinate with Akron Energy Systems with solution of steam lines in area to allow access.
366801	650 Parkdale -1157 Laurel (Along Russel St)	24	Vitrified Clay Pipe	220.5	

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
367367	73 College - 277 E Mill St	27	Brick Egg 27 x 18	589.8	Segment contains loose and missing brick. Halted cleaning operation due to evidence that cleaning operation was dislodging loose bricks. Sewer is flowing adequately. Plan to perform necessary point repairs and install liner.
368777	420 Lookout Ave (Easement)	27	Reinforced Concrete Pipe	332.6	Segment is inaccessible at the bottom of a steep embankment on the west side of Route 8 in a heavily wooded area. Plan to install access road to provide access for cleaning operation.
368776	420 Lookout Ave (Easement)	27	Reinforced Concrete Pipe	20.7	Segment is inaccessible at the bottom of a steep embankment on the west side of Route 8 in a heavily wooded area. Plan to install access road to provide access for cleaning operation.
746222	Canton Rd near I-76	33	Segmental Block	23.1	Downstream manhole 746221 is inaccessible in heavy brush at the bottom of a ridge. Upstream manhole 297994 is located on I-76 shoulder. Plan to install access road to downstream manhole or perform I-76 lane closure.
369727	1339 Techway Dr (Easement)	78	BRICK	307.5	Unable to clean & inspect segment as it is currently being impacted by a construction project. Construction contractor plans to complete cleaning and inspection after completion of construction project.
431911	1175 - 1259 Geo. Washington Blvd (Easement)	27	Vitrified Clay Pipe	289	

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
431913	1175 - 1259 Geo. Washington Blvd (Easement)	27	Vitrified Clay Pipe	27	
431915	1175 - 1259 Geo. Washington Blvd (Easement)	27	Vitrified Clay Pipe	339	
431917	1175 - 1259 Geo. Washington Blvd (Easement)	27	Vitrified Clay Pipe	19.8	
431919	1175 - 1259 Geo. Washington Blvd (Easement)	27	Vitrified Clay Pipe	116.1	
453162	850 Cuyahoga St (Easement)	72	Reinforced Concrete Pipe	624.3	Upstream manhole 303515 is in a densely wooded area and is not accessible by cleaning truck. The downstream location is an outfall into the Cuyahoga River. Plan to clear easement area and install access road to manhole 303515.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
429967	2474 Triplett Blvd (Easement)	24	Vitrified Clay Pipe	110.4	Both access manholes are inaccessible. Plan to clear wooded easement area and construct access road to provide cleaning equipment access.
429969	738 Canton Rd (Easement)	24	Vitrified Clay Pipe	416.2	Downstream manhole 311234 is inaccessible in a heavily wooded area. Unable to reverse clean against the heavy flow from the upstream manhole. Plan to clear easement area and construct an access road to the downstream manhole.
429936	700 Shadybrook Dr (Easement)	33	Brick	275.2	Manholes are in wooded area behind apartment complex along Springfield Lake Outlet Creek. Plan to clear easement area and construct access road.
729228	241 - 250 N Howard (Easement)	63	Brick	159.5	
416075	1133 Taylor Street	8	Vitrified Clay Pipe	109.6	Offset joint and size reduction 2.9' from upstream manhole 289470 and bend 4' from downstream manhole 291705 prevent completion of inspection. Plan to perform point repairs.
367096	404-382 Howe St	12	Vitrified Clay Pipe	332.7	
411728	817 -847 Raymond St	6	Vitrified Clay Pipe	176.2	Unable to complete cleaning and inspection due to pipe defects. Sewer is flowing adequately. Plan to perform point repairs and install liner.
412378	382 - 970 Bartges Street	15	Vitrified Clay Pipe	434.9	Segment has no downstream access point. Unable to reverse clean against heavy flow from the upstream manhole. Plan to install manhole at downstream location.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
366412	484 West Market Street	15	Vitrified Clay Pipe	9.2	Unable to remove bricks in sewer at downstream drop connection. Segment has no downstream access. Sewer is flowing adequately. Plan to install downstream manhole to allow removal of bricks.
424728	199 Bowery Street	6	Vitrified Clay Pipe	127.4	
427096	244 W. Exchange St (located on Wabash Ave)	8	Vitrified Clay Pipe	231.8	
429503	190 S. Maple Street	8	Vitrified Clay Pipe	16.6	
422042	46 S. Valley Street	8	Vitrified Clay Pipe	206.2	Pipe defects prevent completion of cleaning and inspection due to risk of further damaging sewer. Sewer is flowing adequately. Plan to perform point repair(s).
427197	44 - 50 Bates Street	6	Vitrified Clay Pipe	233.6	Segment alignment changes that prevent completion of inspection. Plan to replace sewer.
427274	138 - 132 Shelby Avenue	8	Vitrified Clay Pipe	233.1	Upstream manhole 301377 is buried. Unable to complete inspection from downstream manhole due to offset joint. Plan to perform point repair at offset joint and raise buried manhole.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
418591	273 Bellewood Avenue	6	Vitrified Clay Pipe	199	
425307	40-48 S.Summit Street	8	Vitrified Clay Pipe	407.1	Segment has no downstream access. A brick is wedged in the sewer 83.6' downstream of manhole 301468. Sewer is flowing adequately. Plan to perform point repair and install new manhole if necessary.
413384	38 Charles Street	8	Vitrified Clay Pipe	371.9	Segment has pipe defects, holes and alignment changes. Sewer is flowing adequately. Plan to replace sewer.
423403	44 - 76 York Street	8	Vitrified Clay Pipe	305	
408843	446 Spicer Street	8	Vitrified Clay Pipe	199.7	
403109	2829 Ridgewood Road	6	Vitrified Clay Pipe	24	Segment has no downstream access. Offset joint 4.8 from upstream manhole 294619 prevents completion of cleaning and inspection. Plan to perform point repair at location of offset joint.
407683	576 - 586 Inverness Road	8	Vitrified Clay Pipe	267.6	
405834	222 N. Revere Road	8	Vitrified Clay Pipe	243.4	

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
405655	1021 Saint Michaels Ave (Pump Station)	15	Vitrified Clay Pipe	49.6	
402536	1913 Parkgate Avenue (Easement)	18	Vitrified Clay Pipe	310.9	
407740	1009 Thorndale Drive	8	Vitrified Clay Pipe	144.1	Segment is surcharged due to heavy flow in downstream 42" trunk sewer. Plan to set up bypass pumping for trunk sewer to allow cleaning and inspection of this segment.
407744	10150 Thorndale Drive	8	Vitrified Clay Pipe	28.4	
402480	400 Kildare Road	15	Vitrified Clay Pipe	12.5	Segment is surcharged. Plan to set up bypass pumping to allow cleaning and inspection of this sewer.
405244	1730 - 1702 Liberty Drive	8	Vitrified Clay Pipe	332	
401538	915 Nome Ave - 916 Hawkins Avenue (Easement)	8	Vitrified Clay Pipe	241	
408061	1454 - 1460 Delia Avenue	8	Vitrified Clay Pipe	326.6	

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
407834	940 Thorndale Drive	8	Vitrified Clay Pipe	72.2	Segment has no upstream access. Crawler is unable to navigate alignment change 2' upstream of manhole 296238. Plan to perform point repair at alignment change and install upstream manhole if necessary.
400868	1688 Dominion Drive	8	Vitrified Clay Pipe	114.2	Upstream location is a cleanout. Crawler is unable to navigate bend in sewer 4' upstream of manhole 296601. Plan to install manhole(s).
410596	800 Newcastle Drive (Easement)	8	Vitrified Clay Pipe	312.2	Pipe defects prevent completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair.
401057	1508 Tiffany Circle (Easement)	12	Unknown	39.3	Upstream manhole 297446 is inaccessible on a hillside near a waterway. Downstream end of segment does not have an access point. Plan to construct an access road to the upstream manhole and install a downstream access manhole if necessary.
408336	1211 W. Market Street	10	Vitrified Clay Pipe	160.6	Crawler cannot navigate alignment change 76.2' downstream of manhole 297749. High water level 15.5' upstream of manhole 297746 prevents completion of reverse inspection. Plan to perform bypass pumping to allow completion of cleaning and inspection.
764924	1160 Winhurst Drive (Easement)	8	Vitrified Clay Pipe	351.9	Downstream manhole 764923 is buried. Defect at 155.1' from upstream manhole 297800 prevents completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair and locate and raise downstream manhole if necessary.
405945	549 W. Market Street	8	Vitrified Clay Pipe	84.5	

Key

Cleaning and inspection has been completed since identified as inaccessible Color

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
407098	630 - 608 W. Market Street	12	Vitrified Clay Pipe	463.8	
406761	555-545 Royal Avenue (Easement)	8	Vitrified Clay Pipe	251.5	
409155	633 Poulsen Spur (Easement)	12	Vitrified Clay Pipe	104.8	Both access manholes are in a heavily wooded area. Existing access road is not adequate to handle vehicles the size of a cleaning truck. Plan to improve and repair existing access road to allow cleaning access.
406555	660 Poulsen Spur (Easement)	12	Vitrified Clay Pipe	149.6	Segment has no downstream access point. Unable to clean against flow from upstream manhole. Plan to install a downstream manhole.
476361	130-79 Oviatt Place	8	Vitrified Clay Pipe	324.1	Segment has no upstream access point. Steep grade of sewer and pipe defect prevents completion of cleaning and inspection from downstream manhole. Sewer is flowing adequately. Plan to perform a point repair and install an upstream manhole.
421854	200 W Market Street	12	Vitrified Clay Pipe	272.8	Pipe defect prevents completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair(s) and install liner.
427233	200 W Market Street	12	Vitrified Clay Pipe	431.6	Downstream manhole 301290 is buried. Pipe defect at 211.5' downstream of manhole 300897 prevents completion of cleaning and inspection. Sewer is flowing adequately. Plan to raise downstream manhole and perform a point repair.
427338	324 W. Market Street	8	Vitrified Clay Pipe	394	Segment has no downstream access. Unable to reverse clean against the flow from upstream manhole 300890. Plan to install downstream manhole.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
427175	77 W. Market Street	12	Unknown	132.1	Segment has no downstream access and upstream access manhole 301270 is buried. Plan to locate and raise the upstream manhole and construct a new downstream manhole
427237	164 - 174 W. Market Street	12	Unknown	205.1	Both access manholes are buried. Plan to locate and raise manhole(s).
427239	118 W Market Street	12	Unknown	320.7	Both access manholes are buried. Plan to locate and raise manhole(s).
427241	118 W Market Street	12	Unknown	283.3	Both access manholes are buried. Plan to locate and raise manhole(s).
422931	192 Division Street (Easement)	8	Vitrified Clay Pipe	225.4	
522238	721 Hickory St (Towpath Trail Easement)	10	Vitrified Clay Pipe	9.4	Segment has no upstream access and downstream access manhole is buried. Plan to locate and raise manhole.
410669	440-400 W Market Street	15	Vitrified Clay Pipe	487	Upstream manhole 299371 is buried. Pipe defect prevents completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair and locate and raise upstream manhole.
522023	440 W Market Street	12	Reinforced Concrete Pipe	11	Segment has no downstream access point and upstream manhole 299365 is buried. Plan to locate and raise buried manhole.
522201	474-460 W Market Street	15	Vitrified Clay Pipe	454.2	Segment has no upstream access. Downstream manhole 299371 is buried. Plan to locate and raise downstream manhole.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
408980	285-255 Wyant Road (Easement)	8	Vitrified Clay Pipe	349.5	Pipe defect prevent completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair.
402355	270 Sand Run Road (Easement)	6	Vitrified Clay Pipe	150.6	
762726	469 W Cedar St (located on Maple St)	10	Reinforced Concrete Pipe	151.9	Downstream manhole 762724 is buried and upstream location is a clean out. Plan to locate and raise manhole.
414173	475 S High Street	18	Vitrified Clay Pipe	106.5	
414805	475 S High Street	18	Vitrified Clay Pipe	305.4	Downstream manhole 290781 is buried. Compacted debris prevents completion of inspection from upstream manhole. Sewer is flowing adequately. Plan to locate and raise downstream manhole and remove hardened debris.
414807	475 S High Street	18	Vitrified Clay Pipe	110.7	Defects in both access manholes prevent access to sewer. Sewer is flowing adequately. Repair manhole(s) to allow access.
419530	451 S High Street	18	Vitrified Clay Pipe	121.8	
419532	475 S High Street	18	Vitrified Clay Pipe	26	

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
414443	East side of 285-283 S Main St (Maiden Lane Alley east side of buildings)	6	Vitrified Clay Pipe	211	
426134	275-265 S Main St (Maiden Lane Alley east side of buildings)	6	Vitrified Clay Pipe	170.7	
425016	207-171 S Main St (Alley east side of buildings)	8	Vitrified Clay Pipe	260.7	Segment has no downstream access. Unable to clean from upstream manhole 301247 due to risk of sewer backups in adjacent buildings. Plan to construct downstream manhole(s).
425019	207-171 S Main St (Alley east side of buildings)	8	Vitrified Clay Pipe	211.9	Segment is located in a narrow alleyway. Unable to clean from access manholes due to proximity to buildings. Plan to construct downstream manhole to allow cleaning from street.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
426061	137-121 S Main St (Alley east side of buildings)	8	Vitrified Clay Pipe	425.9	Defect in upstream manhole 301445 prevents upstream access. Sewer is flowing adequately. Plan to repair upstream manhole and perform point repair.
426090	121 S Main St (Alley east side of buildings)	8	Vitrified Clay Pipe	60.7	Segment has no downstream access. Defect prevents completion of inspection from upstream manhole. Sewer is flowing adequately. Plan to perform point repair and install downstream manhole if necessary.
420729	480-552 Swartz Rd.	8	Vitrified Clay Pipe	315.8	
727844	1318 Manchester Rd (located on Longview Ave)	8	Vitrified Clay Pipe	27.7	
415500	558-572 Lakeview Ave	8	Vitrified Clay Pipe	287.9	
403873	2076-2060 Manister Ct (Easement)	8	Vitrified Clay Pipe	347.4	Pipe defects prevented completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repairs.
747206	463-475 Beulah Ave	8	Vitrified Clay Pipe	323.9	Upstream manhole 289418 is buried. Plan to locate and raise manhole.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
420206	1770 Leighton Ave (Easement)	8	Vitrified Clay Pipe	256	
415502	1917-1925 SW 6th St (Easement)	8	Vitrified Clay Pipe	71.3	
410095	77 Leonard St	8	Vitrified Clay Pipe	25	Segment has no access points. Plan to construct manhole(s).
411373	2462 SW 27th St	8	Vitrified Clay Pipe	111.7	Both manholes are buried. Plan to locate and raise manhole(s).
419730	670-658 Arbutus Ct	8	Vitrified Clay Pipe	200.1	Both manholes are buried. Plan to locate and raise manhole(s). This is scheduled to be completed under the Sanitary Sewer Reconstruction (SSR) project (SSR 2014 Phase 2).
401575	367 Edgewood St	8	Vitrified Clay Pipe	385.5	Segment has no downstream access. Bend in line prevents completion of inspection from upstream manhole. Plan to construct manhole.
415148	865 Princeton St	8	Vitrified Clay Pipe	144	Downstream access point is a lamphole. Steep grade of sewer prevents completion of cleaning and inspection from upstream manhole. Plan to construct manhole.
366016	152 Carroll St	10	Vitrified Clay Pipe	16.5	Segment has no downstream access. Metal object wedged in line. Sewer is flowing adequately. Plan to construct manhole and perform point repair if necessary.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
435947	2845 Mineral Rights (Wheeling & Lake Erie RR yard along Roosevelt Ditch)	10	Vitrified Clay Pipe	199.9	
432065	2844 Mineral rights (Easement north of I-76)	8	Vitrified Clay Pipe	187.8	Upstream manhole 297996 is buried. Heavy flow in sewer prevented completion of inspection from downstream manhole 311355. Plan to raise manhole.
522317	981 Rocky Ridge Rd	10	Vitrified Clay Pipe	27.1	Both manholes are buried. Plan to locate and raise manhole(s).
476357	129 Oak Park Dr	8	Vitrified Clay Pipe	175.9	
425485	142 Jesse Ave	8	Vitrified Clay Pipe	167.3	Segment has no downstream access. Unable to clean against the flow from the upstream manhole due to risk of sewer backups in adjacent buildings. Plan to install manhole.
402563	691-675 Payne Ave	8	Vitrified Clay Pipe	259.6	
403732	694-670 Crosby St	12	Vitrified Clay Pipe	351.2	Downstream access point is a lamphole. Unable to clean against the flow from the upstream manhole due to risk of sewer backups in adjacent buildings. Plan to install manhole.
476396	Archwood & Landon	24	Vitrified Clay Pipe	279.7	Sewer contains tar-like material requiring remediation. Plan to address removal of tar-like substance to allow completion of cleaning and inspection.

Key

Cleaning and inspection has been completed since identified as inaccessible Color

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
427537	190 N. Union Street (Easement)	8	Vitrified Clay Pipe	257.1	
433466	133 S. Arlington Street	8	Vitrified Clay Pipe	42.2	Segment has no upstream access. Crawler is unable to fit in manhole 309205 invert. Plan to modify manhole invert and install upstream access manhole if necessary.
499131	1155 Bruce Road	10	PVC	10.2	Segment has no upstream access. Downstream access manhole 309015 is buried. Plan to locate and raise manhole.
433243	1150 E. Waterloo Road	6	Vitrified Clay Pipe	46.7	
432450	1480 E. Archwood Avenue	12	Vitrified Clay Pipe	224	Sewer alignment changes prevented completion of cleaning and inspection. Plan to install new manhole(s).
424279	203 Hickory Street	8	Vitrified Clay Pipe	11	Both access manholes are fenced off inside a construction zone. Plan to perform cleaning and inspection after the completion of the construction project.
424281	203 Hickory Street	8	Vitrified Clay Pipe	115.8	Both access manholes are fenced off inside a construction zone. Plan to perform cleaning and inspection after the completion of the construction project.
427209	203 Hickory Street	8	Vitrified Clay Pipe	107	Both access manholes are fenced off inside a construction zone. Plan to perform cleaning and inspection after the completion of the construction project.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
408654	200 Wyant Road	8	Unknown	209.9	Both access manholes are buried. Plan to locate and raise manhole(s).
422371	169 W. Bartges Street	12	Vitrified Clay Pipe	287.8	
422373	169 W. Bartges Street	8	Vitrified Clay Pipe	16.6	
416150	1200 Firestone Pkwy.	15	Vitrified Clay Pipe	287.6	Pipe defects prevent completion of cleaning and inspection. Sewer is flowing adequately. Plan to replace sewer.
421616	1200 Firestone Pkwy.	15	Vitrified Clay Pipe	113.9	Pipe defects prevent completion of cleaning and inspection. Sewer is flowing adequately. Plan to replace sewer.
438326	408 Wellington Avenue	18	Vitrified Clay Pipe	537.5	Unable to complete cleaning and inspection due to concrete in sewer. Inspected 379.8' from downstream manhole 312670. Sewer is flowing adequately. Plan to replace portion of sewer affected by concrete.
365541	165 N Case Avenue	18	Vitrified Clay Pipe	323.2	Pipe defects prevent completion of cleaning and inspection. Sewer is flowing adequately. Plan to replace sewer.
415892	41 S High Street	12	Vitrified Clay Pipe	254.4	Pipe defects prevent completion of cleaning and inspection. Sewer is flowing adequately. Plan to replace sewer.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
436655	Interstate 76 / Route 8 Interchange (Easement)	8	Vitrified Clay Pipe	143.3	Segment has no downstream access. Unable to complete inspection from upstream manhole 308362 due to steep grade of sewer 108.3' downstream of manhole. Plan to construct downstream access manhole.
427541	287 Arch Street	8	Vitrified Clay Pipe	11.1	
421804	342. Union Place	8	Vitrified Clay Pipe	70.2	
423577	2207 Goodyear Boulevard	6	Vitrified Clay Pipe	146.4	
415097	1220 Lakeshore Boulevard	8	Vitrified Clay Pipe	38.7	
419492	374 Ira Avenue	8	Vitrified Clay Pipe	100.6	
400933	193 Hyde Avenue	8	Vitrified Clay Pipe	214.2	Segment has no downstream access. Sag prevents completion of inspection from upstream manhole. Plan to perform point repair to eliminate sag and construct manhole if necessary.
410489	442 Bell Street	8	Vitrified Clay Pipe	152.8	

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
406224	385 West Wood Place	8	Vitrified Clay Pipe	52.5	
732087	787 Dayton Street (Easement)	15	Vitrified Clay Pipe	15.9	
747622	39 S. Case Avenue	48	Segmental Block	40.7	Segment has no upstream access. Pipe defect prevents completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair.
745219	331 N. Howard Street	12	Unknown	73.2	High water level prevented completion of cleaning and inspection. Plan to plug upstream asset 745220 to allow completion of cleaning and inspection.
745220	331 N. Howard Street	12	Unknown	10.6	High water level prevented completion of cleaning and inspection. Plan to plug sewer in upstream manhole 743786 to allow completion of cleaning and inspection.
425983	380 Turner Street	8	Unknown	164.1	Segment has no point of access. Plan to install manhole(s)
522531	359 Turner Street	8	Vitrified Clay Pipe	39.4	Segment has no point of access. Plan to install manhole(s)
425972	359 Turner Street	8	Unknown	162.9	Segment has no point of access. Plan to install manhole(s)
522527	418 Butler Avenue	8	Vitrified Clay Pipe	41.8	Segment has no point of access. Plan to install manhole(s)
729804	518 Gage Street	8	Vitrified Clay Pipe	8.7	Steep grade of sewer prevents completion of cleaning and inspection. Plan to construct manhole.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
419019	261 Thornton Street	8	Vitrified Clay Pipe	14.1	
421754	1058 River Street	15	Unknown	883.5	Upstream and downstream manholes are 883.5' apart. Plan to construct additional manhole(s) to facilitate cleaning and inspection.
423538	1140 River Street	15	Unknown	315.4	Segment has no downstream access. Plan to construct manhole.
424356	1313 Onondago Avenue	8	Unknown	186	Segment has no downstream access. Plan to install manhole.
425081	38 S. Adams Street	6	Vitrified Clay Pipe	240.6	Access manhole is buried. Plan to locate and raise manhole.
425169	491 Moody Street	8	Vitrified Clay Pipe	52	
426740	75 Arch Street	8	Vitrified Clay Pipe	267.5	Upstream access point is a clean out. Plan to install manhole at clean out location.
427468	249 Dayton Plaza	8	Unknown	172	Pipe defect prevented completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair.
430179	131 Innovation Way	8	Vitrified Clay Pipe	305.8	Access manhole is buried. Plan to locate and raise manhole.
432862	15 S. Case Avenue	15	Vitrified Clay Pipe	200.4	Segment has no upstream access. Plan to construct manhole.

Color Key

Cleaning and inspection has been completed since identified as inaccessible

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
436612	745 E. Market Street	8	Vitrified Clay Pipe	129.6	Access manhole is buried. Plan to locate and raise manhole.
436854	182 Beaver Street	18	Unknown	339.2	Segment has no upstream access. Plan to construct manhole.
438381	247 Annadale Avenue	8	Unknown	47.8	Segment has no upstream access. Plan to construct manhole.
731818	385 Windsor Street	8	Vitrified Clay Pipe	67.1	Pipe defect prevented completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair.
366663	240 Carroll St (Easement)	12	Vitrified Clay Pipe	21.1	
418985	240 Carroll St (Easement)	8	Vitrified Clay Pipe	40.5	
423552	929 Johnston Street	8	Vitrified Clay Pipe	272.6	
423990	300 W. Market Street	8	Vitrified Clay Pipe	338.2	
413595	750 S. Main Street (Easement)	8	Vitrified Clay Pipe	406	

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
424916	142 Aetna Street (Easement)	8	Vitrified Clay Pipe	57.1	Obstruction prevents completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair.
424925	142 Aetna Street (Easement)	8	Vitrified Clay Pipe	33.7	Obstruction prevents completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair.
436436	127 Goodyear Boulevard (Easement)	12	Vitrified Clay Pipe	297.5	Both access manholes are buried. Plan to locate and raise manhole(s).
436438	127 Goodyear Boulevard (Easement)	12	Vitrified Clay Pipe	263.7	Both access manholes are buried. Plan to locate and raise manhole(s).
436541	127 Goodyear Boulevard (Easement)	8	Cast Iron Pipe	86.4	Both access manholes are buried. Plan to locate and raise manhole(s).
436548	127 Goodyear Boulevard (Easement)	12	Vitrified Clay Pipe	303.9	Both access manholes are buried. Plan to locate and raise manhole(s).
403065	2552 Brice Road (Easement)	8	Unknown	123.5	Both access manholes are buried. Plan to locate and raise manhole(s).

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
401766	266 Foxwood Drive (Easement)	8	Vitrified Clay Pipe	105.7	
402338	607 Reynolds Avenue (Easement)	8	Vitrified Clay Pipe	230.4	
365486	289 Merriman Road	24	Vitrified Clay Pipe	22.1	Cleaning and inspection was not completed due to size change in sewer segment. Plan to clean and inspect large section with different equipment.
404023	444 S. Maple Street	8	Unknown	199.8	Pipe defects prevent completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair.
409722	409 Silver Street	8	Vitrified Clay Pipe	208.5	
426030	498 Cuyahoga St (Easement)	39	Vitrified Clay Pipe	49.2	Access manhole is buried. Plan to locate and raise manhole.
413620	676 S Broadway St	8	Vitrified Clay Pipe	144.7	Obstruction prevents completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repair.
424623	135 Fir Hill	8	Vitrified Clay Pipe	114.1	
432226	1175 George Washington Blvd (Easement)	8	Vitrified Clay Pipe	13.6	

Color Key

Cleaning and inspection has been completed since identified as inaccessible

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
414126	151 Dartmore Ave	10	Vitrified Clay Pipe	21.2	Segment has no downstream access. Upstream manhole 289828 is buried. Plan to locate and raise buried manhole. This work is scheduled to be performed as part of the SSR 2014 Phase 1 project.
764933	151 Dartmore Ave	10	Vitrified Clay Pipe	316.5	Downstream manhole 289828 is buried. Plan to locate and raise manhole. This work is scheduled to be performed as part of the SSR 2014 Phase 1 project.
413393	3710 Manchester Rd	8	Vitrified Clay Pipe	29.4	
400600	1230 Yukon Ave	8	Vitrified Clay Pipe	242.1	Pipe defects prevented completion of cleaning and inspection. Sewer is flowing adequately. Plan to perform point repairs.
419444	531-611 South St	8	Vitrified Clay Pipe	146.4	
419442	531-611 South St	8	Vitrified Clay Pipe	53.2	
420450	462 Harvey St	8	Vitrified Clay Pipe	329.5	
420454	462 Harvey St	8	Vitrified Clay Pipe	204	
420380	2035 SW 6th St	8	Unknown	149	Upstream access point is a clean out. Pipe defects prevented completion of cleaning and inspection from downstream manhole 289060. Sewer is flowing adequately. Plan to perform point repair.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
413922	490 Wingerter St	6	Vitrified Clay Pipe	110.2	
413964	490 Wingerter St	10	Vitrified Clay Pipe	189.6	
415738	1565 Rudd St	6	Vitrified Clay Pipe	86.4	
368366	Ohio & Erie Canal Towpath Trail (Easement)	12	Vitrified Clay Pipe	83.9	Segment has no downstream access. Upstream manhole 303411 is buried. Plan to locate and raise manhole.
368367	Ohio & Erie Canal Towpath Trail (Easement)	12	Vitrified Clay Pipe	94.6	Downstream manhole 303411 is buried. Heavy flow in sewer prevents completion of cleaning and inspection. Plan to locate and raise manhole.
731342	545 N Arlington St (Easement)	57	Brick	65.4	Segment has no point of access. Plan to install manhole(s).
727717	545 N Arlington St (Easement)	54	Brick	142.1	Segment has no upstream access. Downstream manhole 304769 is buried. Plan to install manhole(s).

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
368238	Highbridge Trail (Easement)	24	Segmental Block	9.8	Flow in sewer prevents completion of cleaning and inspection. Plan to perform bypass pumping to allow completion of cleaning and inspection.
368239	Highbridge Trail (Easement)	10	Vitrified Clay Pipe	19.8	Flow in sewer prevents completion of cleaning and inspection. Plan to perform bypass pumping to allow completion of cleaning and inspection.
427330	445 Memorial Pkwy (Easement)	15	Unknown	161.6	Segment has no downstream access. Upstream manhole 300887 is inaccessible. Plan to construct access road to facilitate cleaning and inspection from upstream manhole.
427327	445 Memorial Pkwy (Easement)	15	Unknown	68.3	Downstream manhole 745153 is inaccessible. Flow in sewer prevent cleaning and inspection from upstream manhole 745153. Plan to construct access road to facilitate cleaning and inspection.
763545	445 Memorial Pkwy (Easement)	15	Unknown	125.1	Upstream and downstream manholes are inaccessible. Plan to construct access road to downstream manhole 300887 to facilitate cleaning and inspection.
403248	2177 Ridgewood Rd	8	Vitrified Clay Pipe	33.9	
402577	19 N Balch St	8	Vitrified Clay Pipe	252.9	Upstream access point is a lamphole. Offset joint prevented completion of cleaning and inspection from downstream manhole 299387. Plan to perform point repair.
415897	150 Furnace St	8	Vitrified Clay Pipe	296.7	

Color Key

Cleaning and inspection has been completed since identified as inaccessible

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
423688	100 N High St	8	Vitrified Clay Pipe	208.2	Segment has no upstream access point. Intruding tap prevented completion of inspection. Plan to install manhole.
426098	170 Locust St	8	Vitrified Clay Pipe	183.3	
521926	139 Wills Ave	8	Vitrified Clay Pipe	210.3	
426888	15 N Maple St	8	Vitrified Clay Pipe	379.5	Upstream manhole 301287 is buried. Offset joint at size change location prevented completion of cleaning and inspection. Plan to perform point repair and locate and raise manhole.
429288	357 N Howard St	10	Vitrified Clay Pipe	65.4	Segment has no upstream access point. Offset joint prevented completion of cleaning and inspection from upstream manhole 301529. Plan to perform point repair.
415894	243 Furnace St	8	Vitrified Clay Pipe	249.6	
423189	351 E North St	8	Vitrified Clay Pipe	171.8	Segment has no upstream access point. Bend in sewer prevents completion of cleaning and inspection. Plan to install manhole(s).
425745	243 Furnace St	8	Vitrified Clay Pipe	158.3	

Color Key

Cleaning and inspection has been completed since identified as inaccessible

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
429067	166 N Union St	8	Vitrified Clay Pipe	24.8	
402628	1120 W Exchange St	6	Vitrified Clay Pipe	345.1	Offset joint at sewer diameter change location prevented completion of cleaning and inspection. Plan to install manhole at location of size change.
746760	27 Ridge St	12	PVC	34.3	
401483	104 S Portage Path	8	Vitrified Clay Pipe	327.2	Offset joint prevented completion of cleaning and inspection. Plan to perform point repair.
422924	121 N Walnut St	12	Vitrified Clay Pipe	277.4	Segment has no downstream access point. Unable to clean backward against the flow due to risk of sewer backup in nearby buildings. Plan to install manhole.
427293	280 Rockwell Ct	8	Vitrified Clay Pipe	250.8	Sag in sewer prevents completion of cleaning and inspection. Plan to perform point repair to remove sag.
423899	89 N Main St	8	Unknown	148	
763953	42 N High St	8	Unknown	75	
763954	42 N High St	6	unknown	32.1	
425267	355 S Union St	8	Vitrified Clay Pipe	308.2	Intruding tap prevents completion of cleaning and inspection from upstream manhole 305368. Size reduction prevents completion of cleaning and inspection from downstream manhole 303809. Plan to install manhole to facilitate inspection and cleaning.

Color Key

Asset determined to be private or abandoned, therefore removed from inaccessible list

Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
410339	545 Stratford Ave	8	Vitrified Clay Pipe	68	Segment has no upstream access point. Steep grade of sewer prevented completion of inspection from downstream manhole 298728. Plan to install manhole.
423477	98 E Glenwood Ave	8	Vitrified Clay Pipe	492.7	Segment has no upstream access point. Plan to install manhole to facilitate cleaning and inspection.
425559	35 N Valley St	8	Unknown	402	Segment has no upstream access. Pipe defect prevented completion of cleaning and inspection from downstream manhole 300913. Plan to perform point repair.
421802	345 Union Pl	8	Vitrified Clay Pipe	108.5	
428667	233 W North St	8	Unknown	180.6	Pipe defect prevented completion of cleaning and inspection. Plan to perform point repair as part of the SSR 2014 Phase 2 project.
423594	207 E Market St	8	Unknown	318.8	
522027	98 Mount View Ave	8	Unknown	101.3	Pipe defect prevented completion of cleaning and inspection. Plan to perform point repair.
429259	224 W Exchange St	8	Vitrified Clay Pipe	53.3	
429261	224 W Exchange St	12	Unknown	129	
429165	224 W Exchange St	12	Unknown	320.9	

	Cleaning and inspection has been completed since identified as inaccessible
Color Key	Asset determined to be private or abandoned, therefore removed from inaccessible list
	Asset has been repaired and/or access provided. Cleaning and Inspection to be completed by December 31, 2015.

Asset ID	Address	Sewer Size	Material	Segment Length (feet)	Proposed Construction Solution
409904	302 W Exchange St	12	Vitrified Clay Pipe	597.5	
				57986.3	

The total length of sewer segments on the inaccessible list (Table 3.1 a) = 57,986.3 ft. (10.99 Miles)

The total length of sewer segments completed or removed from the inaccessible list (Table 3.1a) = 8,903.8 ft. (1.69 Miles)

The total length of sewer segments remaining on the inaccessible list (Table 3.1a) = 49,082.5 ft. (9.30 Miles)

Table 3-1b Inaccessible Manholes Needing Inspection Status Update

Color Key Inspection has been completed since identified as inaccessible

Manhole Asset ID	GIS Underground Map	Proposed Solution
287165	2210514	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
288663	2285503	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
288664	2285503	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289033	2300503	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289034	2300503	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
288370	2270508	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289063	2300504	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
302070	2435518	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
302157	2450519	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.

Manhole Asset ID	GIS Underground Map	Proposed Solution
302614	2540518	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
304365	2435520	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
309236	2465500	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
309521	2495512	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
310114	2540497	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
310131	2540498	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
310133	2540498	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
310134	2540498	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
310135	2540498	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.

Manhole Asset ID	GIS Underground Map	Proposed Solution
310136	2540498	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
310918	2570510	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
311147	2585510	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
311148	2585510	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
311356	2600511	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
301483	2390518	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
304369	2435521	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
741012	2450495	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
741014	2450495	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.

Manhole Asset ID	GIS Underground Map	Proposed Solution
741015	2450495	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
741016	2435495	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
309015	2480494	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289138	2300506	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
291562	2285514	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289190	2300508	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289203	2300509	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289534	2315513	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
294650	2135531	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.

Manhole Asset ID	GIS Underground Map	Proposed Solution
294976	2135528	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
294978	2135528	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
298315	2315518	
289418	2315504	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289436	2315505	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289091	2300505	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289409	2315503	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289410	2315503	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
298505	2330518	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
299371	2345520	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.

Manhole Asset ID	GIS Underground Map	Proposed Solution
303411	2360529	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
299427	2345527	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
299410	2345528	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
303334	2360519	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
300898	2360519	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
288949	2300499	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
289828	2345501	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
290287	2360505	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
290781	2375513	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.

Manhole Asset ID	GIS Underground Map	Proposed Solution
301521	2390519	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
301290	2375519	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
301293	2375519	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
301294	2375519	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
301287	2375519	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
301270	2375518	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
521965	2360517	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
301304	2375520	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
301377	2375525	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.

Manhole Asset ID	GIS Underground Map	Proposed Solution
302010	2420518	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
309464	2495509	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
301481	2390518	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
309610	2510504	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
309520	2495512	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
309526	2495512	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
309519	2495512	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
312728	2495513	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
308844	2450514	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.

Manhole Asset ID	GIS Underground Map	Proposed Solution
304769	2465518	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
309704	2510511	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
762724	2330518	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
301198	2375515	Manhole is buried. Cannot perform internal manhole inspection because adjacent segment(s) are inaccessible. When inaccessible segment(s) are resolved, manholes will be inspected.
288713	2285504	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
289997	2345512	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
293440	2255532	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
295607	2195539	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
296992	2255531	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
302765	2525520	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
304891	2465528	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.

Manhole Asset ID	GIS Underground Map	Proposed Solution
310380	2555494	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
302415	2495520	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
296569	2240531	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
297444	2270533	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
309465	2495509	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
302309	2465530	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
742983	2345539	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
742982	2330539	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
297439	2270533	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
310378	2555494	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
297004	2255531	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
297470	2270536	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
289127	2300506	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.

Manhole Asset ID	GIS Underground Map	Proposed Solution
289871	2345505	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
287201	2225500	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
287529	2255501	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
290771	2375512	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
291228	2405496	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
301306	2375520	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
303601	2390529	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
304151	2420525	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
291533	2405514	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
297358	2270530	Sewer system defects prevent completion of manhole inspection. Manhole will be repaired and inspected in 2015.
308209	2420500	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
291231	2405496	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
307610	2420497	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.

Manhole Asset ID	GIS Underground Map	Proposed Solution
298750	2345518	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
291806	2330514	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
309705	2510511	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
312758	2495514	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
302938	2540516	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
308633	2435510	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
308180	2420499	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
302044	2435516	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
303675	2390518	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
763564	2525509	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
764413	2225528	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
764794	2570513	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
290347	2360508	Manhole is buried. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.

Color Kev	Inspection has been comp	pleted since identified as inaccessible

Manhole Asset ID	GIS Underground Map	Proposed Solution
302766	2525520	Manhole is inaccessible. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
289648	2330507	Manhole is inaccessible. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.
304970	2495526	Manhole is inaccessible. CCTV video footage of adjacent segment is insufficient to perform internal manhole inspection. Manhole will be inspected in 2015.

The total manholes needing inspection = 126 each

The total manholes inspected during this reporting period = 1 each

The total manholes remaining to be inspected = 125 each

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 3-2 on the following page provides the number of miles and percent of system inspected during the reporting period.

3.C Manhole Inspection

Table 3-3 on the following page 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 3-4 on the following page.

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.

		Та	ble 3-2 Syste	m Inspection				
	Current Rep	orting Period	Previo	us Year	Previous	Five Years	Accumula	ative Totals
Period	Miles Inspected	Percentage Inspected	Miles Inspected	Percentage Inspected	Miles Inspected	Percentage Inspected	Miles Inspected	Percentage Inspected
January 1 – June 30, 2015	63.5	7.5*	0	0*	0	0*	63.5	7.5*

^{*}Based on 845.6 miles in system

		Tal	ble 3-3 Manho	le Inspection				
	Current Rep	oorting Period	Previo	ous Year	Previous	Five Years	Accumula	ative Totals
Period	Manholes Inspected	Percentage Inspected	Manholes Inspected	Percentage Inspected	Manholes Inspected	Percentage Inspected	Manholes Inspected	Percentage Inspected
January 1 – June 30, 2015	1699	9.0*	0	0*	0	0*	1699	9.0*

^{*}Based on 18,849 manholes in system

		Ta	able 3-4 Syst	em Cleaning				
	Current Re	porting Period	Previo	ous Year	Previous	Five Years	Accumul	ative Totals
Period	Miles of System Cleaned	Percentage of System Cleaned	Miles of System Cleaned	Percentage of System Cleaned	Miles of System Cleaned	Percentage of System Cleaned	Miles of System Cleaned	Percentage Cleaned
January 1 – June 30, 2015	63.5	7.5*	0	0*	0	0*	63.5	7.5*

^{*}Based on 845.6 miles in system

3.F Maintenance and Training Activities

- 1. Pump station and force main preventive maintenance activities were conducted in accordance with Item 2.E of the approved CMOM program.
- 2. 1699 manholes were inspected during the period beginning January 1 through June 30, 2015, and none were documented to have signs of heavy infiltration.
- The following sewer construction and rehabilitation projects were completed or are ongoing within the City of Akron during the reporting period:
 - a) Mud Run Trunk Sewer Lining MRPS-CD (File 2012-011-00)
 - Reconstructed 210 LF of existing 8-inch sanitary sewer with HDPE pipe.
 - Rehabilitated forty-six existing sanitary sewer manholes by epoxy coating.
 - Reconstructed one existing sanitary sewer manhole.
 - b) Mill Street Sewer Repair Emergency (2015-027-00)
 - Performed point repair on 24"x36" sewer.
 - Reconstructed one manhole.
 - c) CSO Rack 15 Storage Basin (File 2012-030-00)
 - Construction of 300 LF of 42-inch glass fiber pipe.
 - Construction of 176 LF of 72-inch RCP.
 - Construction of 130 LF of 24-inch RCP.
 - Construction of 436 LF of 60-inch RCP.
 - Construction of 254 LF of 8-inch PVC pipe.
 - Construction of 115 LF of 24-inch DIP.
 - Construction of five new manholes.
 - Construction of three new structures/chambers.
 - d) Union Street Emergency (File 2015-008-00)
 - Reconstructed existing 8-inch sanitary sewer with 391 LF of truss pipe.
 - Reconstructed existing 8-inch sanitary sewer with 97 LF of VCP.
 - Reconstructed one existing manhole on 8-inch sanitary sewer.
 - Constructed two new manholes on 8-inch sanitary sewer.
 - e) Main Outfall Cap (File 2012-052-01)
 - Replaced 181 LF of brick arch cap with cast-in-place concrete walls and precast concrete top as a demonstration for a possible means to increase capacity.
 - f) OCIT Lining Protection of LCI (File 2012-001-07)
 - Slipped lined 445 LF of existing 75-inch brick combination sewer with 66-inch glass fiber pipe.
 - Slipped lined 1,133 LF of existing 87-inch brick combination sewer with 78-inch glass fiber pipe.

- g) Massillon Road Improvements (Triplett to Penthley) (File 2011-004-00)
 - Reconstructed 309 LF of existing 12-inch sanitary sewer.
- h) Mud Run District Capacity Improvements (File 2012-048-06)
 - Constructed 880 LF of 24-inch glass fiber pipe sanitary sewer.
 - Reconstructed 553 LF of existing 12-inch sanitary sewer with 18-inch glass fiber pipe.
 - Reconstructed 1,151 LF of existing 10-inch sanitary sewer with 18-inch glass fiber pipe.
 - Reconstructed five existing sanitary sewer manholes.
 - Constructed five new sanitary sewer manholes.
- 4. 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.
 - In July 2013, the City of Akron contracted with Duke's Root Control Incorporated to conduct a pilot chemical root control program for sanitary sewer assets 402255, 402456, 406262, 418222, 432377, and 435635. In July 2014, an inspection of these lines revealed root growth. These inspection results were given to the contractor that performed the process and these lines were retreated in September 2014. Subsequent inspections of the September treatment revealed slower root growth than the original treatment and will be inspected again in September of 2015 for root growth. The City will evaluate these inspection results 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.
- 5. Training activities were conducted on the following topics provided in Table 3-6 below. Date of training and number of employees receiving training are also indicated.

Table 3-6 Training Activities

Date	Course Title/Description	Number of Employees Trained
1/26, 1/27, 1/28, 1/29/2015	Dig Safely - OUPS	39
3/9, 3/10, 3/11, 3/13, 3/19/2015	Timing is Everything	38
4/8, 4/9, 4/10, 4/14, 4/15, 4/16/2015	Lock Out – Tag Out	45
5/5, 5/6, 5/8, 5/11/2015	Watch Your Load	42
6/8, 6/9, 6/10, 6/11/2015	Confined Space Training	36
6/17/2015	Advanced Pipe Cleaning Training	3

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 SSOs and CSS Releases Caused by Fats, Oils, and Grease (FOG)

Table 3-7 Releases Caused by Fats, Oils and Grease

Date	Location	Type of Release (SSO, Rack, Property backup)	Add to FOG Trouble Spot List
2/17/2015	414 N. Adams	Property Backup	No*
3/9/2015	845 Biruta	Property Backup	No**
3/15/2015	430 The Brooklands	Property Backup	Yes
5/1/2015	546 East Avenue	Property Backup	Yes

^{*} Reconstructed this sewer segment under an emergency project

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. The City of Akron CSO Program Team developed a CSO Website (http://akronwaterwaysrenewed.com) which includes a FOG page identifying the effects of fats, oils, and grease discharged into the sewer system, and things property owners can do to prevent aforementioned discharges. The website has a "hit-counter" to quantify the number of people who have visited the site. As of July 8, 2015, there have been 938 hits to the website.
- B. 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 tour the Akron Water Reclamation Facility and learn about the local eco system. 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 this City property into a rookery a breeding place for heron families. In addition, the City of Akron displayed equipment used to

^{**} This sewer segment is part of a construction project in progress

clean and inspect the City's sewer system with a video displaying the effects of improper grease disposal.

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. However, the Final Remedial Report has yet to be approved to begin the proposed improvements.

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 80% 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 95% complete

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

Project Status

Mud Run Trunk Sewer Lining Construction complete

Sevilla Trunk Sewer Reconstruction Bid Winter 2015

Mud Run Pump Station and Storage Construction 45%

Basin Improvements*** complete

Mud Run District Capacity Construction 50%

Improvements*** complete

Mud Run District I/I Repairs Bid Fall 2015

Mud Run District I/I Rehabilitation Bid Fall 2015

NOTE: *** projects indicate those required for CD compliance.

The Mud Run Pump Station and Storage Basin project construction continued. Kenmore Construction began mobilizing on-site in early December 2014, and began the excavation and mud mat for the new basin by the end of December. Construction of the basin was performed from late December 2014 through June 2015. concrete construction approximately 98% complete with the exception of the Overflow Chamber that still is yet to be placed. Kenmore also began minor demolition at the pump station and installed steel sheeting and whaler installation and excavation for the new wet well addition from April 23 to June 30, 2015. Demolition of the old 1991 wet well was performed and is approximately 90% complete. Kenmore submitted their Bypass Pumping Plan for approval on July 3rd, and plans to install and switch over to full bypass pumping beginning August 3rd for approximately 3 to 4 months while the remaining demolition is completed and the new pumps and MCC are installed along with the construction of the new wet well and building additions.

The Mud Run District Capacity Improvements Notice to Proceed was issued March 25, 2015. The contractor started construction on April 15, 2015. 950 LF of 24" sanitary sewer has been completed on Chandler Avenue. 2,100 LF of 18" sanitary sewer has been completed on Battles Ave.

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 \$5,910,631.

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

It should be noted that the Integrated Plan (IP) development described herein is proposing certain modifications that are likely to be considered "major" modifications to the provisions of the current CD. The City will continue to work with regulatory agencies to come to an agreement on the specific modifications so that a formal request for modification can be made through appropriate legal channels.

Appendices A through G are on file in the City of Akron engineering bureau and are available for public viewing.