



2018 ANNUAL REPORT


March 2019

CITY OF FORT SMITH, ARKANSAS

Consent Decree Compliance Program and Infrastructure Improvements, 2018 Annual Report.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.





Jerry Walters, Director of Utilities
City of Fort Smith, AR
Utility Department



Date

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List of Acronyms

ADEQ	Arkansas Department of Environmental Quality
CCA	Continuing Capacity Assurance
CCTV	Closed Circuit Television
CIPP	Cured-In-Place Pipe
CMOM	Capacity, Management, Operations, & Maintenance
CSSA	Continuing Sewer System Assessment
CTP	Comprehensive Training Plan
CWA	Clean Water Act
DOL	Date of Lodging
DMR	Discharge Monitoring Report
EPA	U.S. Environmental Protection Agency
FOG	Fats, Oil and Grease
GIS	Geographic Information System
I&I	Infiltration and Inflow
IMS	Information Management System
MACP	NASSCO's Manhole Assessment and Certification Program
MGD or mgd	Million Gallons per Day
NASSCO	National Association of Sewer Service Companies

NPDES	National Pollutant Discharge Elimination System
OERP	Overflow Emergency Response Plan
PACP	NASSCO's Pipe Assessment and Certification Program
PSLR	Private Service Line Release
SL-RAT	Sewer Line Rapid Assessment Tool
SOP	Standard Operation Procedure
SSA	Sewer System Assessment
SSO	Sanitary Sewer Overflow
U.S.	United States
WCTS	Wastewater Collection and Transmission System
WWTP	Wastewater Treatment Plant

Definitions

Unless otherwise defined herein, or expressly stated in the City of Fort Smith Sewer Use Ordinance, terms used in in the plans comprising the CMOM Program and Implementation Plan shall have the meanings given to those terms in the CWA and the EPA Consent Decree lodged for City of Fort Smith, Arkansas. The terms and acronyms are defined as follows:

ADEQ shall mean the Arkansas Department of Environmental Quality, and any successor departments or agencies of the State of Arkansas.

Annual Report shall mean the report to be submitted annually pursuant to Section X of the Consent Decree.

Article shall mean a portion of Section V ("Comprehensive Remedial Requirements" Section) of the Consent Decree.

Basin shall mean a section of a Sewershed that is a distinct wastewater collection area, and designated by Fort Smith as such.

Building/Private Property Backup shall mean a wastewater backup into a building and/or a wastewater overflow onto private property that is caused by blockages, flow conditions or other malfunctions in the WCTS. "Building/Private Property Backup" does not include a wastewater backup into a building and/or a wastewater overflow onto private property that is caused solely by a blockage or other malfunction of a Private Service Lateral or other piping or conveyance system that Fort Smith does not own or operate.

Calendar Year shall mean the twelve (12) month period starting on January 1 and ending on December 31 of a given year.

Capacity Constraint shall mean those discrete components, or groups of components of the WCTS that are determined by the City, consistent with Section V, Article Four ("Capacity Assessment and Hydraulic Modeling") of the Consent Decree to have capacity deficiency issues that have caused or significantly contributed to previous capacity-related SSOs; that are likely to cause or significantly contribute to future capacity-related SSOs; and/or that are identified as overflow locations for any storm event presented in Section V, Article Four, Paragraph 30.

City or Fort Smith shall mean the City of Fort Smith, Arkansas.

Clean Water Act or **CWA** shall mean the Federal Clean Water Act found at 33 U.S.C. §§ 1251-1387.

CMOM or **Capacity, Management, Operations, and Maintenance** shall mean a program of accepted industry practices to properly manage, operate and maintain sanitary sewer collection, transmission and treatment systems, investigate capacity constrained areas of these systems, and respond to SSO events, including as identified by the Guide for Evaluating Capacity, Management, Operation, and Maintenance (CMOM) Programs (EPA, Jan. 2005).

Consent Decree or **Decree** shall mean the Decree (and all Appendices) lodged by the U.S. EPA against the City of Fort Smith.

Consultant shall mean a professional engineer licensed in the State of Arkansas or other recognized professional within a field of practice, with appropriate qualifications, experience and adequate staff and resources necessary to undertake any program plan, study, analysis, design or report required by the terms of the Consent Decree.

Contractor shall mean a person or entity who in pursuit of its business undertakes to perform a job or piece of work, retaining in himself control of means, method and manner of accomplishing the desired result.

Critical Response Time shall mean the time interval between activation of the high wet well level alarm at a Pump Station and the first SSO from the WCTS tributary to that Pump Station under peak dry-weather flow conditions or under peak wet-weather flow conditions (generated by the analysis rainfalls presented in Section V, Article Four ("Capacity Assessment and Hydraulic Modeling") of the Consent Decree), whichever weather conditions prevail at the time of the SSO.

Cross-Connection shall mean any constructed connection, whether by pipe or any other means, between any part of the WCTS and any part of a storm water drainage system that is capable of conveying flow between the two systems.

Date of Lodging shall mean the date the United States filed a copy of the Consent Decree signed by all Parties with the District Court, along with the Complaint, prior to submitting the Consent Decree for publication in the Federal Register to provide an opportunity for public review and comment thereon. The Date of Lodging for the City's Consent Decree is January 02, 2015 (1/2/2015).

Day or **Days** shall mean a calendar day or calendar days unless expressly stated to be a business day or business days. In computing any period of time under the Consent Decree, where the last Day would fall on a Saturday, Sunday, or a Federal or State holiday, the period shall run until the close of the next business day.

Deliverable shall mean any written document required to be prepared and/or submitted by or on behalf of Fort Smith pursuant to the Consent Decree.

Direct Discharge shall mean a sewer pipe installed to convey wastewater from a sanitary sewer for release into the environment.

Environmental Protection Agency or **EPA** shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

Equalization Facilities or **EQ Facilities** shall mean those components of the WCTS designated, designed or intended for the temporary storage of wet-weather wastewater flows.

Fats, Oil and Grease or **FOG** shall mean fats, oil and grease, whether petroleum-based, mineral-oil-based, animal-based or vegetable-based.

FOG Control Device shall mean any grease interceptor, grease trap, or other mechanism, device, or process that attaches to or is applied to wastewater plumbing fixtures and/or Private Service Lines to collect, contain, or remove FOG from the wastewater stream of a FOG Generator prior to discharge into the WCTS.

FOG Control Program Plan or Fats, Oil and Grease Control Program Plan shall mean Fort Smith's program to control discharge of FOG into the WCTS as developed and approved under **Section V, Article Seven, Paragraph 37** of the Consent Decree.

FOG Generator shall mean any food service establishment or food-processing establishment that discharges FOG into the WCTS, provided, however, that those establishments covered by the City's industrial user program shall not be considered a FOG Generator for the purposes of the Consent Decree.

Force Main shall mean any pipe that receives and conveys, under pressure, wastewater from the discharge side of a pump. A Force Main is intended to convey wastewater under pressure.

Gravity Sewer Line shall mean a pipe that receives, contains and conveys wastewater not normally under pressure, but intended to flow unassisted under the influence of gravity.

Small-Diameter Gravity Sewer Lines shall mean Gravity Sewer Lines that are less than twenty-four (24) inches in diameter.

Large-Diameter Gravity Sewer Lines shall mean Gravity Sewer Lines that are twenty-four (24) inches or greater in diameter.

Infiltration as defined by 40 C.F.R. § 35.2005(b) (20) shall mean water other than wastewater that enters a WCTS (including sewer service connections and foundation drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes.

Inflow as defined by 40 C.F.R. § 35.2005(b) (21) shall mean water other than wastewater that enters a WCTS (including sewer service connections) from sources such as, but not limited to, roof leaders, cellar drains, yard drains, area drains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm water, surface runoff, street wash waters, or drainage.

Infiltration and Inflow or I&I shall mean the total quantity of water from Infiltration and Inflow without distinguishing the source.

Interest shall mean interest accruing on a sum calculated in the manner provided by 28 U.S.C. § 1961.

Manhole Assessment and Certification Program or MACP shall mean the **National Association of Sewer Service Companies (NASSCO)** Manhole Assessment and Certification Program.

Massard Permit shall mean NPDES Permit Number AR0021750 issued to City pursuant to Section 402 of the Clean Water Act, 33 US § 1342, and the Arkansas Water and Air Pollution Control Act, Ark. Code Ann. § 8-4-10, et seq., for the Massard POTW and any future extended, modified or reissued permit.

Massard WWTP shall mean the publicly owned treatment works that is owned and operated by the City located in Fort Smith with an address of **1609 North 9th Terrace, Barling, Arkansas**.

Month shall mean one calendar month running from a numbered day to the same numbered day of the following calendar month, regardless of whether the particular month has 28, 29, 30, or 31 days. If a triggering event would occur on a day of the month that does not exist (for example, February 30), then the event shall be due on the first day of the following month (for example March 1).

NASSCO shall mean the National Association of Sewer Service Companies.

P Street Permit shall mean NPDES Permit Number AR0033278 issued to City pursuant to Section 402 of the Clean Water Act, 33 U.S.C. § 1342, and the Arkansas Water and Air Pollution Control Act, Ark. Code Ann. § 8-4-10, et seq., for the P Street POTW and any future, extended, modified or reissued permit.

P Street WWTP shall mean the publicly owned treatment works that is owned and operated by City and that is located at **13 North P Street in Fort Smith, Arkansas**.

Pipe Assessment and Certification Program or **PACP** shall mean the NASSCO Pipe Assessment and Certification Program.

Pipe Segment shall mean the portion of a Gravity Sewer Line extending from manhole to manhole.

Private Service Line shall mean a sewer line which is not owned or operated by City, but which conveys wastewater from a building to a main line of the WCTS.

Private Service Line Release or **PSLR** shall mean any spill, release, or diversion of sewage from a Private Service Line to any location other than the WCTS caused solely by a blockage or other malfunction in that Service Line, even if the release does not reach Waters of the State or waters of the United States.

Pump Station or **Pumping Station** shall mean facilities owned or operated by Fort Smith that contain pumps that lift wastewater from a lower to a higher hydraulic elevation, including all related electrical, mechanical, and structural systems necessary to the operation of that Pump Station within the WCTS.

Recurring Private Service Line Release shall mean a Private Service Line Release that has occurred within three (3) years of a prior Private Service Line Release at the same location.

Recurring SSO, Recurring Dry-Weather SSO, and Recurring Wet-Weather SSO. A "Recurring SSO" shall mean any SSO that has occurred within three (3) years of a prior SSO that occurred at the same location under any weather conditions (wet or dry). A "Recurring Dry-Weather SSO" shall mean an SSO that has occurred during dry weather within three (3) Years of a prior SSO at the same location that also occurred during dry weather. A "Recurring Wet-Weather SSO" shall mean an SSO that has occurred during wet weather within three (3) Years of a prior SSO at the same location that also occurred during wet weather.

Remedial Measures shall mean spot repairs, trenchless sewer rehabilitation, sewer replacement, repair or reconstruction, and any other appropriate WCTS improvement technique for resolving condition deficiencies and/or capacity deficiencies in a particular system asset or group of assets within the WCTS, in accordance with **Appendix D** of the Consent Decree ("Remedial Determination Process"), that have caused or significantly contributed to previous SSOs, and/or, that are likely to cause or significantly contribute to future occurrence of SSOs.

Sanitary Sewer Overflow or SSO shall mean any spill, release, or diversion of sewage from the WCTS, including: (1) an overflow that results in a discharge to Waters of the State or waters of the United States, and (2) an overflow of wastewater, including a wastewater backup into a building or wastewater overflow onto private property, such as a Building/Private Property Backup (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building lateral (i.e. a "Private Service Line")), even if that overflow does not reach Waters of the State or waters of the United States.

Sewershed shall mean a section of City's WCTS that is a distinct drainage or wastewater collection area and designated as such by City for the P Street WWTP and the Massard WWTP.

State of Arkansas or State shall mean the State of Arkansas acting on behalf of ADEQ.

Sub-basin shall mean a section of a Basin that is a distinct wastewater collection area and designated by Fort Smith as such.

Tabulation shall mean a document in a format containing text searchable cells or fields that is also sortable by data category.

United States or U.S. shall mean the United States of America, acting on behalf of EPA.

Wastewater Treatment Plant or WWTP shall mean the Massard or P Street wastewater treatment plants and components thereof.

Wastewater Collection and Transmission System or WCTS shall mean the sanitary sewer collection, retention and transmission systems for both the Massard WWTP Sewershed and the P Street WWTP Sewershed, including all pipes, Force Mains, Gravity Sewer Lines, Pump Stations, EQ Basins, manholes and appurtenances thereto, that are owned or operated by City at any time from the Date of Lodging of the Consent Decree until its termination under Section XXIV.

Waters of the State shall mean all streams, lakes, marshes, ponds, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies of accumulations of water, surface and underground, natural and artificial, public or private, which are contained within, flow through, or border upon the State of Arkansas, or any portion of the State of Arkansas, as defined in Ark. Code Ann. §84-102(10).

Year shall mean a twelve-month period regardless of the beginning date. In the event a triggered event shall be due on a year ending date that does not exist (for example, February 29 in some years), then the event shall be due on the first day of the following month (for example, March 1).

Section 1

Summary Report

In accordance with Section II of the Consent Decree (CD), entered into between the United States Environmental Protection Agency (EPA), the Arkansas Department of Environmental Quality (ADEQ) and the City of Fort Smith, Arkansas (City) with Date of Lodging (DOL) of January 2, 2015, the City is implementing a CD compliance program (Program). The Program consists of the review of the City's wastewater treatment plants; improvements and/or modifications to its wastewater collection and transmission systems (WCTS); improvements/modifications to its operations and maintenance; and the goal of abatement of sanitary sewer overflows (SSO). The Program includes sewer system assessments, conditions ratings, and remediation; and capacity remedial measures plans, design and construction. At the same time, the City must continue to deliver its asset management projects every year regardless of the demands of the Program.

Pursuant to requirements of Section X, Reporting, the City has prepared the following Annual Report for the period from January 1, 2018 to December 31, 2018. This Annual Report contains all applicable information required by the CD, which includes all activities, planned deliverables, accomplishments, and completed improvements performed before or during 2018. The City has successfully met each of the stipulated requirements for the Year 2018. In January 2018, the City received approval from the EPA for extended deadlines for two Capacity Remedial Measures projects identified in Appendix E2. The original Capacity Improvements schedule, as referenced in Appendix E2, will be superseded by the Capacity Remedial Measures report, which will be submitted on or before March 31, 2020. The following is a list of CD Sections, with their associated document reference, for which detailed information, data tabulations, exhibits, plans and/or reports have been compiled in order to achieve compliance for the 2018 Annual Report:

- Sewer System Assessments (SSAs), Section V, Article One; Section X, Paragraph 91;
- Condition Remedial Measures, Section V, Article Two; Section X, Paragraph 92;
- Capacity Assessment and Hydraulic Modeling, Section V, Article Four;
- Capacity Remedial Measures, Section V, Article Five and Section X, Paragraph 93, Appendixes E1 and E2;
- Capacity, Management, Operations, and Maintenance (CMOM) Activities, Section V, Article Seven; Section X, Paragraph 94;
 - Fats, Oil and Grease (FOG) Control Program Section V, Article Seven, Paragraph 37; Section X, Paragraph 94, a;
 - Root Control Program Section V, Article Seven, Paragraph 39; Section X, Paragraph 94, b;
 - Gravity Sewer Line Cleaning Program Section V, Article Seven, Paragraph 41; Section X, Paragraph 94, c;

- Continuing Sewer System Assessment (CSSA) Program Section V, Article Seven, Paragraph 43; Section X, Paragraph 94, d;
- Continuing Pump Station and Force Main Evaluation and Preventive Maintenance Program Section V, Article Seven, Paragraph 45; Section X, Paragraph 94, e;
- Continuing Capacity Assurance Program Section V, Article Seven, Paragraph 46; Section X, Paragraph 94, f;
- SSO Reporting Section V, Article Seven, Paragraph 47; Section X, Paragraph 94, g;
- Information Management System (IMS) Update Section V, Article Seven, Paragraph 50; Section X, Paragraph 94, h;
- SSO Emergency Response Program (OERP) Section V, Article Seven, Paragraph 48; Section X, Paragraph 94, i;
- Standard Operating Procedures (SOP component) Section V, Article Seven, Paragraph 53; Section X, Paragraph 94, j;
- Private Line Defect Remedial Program Section V, Article Seven, Paragraph 54; Section X, Paragraph 94, k;
- Employee Training Program Section V, Article Seven, Paragraph 55; Section X, Paragraph 94, l;
- Inventory Management System Section V, Article Seven, Paragraph 56; Section X, Paragraph 94, m;
- Supplemental Environmental Project (SEP) Status, Appendix F, Subsection D; Section X, Paragraph 95;
- Mitigation Program Requirement, Section VI, Paragraph 70.a.

This Annual Report provides pertinent data and information as required in Section IX, Deliverables and Review Process, Paragraphs 80 and 81. It should be noted that the Capacity Remedial Measures Plan will be provided under separate submittal on or before March 31, 2020, as notified by the letter dated March 20, 2018.

Table 1-1 below provides a list of completed milestone activities required for the 2018 CD Annual Reporting period.

Table 1-1 CD Milestones

CD Reference	CD Activity	CD Date	Status	Date Submitted
	Date of Lodging	02 Jan '15	Complete	02 Jan '15
Section V, Article One	Complete SSAs on 40 miles of Gravity Sewer Lines Annually	31 Dec '18	Completed 52.8 miles in 2018	Mar '19
Section V, Article One	Complete SSAs on 150 miles of Gravity Sewer Lines in 3-years - 159.5 miles in previous report years, and 52.8 miles in 2018	31 Dec '18	Completed 212.3 miles total	Mar '19
Section V, Article One	2015 Condition Assessment Report Submitted	31 Mar '16	Complete	Mar '16
Section V, Article One	2016 Condition Assessment Report Submitted	31 Mar '17	Complete	Mar '17
Section V, Article One	2017 Condition Assessment Report Submitted	31 Mar '18	Complete	Mar '18
Section V, Article One	2018 Condition Assessment Reports (In-House and RJN Group) Submitted	31 Mar '19	Complete	Mar '19
Section V, Article Two	Remedial Measure Plan for Basin 12 Submitted for Approval - Approved	31 Mar '16 5 July '16	Complete	Mar '16
Section V, Article Two	Remedial Measure Plan for 2015 SSA Area Submitted for Approval	31 Mar '17	Complete	Mar '17
Section V, Article Two	Remedial Measure Plan for 2016 SSA Area Submitted for Approval	31 Mar '18	Complete	Mar '18
Section V, Article Two	Remedial Measure Plan for 2017 SSA Area Submitted for Approval	31 Mar '19	Complete	Mar '19
Section V, Article Three	Pump Station and Force Main Evaluation Report Submitted for Approval	31 Mar '18	Complete	Mar '18
Section V, Article Four	Hydraulic Model Update Report Submitted for Approval - EPA Comments - Response	31 Mar '17 12 June '17 9 Aug '17	Complete	Mar '17
Section V, Article Four	Capacity Assessment Report Submitted for Approval	31 Mar '18	Complete	Mar '18
Section V, Article Seven	Root Control Program Plan Submitted for Approval - Approved	31 Dec '15 5 July '16	Complete	Dec '15
Section V, Article Seven	Gravity Sewer Line Cleaning Program Plan Submitted for Approval - Approved	31 Dec '15 5 July '16	Complete	Dec '15
Section V, Article Seven	Completed a minimum of 10% of Small-Diameter Gravity Lines Cleaning per year	31 Dec '17	Completed 10% in 2018	Mar '19
Section V, Article Seven	Complete a minimum of 8 miles of Large-Diameter Gravity Sewer Line cleaning in 3-years - 9.02 miles in previous report years and 4.35 miles in 2018	31 Dec '17	Completed 13.37 miles total	Mar '19
Section V, Article Seven	SSO Documentation and Reporting Program Plan Submitted for Approval - Approved	31 Dec '15 5 July '16	Complete	Dec '15

Table 1-1 CD Milestones

CD Reference	CD Activity	CD Date	Status	Date Submitted
Section V, Article Seven	SSO Emergency Response Program Plan Submitted for Approval - Approved	31 Dec '15 5 July '16	Complete	Dec '15
Section V, Article Seven	FOG Control Program Plan Submitted for Approval - Approved	31 Dec '16 3 Feb '17	Complete	Dec '16
Section V, Article Seven	Continuing Sewer System Assessment Program Plan for Approval - Approved	31 Dec '16 3 Feb '17	Complete	Dec '16
Section V, Article Seven	Continuing Pump Station and Force Main Evaluation and Maintenance Program Plan for Approval - Approved	31 Dec '16 23 Feb '17	Complete	Dec '16
Section V, Article Seven	Continuing Capacity Assurance Program Plan for Approval - Approved	31 Dec '16 23 Feb '17	Complete	Dec '16
Section V, Article Seven	Information Management System Plan for Approval - Approved	31 Dec '16 22 Feb '17	Complete	Dec '16
Section V, Article Seven	SOP Plan for Approval - Approved	30 June '16 3 Jan '17	Complete	June '16
Section V, Article Seven	Private Line Defect Remedial Program Plan for Approval - Approved	31 Dec '16 23 Feb '17	Complete	Dec '16
Section V, Article Seven	Comprehensive Training Program Plan for Approval - Approved	30 June '16 6 Dec '16	Complete	June '16
Section V, Article Seven	Inventory Management System Demonstration for Approval - Approved	31 Dec '16 23 Feb '17	Complete	Dec '16
Section VI	Mitigation Program Quality Assurance Project Plan Submitted - Comments Received - Response to Comments Submitted	31 Dec '15 29 June '16 8 August '16	Complete	Dec '15
Section VIII	Supplemental Environmental Project Escrow Agreement	30 June '15	Complete	June '15
Section VIII	Executed Escrow Agreement Submitted	31 Dec '15	Complete	Dec '15
Section X	2015 Annual Report - EPA Comments - Response	31 Mar '16 9 Aug '16 30 Sep '16	Complete	Mar '16
Section X	2016 Annual Report - EPA Comments - Response	31 Mar '17 15 June '17 9 Aug '11	Complete	Mar '17
Section X	2017 Annual Report	31 Mar '18	Complete	Mar '18

Section 2

Consent Decree Activities

2.1 Sewer System Condition Assessments Activities

Pursuant to the requirements of Section V, Article One: Sewer System Condition Assessments and Section X, Paragraph 91; and Section V, Article Two: Condition Remedial Measures and Section X, Paragraph 92, this section documents the City's progress towards completing the Sewer System Condition Assessment activities.

2.1.1 Sewer System Assessments (SSAs)

Pursuant to the requirements of Section V, Article One: Sewer System Condition Assessments and Section X, Paragraph 91, this section documents the City's progress toward completing SSA activities. The City contracted RJN Group, Inc. (RJN) to conduct SSA activities in 2018, and also City Staff also performed in-house SSA activities in 2018. Figure 2-1 and Table 2-1 outline the SSA areas. The 2018 SSA Condition Assessment Report (2018 SSA) which included smoke testing, dye testing, CCTV, and manhole inspections is included in Attachment 1. The 2018 in-house SSA Condition Assessment Report (2018 In-House SSA) which included smoke testing, dye testing, CCTV, and manhole inspections is included in Attachment 2.

Table 2-1 SSA Area Summary

Sub-Basin	Number of Manholes	Length of Sewer Pipe	
		Linear Feet (LF)	Miles
Previous SSAs	3,876	842,273	159.5
2018 SSA (RJN Group & In-House)	1,228	278,883	52.8
Total	5,104	1,121,156	212.3

The following SSA Activities were conducted during the 2018 Annual Report year:

- A total of 52.8 miles of gravity sewer lines were assessed in the 2018 SSA area including manholes, CCTV, smoke testing and dye testing (see Figure 2-1, Table 2-1).
- The City exceeded the minimum annual SSA requirement of 40 miles, as shown in the 2018 SSA (Attachments 1 and 2).
- Flow Monitoring was conducted at thirteen (13) locations during this report period. Figure 2-2 provides the flow monitoring and rain gauge locations used. Five (5) of the flow monitors were located in post-remedial measures sub-basins, to assess the effectiveness of remediation activities.
- No gravity sewer investigation was performed beyond the limits of the Consent Decree.

- A total of 360 linear feet (0.05 miles) of additional gravity sewer lines were added to the WCTS during this report period. Additional gravity sewer lines are provided in Figure 2-3.
- A total of 16 pipe segments were identified as potentially receiving storm water discharges from private property. These were associated with four (4) downspouts, zero (0) sump pumps, one (1) grease trap, two (2) catch basins and nine (9) area storm drains, discovered during the 2018 SSA (a detailed tabulation is provided in Attachments 1 and 2). These are under further review and will be handled in accordance with the Private Line Remedial Program Plan (Attachment 12).
- 150 potential Private Service Line Defects including 17 private service lines and 133 private cleanouts, were discovered during the 2018 SSA (a detailed tabulation is provided in Attachments 1 and 2). The potential Private Service Line Defects identified in the 2018 SSA will be evaluated and addressed as described in the approved Private Line Defect Remedial Program Plan (see Section 2.7.11 and Attachment 10).
- There were no direct discharges from the WCTS discovered during the 2018 SSA.

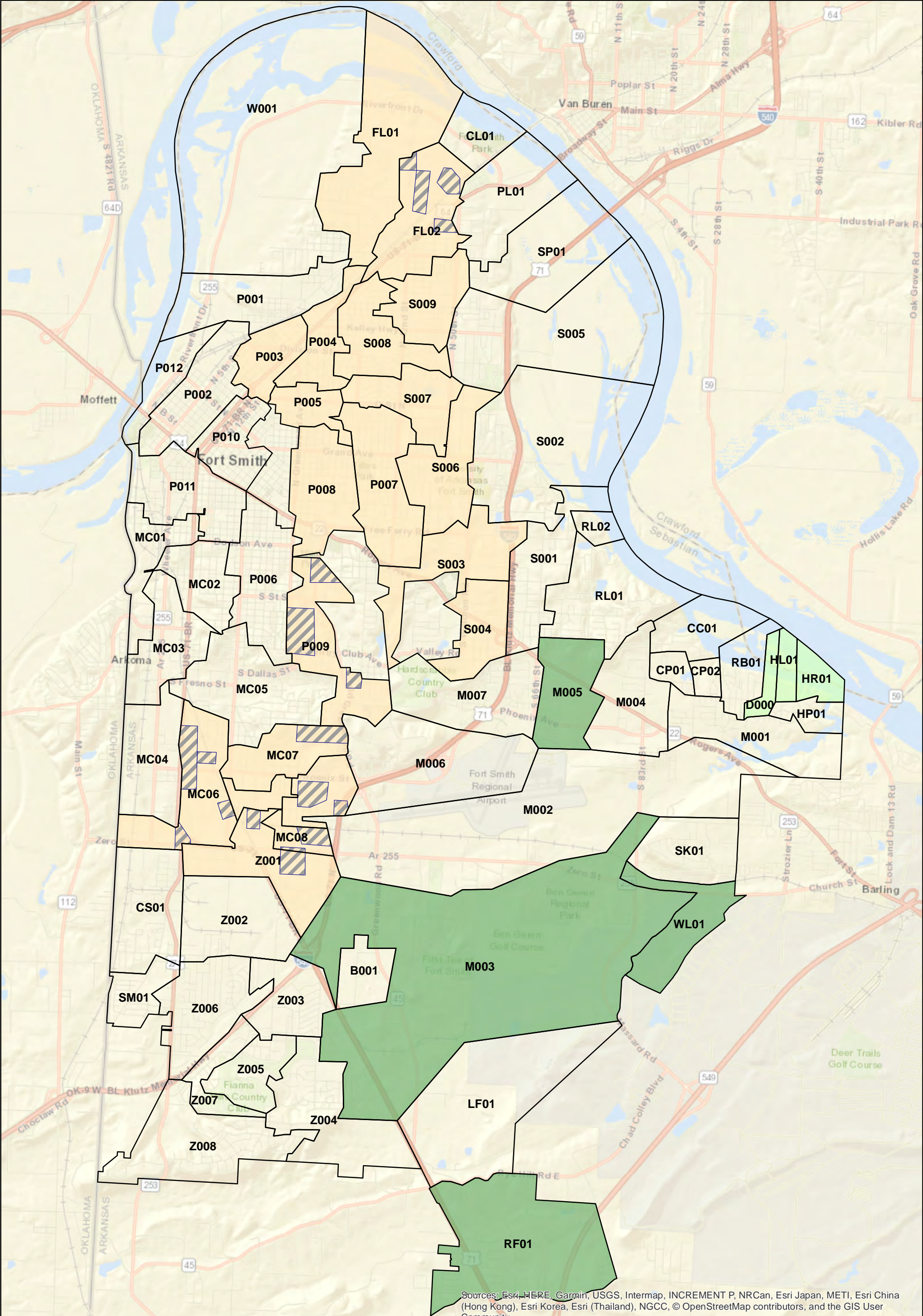
Table 2-2 Condition Assessment Status

Condition Assessment Activities ⁽¹⁾	Previous Years	2018 SSA (RJN Group & In-House)	Total
Uninspected Manholes	359	78	467
Manhole Inspection	3,517	1,228	4,745
Sewer Pipe Inspected	842,273 LF (159.52 miles)	278,883 LF (52.8 miles)	1,121,156 LF (212.3 miles)
Length of Sewer Pipe Smoke Tested	842,273 LF (159.52 miles)	278,883 LF (52.8 miles)	1,121,156 LF (212.3 miles)
Sewer Pipe Dye Tested	37,587 LF (7.12 miles)	2,901 LF (0.55 miles)	40,488 LF (7.67 miles)
Small Diameter Sewer Pipe CCTV	668,580 LF (126.63 miles)	39,937 LF (7.56 miles)	708,517 LF (134.2 miles)
Large Diameter Sewer Pipe CCTV	18,178 LF (3.44 miles)	13,184 LF (2.50 miles)	31,362 LF (5.94 miles)

¹Detailed tabulation of Condition Assessment Activities is provided in Attachments 1.

2.1.2 Condition Assessment Results

Pursuant to the requirements of Section V, Article Two: Condition Remedial Measures and Section X, Paragraph 92, this section documents the City’s progress toward completing the Condition Remedial Measures activities. The City contracted RJN Group, Inc. (RJN) to conduct SSA activities in 2018, and also City staff performed in-house SSA activities in 2018. Figure 2-1 and Table 2-1 outline the SSA areas. A summary of the 2018 SSA NASSCO ratings for line segments and manholes with condition assessments is provided in Table 2-3 and the detailed tabulation is included in Attachment 1 and Attachment 2. Table 2-3 includes totals from both the in-house and RJN-led sanitary sewer assessment.

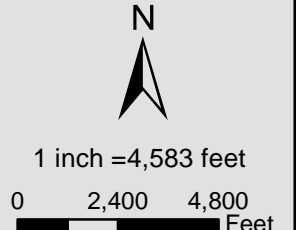


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



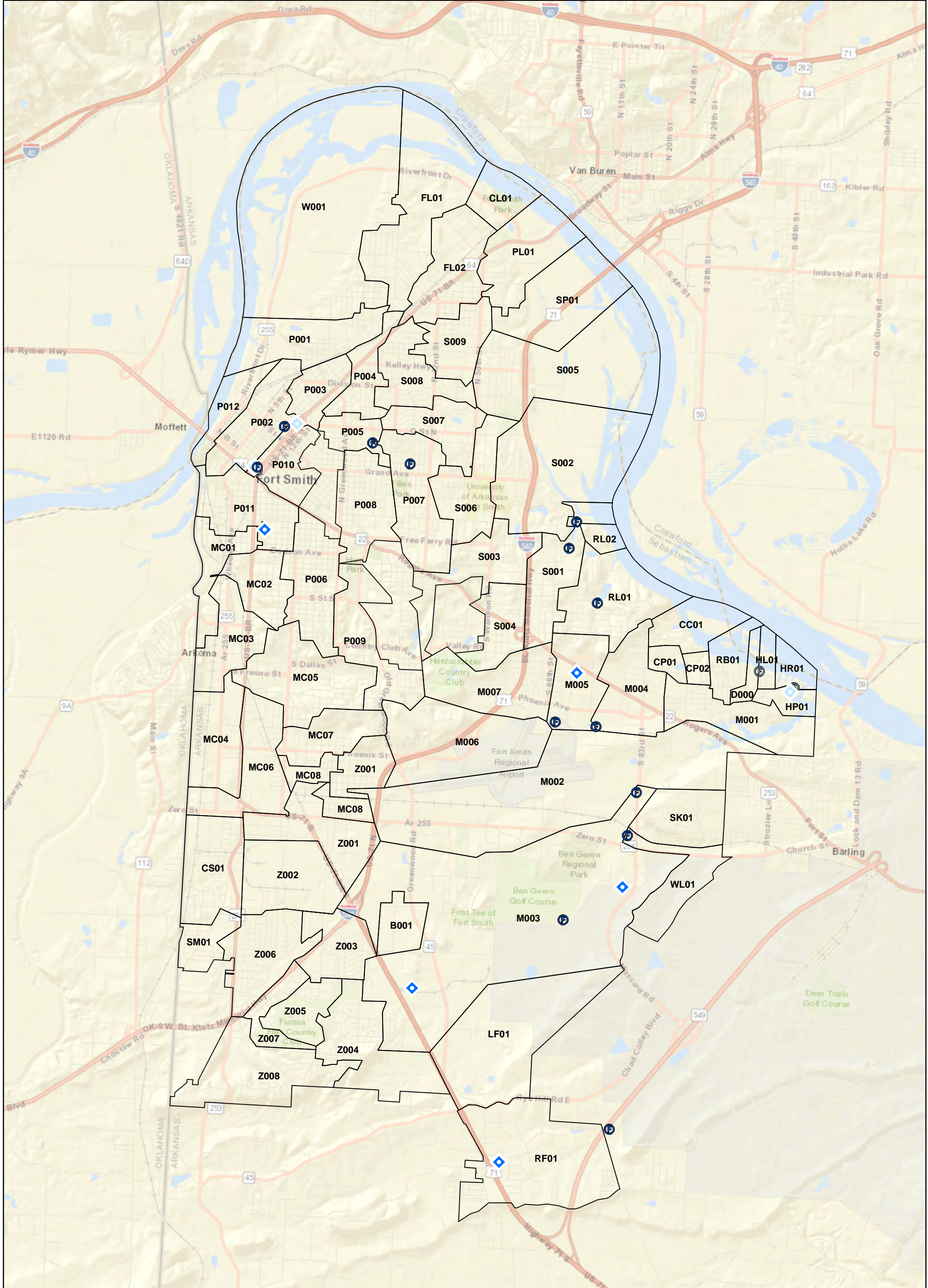
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- Sub-Basin Service Areas
- SSA In Progress
- SSA Completed in Previous Years
- Contracted SSA Completed This Year
- In-House SSA Completed This Year

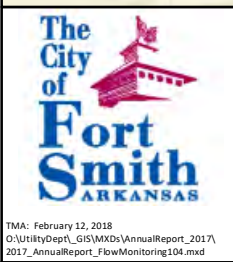







2018 SSA Condition Assessment Areas

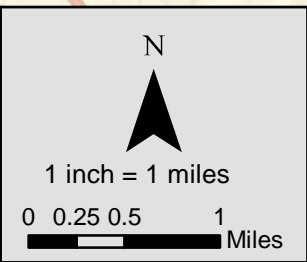
City of Fort Smith Annual Report (2017), Figure 2-1



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



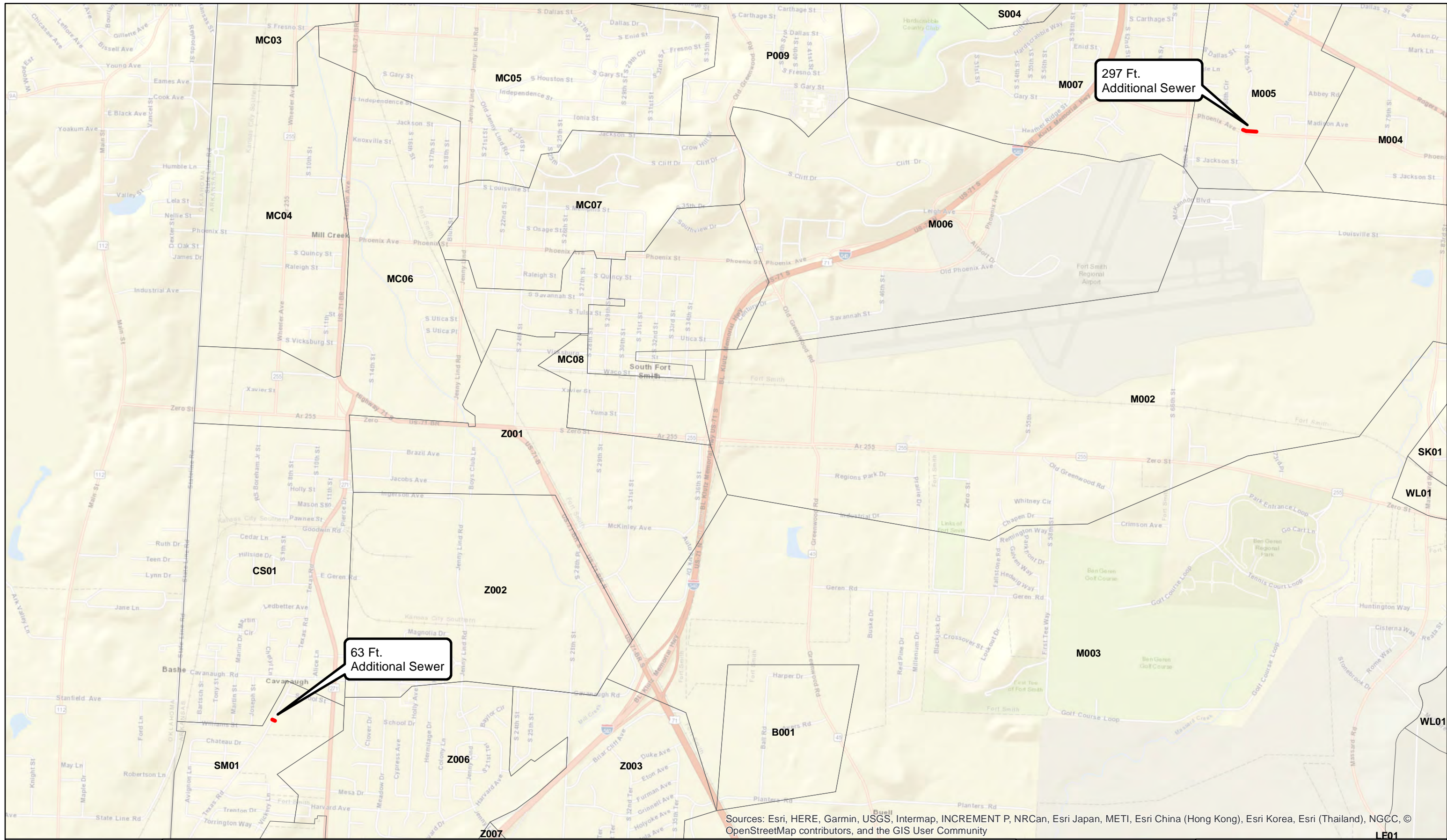
Contracted Monitoring Device	In-House Monitoring Device	Sub-basin Service Area
 Flow Meter Location	 Flow Meter Location	 Sub-basin Service Area
 Rain Gauge Location	 Rain Gauge Location	



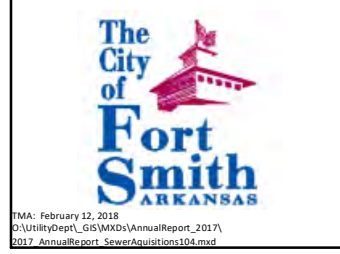
2018 Flow Meter Locations

City of Fort Smith Annual Report (2018), Figure 2-2


TMA: February 12, 2018
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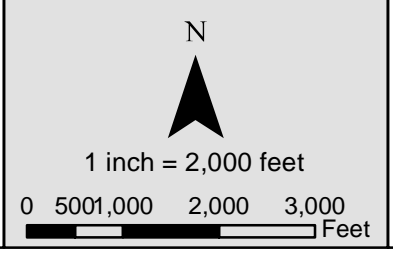


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



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 Additional Gravity Main



2018 Additional Sewer Line Locations

City of Fort Smith Annual Report (2018),
 Figure 2-3

In 2018, City efforts were focused on locating manholes for ongoing SSA efforts, rather than locating uninspected manholes from previous years. 46 manholes were located by the City for RJN. Ongoing efforts are being performed by the City to locate and/or make previously uninspected SSA manholes and pipe sections accessible for the required assessment. These assessments will be performed by the City as part of the 2019 in-house SSA, and included in the 2019 Annual Report.

Table 2-3 NASSCO PACP Score Summary

Sub-Basin	NASSCO Score							Total
	Not Inspected	No Defect	1	2	3	4	5	
MACP (manholes)	78	754	61	27	176	42	60	1,228
PACP (linear feet)	-	24,297	4,297	6,306	4,572	5,716	7,932	53,121

2.2 Condition Remedial Measures

Pursuant to the requirements of Section V, Article Two: Condition Remedial Measures and Section X, Paragraph 92, this section documents the City’s progress toward completing the Condition Remedial Measures activities. The following Condition Remedial Measures activities were conducted during the 2018 Annual Report year:

- The 2017 SSA Remedial Measures Plan (2017 RMP) is provided in Attachment 3.
- The design of the Basin 12 Remedial Measures Cured-In-Place Pipe (CIPP) and Phase 1 is on-going, and should be completed in May of 2019. Table 2-4 includes a revised schedule for the remainder of the Basin 12 Remedial Measures.
- The 2015 Condition Remedial Measures are in progress as shown on Figure 2-4 and in Table 2-5 and estimated to be completed on schedule.
- The City has continued design efforts on the remedial measure activities for the 2016 SSA area in six (6) sub-basins: P003, P004, P005, P008, S006, and S007.
- The 2018 SSA Remedial Measures Plan (2018 RMP) will be provided within 12 months of the 2018 SSA submittal.

2.3 Pump Station/ Force Main Evaluation Report

Pursuant to the requirements of Section V, Article Three: Pump Station/Force Main Evaluation Report, this section documents the progress of the Pump Station and Force Main evaluations. The Riverlyn Wastewater Pump Station Replacement was completed in June 2018 and is in operation.

Table 2-4 Basin 12 Remedial Measures Estimated Schedule¹

Project	Linear Footage	Estimated Schedule
Basin 12 Remedial Measures CIPP	3,145	Construction scheduled for completion by 2019
Basin 12 Remedial Measures Phase 1	8,395	Construction scheduled for completion by 2020
Basin 12 Remedial Measures Phase 3	6,199	Construction scheduled for completion by 2021
Basin 12 Remedial Measures Phase 4	6,283	Construction scheduled for completion by 2022
Basin 12 Remedial Measures Phase 5	7,723	Construction scheduled for completion by 2023
Basin 12 Remedial Measures Phase 6	6,742	Construction scheduled for completion by 2024
Basin 12 Remedial Measures Phase 7	5,332	Construction scheduled for completion by 2025
Basin 12 Remedial Measures Phase 8	5,091	Construction scheduled for completion by 2025
Basin 12 Remedial Measures Phase 9	8,531	Construction scheduled for completion by 2026

Table 2-5 Condition Related Remedial Measure Projects Status

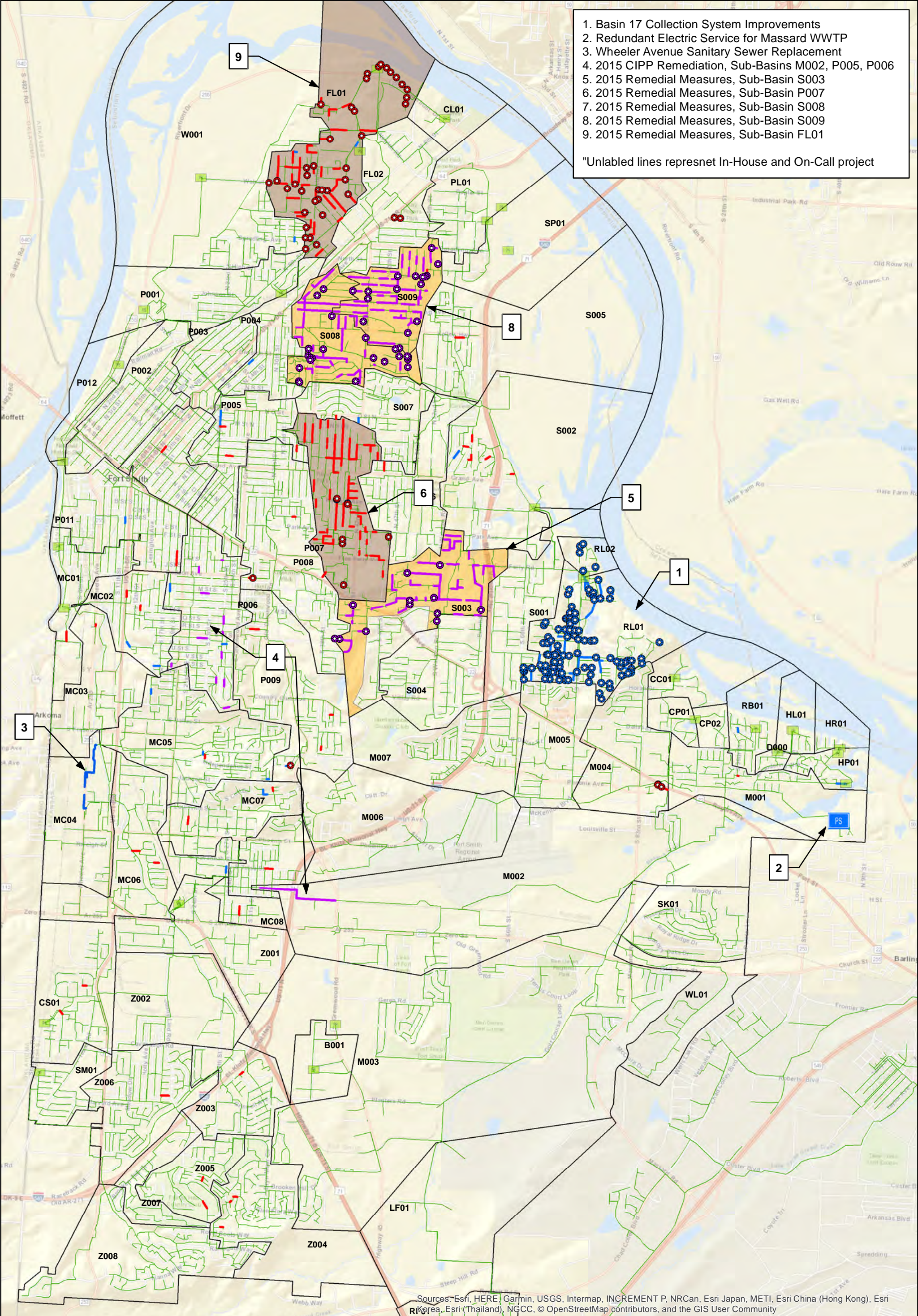
Project	Status
2018 On-Call Services	Construction On-going
2015 Remedial Measures: FL01	Construction Complete August 2018
2015 Remedial Measures: P007	Construction Complete June 2018
2015 Remedial Measures: S003	Construction scheduled for completion March 2019
2015 Remedial Measures: S004	Construction scheduled for completion December 2019
2015 Remedial Measures: S008	Construction scheduled for completion March 2019
2015 Remedial Measures: S009	Construction scheduled for completion April 2019
2015 Remedial Measures: CIPP (Sub-Basins FL01, P007, S003, S004, S008, S009)	Construction scheduled for completion by December 2019
2016 Remedial Measures (Sub-Basins P003, P004, P005, P008, S006, S007)	Design scheduled for completion 2 nd Quarter of 2019; will bid for Construction in 3 rd Quarter of 2019
2017 Remedial Measures (Sub-Basins MC06, MC07, MC08, P009, FL02, Z001)	Design scheduled for completion 1 st Quarter 2020; Construction scheduled for completion by December 2021
2018 Remedial Measures (Sub-Basins WL01, RF01, M003, M005, HL01, HR01, D000)	Design scheduled for completion 4 th Quarter of 2020; Construction scheduled for completion by December 2022

2.4 Capacity Assessment and Hydraulic Modeling

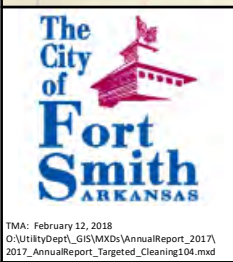
Pursuant to the requirements of Section V, Article Four: Capacity Assessment and Hydraulic Modeling and Section X, Paragraph 94, f, this section documents the City's progress toward completing the Capacity Assessment and Hydraulic Modeling. The Hydraulic Model Update Report was approved August 9, 2017. The Capacity Assessment Report was submitted on March 31, 2018, per the terms of the Consent Decree. No comments were received.

¹ Phase 2 line segments originally identified have been redistributed to other project Phases.

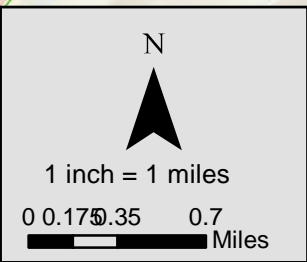
1. Basin 17 Collection System Improvements
 2. Redundant Electric Service for Massard WWTP
 3. Wheeler Avenue Sanitary Sewer Replacement
 4. 2015 CIPP Remediation, Sub-Basins M002, P005, P006
 5. 2015 Remedial Measures, Sub-Basin S003
 6. 2015 Remedial Measures, Sub-Basin P007
 7. 2015 Remedial Measures, Sub-Basin S008
 8. 2015 Remedial Measures, Sub-Basin S009
 9. 2015 Remedial Measures, Sub-Basin FL01
- "Unlabeled lines represent In-House and On-Call project"



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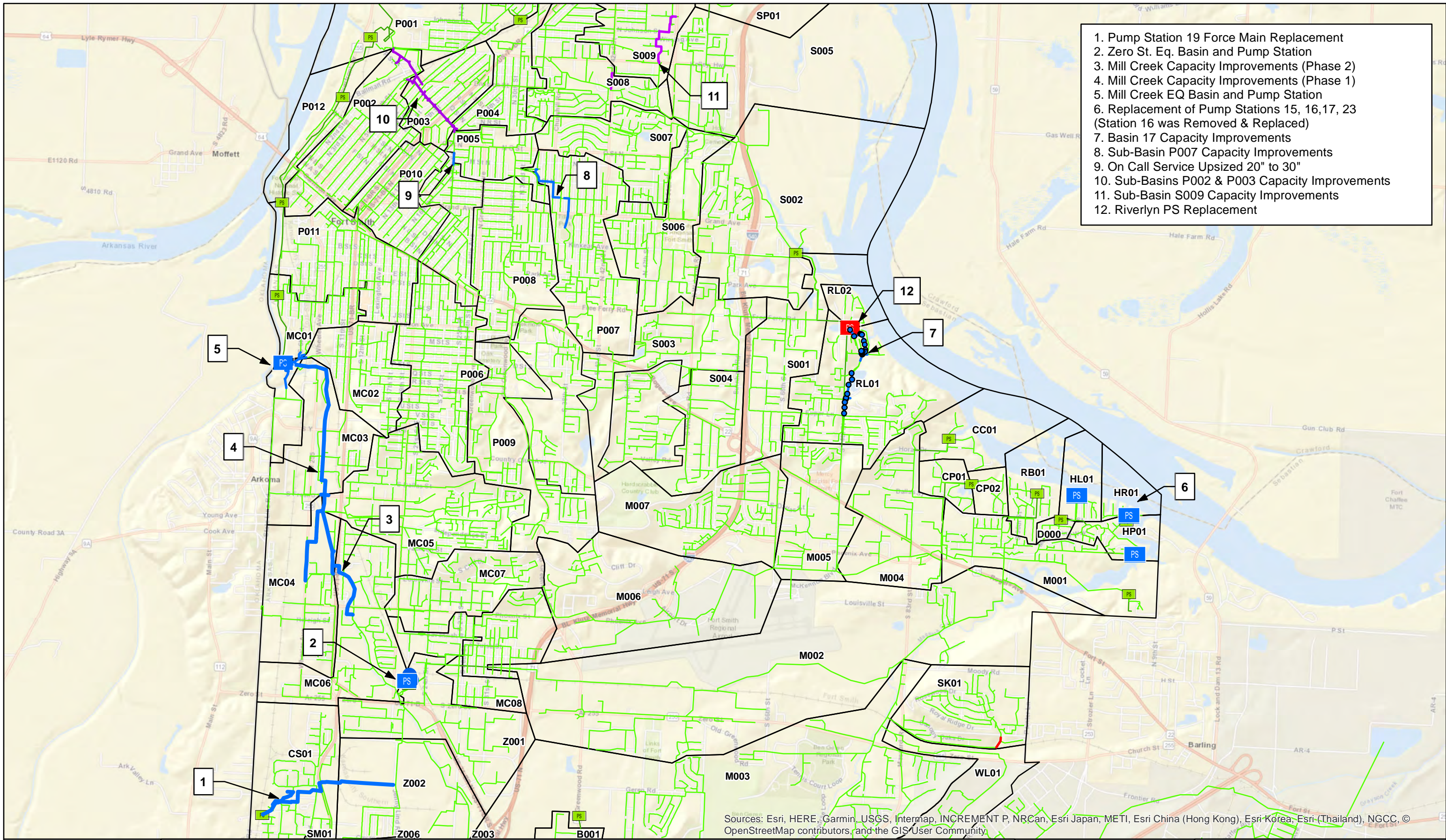
	Sewer Lines Completed in Prior Years		Manhole Completed in Annual Report Year		Pump Stations
	Sewer Lines In-Progress in Annual Report Year		Manhole In-Progress Annual Report Year		In Progress in Annual Report Year
	Completed in Annual Report Year		Manhole Completed in Prior Years		Complete in Annual Report Year
	Pump Station Completed in Prior Year		Pump Station Completed in Prior Year		Sewer Subbasins
					Sewer Lines



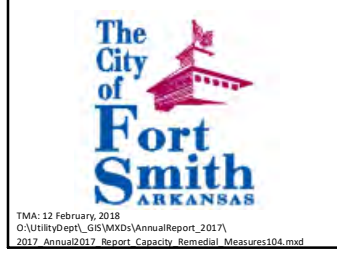
2018 Condition Remedial Measures
 City of Fort Smith Annual Report (2018),
 Figure 2-4

TMA: February 12, 2018
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1. Pump Station 19 Force Main Replacement
2. Zero St. Eq. Basin and Pump Station
3. Mill Creek Capacity Improvements (Phase 2)
4. Mill Creek Capacity Improvements (Phase 1)
5. Mill Creek EQ Basin and Pump Station
6. Replacement of Pump Stations 15, 16, 17, 23 (Station 16 was Removed & Replaced)
7. Basin 17 Capacity Improvements
8. Sub-Basin P007 Capacity Improvements
9. On Call Service Upsized 20" to 30"
10. Sub-Basins P002 & P003 Capacity Improvements
11. Sub-Basin S009 Capacity Improvements
12. Riverlyn PS Replacement



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



<ul style="list-style-type: none"> PS Pump Station Completed in Prior Report Year PS Pump Station Completed in Annual Report Year PS Sewer Pump Stations 	<ul style="list-style-type: none"> ● EQ Basins Completed in Prior Annual Report Years — Sewer Lines 	<ul style="list-style-type: none"> — Sewer Lines Completed in Prior Years — Sewer Line In-Progress in Annual Report Year — Sewer Line Completed in Annual Report Year 	<ul style="list-style-type: none"> ● Manholes Completed in Prior Years Sub-basin Service Area
---	--	---	--

N

1 inch = 3,833 feet

0 9501,900 3,800 5,700

Feet

2018 Capacity Remedial Measures

City of Fort Smith Annual Report (2018),
Figure 2-5

TMA: 12 February, 2018
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2.5 Capacity Remedial Measures

Pursuant to the requirements of Section V, Article Five: Capacity Remedial Measures Plan and Section X, Paragraph 93, this section documents the City's progress toward completing the Capacity Remedial Measures activities. As notified by the letter dated January 24, 2018 the City is currently behind schedule for two Capacity Remedial Measures projects identified in Appendix E, Table 2; Sub-Basin P002 & P003 Capacity Improvements Project and Basin 10 & 14 Capacity Improvements Project. The EPA has provided a response letter approving revision of the completion dates to match the Capacity Remedial Measures report, which will supersede the original Capacity Improvements schedule, as referenced in Appendix E2. The Capacity Remedial Measures Plan will be provided under separate submittal, and will include a revised schedule for the Capacity Remedial Measures. The City will submit the Capacity Remedial Measures Plan on or before March 31, 2020, as notified by the letter dated March 20, 2018.

The Sub-Basin P002 & P003 Capacity Improvements project is currently under construction and construction completion is scheduled for Spring 2020. Sub-Basin S009 Capacity Improvements project is currently under construction and construction completion is scheduled for Spring 2019.

Basin 10 & 14 Capacity Improvements, Phase I is currently in design as two separate projects, Phase I.a and Phase I.b. Phase I.a will connect the ongoing P002/P003 Capacity Improvements project to the completed P007 Capacity Improvements project. Phase I.b will complete the remainder of the Basin 10 & 14 Capacity Improvements, Phase I to Rogers Avenue. The majority of Basin 10 & 14 Capacity Improvements, Phase II was previously constructed as part of a street widening project in 2003. The remaining 1,300 linear feet is still in the planning stage. The Capacity Remedial Measures report will be submitted separately from this report.

2.6 Additional Remedial Measure Activities

In addition to the condition and capacity projects outlined in the CD, the following activities were completed in 2018. The City completed additional condition remedial measures in-house for 2,727 linear feet of sewer lines, 25 point repairs, 13 service line repairs, and eight (8) manholes in areas with reoccurring SSOs or flow restrictions. The City contracted Forsgren, Inc. for the 2018 On-Call Services project, which included 1,227 linear feet and three (3) manholes of condition related improvements. The condition related activities are shown in Figure 2-4.

2.7 CMOM Activities

2.7.1 FOG Control Program

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; FOG Control Program Component and Section X, Paragraph 94, a, this section documents the City's progress toward completing the FOG Control Program activities. The FOG Control Program Plan was approved February 3, 2017. The following seven items were identified as Key Performance Indicators (KPI) for the FOG Control Program in 2017 and were tracked in 2018:

- Percent initial compliance inspections for permitted FOG generators per year;
- Percent of FOG generator contributed FOG SSOs per year;

- Percent compliance of permitted FOG generators per year;
- Number of violations issued per year;
- Number of enforcement (based on the escalating enforcement plan) inspections per year;
- Amount of penalties assessed in dollars per year; and
- Number of permits issued per year

The following activities were conducted in 2018 as part of the FOG Control Program Plan implementation:

- 52% (126) initial compliance inspections were conducted for permitted FOG generators for 2018, and a summary list is provided in Attachment 4.
- 0% of FOG generators contributed to FOG SSOs in 2018.
- 38% of permitted FOG generators inspected in 2018 were in compliance.
- 79 violations were found in 2018 during compliance inspections for permitted FOG generators.
- 7 enforcement re-inspections were conducted for permitted FOG generators for 2018.
- Amount of penalties assessed in dollars for 2018 was \$0.00.
- FOG Program staff will continue to plot FOG related SSOs to develop a “hotspot” map to help determine focus areas for the FOG Generators and Permits in the City of Fort Smith.
- 5 FOG Hauler Permits were issued in 2018. FOG Hauler information is provided in Attachment 4.
- 241 FOG Generator Permits were issued in 2018. FOG Generator information is provided in Attachment 4.

When a FOG Generator Permit is issued, the City’s FOG Program staff hand delivers the permit and provides compliance training and education which entails the following components:

- Records and Record Keeping
- Best Management Practice

The City had an existing Pretreatment Program in place for industrial facilities prior to the FOG Control Program Plan and 22 industries are currently permitted through that program. Samples are collected monthly through the Pretreatment Program and a total of 240 Oil and Grease samples were collected from permitted industries in 2018. Four (4) of the Oil and Grease samples collected were out of compliance with Local Limits for Oil and Grease (100 mg/L) and each instance of non-compliance resulted in a Notice of Violation being issued to the industry. None of these instances of non-compliance correlated with blockages in the area.

2.7.2 Root Control Program

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; Root Control Program Component and Section X, Paragraph 94, b, this section documents the City’s progress toward completing the Root Control Program activities. The reactive root removal activities correspond with the SSO response activities when roots are identified as the cause of an SSO. The reactive root removal pipe sections are provided in Attachments 6 and 7 as part of SSO and recurring SSO Reporting

In 2017, 20 locations were selected as part of a Root Control Pilot Test. The locations selected were pipe segments with two (2) or more root related SSOs. No reoccurring SSOs were observed in these line segments after the chemical root treatment.

Based on the success of the 2017 pilot study, an additional 18 line segments were selected for chemical root treatment in 2018. These line segments were selected based on CCTV observations of significant root intrusion. A total of 5,025 linear feet of small-diameter pipe were treated by Duke's Root Control, Inc. on September 27, 2018, as summarized in Attachment 5.

2.7.3 Gravity Sewer Line Cleaning Program

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; Gravity Sewer Line Cleaning Component and Section X, Paragraph 94, c, this section documents the City’s progress toward completing the Gravity Sewer Line Cleaning Program activities.

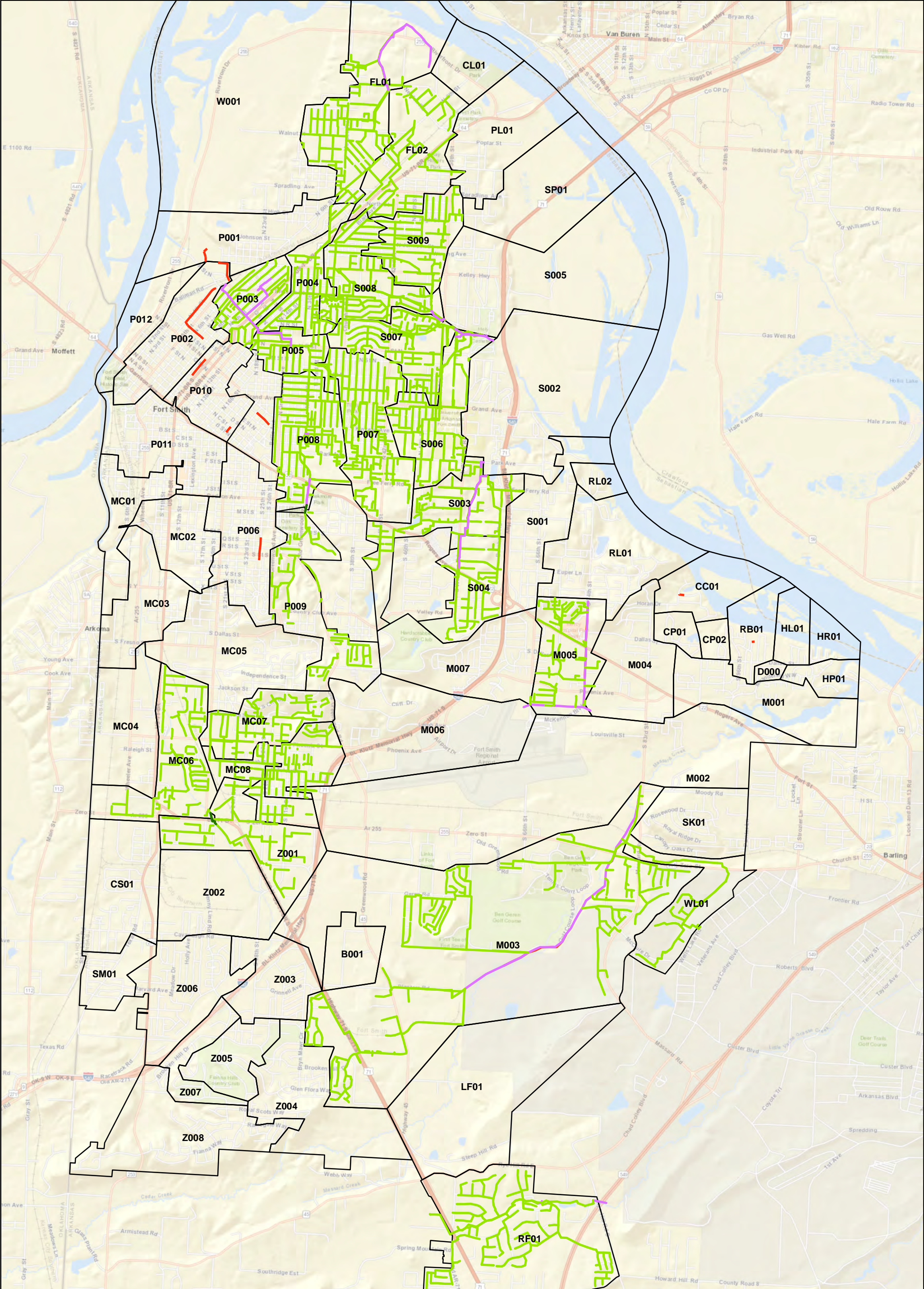
RJN and the City (In-House) conducted Gravity Sewer Line Cleaning activities as part of the SSA activities described in Section 2.1. The cleaning activities conducted as part of the 2018 SSAs are included in Attachments 1 and 2. See Figure 2-6 and Table 2-6 for the gravity sewer lines cleaned to date.

Table 2-6 Gravity Sewer Line Cleaning

Gravity Sewer Line Cleaning Activities	Previous Years	2018 Annual Report Year	Total Cleaned To-Date	% Complete
Small Diameter Sewer Pipe Cleaning	856,528 LF (168.23 miles)	255,913 LF (48.47 miles)	1,112,441 LF (210.69 miles)	42%
Large Diameter Sewer Pipe Cleaning	47,587 LF (9.02 miles)	14,605 LF (2.77 miles)	62,192 LF (11.78 miles)	35%

¹Detailed tabulation of Gravity Sewer Line Cleaning Activities is provided in Attachments 1.

The City conducted 49,660 LF of targeted line cleaning on 129 unique line segments, for a total of 32,920 unique linear feet during the 2018 Annual Report period. Figure 2-7 provides the locations of the Targeted Line Cleaning. The City also started using the Sewer Line Rapid Assessment Tool (SL-RAT) mid-year 2018, to help assess sewer lines with significant blockages, and better determine whether targeted cleaning was required. A total of 36,574 linear feet (157 line segments) were assessed using the SL-RAT. Of the 157 line segments assessed using SL-RAT, 114 line segments (25,263 linear feet) were determined to have no significant blockages, and

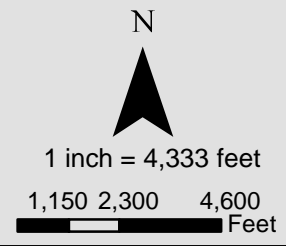


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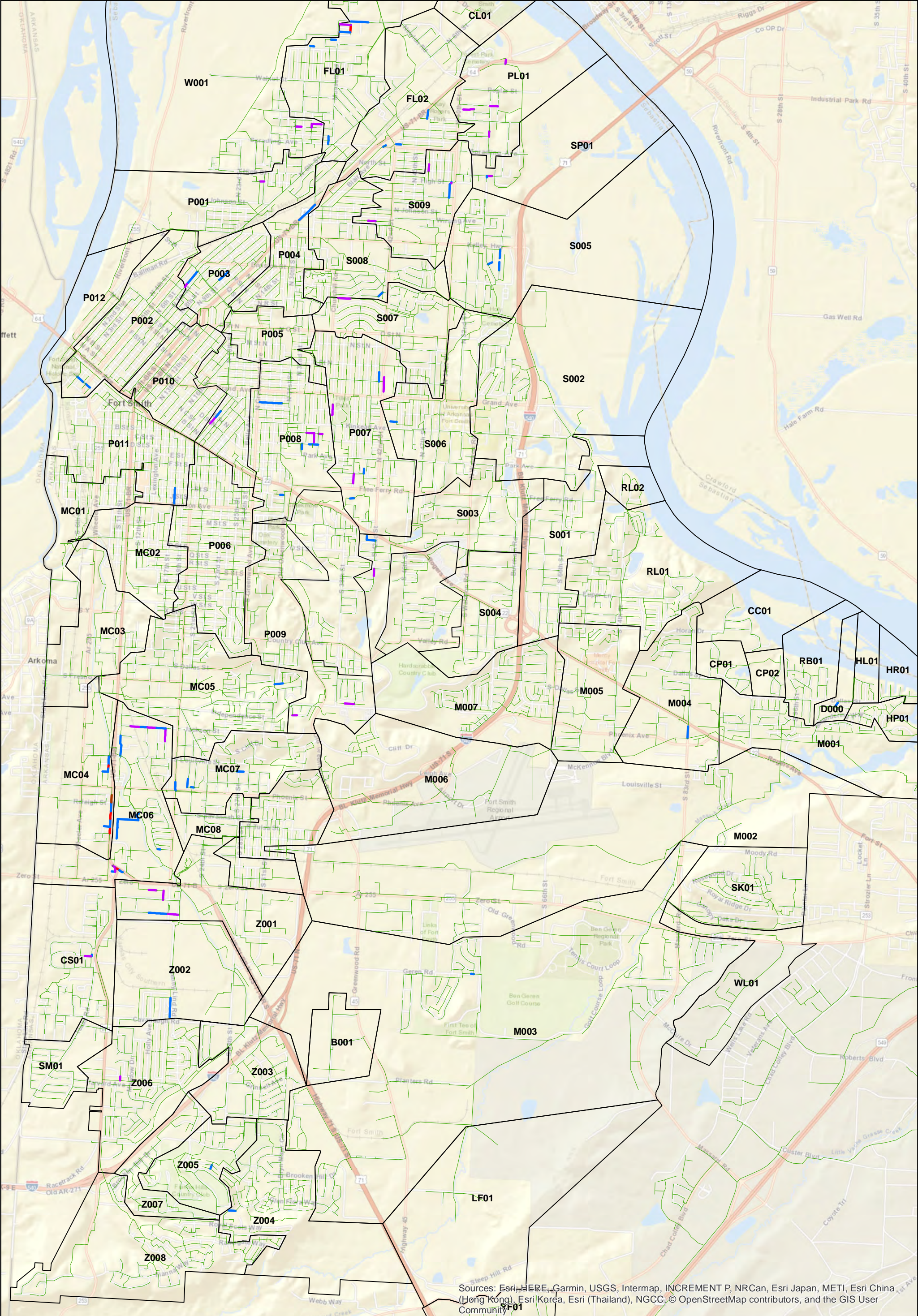
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- SSA Cleaning \geq 24"
- In-House Cleaning \geq 24"
- SSA Cleaning $<$ 24"
- Sub-basin Service Areas

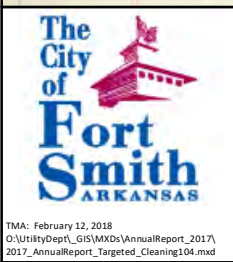


2018 Sewer Lines Cleaned to Date

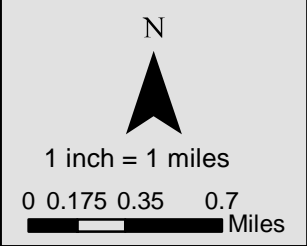
City of Fort Smith Annual Report (2018), Figure 2-6



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



- ▬ 1X Time Cleaned
- ▬ 2X Time Cleaned
- ▬ 3X Time Cleaned
- ▬ 4X Time Cleaned
- ▬ Gravity Main
- Sub-basin Service Area



**2018 Targeted
Line Cleaning**

City of Fort Smith Annual Report (2018),
Figure 2-7

TMA: February 12, 2018
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were not cleaned in 2018, but will be monitored for the next two (2) years. The remainder of lines assessed with SL-RAT are included in the targeted cleaning list for the 2018 Annual Report period.

2.7.4 CSSA Program

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; CSSA Program Component and Section X, Paragraph 94, d, this section documents the City's progress toward completing the CSSA Program activities. The CSSA Program Plan was approved February 3, 2017 and this program is not scheduled to begin until calendar year 2023.

2.7.5 Continuing Pump Station and Force Main Evaluation and Preventive Maintenance Program

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; Continuing Pump Station and Force Main Evaluation and Preventive Maintenance Program and Section X, Paragraph 94, e, this section documents the City's progress toward completing the Continuing Pump Station and Force Main Evaluation and Preventive Maintenance Program activities. The Continuing Pump Station and Force Main Evaluation and Preventive Maintenance Program Plan was approved February 23, 2017. The City is currently inspecting and maintaining the pump stations as identified in the plan; however, this program is not scheduled to begin until calendar year 2023, so no additional activities were reported. One pump station and 701 LF of force main were also added to the WCTS during this report period.

2.7.6 Continuing Capacity Assurance Program

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; Continuing Capacity Assurance Program and Section X, Paragraph 94, f, this section documents the City's progress toward completing the Continuing Capacity Assurance Program. The Continuing Capacity Assurance Program was approved February 23, 2017. This program is not scheduled to begin until calendar year 2025, so no additional activities were reported.

2.7.7 SSO Reporting

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; SSO Reporting Component and Section X, Paragraph 94, g, this section documents the City's progress toward completing the SSO Reporting Program activities. The City is continuing to comply with the immediate, monthly and annual reporting requirements as outlined in the SSO Reporting Plan. A detailed tabulation of the SSO events in the 2018 Annual Report period is provided in Attachment 6. A detailed tabulation of reoccurring SSOs for 2015-2018 is provided in Attachment 7. A detailed tabulation of reoccurring private service line releases (PSLRs) for 2015-2018 is provided in Attachment 8.

The City is conducting several activities to reduce and eliminate reoccurring SSOs. RJN and City staff conducted SSA and Gravity Sewer Line Cleaning activities as outlined in Sections 2.1 and 2.7.3. In addition, the City evaluated the SSO locations to determine if additional repairs were required. Fourteen reoccurring SSOs that are shown on Attachment 7 were remediated in 2017 through In-House repairs. In 2018, additional repairs remediated 44 SSOs and of these SSOs, 10

were reoccurring. The repairs for 2018 are provided in Attachment 7. The 2017 root control program also helped to remediate 20 locations with reoccurring SSOs.

2.7.8 OERP

Pursuant to the requirements of Section V, Article Seven; Development of a CMOM Program; OERP Component and Section X, Paragraph 94, i, this section documents the City's progress toward completing the OERP activities. The SSO Reporting activities are outlined in Section 2.7.7 and Attachments 6, 7, and 8.

2.7.9 IMS Update

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; IMS Update, and Section X, Paragraph 94, h, this section documents the City's progress toward completing the IMS Update activities. As part of the IMS update the City, in collaboration with CDM Smith, to implemented activities in the following IMS areas:

- Asset records
 - Developed a CMMS schema for WCTS vertical asset records within pump station module to manage all components at an asset level.
- CMMS Integration with GIS
 - Completed detailed review and comparison of linear asset data between CMMS and GIS down to the attribute level.
 - Identified asset record discrepancies existing between GIS and CMMS asset registers.
 - Classified and sorted discrepancies by geographic area, type of issue, and recommended actions.
 - Developed workflow and business processes to review data discrepancies and reconcile asset data through a combination of SME desktop review and ad hoc field verification.
 - Piloted and refined workflow with stakeholders from across the department.
 - Began asset-by-asset review to align GIS & CMMS datasets and improve data quality and quantity.
 - Included some pump station vertical assets for planned integration between GIS and CMMS.
 - Facilitated sewer asset reconciliation discussion.
 - Completed Lucity data assessments where requested.
- Lucity Mobile
 - Setup of test environment for development.

- Procurement of additional hardware and installation of Lucity Mobile software for piloting by maintenance staff.
- Established Lucity Web/Mobile development environment.
- Initiated SL-RAT Inspection data Pilot Program to advance use of Lucity Mobile in Systems.
- FOG
 - Completed configuration and customization of relevant modules to support Fort Smith FOG program.
 - Completed the Data dictionary refinement.
 - Bulk import of Hauler, Facility, and Grease Extractor data into CMMS.
 - Completed 80 man-hours of CMMS end user training specific to FOG.
 - Ongoing data QA/QC of manual data entry and update.
 - Operational use of Hauler, Facility, Grease, Extractor, Inspection, and Enforcement CMMS functionality.
 - Development and deployment of a custom fillable PDF FOG inspection form designed for bulk import into CMMS.
 - Worked with the CMMS vendor to create and install two software patches for bugs identified during testing.
 - Development of standard training template for CMMS training documentation, as detailed in Attachment 11.
 - Developed CMMS FOG training curriculum, as detailed in Attachment 11.
- SSOs
 - Developed a custom fillable PDF SSO form designed for bulk import into CMMS to reduce the possibility of data transcription errors resulting from manual data entry.
- CMMS Development
 - Initiated Utility Department Software Inventory analysis to identify systems and processes for Lucity implementation.

2.7.10 SOP Component

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; SOP Component and Section X, Paragraph 94, j, this section documents the City's progress toward completing the SOP component activities. The City has completed 61 (86 %) of the SOPs and completed this work ahead of schedule. Copies of the SOPs are provided in Attachment 9.

2.7.11 Private Line Defect Remedial Program

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; Private Line Defect Remedial Program Component and Section X, Paragraph 94, k, this section documents the City's progress toward completing the Private Line Defect Remedial (PLDR) Program activities. The PLDR Program Plan was approved February 23, 2017, and a summary of the program activities is provided in Attachment 10.

2.7.12 Comprehensive Training Program

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; Comprehensive Training Program Component and Section X, Paragraph 94, l, this section documents the City's progress toward completing the Comprehensive Training Program activities. In 2018, over 3,000 training instances were documented, totaling more than 5,000 man-hours. A summary of the Comprehensive Training Program activities is provided in Attachment 11.

2.7.13 Inventory Management System Update

Pursuant to the requirements of Section V, Article Seven: Development of a CMOM Program; Inventory Management System and Section X, Paragraph 94, m, this section documents the City's progress toward completing the Inventory Management System activities. The key initiatives and accomplishments in 2018 of the ongoing Inventory Management System include:

- Revised inventory requisition forms to accommodate all treatment plants, and tailor the reports around the products and materials in the warehouse to address sewer issues.
- Reorganized physical storage areas at the "P" Street Wastewater Treatment Plant inventory to maximize available space and optimize storage capacity with forecasted demand.
- Completion of inventory move from P Street to Kelley Highway warehouse.
- Continued the on-going cleanup project of the P Street Inventory Warehouse and Office, including disposal of items no longer used, identifying items not recognized in Lucity, and initiating an organization process that will lead to additional storage space for crews.
- Evaluated RetailEdge application for use as a one-source location for all inventory items.
- Obtained Six Sigma Green Belt certifications for three (3) employees and One Black Belt certification.
- Improved safety measures throughout the warehouse.
- Implemented new procedures for ordering of parts and materials.
- Hired a Business Operations and Logistics Manager to increase oversight and management within process improvement, inventory control, operations management, and data analytics.

2.8 SEP

Pursuant to the requirements of Section V, Appendix F: SEP and Section X, Paragraph 95 this section documents the City's progress toward completing the SEP activities. The information regarding the SEP implementation as outlined in Section D, Subparagraph 3 of Appendix F of the CD is provided in Attachment 12 of this report.

2.9 Mitigation Program Requirement

Pursuant to the requirements of Section VI, Mitigation Program Requirement, Paragraph 70.a, this section documents the City's progress toward completing the Mitigation Program activities.

- Baseline monitoring was conducted in the 3rd Quarter (July 2018) and 4th Quarter (October 2018).
- Two Storm Samples and a Grab Sample for a complete quarter were conducted in the 1st Quarter, 2nd Quarter, and 4th Quarter.
- December 2018 Mitigation Project sample analysis review is complete and acceptable, concluding the project field sampling and laboratory analysis. This satisfies the criteria outlined in the Mitigation Quality Assurance Project Plan.
- A final report will be submitted to the EPA for review and comment on or before June 27, 2019, under separate submittal from this report.

The City's approved Mitigation Program Quality Assurance Project Plan (QAPP) laboratory for analyzing emerging contaminants of concern (EPA 1694 modified method) is no longer able to provide the analysis. The City submitted an amendment to the QAPP to revise the analysis of the emerging contaminants of concern in the 4th quarter of 2017 and began using the new laboratory for analyzing emerging contaminants of concern (EPA 1694 modified method) in the 1st quarter of 2018.

Section 3

Attachments

Attachment 1
2018 SSA Condition Assessment Report

February 2019

Condition Assessment Report

**2018 Sanitary Sewer Assessment
Sub-Basins: M003, M005, RF01,
and WL01**

prepared for the
City of Fort Smith, Arkansas



prepared by
RJN Group, Inc.

1808 S. C Street
Fort Smith, Arkansas 72901
(479) 709-9439

February 25, 2019

Mrs. Michelle Dodroe, P.E.
Deputy Director of Engineering
Utility Department
City of Fort Smith
801 Carnall Ave #500
Fort Smith, AR 72901

Subject: City of Fort Smith, Arkansas
Sanitary Sewer Assessment Year 4 – 2018 SSA Condition Assessment Report

Dear Mrs. Dodroe

In accordance with the February 2018 Engineering Agreement as part of Fort Smith Consent Decree program, RJN Group, Inc. is pleased to submit this Final Condition Assessment Report for the above referenced project.

This report includes the analysis and results from four sub-basins (M003, M005, RF01, and WL01) investigated during the 2018 sanitary sewer assessment.

We appreciate the opportunity to work with the City of Fort Smith and the excellent cooperation from the staff throughout the project. We look forward to working with the City in the future. Should you have any questions, please do not hesitate to contact us.

Respectfully Submitted,

RJN GROUP, INC.



Tristan Nickel, P.E.
Project Manager



Daniel Jackson, P.E.
Vice President

TAN/mt/3219
Enclosure

Condition Assessment Report
2018 Sanitary Sewer Assessment
Sub-Basins: M003, M005, RF01, and WL01

City of Fort Smith



February 2019

I hereby certify that this report was prepared under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Arkansas.

Tristan Nickel

Date: 2/25/19 Registration No.: 15813



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APPENDIX D	Smoke Testing Defects
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2018 Condition Assessment

SANITARY SEWER ASSESSMENT – 2018 CONDITION ASSESSMENT REPORT

The City of Fort Smith, Arkansas contracted RJN Group, Inc. to conduct a Sanitary Sewer Assessment (SSA) in four (4) sub-basins as part of their Consent Decree Program. The four (4) sub-basins were M003, M005, RF01, and WL01 consisting of 1,157 manholes and 266,972 linear feet or 51 miles of sanitary sewer pipe and can be seen on Figure 1. Table 1 outlines the quantities of assets per sub-basin.

RJN Group, Inc. services included the following tasks:

- Flow Monitoring
- Manhole Condition Assessment (NASSCO Level 2 Inspections)
- Smoke Testing
- Cleaning and Televising of Sanitary Sewers
- Dyed Water Flooding
- Night Flow Isolations
- Defect Analysis/Grading

This Condition Assessment Report addresses the results from field inspection. NASSCO scores for manholes and sewer lines are also provided.

Sub-Basins	Number of Manholes	Length of Sewer Pipe	
		Linear Feet	Miles
M003	565	136,918	26
M005	208	40,097	8
RF01	294	70,746	13
WL01	<u>90</u>	<u>19,212</u>	<u>4</u>
Total	1,157	266,972	51

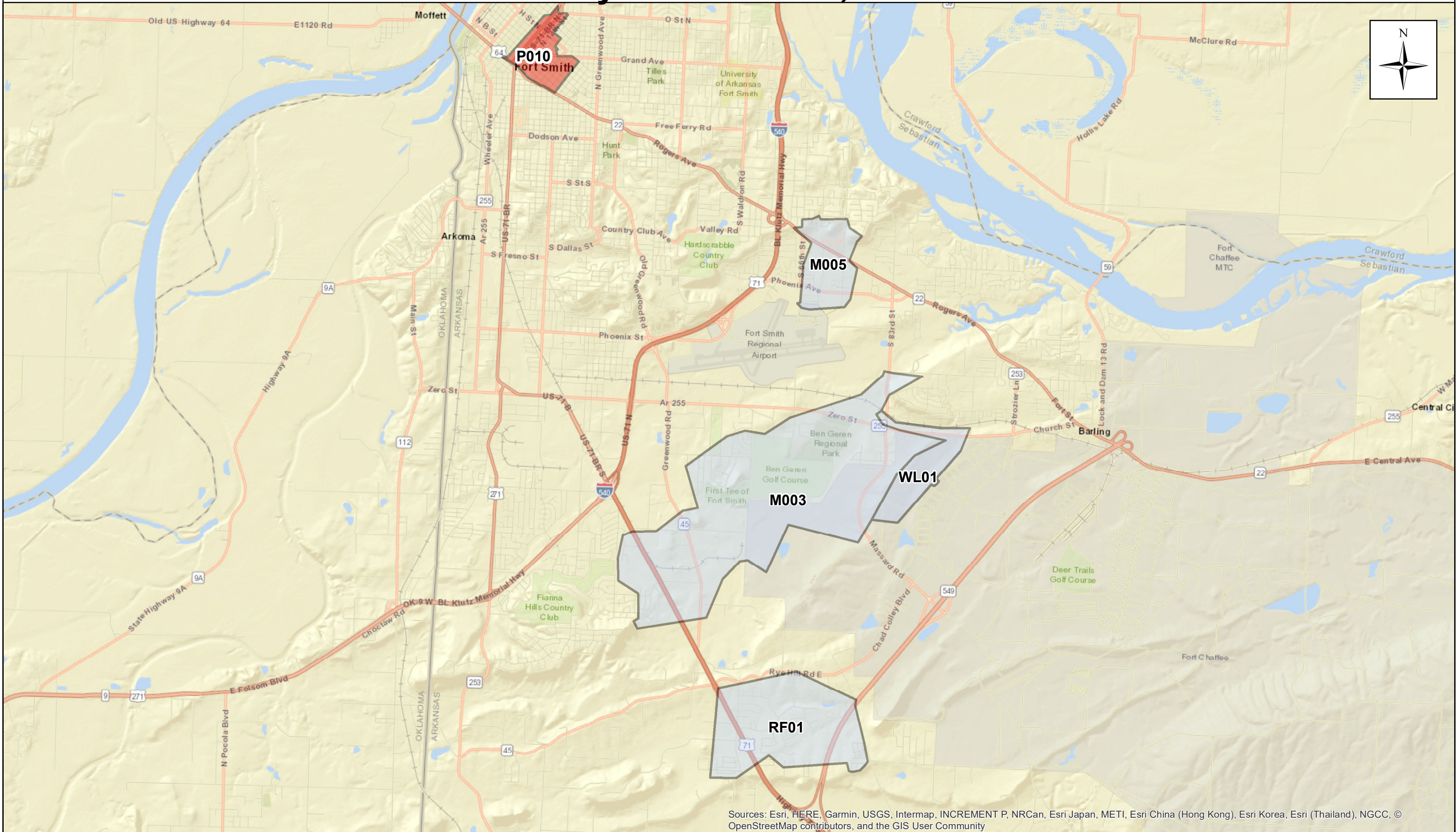
FLOW MONITORING

Flow monitoring of sub-basin was conducted in 2018 to establish current flow rates. Six (6) flow meters were used to monitor the Four (4) sub-basins discussed in this Condition Assessment Report. Flow meters P010-01 and P011-01 were installed to establish flows for sub-basin P010. Rehabilitation efforts will not be made in sub-basin P010 for several years and for that reason sub-basin P010 was chosen to serve as a control basin. Once rehabilitation efforts in the 2018 SSA sub-basin have been completed, post rehabilitation flow monitoring will be conducted. Flow meters P010-01 and P011-01 will be reinstalled during post rehabilitation flow monitoring to help determine the effectiveness of the rehabilitation efforts. Table 2 provides a breakdown of the meters used to monitor each sub-basin. Figure 2 on page 4 depicts the flow meter locations used in 2018.

Table 2		
SUB-BASIN ASSIGNMENTS		
Sub-Basin	Meter Basin	Sub-Basin Size (lf)
M003	M003-01, M003-02	136,918
M005	M005-01, M005-02	40,097
RF01	RF01	70,746
WL01	WL01	19,212
P010 ^{1/}	P010-01, P011-01	136,918

1/ Control Basin

City of Fort Smith, AR



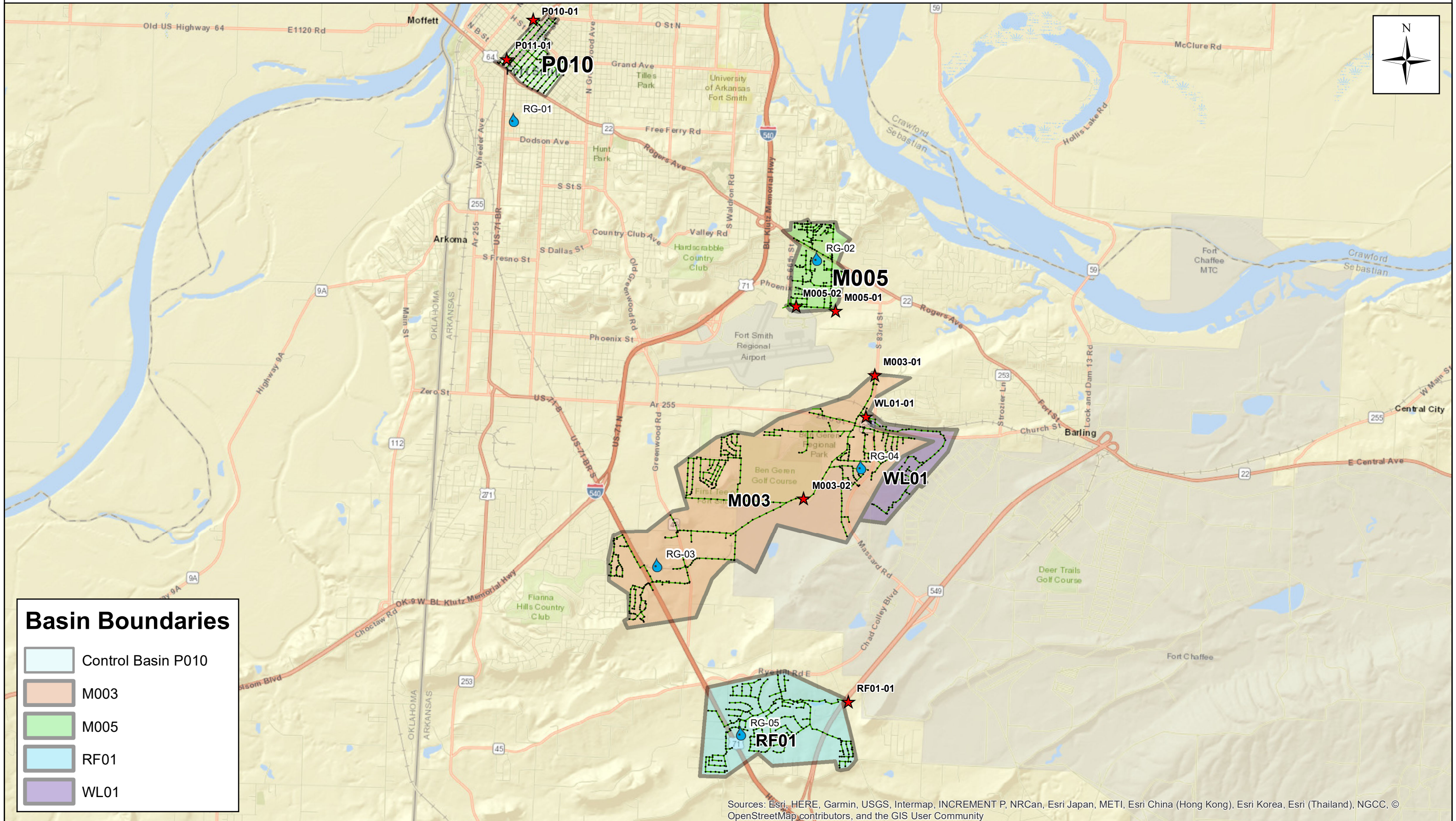
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City of Fort Smith, AR



Basin Boundaries

- Control Basin P010
- M003
- M005
- RF01
- WL01



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

MANHOLE CONDITION ASSESSMENT

Manhole inspections were conducted utilizing NASSCO MACP level 2 inspection standards. A level 2 inspection grades manhole defects on a scale of 1 to 5, with 5 having the most severe defects. All inspection data was entered into the Innovyze software, InfoMaster. This software generated NASSCO grades for all defects notated during inspection, and an overall score was developed for each manhole.

SMOKE TESTING

Smoke testing was conducted using the dual-blower method. Individual pipelines were isolated where applicable. Defects were noted where smoke was observed include: potential service cleanout defects, potential service line defects, potential gravity sewer line leaks, and potential cross-connections with the storm water system, downspouts, or area storm drains. A picture of the defect, GPS location, address and defect type are recorded.

CLEANING AND TELEVISIONING OF SANITARY SEWERS

Closed circuit television inspection (CCTV) investigations were performed on all non-plastic sewer lines and plastic sewer lines installed prior to 1995. NASSCO PACP inspection standards were utilized, and results were entered into InfoMaster, which developed an overall score between 1 and 5 for each gravity line. All gravity lines within each sub-basin were cleaned.

DYED WATER FLOODING

Dyed water flooding was performed on selected defects identified during smoke testing. These defects consisted of potential gravity sewer line leaks and potential cross-connections with the storm water system. Potential gravity sewer line leaks on line segments that had a NASSCO score of 4 or 5 from the CCTV condition assessment were not tested.

INSPECTION QUANTITIES AND RESULTS

FLOW MONITORING

Table 3 summarizes the dry and wet-weather flow rates experienced by each sub-basin during the flow monitoring, which occurred between March 24 and May 21, 2018. Inflow and infiltration rates are expressed below in million gallons per day (mgd) per 1,000 linear feet (lf). This analysis allows for a similar comparison of each sub-basin and will provide the baseline to evaluate post-construction results. Inflow rates are calculated to a 1-year/60-minute storm with a rainfall intensity of 1.55 inches/hour.

**Table 3
SUB-BASIN FLOWS**

Sub-Basin	Sub-Basin Size (lf)	Average Dry-Weather Flow (mgd)	Peak Hour Dry-Weather Flow (mgd)	Peak Hour Wet-Weather Flow (mgd)	Peak Inflow Rate (gpd/1,000lf)	Peak Infiltration Rate (gpd/1,000 lf)
M003	136,918	1.038	1.587	4.122	31,001	2,161
M005	40,097	3.190	6.179	10.130	26,939	23,134
RF01	70,746	0.001	0.001	0.002	51	2/
WL01	19,212	0.026	0.055	0.065	1,609	207
P0101/	36,476	0.629	0.907	4.474	13,980	1,559

1/ Control Basin

2/ Negligible infiltration/ inflow

MANHOLE CONDITION ASSESSMENT

Based on the City’s GIS, 1,157 manholes were contained within the four sub-basins. From this, 1,079 (93%) were fully inspected. The remainder has been provided to the City for further research into their status. Table 4 summarizes the inspection status by basin. A detailed list of manholes inspected is provided in Appendix A.

NASSCO MACP defect grades were used to generate scores for all manholes. The peak defect grade was utilized to provide an overall score for each manhole. These scores are on a scale of 1 to 5, 5 being in the worst condition. 88 manholes generated a score of 4 or 5. The breakdown of manholes in each sub-basin, by score, can be seen in Table 5. A list of each manholes NASSCO MACP score is provided in Appendix B. Figures 3 through 6 outline the distribution of scores for each manhole.

**Table 4
MANHOLE INSPECTION STATUS**

Sub-Basin	Manholes Inspected	Manholes Not Inspected	Total Manholes
M003	545	20	565
M005	179	30	208
RF01	273	20	294
WL01	<u>82</u>	<u>8</u>	<u>90</u>
Total	1,079	78	1,157

Sub-Basin	Not Inspected	No Scorable Defect	NASSCO Score					Total
			1	2	3	4	5	
M003	20	395	23	8	75	19	25	565
M005	30	92	4	12	37	11	23	208
RF01	20	210	7	4	42	2	8	294
WL01	<u>8</u>	<u>80</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>90</u>
Total	78	777	34	24	156	32	56	1,157

Scores in table are based on structural defects only. Manholes may have O&M defects not accounted for in this table.

SMOKE TESTING

A total of 266,972 linear feet (lf) of sanitary sewer lines were smoke tested within the four sub-basins. Table 6 outlines the linear footage per sub-basin. A list of sewer lines smoke tested is provided in Appendix C. Smoke testing uncovered 219 defects. Of the 219 defects, 142 were identified as public defects and 77 were identified as potential private defects. Table 7 provides a detailed breakdown of the types and quantity of defects identified per sub-basin. Appendix D contains a list of all smoke testing defects and their location. Figures 7 through 10 depict the locations of the defects.

Sub-Basin	Length(lf)
M003	136,918
M005	40,097
RF01	70,746
WL01	<u>19,212</u>
Total	266,972

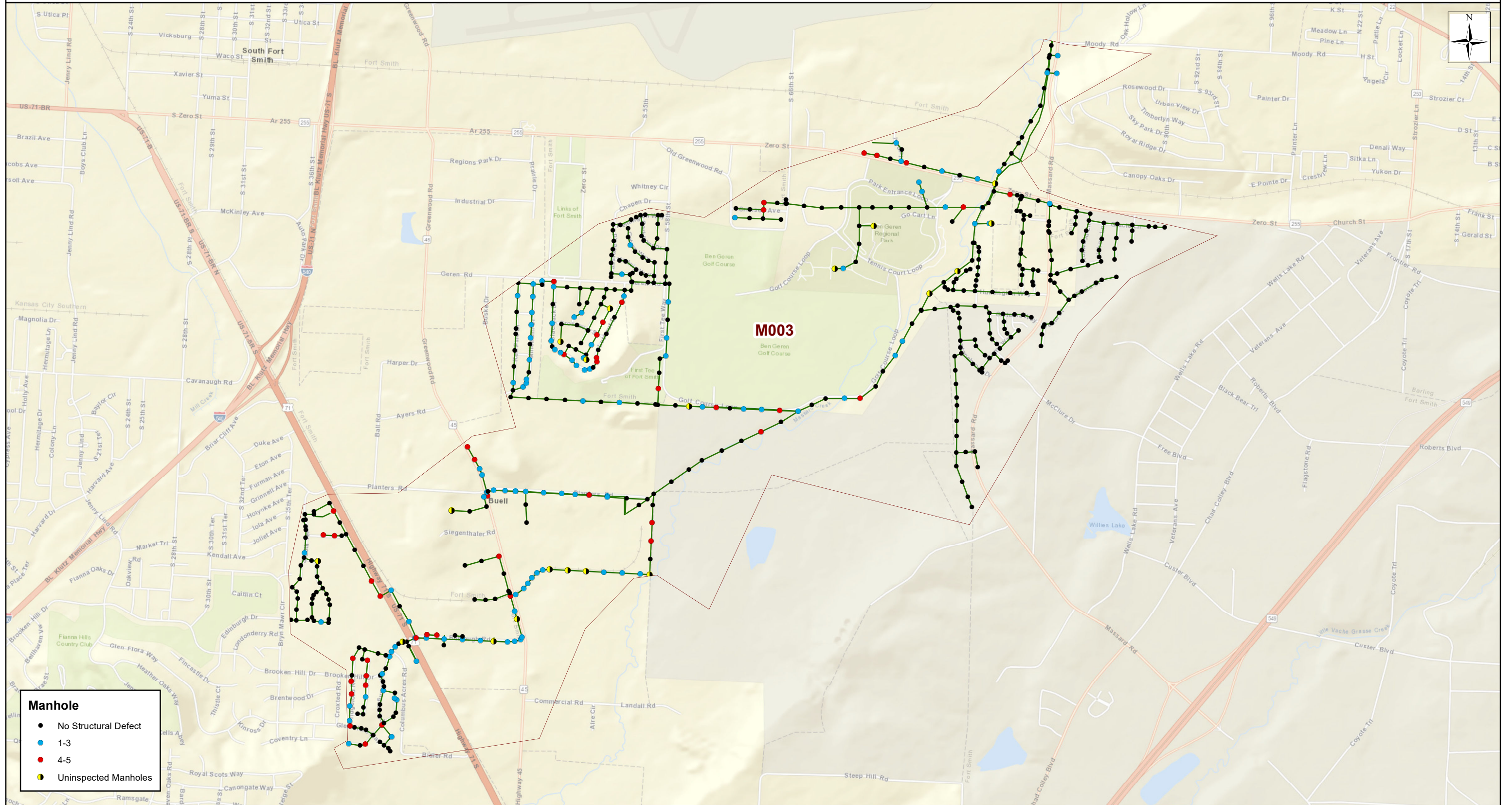
**Table 7
SMOKE TESTING DEFECTS ^{1/}**

Sub-Basin	Potential Cleanouts Public	Potential Cleanouts Private	Potential Service Lines Private	Area Storm Drain	Manhole Frame Seals	Downspout	Grease Trap	Gravity Sewer Lines	Catch Basin	Total
M003	1	55	4	2	47	3	0	6	0	118
M005	0	45	8	1	10	0	1	8	2	75
RF01	0	18	3	1	2	1	0	0	0	25
WL01	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>
Total	1	118	15	4	60	4	1	14	2	219

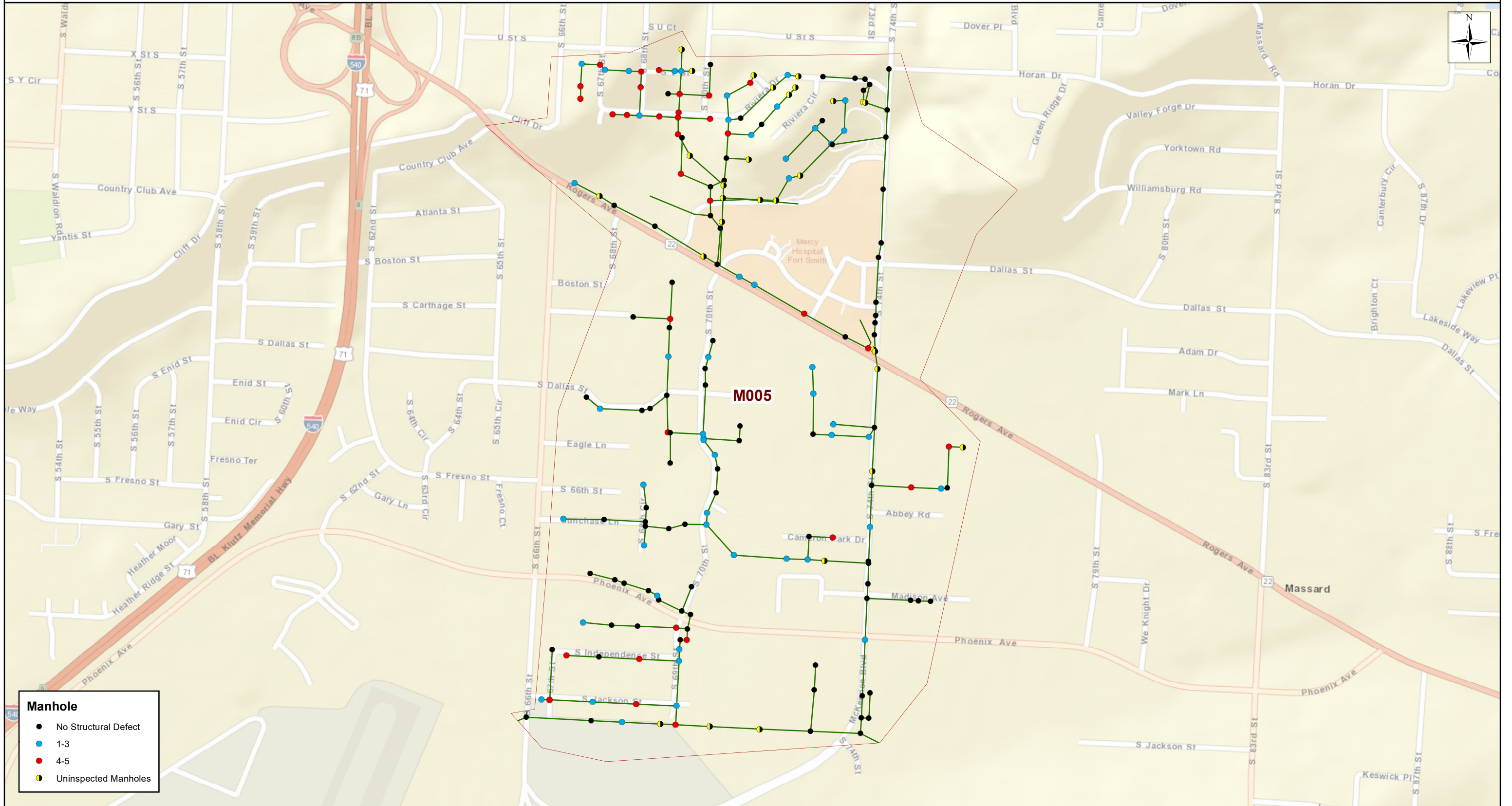
1/ Defect Definitions

- *Potential Cleanouts, Public: Defect associated with the threaded cap, ferrule or the riser portion of a cleanout located within the City right-of-way (ROW)*
- *Potential Cleanouts, Private: Defect associated with the threaded cap, ferrule or the riser portion of a cleanout located outside of the City right-of-way*
- *Potential Service Lines, Public: Observation or defect associated with the portion of the sewer line servicing a structure that is located within the City right-of-way*
- *Potential Services Lines, Private: Observation or defect associated with the portion of the sewer line servicing a structure that is located outside of the City right-of-way*
- *Area Storm Drain: Receptacle designed to collect surface runoff or rainwater from an elevation contour defined watershed area*
- *Manhole Frame Seal: Defect associated with a manhole frame seal*
- *Downspout: Potential defect associated with a pipe installed to drain water from the roof gutters or catchment to the storm drain or other means of disposal that appears to be connected to the sanitary sewer*
- *Grease Trap: Observation of smoke present or emitted from a grease trap or oil and water separator*
- *Gravity Sewer Lines: Defect associated with the main sewer line*
- *Catch Basin: Structure designed to drain excess rain and ground water from paved streets, parking lots, sidewalks and roofs; commonly constructed on the curb of a street*
- *Other Cross Connections: Pipe connection into the wastewater system from a source unable to be properly identified*

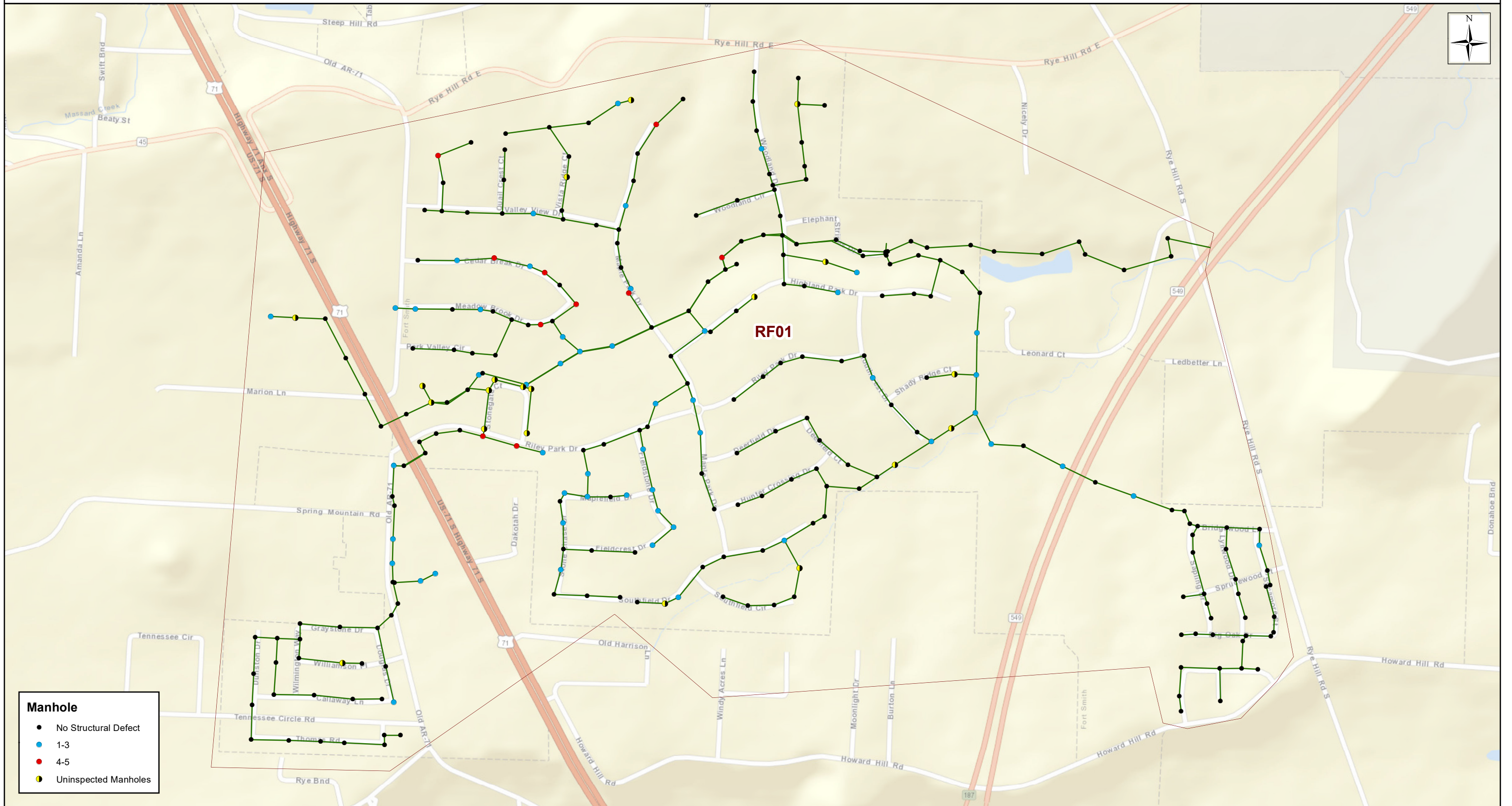
City of Fort Smith, AR



City of Fort Smith, AR



City of Fort Smith, AR

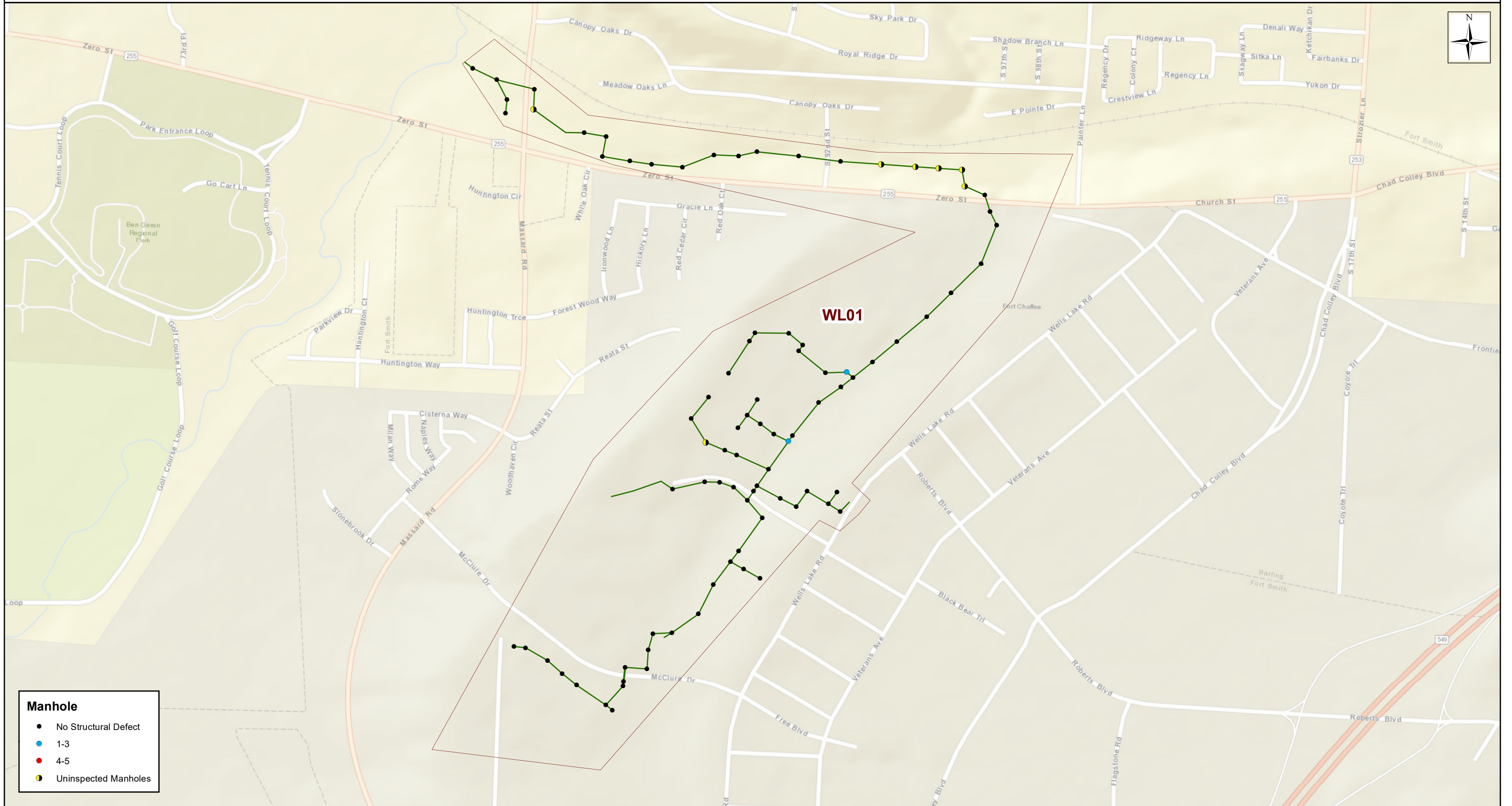


Manhole

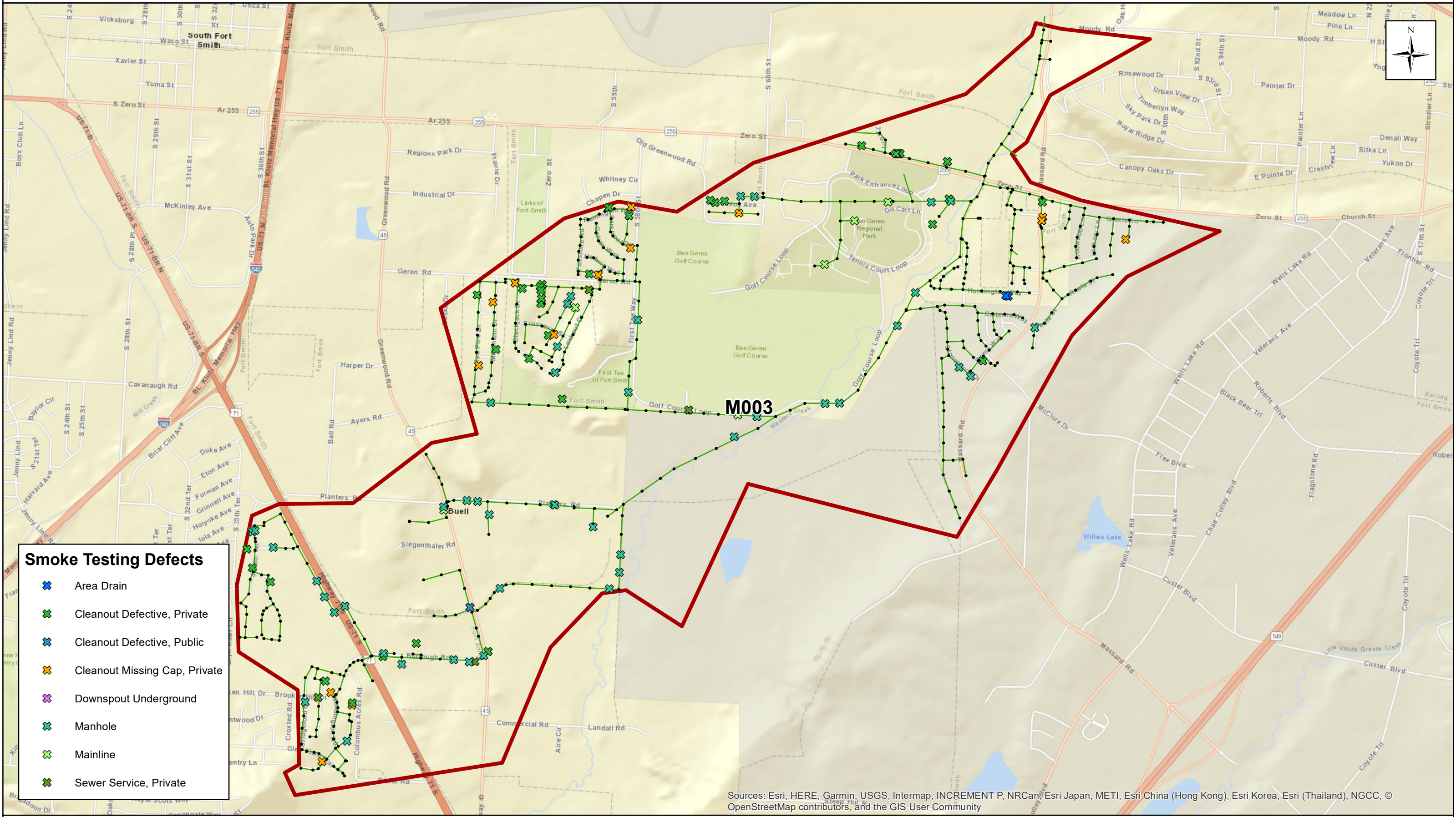
- No Structural Defect
- 1-3
- 4-5
- Uninspected Manholes

— Gravity Sewer □ Basin Boundaries

City of Fort Smith, AR



City of Fort Smith, AR



Smoke Testing Defects

- Area Drain
- Cleanout Defective, Private
- Cleanout Defective, Public
- Cleanout Missing Cap, Private
- Downspout Underground
- Manhole
- Mainline
- Sewer Service, Private

- 2018 Manhole
- 2018 Gravity Main
- 2018 Study Basin

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

City of Fort Smith, AR



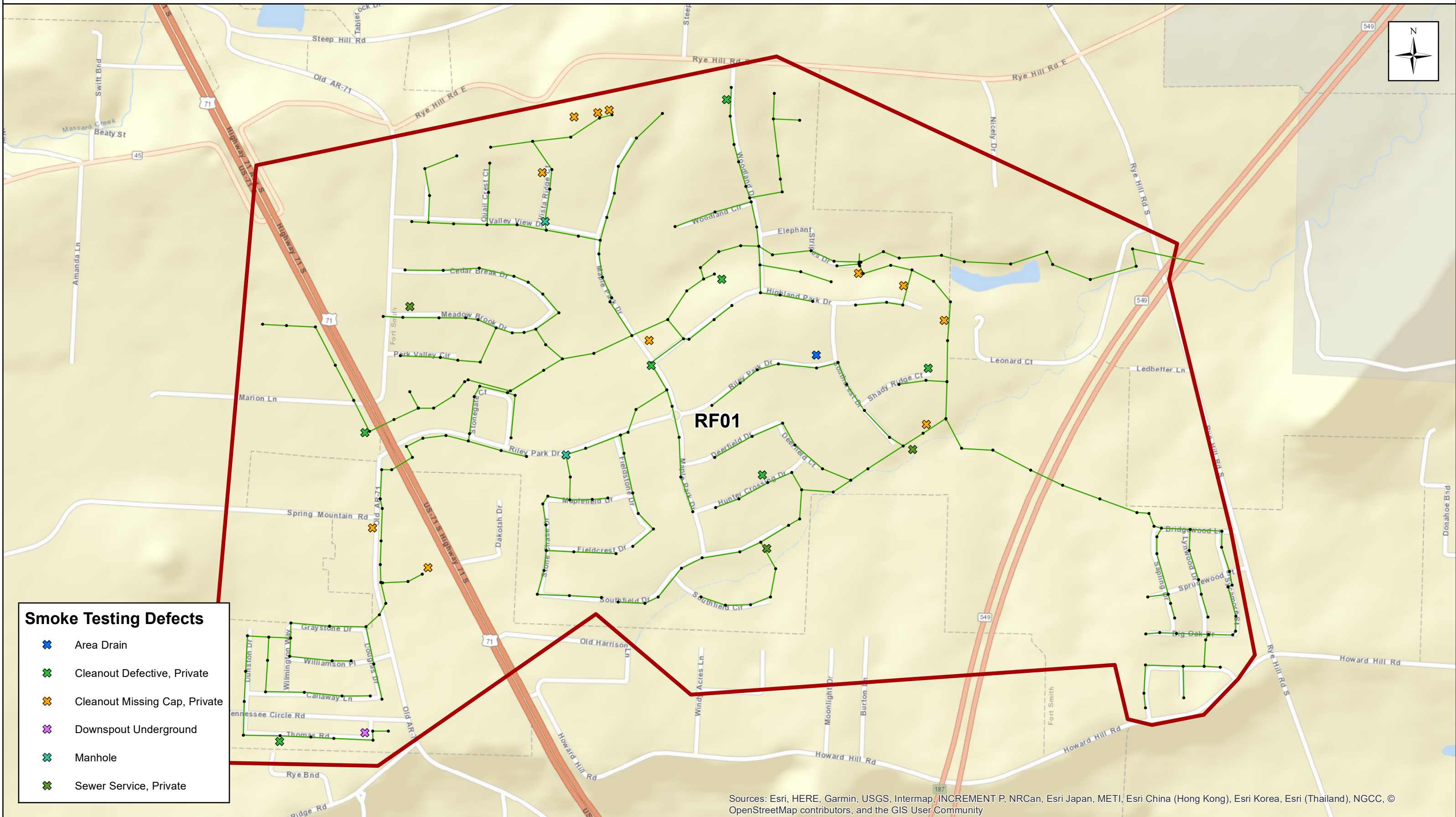
Smoke Testing Defects

- ✕ Area Drain
- ✕ Catch Basin
- ✕ Cleanout Defective, Private
- ✕ Cleanout Missing Cap, Private
- ✕ Manhole
- ✕ Grease Trap
- ✕ Mainline
- ✕ Sewer Service, Private

M005

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

City of Fort Smith, AR



Smoke Testing Defects

- Area Drain
- Cleanout Defective, Private
- Cleanout Missing Cap, Private
- Downspout Underground
- Manhole
- Sewer Service, Private

• 2018 Manhole — 2018 Gravity Main 2018 Study Basin

City of Fort Smith, AR



Smoke Testing Defects

✕ Manhole

WL01

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

CLEANING AND TELEVISIONING OF SANITARY SEWERS

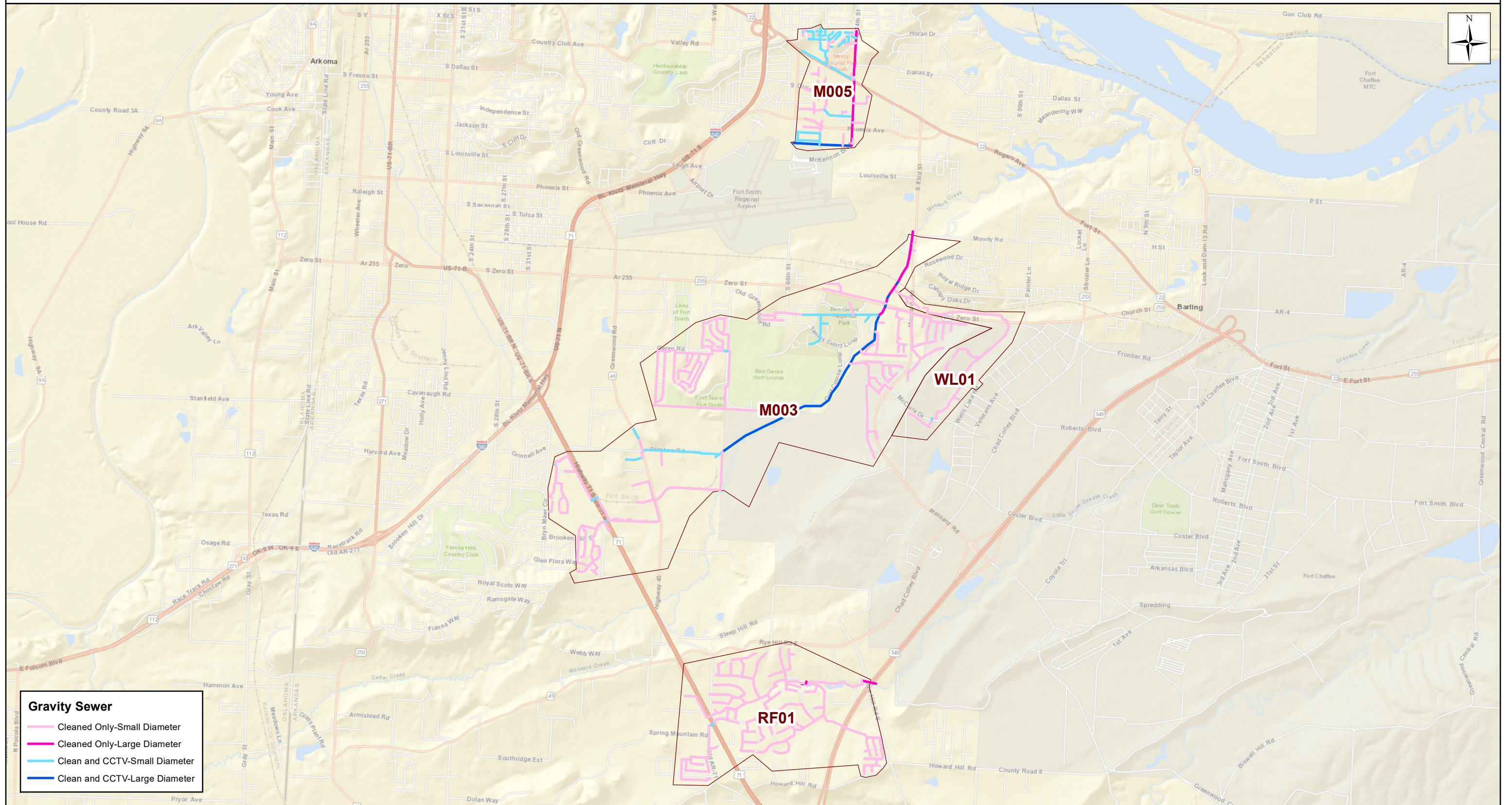
A total of 266,972 linear feet of gravity sewer lines were cleaned. A portion of this total includes plastic lines installed after 1995 from the 2018 SSA. Table 8 outlines the footage cleaned in each sub-basin. All non-plastic sanitary lines, along with plastic lines installed prior to 1995 were televised. Within the four sub-basins studied in 2018, 266,972 linear feet (50.5 miles) were cleaned. A total of 41,210 linear feet (7.8 miles) were televised. Of the 41,210 linear feet televised, 13,184 linear feet and 28,026 linear feet were of large ($\geq 24''$) and small diameter respectively. A total of 244,002 linear feet of small diameter pipe ($<24''$) and a total of 22,970 linear feet of large diameter pipe ($\geq 24''$) were cleaned. Figure 11 depicts all lines that were cleaned and televised, and a detailed list is provided in Appendix E. NASSCO PACP defect grades were used to generate scores for all sewer lines. The peak defect grade was utilized to provide an overall score for each sewer line. Scores were on a scale of 1 to 5 with a score of 5 assigned to the sewer lines in the worst condition. A total of 80,50 linear feet from the 2018 SSA received a score of 4 or 5. The total linear footage of each sub-basin can be seen in Table 9. A list of the NASSCO PACP score for every sewer line is provided in Appendix F. Figures 12 to 15 show the distribution of scores for every sewer line.

Table 8	
2018 SSA CLEANING	
Sub-Basin	Length (lf)
M003	136,918
M005	40,097
RF01	70,746
WL01	<u>19,212</u>
Total	266,972

**Table 9
NASSCO PACP SCORE SUMMARY**

Sub-Basin	No Structural Defects	NASSCO Score (linear feet)					Total
		1	2	3	4	5	
M003	11,033	1,907	3,821	2,631	1,073	2,467	22,932
M005	7,562	2,391	2,343	1,108	1,727	2,783	17,914
RF01	228	0	0	0	0	0	228
WL01	136	0	0	0	0	0	136
Total	18,959	4,297	6,164	3,739	2,800	5,250	41,210

City of Fort Smith, AR

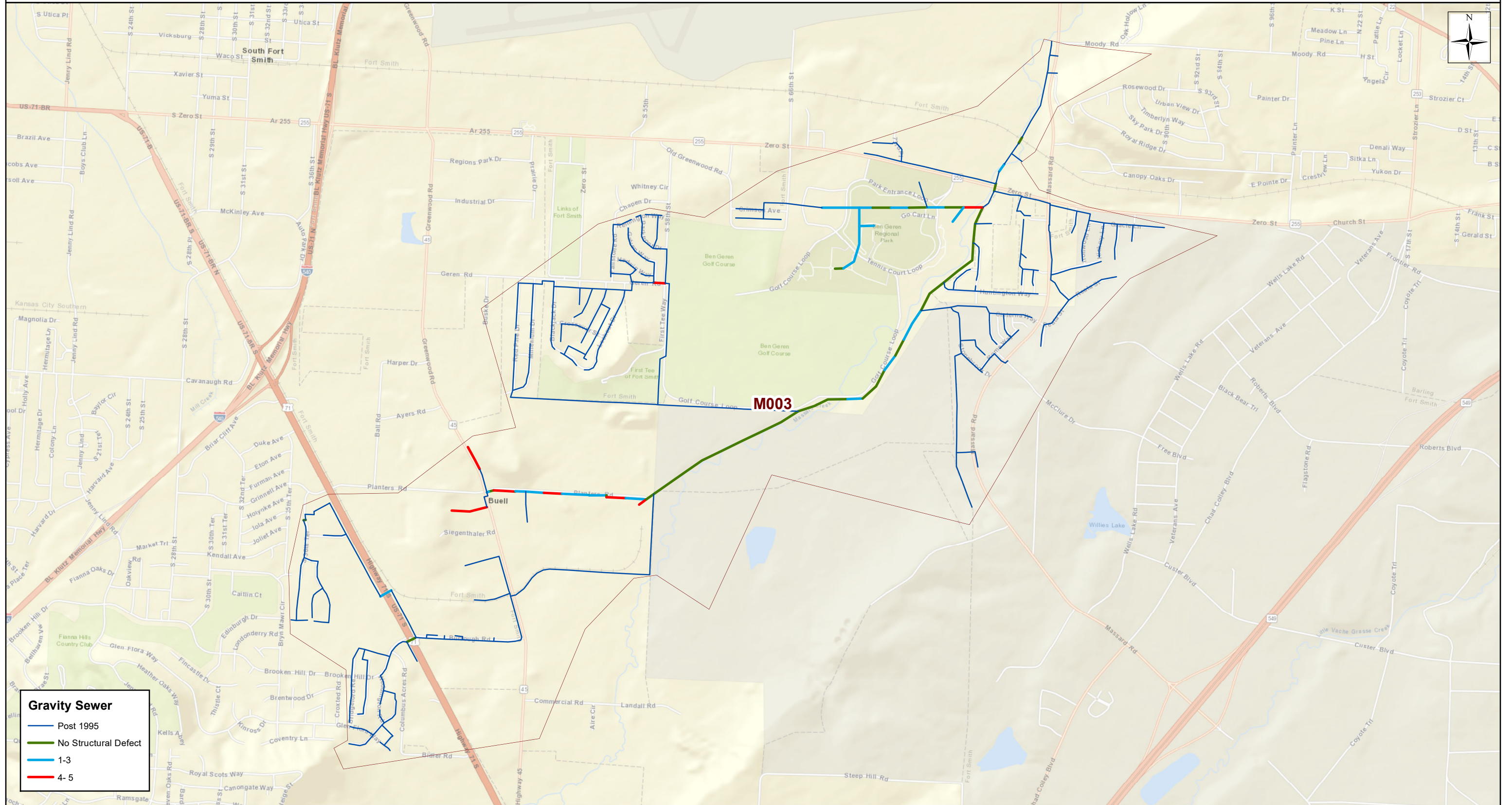


Gravity Sewer

- Cleaned Only-Small Diameter
- Cleaned Only-Large Diameter
- Clean and CCTV-Small Diameter
- Clean and CCTV-Large Diameter

Basin Boundaries

City of Fort Smith, AR

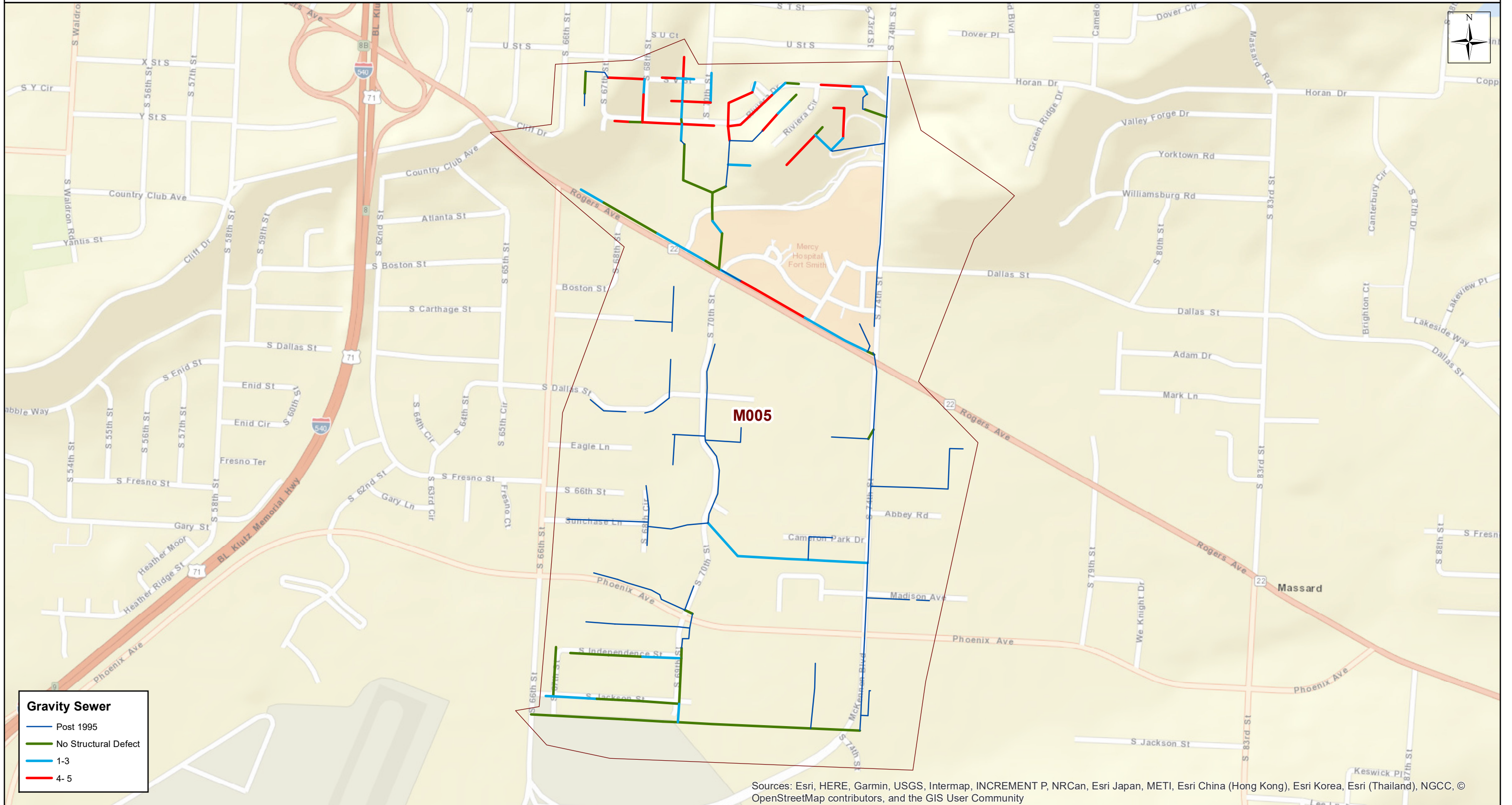


Gravity Sewer

- Post 1995
- No Structural Defect
- 1-3
- 4-5

Basin Boundaries

City of Fort Smith, AR



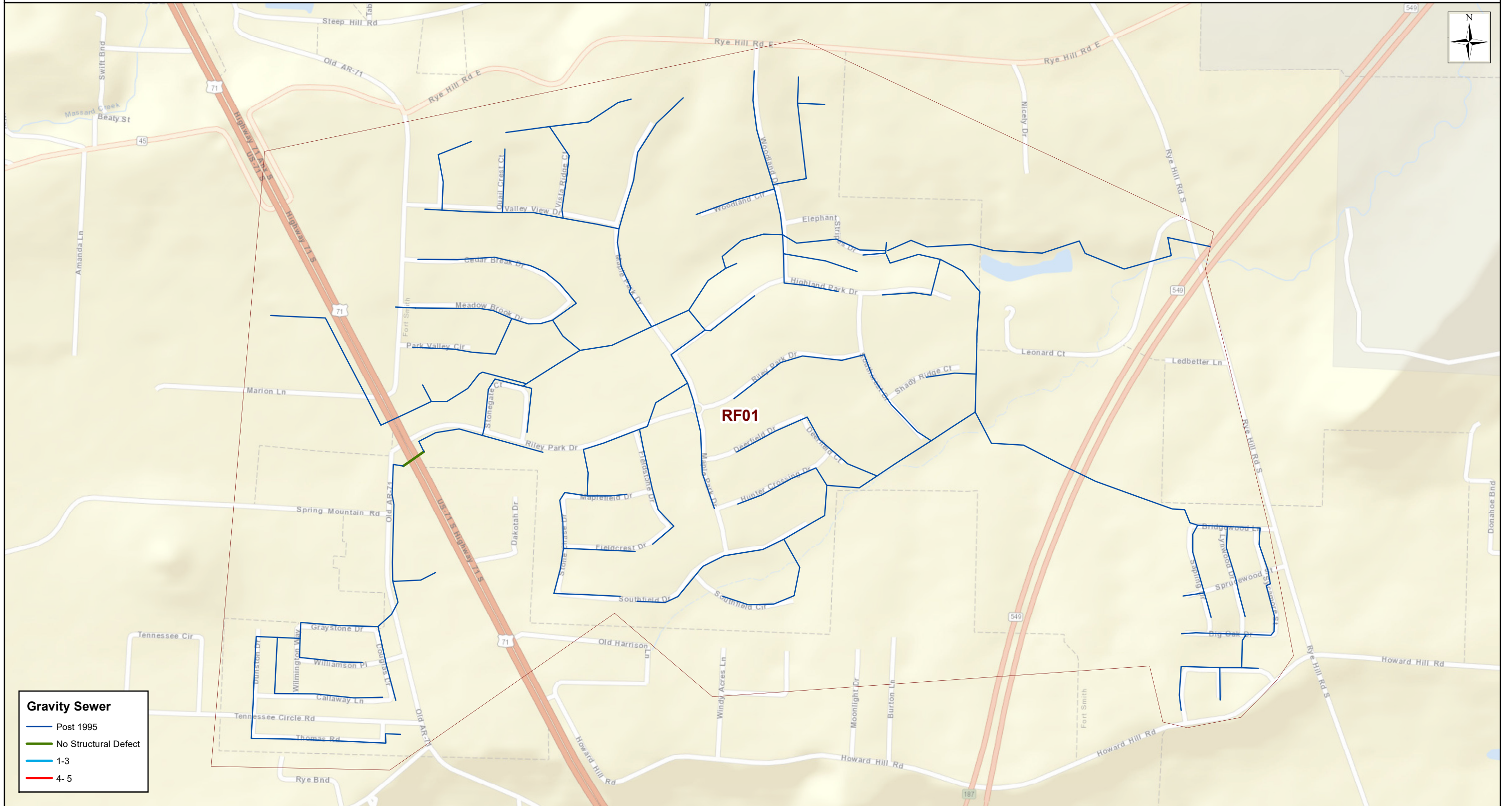
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Gravity Sewer

- Post 1995
- No Structural Defect
- 1-3
- 4-5

Basin Boundaries

City of Fort Smith, AR



Gravity Sewer

- Post 1995
- No Structural Defect
- 1-3
- 4-5

Basin Boundaries

City of Fort Smith, AR



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

Gravity Sewer

- Post 1995
- No Structural Defect
- 1-3
- 4-5

Basin Boundaries

DYED WATER FLOODING

A total of 14 dye tests were performed within 1,967 linear feet of small diameter pipe within the four sub-basins. Defects dye tested consisted of potential gravity sewer lines and potential cross-connections with the storm water system. Potential gravity sewer line leaks on line segments that had a NASSCO score of 4 or 5 from the CCTV condition assessment were not tested. A breakdown of positive and negative tests per sub-basin can be found in Table 10. Several lines had multiple tests conducted at various locations. Table 11 contains the number of tests and not the number of line segments tested. Two dye tests could not be performed, one test could not flood the catch basin because it was too large, and one due to the inability to gain access. Dye test results did not identify any direct discharges of flow to or from the sanitary sewer system. The defects tested are identified as indirect sources. Results from dye testing are shown in Table 12.

Sub-Basin	Positive ^{1/}	Negative ^{1/}	Could Not Test
M003	5	0	1
M005	8	1	1
RF01	0	0	0
WL01	<u>0</u>	<u>0</u>	<u>0</u>
Total	13	1	2

*1/ 'Positive' = Dye observed at Downstream manhole,
'Negative' = No dye observed at Downstream manhole*

Type of Test	Positive ^{1/}	Negative ^{1/}	Could Not Test
Catch Basin	0	1	1
Gravity Sewer Line	13	0	1
Total	<u>13</u>	<u>1</u>	<u>2</u>

1/ 'Positive' = Dye observed at Downstream manhole, 'Negative' = No dye observed at Downstream manhole.

Table 12
DYE TEST RESULTS

Sub-Basin	Upstream Manhole Number	Downstream Manhole Number	Type of Test	Test Result
M003	M003-0280	M003-0270	Depressed Grass Area	Positive
M003	M003-0320	M003-0310	Depressed Grass Area	Positive
M003	M003-0360	M003-0350	Depressed Grass Area	Positive
M003	M003-0705	M003-0695	Storm Ditch	Positive
M003	M003-1060	M003-1050	Depressed Grass Area	Positive
M003	M003-2890	M003-2880	Depressed Grass Area	1/
M005	M005-0290	M005-0270	Catch Basin	Negative
M005	M005-0310	M005-0300	Depressed Grass Area	Positive
M005	M005-0410	M005-0400	Depressed Grass Area	Positive
M005	M005-0630	M005-0620	Catch Basin	2/
M005	M005-0680	M005-0670	Depressed Grass Area	Positive
M005	M005-0930	M005-0920	Depressed Grass Area	Positive
M005	M005-1020(1)	M005-1010(1)	Storm Ditch	Positive
M005	M005-1020(2)	M005-1010(2)	Storm Ditch	Positive
M005	M005-1100	M005-1090	Depressed Grass Area	Positive
M005	M005-1200	M005-1180	Storm Ditch	Positive

1/ Unable to access with equipment

2/ Unable to plug storm line

RESULTS SUMMARY

The sanitary sewer assessment conducted during the 2018 SSA included the study of 1,157 manholes, smoke testing 266,972 linear feet of sanitary sewer line, cleaning and televising 258,254 linear feet (48.9 miles) of sanitary sewer line, and performing 14 dye tests in the study area. Table 14 summarizes the number of manholes and linear feet of sewer line that had a NASSCO grade 4 or 5 broken down by sub-basin.

Sub-Basin	Manholes	Sewer Lines (linear feet)
M003	44	3,540
M005	34	4,510
RF01	10	0
WL01	<u>0</u>	<u>0</u>
Total	87	8,050

APPENDICES

APPENDIX A

Manhole Inspection Status



Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-0005	level 2	Remote Inspection	
M003	M003-0010	level 2	Remote Inspection	
M003	M003-0015	level 2	Remote Inspection	
M003	M003-0017	level 2	Remote Inspection	
M003	M003-0020	level 2	Remote Inspection	
M003	M003-0030	level 2	Remote Inspection	
M003	M003-0035	level 2	Remote Inspection	
M003	M003-0037	level 2	Remote Inspection	
M003	M003-0040	level 2	Remote Inspection	
M003	M003-0050	level 2	Remote Inspection	
M003	M003-0060	level 2	Remote Inspection	
M003	M003-0070	level 2	Remote Inspection	
M003	M003-0080	level 2	Remote Inspection	
M003	M003-0090	level 2	Remote Inspection	
M003	M003-0100	level 2	Remote Inspection	
M003	M003-0110	level 2	Remote Inspection	
M003	M003-0120	level 2	Remote Inspection	
M003	M003-0130	level 2	Buried or Marked	Under Construction, appears to be in the process of being raised
M003	M003-0140	level 2	Remote Inspection	
M003	M003-0150	level 2	Remote Inspection	
M003	M003-0160	level 2	Remote Inspection	
M003	M003-0170	level 2	Remote Inspection	
M003	M003-0180	level 2	Remote Inspection	
M003	M003-0185	level 2	Remote Inspection	
M003	M003-0190	level 2	Remote Inspection	
M003	M003-0200	level 2	Remote Inspection	
M003	M003-0204	level 2	Remote Inspection	
M003	M003-0205	level 2	Remote Inspection	
M003	M003-0210	level 2	Remote Inspection	
M003	M003-0220	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-0230	level 2	Remote Inspection	
M003	M003-0240	level 2	Remote Inspection	
M003	M003-0250	level 2	Remote Inspection	
M003	M003-0260	level 2	Remote Inspection	
M003	M003-0270	level 2	Remote Inspection	
M003	M003-0280	level 2	Remote Inspection	
M003	M003-0290	level 2	Remote Inspection	
M003	M003-0300	level 2	Remote Inspection	
M003	M003-0310	level 2	Remote Inspection	
M003	M003-0320	level 2	Not Found	Found service lateral cleanout in general vicinity
M003	M003-0330	level 2	Remote Inspection	
M003	M003-0340	level 2	Remote Inspection	
M003	M003-0350	level 2	Remote Inspection	
M003	M003-0360	level 2	Not Found	
M003	M003-0380	level 2	Remote Inspection	
M003	M003-0390	level 2	Remote Inspection	
M003	M003-0400	level 2	Remote Inspection	
M003	M003-0410	level 2	Remote Inspection	
M003	M003-0410A	level 2	Remote Inspection	
M003	M003-0410B	level 2	Remote Inspection	
M003	M003-0420	level 2	Remote Inspection	
M003	M003-0430	level 2	Remote Inspection	
M003	M003-0440	level 2	Remote Inspection	
M003	M003-0450	level 2	Remote Inspection	
M003	M003-0460	level 2	Remote Inspection	
M003	M003-0470	level 2	Remote Inspection	
M003	M003-0480	level 2	Remote Inspection	
M003	M003-0490	level 2	Remote Inspection	
M003	M003-0500	level 2	Remote Inspection	
M003	M003-0510	level 2	Remote Inspection	
M003	M003-0520	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-0525	level 2	Remote Inspection	
M003	M003-0528	level 2	Not Found	
M003	M003-0530	level 2	Remote Inspection	
M003	M003-0540	level 2	Remote Inspection	
M003	M003-0550	level 2	No Access	Locked rear yard, resident not home
M003	M003-0560	level 2	Remote Inspection	
M003	M003-0570	level 2	Not Opened	Cover is Seized
M003	M003-0580	level 2	Remote Inspection	
M003	M003-0590	level 2	Remote Inspection	
M003	M003-0600	level 2	Remote Inspection	
M003	M003-0610	level 2	Remote Inspection	
M003	M003-0620	level 2	Remote Inspection	
M003	M003-0630	level 2	Remote Inspection	
M003	M003-0640	level 2	Remote Inspection	
M003	M003-0650	level 2	Remote Inspection	
M003	M003-0660	level 2	Remote Inspection	
M003	M003-0670	level 2	Remote Inspection	
M003	M003-0680	level 2	Remote Inspection	
M003	M003-0695	level 2	Remote Inspection	
M003	M003-0705	level 2	Remote Inspection	
M003	M003-0715	level 2	Remote Inspection	
M003	M003-0725	level 2	Remote Inspection	
M003	M003-0735	level 2	Remote Inspection	
M003	M003-0740	level 2	Remote Inspection	
M003	M003-0750	level 2	Remote Inspection	
M003	M003-0760	level 2	Remote Inspection	
M003	M003-0770	level 2	Remote Inspection	
M003	M003-0780	level 2	Remote Inspection	
M003	M003-0790	level 2	Remote Inspection	
M003	M003-0800	level 2	Remote Inspection	
M003	M003-0810	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-0820	level 2	Remote Inspection	
M003	M003-0830	level 2	Remote Inspection	
M003	M003-0840	level 2	Remote Inspection	
M003	M003-0850	level 2	Remote Inspection	
M003	M003-0860	level 2	Remote Inspection	
M003	M003-0870	level 2	Remote Inspection	
M003	M003-0880	level 2	Remote Inspection	
M003	M003-0890	level 2	Remote Inspection	
M003	M003-0900	level 2	Remote Inspection	
M003	M003-0910	level 2	Remote Inspection	
M003	M003-0920	level 2	Remote Inspection	
M003	M003-0924	level 2	Remote Inspection	
M003	M003-0928	level 2	Remote Inspection	
M003	M003-0930	level 2	Remote Inspection	
M003	M003-0940	level 2	Remote Inspection	
M003	M003-0950	level 2	Remote Inspection	
M003	M003-0960	level 2	Remote Inspection	
M003	M003-0970	level 2	Remote Inspection	
M003	M003-0980	level 2	Remote Inspection	
M003	M003-0990	level 2	Remote Inspection	
M003	M003-1000	level 2	Remote Inspection	
M003	M003-1010	level 2	Remote Inspection	
M003	M003-1020	level 2	Remote Inspection	
M003	M003-1030	level 2	Remote Inspection	
M003	M003-1040	level 2	Remote Inspection	
M003	M003-1050	level 2	Remote Inspection	
M003	M003-1060	level 2	Remote Inspection	
M003	M003-1070	level 2	Remote Inspection	
M003	M003-1080	level 2	No Access	Cannot find route around fence
M003	M003-1083	level 2	No Access	Cannot find route around fence
M003	M003-1090	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-1100	level 2	Remote Inspection	
M003	M003-1110	level 2	Remote Inspection	
M003	M003-1120	level 2	Remote Inspection	
M003	M003-1130	level 2	Not Opened	Cover is Seized
M003	M003-1140	level 2	Remote Inspection	
M003	M003-1150	level 2	Remote Inspection	
M003	M003-1160	level 2	Remote Inspection	
M003	M003-1170	level 2	Not Opened	Cover is Seized
M003	M003-1180	level 2	Not Opened	Cover is Seized
M003	M003-1190	level 2	Not Opened	Cover is Seized
M003	M003-1200	level 2	Remote Inspection	
M003	M003-1210	level 2	Remote Inspection	
M003	M003-1220	level 2	Remote Inspection	
M003	M003-1230	level 2	Remote Inspection	
M003	M003-1240	level 2	Remote Inspection	
M003	M003-1250	level 2	Remote Inspection	
M003	M003-1260	level 2	Remote Inspection	
M003	M003-1270	level 2	Remote Inspection	
M003	M003-1280	level 2	Not Opened	Cover is Seized
M003	M003-1290	level 2	Remote Inspection	
M003	M003-1300	level 2	Remote Inspection	
M003	M003-1310	level 2	Remote Inspection	
M003	M003-1320	level 2	Remote Inspection	
M003	M003-1330	level 2	Not Opened	Cover is Seized
M003	M003-1340	level 2	Remote Inspection	
M003	M003-1350	level 2	Remote Inspection	
M003	M003-1350A	level 2	Remote Inspection	
M003	M003-1350B	level 2	Remote Inspection	
M003	M003-1360	level 2	Remote Inspection	
M003	M003-1360A	level 2	Remote Inspection	
M003	M003-1370	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-1373	level 2	Remote Inspection	
M003	M003-1377	level 2	Remote Inspection	
M003	M003-1380	level 2	Remote Inspection	
M003	M003-1390	level 2	Remote Inspection	
M003	M003-1400	level 2	Remote Inspection	
M003	M003-1410	level 2	Remote Inspection	
M003	M003-1420	level 2	Remote Inspection	
M003	M003-1430	level 2	Remote Inspection	
M003	M003-1440	level 2	No Access	In the middle of the entrance of a very busy McDonald's, manager did not want us blocking the entrance
M003	M003-1450	level 2	Remote Inspection	
M003	M003-1460	level 2	Remote Inspection	
M003	M003-1470	level 2	Remote Inspection	
M003	M003-1480	level 2	Remote Inspection	
M003	M003-1490	level 2	Remote Inspection	
M003	M003-1500	level 2	Remote Inspection	
M003	M003-1510	level 2	Remote Inspection	
M003	M003-1520	level 2	Remote Inspection	
M003	M003-1530	level 2	Remote Inspection	
M003	M003-1540	level 2	Remote Inspection	
M003	M003-1550	level 2	Remote Inspection	
M003	M003-1560	level 2	Remote Inspection	
M003	M003-1570	level 2	Remote Inspection	
M003	M003-1580	level 2	Remote Inspection	
M003	M003-1590	level 2	Remote Inspection	
M003	M003-1600	level 2	Remote Inspection	
M003	M003-1610	level 2	Remote Inspection	
M003	M003-1620	level 2	Remote Inspection	
M003	M003-1630	level 2	Remote Inspection	
M003	M003-1640	level 2	Remote Inspection	
M003	M003-1650	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-1660	level 2	Remote Inspection	
M003	M003-1670	level 2	Remote Inspection	
M003	M003-1680	level 2	Remote Inspection	
M003	M003-1690	level 2	Remote Inspection	
M003	M003-1700	level 2	Remote Inspection	
M003	M003-1710	level 2	Remote Inspection	
M003	M003-1720	level 2	Remote Inspection	
M003	M003-1730	level 2	Remote Inspection	
M003	M003-1740	level 2	Remote Inspection	
M003	M003-1750	level 2	Remote Inspection	
M003	M003-1760	level 2	Remote Inspection	
M003	M003-1770	level 2	Remote Inspection	
M003	M003-1780	level 2	Remote Inspection	
M003	M003-1790	level 2	Remote Inspection	
M003	M003-1800	level 2	Remote Inspection	
M003	M003-1810	level 2	Remote Inspection	
M003	M003-1820	level 2	Remote Inspection	
M003	M003-1830	level 2	Remote Inspection	
M003	M003-1840	level 2	Remote Inspection	
M003	M003-1850	level 2	Remote Inspection	
M003	M003-1860	level 2	Remote Inspection	
M003	M003-1870	level 2	Remote Inspection	
M003	M003-1880	level 2	Remote Inspection	
M003	M003-1890	level 2	Remote Inspection	
M003	M003-1900	level 2	Remote Inspection	
M003	M003-1910	level 2	Remote Inspection	
M003	M003-1920	level 2	Remote Inspection	
M003	M003-1930	level 2	Remote Inspection	
M003	M003-1940	level 2	Remote Inspection	
M003	M003-1950	level 2	Remote Inspection	
M003	M003-1960	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-1970	level 2	Remote Inspection	
M003	M003-1980	level 2	Not Opened	Cover is Seized
M003	M003-1990	level 2	Remote Inspection	
M003	M003-2000	level 2	Remote Inspection	
M003	M003-2002	level 2	Remote Inspection	
M003	M003-2010	level 2	Remote Inspection	
M003	M003-2020	level 2	Remote Inspection	
M003	M003-2030	level 2	Remote Inspection	
M003	M003-2040	level 2	Remote Inspection	
M003	M003-2050	level 2	Remote Inspection	
M003	M003-2060	level 2	Remote Inspection	
M003	M003-2070	level 2	Remote Inspection	
M003	M003-2080	level 2	Remote Inspection	
M003	M003-2090	level 2	Remote Inspection	
M003	M003-2100	level 2	Remote Inspection	
M003	M003-2110	level 2	Remote Inspection	
M003	M003-2120	level 2	Remote Inspection	
M003	M003-2130	level 2	Remote Inspection	
M003	M003-2140	level 2	Remote Inspection	
M003	M003-2150	level 2	Remote Inspection	
M003	M003-2160	level 2	Remote Inspection	
M003	M003-2170	level 2	Remote Inspection	
M003	M003-2180	level 2	Remote Inspection	
M003	M003-2190	level 2	Remote Inspection	
M003	M003-2200	level 2	Remote Inspection	
M003	M003-2210	level 2	Remote Inspection	
M003	M003-2220	level 2	Remote Inspection	
M003	M003-2230	level 2	Remote Inspection	
M003	M003-2240	level 2	Remote Inspection	
M003	M003-2250	level 2	Remote Inspection	
M003	M003-2260	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-2270	level 2	Remote Inspection	
M003	M003-2280	level 2	Remote Inspection	
M003	M003-2290	level 2	Remote Inspection	
M003	M003-2300	level 2	Remote Inspection	
M003	M003-2310	level 2	Remote Inspection	
M003	M003-2320	level 2	Remote Inspection	
M003	M003-2330	level 2	Remote Inspection	
M003	M003-2340	level 2	Remote Inspection	
M003	M003-2350	level 2	Remote Inspection	
M003	M003-2360	level 2	Remote Inspection	
M003	M003-2370	level 2	Remote Inspection	
M003	M003-2380	level 2	Remote Inspection	
M003	M003-2390	level 2	Remote Inspection	
M003	M003-2400	level 2	Remote Inspection	
M003	M003-2410	level 2	Remote Inspection	
M003	M003-2420	level 2	Remote Inspection	
M003	M003-2430	level 2	Remote Inspection	
M003	M003-2440	level 2	Remote Inspection	
M003	M003-2450	level 2	Remote Inspection	
M003	M003-2460	level 2	Remote Inspection	
M003	M003-2470	level 2	Remote Inspection	
M003	M003-2480	level 2	Remote Inspection	
M003	M003-2490	level 2	Remote Inspection	
M003	M003-2500	level 2	Remote Inspection	
M003	M003-2510	level 2	Remote Inspection	
M003	M003-2520	level 2	Remote Inspection	
M003	M003-2530	level 2	Remote Inspection	
M003	M003-2540	level 2	Remote Inspection	
M003	M003-2550	level 2	Remote Inspection	
M003	M003-2560	level 2	Remote Inspection	
M003	M003-2570	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-2580	level 2	Remote Inspection	
M003	M003-2590	level 2	Remote Inspection	
M003	M003-2600	level 2	Remote Inspection	
M003	M003-2610	level 2	Remote Inspection	
M003	M003-2620	level 2	Remote Inspection	
M003	M003-2630	level 2	Remote Inspection	
M003	M003-2640	level 2	Remote Inspection	
M003	M003-2650	level 2	Remote Inspection	
M003	M003-2660	level 2	Remote Inspection	
M003	M003-2670	level 2	Remote Inspection	
M003	M003-2680	level 2	Remote Inspection	
M003	M003-2690	level 2	Remote Inspection	
M003	M003-2700	level 2	Remote Inspection	
M003	M003-2710	level 2	Remote Inspection	
M003	M003-2720	level 2	Remote Inspection	
M003	M003-2730	level 2	Remote Inspection	
M003	M003-2740	level 2	Remote Inspection	
M003	M003-2750	level 2	Remote Inspection	
M003	M003-2760	level 2	Remote Inspection	
M003	M003-2770	level 2	Remote Inspection	
M003	M003-2780	level 2	Remote Inspection	
M003	M003-2790	level 2	Remote Inspection	
M003	M003-2800	level 2	Remote Inspection	
M003	M003-2810	level 2	Remote Inspection	
M003	M003-2820	level 2	Remote Inspection	
M003	M003-2830	level 2	Remote Inspection	
M003	M003-2840	level 2	Remote Inspection	
M003	M003-2850	level 2	Remote Inspection	
M003	M003-2860	level 2	Remote Inspection	
M003	M003-2870	level 2	Remote Inspection	
M003	M003-2880	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-2890	level 2	No Access	Locked rear yard, resident not home
M003	M003-2900	level 2	Remote Inspection	
M003	M003-2910	level 2	Remote Inspection	
M003	M003-2920	level 2	Remote Inspection	
M003	M003-2930	level 2	Remote Inspection	
M003	M003-2940	level 2	Remote Inspection	
M003	M003-2950	level 2	Buried or Marked	
M003	M003-2960	level 2	Remote Inspection	
M003	M003-2970	level 2	Remote Inspection	
M003	M003-2980	level 2	Remote Inspection	
M003	M003-2990	level 2	Remote Inspection	
M003	M003-3000	level 2	Remote Inspection	
M003	M003-3010	level 2	Remote Inspection	
M003	M003-3020	level 2	Remote Inspection	
M003	M003-3030	level 2	Remote Inspection	
M003	M003-3040	level 2	Remote Inspection	
M003	M003-3050	level 2	Remote Inspection	
M003	M003-3060	level 2	Remote Inspection	
M003	M003-3065	level 2	Not Found	Possible DNE
M003	M003-3070	level 2	Remote Inspection	
M003	M003-3080	level 2	Remote Inspection	
M003	M003-3090	level 2	Remote Inspection	
M003	M003-3100	level 2	Remote Inspection	
M003	M003-3110	level 2	Remote Inspection	
M003	M003-3120	level 2	Remote Inspection	
M003	M003-3130	level 2	Remote Inspection	
M003	M003-3140	level 2	Remote Inspection	
M003	M003-3150	level 2	Remote Inspection	
M003	M003-3160	level 2	Remote Inspection	
M003	M003-3170	level 2	Remote Inspection	
M003	M003-3180	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-3190	level 2	Remote Inspection	
M003	M003-3200	level 2	Remote Inspection	
M003	M003-3210	level 2	Remote Inspection	
M003	M003-3220	level 2	Remote Inspection	
M003	M003-3230	level 2	Remote Inspection	
M003	M003-3240	level 2	Remote Inspection	
M003	M003-3250	level 2	Remote Inspection	
M003	M003-3260	level 2	Remote Inspection	
M003	M003-3270	level 2	Remote Inspection	
M003	M003-3280	level 2	Remote Inspection	
M003	M003-3290	level 2	Remote Inspection	
M003	M003-3300	level 2	Remote Inspection	
M003	M003-3310	level 2	Remote Inspection	
M003	M003-3320	level 2	Remote Inspection	
M003	M003-3330	level 2	Remote Inspection	
M003	M003-3340	level 2	Remote Inspection	
M003	M003-3350	level 2	Remote Inspection	
M003	M003-3360	level 2	Remote Inspection	
M003	M003-3370	level 2	Remote Inspection	
M003	M003-3380	level 2	Remote Inspection	
M003	M003-3390	level 2	Remote Inspection	
M003	M003-3400	level 2	Remote Inspection	
M003	M003-3410	level 2	Remote Inspection	
M003	M003-3420	level 2	Remote Inspection	
M003	M003-3430	level 2	Remote Inspection	
M003	M003-3440	level 2	Remote Inspection	
M003	M003-3450	level 2	Remote Inspection	
M003	M003-3460	level 2	Remote Inspection	
M003	M003-3470	level 2	Remote Inspection	
M003	M003-3480	level 2	Remote Inspection	
M003	M003-3490	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-3500	level 2	Remote Inspection	
M003	M003-3510	level 2	Remote Inspection	
M003	M003-3530	level 2	Remote Inspection	
M003	M003-3540	level 2	Remote Inspection	
M003	M003-3550	level 2	Remote Inspection	
M003	M003-3560	level 2	Remote Inspection	
M003	M003-3570	level 2	Remote Inspection	
M003	M003-3580	level 2	Remote Inspection	
M003	M003-3590	level 2	Remote Inspection	
M003	M003-3600	level 2	Remote Inspection	
M003	M003-3610	level 2	Remote Inspection	
M003	M003-3620	level 2	Remote Inspection	
M003	M003-3630	level 2	Remote Inspection	
M003	M003-3640	level 2	Remote Inspection	
M003	M003-3650	level 2	Remote Inspection	
M003	M003-3660	level 2	Remote Inspection	
M003	M003-3670	level 2	Remote Inspection	
M003	M003-3680	level 2	Remote Inspection	
M003	M003-3690	level 2	Remote Inspection	
M003	M003-3700	level 2	Remote Inspection	
M003	M003-3710	level 2	Remote Inspection	
M003	M003-3720	level 2	Remote Inspection	
M003	M003-3730	level 2	Remote Inspection	
M003	M003-3740	level 2	Remote Inspection	
M003	M003-3750	level 2	Remote Inspection	
M003	M003-3760	level 2	Remote Inspection	
M003	M003-3770	level 2	Remote Inspection	
M003	M003-3780	level 2	Remote Inspection	
M003	M003-3790	level 2	Remote Inspection	
M003	M003-3800	level 2	Remote Inspection	
M003	M003-3810	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-3820	level 2	Remote Inspection	
M003	M003-3830	level 2	Remote Inspection	
M003	M003-3830A	level 2	Remote Inspection	
M003	M003-3850	level 2	Remote Inspection	
M003	M003-3860	level 2	Remote Inspection	
M003	M003-3870	level 2	Remote Inspection	
M003	M003-3872	level 2	Remote Inspection	
M003	M003-3880	level 2	Remote Inspection	
M003	M003-3890	level 2	Remote Inspection	
M003	M003-3900	level 2	Remote Inspection	
M003	M003-3910	level 2	Remote Inspection	
M003	M003-3920	level 2	Remote Inspection	
M003	M003-3930	level 2	Remote Inspection	
M003	M003-3940	level 2	Remote Inspection	
M003	M003-3950	level 2	Remote Inspection	
M003	M003-3960	level 2	Remote Inspection	
M003	M003-3970	level 2	Remote Inspection	
M003	M003-3980	level 2	Remote Inspection	
M003	M003-3990	level 2	Remote Inspection	
M003	M003-4000	level 2	Remote Inspection	
M003	M003-4010	level 2	Remote Inspection	
M003	M003-4020	level 2	Remote Inspection	
M003	M003-4030	level 2	Remote Inspection	
M003	M003-4040	level 2	Remote Inspection	
M003	M003-4050	level 2	Remote Inspection	
M003	M003-4060	level 2	Remote Inspection	
M003	M003-4070	level 2	Remote Inspection	
M003	M003-4080	level 2	Remote Inspection	
M003	M003-4090	level 2	Remote Inspection	
M003	M003-4100	level 2	Remote Inspection	
M003	M003-4110	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-4120	level 2	Remote Inspection	
M003	M003-4130	level 2	Remote Inspection	
M003	M003-4140	level 2	Remote Inspection	
M003	M003-4150	level 2	Remote Inspection	
M003	M003-4160	level 2	Remote Inspection	
M003	M003-4170	level 2	Remote Inspection	
M003	M003-4180	level 2	Remote Inspection	
M003	M003-4190	level 2	Remote Inspection	
M003	M003-4200	level 2	Remote Inspection	
M003	M003-4210	level 2	Remote Inspection	
M003	M003-4220	level 2	Remote Inspection	
M003	M003-4230	level 2	Remote Inspection	
M003	M003-4240	level 2	Remote Inspection	
M003	M003-4250	level 2	Remote Inspection	
M003	M003-4260	level 2	Remote Inspection	
M003	M003-4270	level 2	Remote Inspection	
M003	M003-4280	level 2	Remote Inspection	
M003	M003-4290	level 2	Remote Inspection	
M003	M003-4300	level 2	Remote Inspection	
M003	M003-4310	level 2	Remote Inspection	
M003	M003-4320	level 2	Remote Inspection	
M003	M003-4330	level 2	Remote Inspection	
M003	M003-4340	level 2	Remote Inspection	
M003	M003-4350	level 2	Remote Inspection	
M003	M003-4360	level 2	Remote Inspection	
M003	M003-4370	level 2	Remote Inspection	
M003	M003-4380	level 2	Remote Inspection	
M003	M003-4390	level 2	Remote Inspection	
M003	M003-4400	level 2	Remote Inspection	
M003	M003-4410	level 2	Remote Inspection	
M003	M003-4420	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-4430	level 2	Remote Inspection	
M003	M003-4440	level 2	Remote Inspection	
M003	M003-4450	level 2	Remote Inspection	
M003	M003-4460	level 2	Remote Inspection	
M003	M003-4470	level 2	Remote Inspection	
M003	M003-4480	level 2	Remote Inspection	
M003	M003-4490	level 2	Remote Inspection	
M003	M003-4500	level 2	Remote Inspection	
M003	M003-4510	level 2	Remote Inspection	
M003	M003-4520	level 2	Remote Inspection	
M003	M003-4530	level 2	Remote Inspection	
M003	M003-4530A	level 2	Remote Inspection	
M005	M003-4540	level 2	Remote Inspection	
M003	M003-4550	level 2	Remote Inspection	
M003	M003-4555	level 2	Remote Inspection	
M003	M003-4560	level 2	Remote Inspection	
M003	M003-4570	level 2	Remote Inspection	
M003	M003-4580	level 2	Remote Inspection	
M003	M003-4590	level 2	Remote Inspection	
M003	M003-4600	level 2	Remote Inspection	
M003	M003-4610	level 2	Remote Inspection	
M003	M003-4620	level 2	Remote Inspection	
M003	M003-4630	level 2	Remote Inspection	
M003	M003-4640	level 2	Remote Inspection	
M003	M003-4810	level 2	Remote Inspection	
M003	M003-4820	level 2	Remote Inspection	
M003	M003-4830	level 2	Remote Inspection	
M003	M003-4840	level 2	Remote Inspection	
M003	M003-4850	level 2	Remote Inspection	
M003	M003-4860	level 2	Remote Inspection	
M003	M003-4870	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-4880	level 2	Remote Inspection	
M003	M003-4890	level 2	Remote Inspection	
M003	M003-4900	level 2	Remote Inspection	
M003	M003-4910	level 2	Remote Inspection	
M003	M003-4920	level 2	Remote Inspection	
M003	M003-4930	level 2	Remote Inspection	
M003	M003-4940	level 2	Remote Inspection	
M003	M003-4950	level 2	Remote Inspection	
M003	M003-4960	level 2	Remote Inspection	
M003	M003-4970	level 2	Remote Inspection	
M003	M003-4980	level 2	Remote Inspection	
M003	M003-4990	level 2	Remote Inspection	
M003	M003-5000	level 2	Remote Inspection	
M003	M003-5010	level 2	Remote Inspection	
M003	M003-5012	level 2	Remote Inspection	
M003	M003-5014	level 2	Remote Inspection	
M003	M003-5016	level 2	Remote Inspection	
M003	M003-5020	level 2	Remote Inspection	
M003	M003-5030	level 2	Remote Inspection	
M003	M003-5040	level 2	Remote Inspection	
M003	M003-5050	level 2	Remote Inspection	
M003	M003-5060	level 2	Remote Inspection	
M003	M003-5070	level 2	Remote Inspection	
M003	M003-5080	level 2	Remote Inspection	
M003	M003-5090	level 2	Remote Inspection	
M003	M003-5100	level 2	Remote Inspection	
M003	M003-5110	level 2	Remote Inspection	
M003	M003-5120	level 2	Remote Inspection	
M003	M003-5130	level 2	Remote Inspection	
M003	M003-5135	level 2	Remote Inspection	
M003	M003-5136	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-5140	level 2	Remote Inspection	
M003	M003-5150	level 2	Remote Inspection	
M003	M003-5160	level 2	Remote Inspection	
M003	M003-5170	level 2	Remote Inspection	
M003	M003-5180	level 2	Remote Inspection	
M003	M003-5190	level 2	No Access	Fence over manhole
M003	M003-5200	level 2	Remote Inspection	
M003	M003-5210	level 2	Remote Inspection	
M003	M003-5220	level 2	Remote Inspection	
M003	M003-5230	level 2	Remote Inspection	
M003	M003-5240	level 2	Remote Inspection	
M003	M003-5250	level 2	Remote Inspection	
M003	M003-5260	level 2	Remote Inspection	
M003	M003-5270	level 2	Remote Inspection	
M003	M003-5280	level 2	Remote Inspection	
M003	M003-5290	level 2	Remote Inspection	
M003	M003-5300	level 2	Remote Inspection	
M003	M003-5310	level 2	Remote Inspection	
M003	M003-5320	level 2	Remote Inspection	
M003	M003-5330	level 2	Remote Inspection	
M003	M003-5340	level 2	Remote Inspection	
M003	M003-5360	level 2	Remote Inspection	
M003	M003-5370	level 2	Remote Inspection	
M003	M003-5380	level 2	Remote Inspection	
M003	M003-5390	level 2	Remote Inspection	
M003	M003-5400	level 2	Remote Inspection	
M003	M003-5410	level 2	Remote Inspection	
M003	M003-5420	level 2	Remote Inspection	
M003	M003-5430	level 2	Remote Inspection	
M003	M003-5440	level 2	Remote Inspection	
M003	M003-5450	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M003	M003-5460	level 2	Remote Inspection	
M003	M003-5470	level 2	Remote Inspection	
M003	M003-5480	level 2	Remote Inspection	
M003	M003-5490	level 2	Remote Inspection	
M003	M003-5500	level 2	Remote Inspection	
M003	M003-5510	level 2	Remote Inspection	
M003	M003-5520	level 2	Remote Inspection	
M003	M003-5530	level 2	Remote Inspection	
M003	M003-5540	level 2	Remote Inspection	
M003	M004-1670	level 2	Remote Inspection	
M003	M004-1680	level 2	Remote Inspection	
M005	M005-0010	level 2	Remote Inspection	
M005	M005-0020	level 2	Remote Inspection	
M005	M005-0030	level 2	Not Found	
M005	M005-0040	level 2	Not Opened	Cover Seized and Cracked
M005	M005-0050	level 2	Remote Inspection	
M005	M005-0060	level 2	Remote Inspection	
M005	M005-0070	level 2	Remote Inspection	
M005	M005-0080	level 2	Remote Inspection	
M005	M005-0090	level 2	Remote Inspection	
M005	M005-0100	level 2	Remote Inspection	
M005	M005-0110	level 2	Remote Inspection	
M005	M005-0120	level 2	Remote Inspection	
M005	M005-0130	level 2	Remote Inspection	
M005	M005-0140	level 2	Remote Inspection	
M005	M005-0150	level 2	Remote Inspection	
M005	M005-0160	level 2	Remote Inspection	
M005	M005-0170	level 2	Not Opened	Cover Seized
M005	M005-0180	level 2	Remote Inspection	
M005	M005-0180A	level 2	Remote Inspection	
M003	M005-0190	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M005	M005-0195	level 2	Remote Inspection	
M005	M005-0200	level 2	Remote Inspection	
M005	M005-0210	level 2	Remote Inspection	
M005	M005-0217	level 2	Remote Inspection	
M005	M005-0220	level 2	Remote Inspection	
M005	M005-0230	level 2	Remote Inspection	
M005	M005-0240	level 2	Buried or Marked	
M005	M005-0245	level 2	Remote Inspection	
M005	M005-0250	level 2	Remote Inspection	
M005	M005-0260	level 2	Remote Inspection	
M005	M005-0270	level 2	Remote Inspection	
M005	M005-0280	level 2	Remote Inspection	
M005	M005-0290	level 2	Remote Inspection	
M005	M005-0300	level 2	Remote Inspection	
M005	M005-0310	level 2	Remote Inspection	
M005	M005-0320	level 2	Remote Inspection	
M005	M005-0330	level 2	Remote Inspection	
M005	M005-0333	level 2	Remote Inspection	
M005	M005-0337	level 2	Remote Inspection	
M005	M005-0339	level 2	Remote Inspection	
M005	M005-0340	level 2	Remote Inspection	
M005	M005-0350	level 2	Remote Inspection	
M005	M005-0360	level 2	Remote Inspection	
M005	M005-0370	level 2	Remote Inspection	
M005	M005-0375	level 2	Remote Inspection	
M005	M005-0379	level 2	Remote Inspection	
M005	M005-0379A	level 2	Remote Inspection	
M005	M005-0380	level 2	Remote Inspection	
M005	M005-0390	level 2	Remote Inspection	
M005	M005-0393	level 2	Remote Inspection	
M005	M005-0393A	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M005	M005-0395	level 2	Remote Inspection	
M005	M005-0396	level 2	Remote Inspection	
M005	M005-0398	level 2	Remote Inspection	
M005	M005-0400	level 2	Remote Inspection	
M005	M005-0410	level 2	Remote Inspection	
M005	M005-0420	level 2	Remote Inspection	
M005	M005-0430	level 2	Remote Inspection	
M005	M005-0432	level 2	Remote Inspection	
M005	M005-0440	level 2	Remote Inspection	
M005	M005-0445	level 2	Remote Inspection	
M005	M005-0450	level 2	Not Opened	Cover Seized
M005	M005-0460	level 2	Remote Inspection	
M005	M005-0460A	level 2	Remote Inspection	
M005	M005-0460B	level 2	Remote Inspection	
M005	M005-0460C	level 2	Remote Inspection	
M005	M005-0460D	level 2	Remote Inspection	
M005	M005-0470	level 2	Remote Inspection	
M005	M005-0480	level 2	Remote Inspection	
M005	M005-0490	level 2	No Access	Cannot be safely accessed
M005	M005-0500	level 2	No Access	Cannot be safely accessed
M005	M005-0500A	level 2	Remote Inspection	
M005	M005-0500B	level 2	Remote Inspection	
M005	M005-0501	level 2	Remote Inspection	
M005	M005-0503	level 2	Not Found	Possible DNE
M005	M005-0505	level 2	Remote Inspection	
M005	M005-0506	level 2	Remote Inspection	
M005	M005-0510	level 2	Remote Inspection	
M005	M005-0520	level 2	Remote Inspection	
M005	M005-0530	level 2	Remote Inspection	
M005	M005-0540	level 2	Remote Inspection	
M005	M005-0550	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M005	M005-0557	level 2	No Access	Behind locked gate
M005	M005-0560	level 2	Remote Inspection	
M005	M005-0563	level 2	No Access	Behind locked gate
M005	M005-0567	level 2	Remote Inspection	
M005	M005-0570	level 2	Remote Inspection	
M005	M005-0580	level 2	Remote Inspection	
M005	M005-0590	level 2	Remote Inspection	
M005	M005-0595	level 2	Remote Inspection	
M005	M005-0600	level 2	Remote Inspection	
M005	M005-0610	level 2	Remote Inspection	
M005	M005-0620	level 2	Remote Inspection	
M005	M005-0630	level 2	Not Found	Possible DNE
M005	M005-0631	level 2	Remote Inspection	
M005	M005-0631A	level 2	Remote Inspection	
M005	M005-0640	level 2	Not Found	
M005	M005-0650	level 2	Remote Inspection	
M005	M005-0660	level 2	Remote Inspection	
M005	M005-0670	level 2	Not Opened	Cover Seized
M005	M005-0680	level 2	Remote Inspection	
M005	M005-0690	level 2	No Access	This looks like an abandoned manhole turned into a utility manhole
M005	M005-0700	level 2	Not Found	Possible DNE
M005	M005-0710	level 2	Not Found	Possible DNE
M005	M005-0711	level 2	Remote Inspection	
M005	M005-0720	level 2	Not Found	Possible DNE
M005	M005-0721	level 2	Remote Inspection	
M005	M005-0721A	level 2	Remote Inspection	
M005	M005-0721B	level 2	Remote Inspection	
M005	M005-0730	level 2	Remote Inspection	
M005	M005-0731	level 2	Remote Inspection	
M005	M005-0731A	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M005	M005-0731B	level 2	Remote Inspection	
M005	M005-0740	level 2	Not Found	Possible DNE
M005	M005-0741	level 2	Remote Inspection	
M005	M005-0749	level 2	Remote Inspection	
M005	M005-0750	level 2	Remote Inspection	
M005	M005-0760	level 2	Remote Inspection	
M005	M005-0770	level 2	Remote Inspection	
M005	M005-0780	level 2	Remote Inspection	
M005	M005-0790	level 2	Remote Inspection	
M005	M005-0800	level 2	Remote Inspection	
M005	M005-0810	level 2	Not Found	Possible DNE
M005	M005-0830	level 2	Not Found	Appears to be part of abandoned line
M005	M005-0831	level 2	Remote Inspection	
M005	M005-0840	level 2	Remote Inspection	
M005	M005-0850	level 2	Not Found	
M005	M005-0860	level 2	Remote Inspection	
M005	M005-0870	level 2	Remote Inspection	
M005	M005-0880	level 2	Remote Inspection	
M005	M005-0890	level 2	Remote Inspection	
M005	M005-0900	level 2	Buried or Marked	
M005	M005-0900A	level 2	Buried or Marked	
M005	M005-0910	level 2	Remote Inspection	
M003	M005-0920	level 2	Remote Inspection	
M005	M005-0930	level 2	Not Opened	Cover Seized
M005	M005-0940	level 2	Remote Inspection	
M005	M005-0950	level 2	Buried or Marked	Buried under driveway
M005	M005-0960	level 2	Remote Inspection	
M005	M005-0970	level 2	Remote Inspection	
M005	M005-0980	level 2	Buried or Marked	
M005	M005-0990	level 2	Not Found	Possible DNE
M005	M005-0991	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M005	M005-0998	level 2	Remote Inspection	
M005	M005-1000	level 2	Remote Inspection	
M005	M005-1010	level 2	Remote Inspection	
M005	M005-1020	level 2	Remote Inspection	
M005	M005-1030	level 2	Remote Inspection	
M005	M005-1040	level 2	Remote Inspection	
M003	M005-1050	level 2	Remote Inspection	
M005	M005-1060	level 2	Remote Inspection	
M005	M005-1070	level 2	Remote Inspection	
M005	M005-1080	level 2	Remote Inspection	
M005	M005-1090	level 2	Remote Inspection	
M005	M005-1100	level 2	Remote Inspection	
M005	M005-1110	level 2	Remote Inspection	
M005	M005-1120	level 2	Remote Inspection	
M005	M005-1130	level 2	Remote Inspection	
M005	M005-1135	level 2	Remote Inspection	
M005	M005-1140	level 2	Remote Inspection	
M005	M005-1150	level 2	Remote Inspection	
M005	M005-1155	level 2	Remote Inspection	
M005	M005-1160	level 2	Remote Inspection	
M005	M005-1170	level 2	Remote Inspection	
M005	M005-1180	level 2	Remote Inspection	
M005	M005-1190	level 2	Not Found	
M005	M005-1200	level 2	Remote Inspection	
M005	M005-1210	level 2	Remote Inspection	
M005	M005-1220	level 2	Not Found	
M005	M005-1230	level 2	Remote Inspection	
M005	M005-1240	level 2	Remote Inspection	
M005	M005-1250	level 2	Remote Inspection	
M005	M005-1260	level 2	Remote Inspection	
M005	M005-1270	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M005	M005-1280	level 2	Remote Inspection	
M005	M005-1290	level 2	Remote Inspection	
M005	M005-1300	level 2	Remote Inspection	
M005	M005-1500	level 2	Remote Inspection	
M005	M005-1510	level 2	Remote Inspection	
M005	M005-1520	level 2	Remote Inspection	
M005	M005-1530	level 2	Remote Inspection	
M005	M005-1540	level 2	Not Opened	Cover Seized
M005	M005-1550	level 2	Remote Inspection	
M005	M005-1560	level 2	Remote Inspection	
M005	M005-1570	level 2	Remote Inspection	
M005	M005-1580	level 2	Remote Inspection	
M005	M005-1590	level 2	Remote Inspection	
M005	M005-1600	level 2	Remote Inspection	
M005	M005-1610	level 2	Remote Inspection	
M005	M005-1620	level 2	Remote Inspection	
M005	M005-1630	level 2	Remote Inspection	
M005	M005-1640	level 2	Remote Inspection	
M005	M005-1650	level 2	Remote Inspection	
M005	M005-1660	level 2	Remote Inspection	
M005	M005-1670	level 2	Remote Inspection	
M005	M005-1680	level 2	Remote Inspection	
M005	M005-1690	level 2	Remote Inspection	
M005	M005-1700	level 2	Remote Inspection	
M005	M005-1700A	level 2	Remote Inspection	
M005	M005-1710	level 2	Remote Inspection	
M005	M005-1720	level 2	Remote Inspection	
M005	M005-1725	level 2	Remote Inspection	
M005	M005-1730	level 2	Remote Inspection	
M005	M005-1740	level 2	Remote Inspection	
M005	M005-1750	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
M005	M005-1760	level 2	Remote Inspection	
M005	M005-1770	level 2	Remote Inspection	
RF01	RF01-0010	level 2	Remote Inspection	
RF01	RF01-0020	level 2	Remote Inspection	
RF01	RF01-0060	level 2	Remote Inspection	
RF01	RF01-0070	level 2	Remote Inspection	
RF01	RF01-0080	level 2	Remote Inspection	
RF01	RF01-0090	level 2	Remote Inspection	
RF01	RF01-0100	level 2	Remote Inspection	
RF01	RF01-0102	level 2	Remote Inspection	
RF01	RF01-0110	level 2	Remote Inspection	
RF01	RF01-0120	level 2	Remote Inspection	
RF01	RF01-0130	level 2	Remote Inspection	
RF01	RF01-0140	level 2	Buried or Marked	
RF01	RF01-0150	level 2	Remote Inspection	
RF01	RF01-0160	level 2	Remote Inspection	
RF01	RF01-0170	level 2	Remote Inspection	
RF01	RF01-0180	level 2	Remote Inspection	
RF01	RF01-0190	level 2	Remote Inspection	
RF01	RF01-0200	level 2	Remote Inspection	
RF01	RF01-0210	level 2	Remote Inspection	
RF01	RF01-0220	level 2	Buried or Marked	
RF01	RF01-0230	level 2	Remote Inspection	
RF01	RF01-0240	level 2	Remote Inspection	
RF01	RF01-0250	level 2	Remote Inspection	
RF01	RF01-0260	level 2	Remote Inspection	
RF01	RF01-0310	level 2	Remote Inspection	
RF01	RF01-0340	level 2	Remote Inspection	
RF01	RF01-0350	level 2	Remote Inspection	
RF01	RF01-0360	level 2	Remote Inspection	
RF01	RF01-0370	level 2	Buried or Marked	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
RF01	RF01-0380	level 2	Remote Inspection	
RF01	RF01-0390	level 2	Remote Inspection	
RF01	RF01-0400	level 2	Remote Inspection	
RF01	RF01-0410	level 2	Remote Inspection	
RF01	RF01-0412	level 2	Remote Inspection	
RF01	RF01-0414	level 2	Remote Inspection	
RF01	RF01-0420	level 2	Remote Inspection	
RF01	RF01-0430	level 2	Remote Inspection	
RF01	RF01-0440	level 2	Remote Inspection	
RF01	RF01-0450	level 2	Remote Inspection	
RF01	RF01-0460	level 2	Remote Inspection	
RF01	RF01-0470	level 2	Remote Inspection	
RF01	RF01-0480	level 2	Remote Inspection	
RF01	RF01-0490	level 2	Remote Inspection	
RF01	RF01-0500	level 2	Remote Inspection	
RF01	RF01-0510	level 2	Remote Inspection	
RF01	RF01-0520	level 2	Remote Inspection	
RF01	RF01-0530	level 2	Remote Inspection	
RF01	RF01-0540	level 2	Remote Inspection	
RF01	RF01-0550	level 2	Remote Inspection	
RF01	RF01-0560	level 2	Remote Inspection	
RF01	RF01-0570	level 2	Remote Inspection	
RF01	RF01-0580	level 2	Remote Inspection	
RF01	RF01-0590	level 2	Remote Inspection	
RF01	RF01-0600	level 2	Remote Inspection	
RF01	RF01-0610	level 2	Remote Inspection	
RF01	RF01-0620	level 2	Remote Inspection	
RF01	RF01-0630	level 2	Remote Inspection	
RF01	RF01-0640	level 2	Remote Inspection	
RF01	RF01-0650	level 2	Remote Inspection	
RF01	RF01-0700	level 2	No Access	Cannot access gated community

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
RF01	RF01-0710	level 2	Remote Inspection	
RF01	RF01-0720	level 2	Remote Inspection	
RF01	RF01-0730	level 2	Remote Inspection	
RF01	RF01-0740	level 2	Remote Inspection	
RF01	RF01-0750	level 2	Remote Inspection	
RF01	RF01-0760	level 2	Remote Inspection	
RF01	RF01-0770	level 2	Remote Inspection	
RF01	RF01-0780	level 2	Remote Inspection	
RF01	RF01-0790	level 2	Remote Inspection	
RF01	RF01-0800	level 2	Remote Inspection	
RF01	RF01-0810	level 2	Remote Inspection	
RF01	RF01-0820	level 2	Remote Inspection	
RF01	RF01-0830	level 2	Remote Inspection	
RF01	RF01-0840	level 2	Remote Inspection	
RF01	RF01-0850	level 2	Remote Inspection	
RF01	RF01-0860	level 2	Remote Inspection	
RF01	RF01-0865	level 2	Remote Inspection	
RF01	RF01-0870	level 2	Remote Inspection	
RF01	RF01-0880	level 2	Remote Inspection	
RF01	RF01-0890	level 2	Remote Inspection	
RF01	RF01-0900	level 2	Remote Inspection	
RF01	RF01-0910	level 2	Remote Inspection	
RF01	RF01-0920	level 2	Remote Inspection	
RF01	RF01-0930	level 2	Remote Inspection	
RF01	RF01-0940	level 2	Remote Inspection	
RF01	RF01-0950	level 2	Remote Inspection	
RF01	RF01-0960	level 2	Remote Inspection	
RF01	RF01-0970	level 2	Remote Inspection	
RF01	RF01-0980	level 2	Remote Inspection	
RF01	RF01-0990	level 2	Remote Inspection	
RF01	RF01-1000	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
RF01	RF01-1010	level 2	Remote Inspection	
RF01	RF01-1020	level 2	Remote Inspection	
RF01	RF01-1030	level 2	Remote Inspection	
RF01	RF01-1040	level 2	Buried or Marked	
RF01	RF01-1050	level 2	Remote Inspection	
RF01	RF01-1060	level 2	Remote Inspection	
RF01	RF01-1062	level 2	Remote Inspection	
RF01	RF01-1070	level 2	Remote Inspection	
RF01	RF01-1080	level 2	Remote Inspection	
RF01	RF01-1090	level 2	Not Found	
RF01	RF01-1100	level 2	Remote Inspection	
RF01	RF01-1110	level 2	Remote Inspection	
RF01	RF01-1120	level 2	Remote Inspection	
RF01	RF01-1130	level 2	Remote Inspection	
RF01	RF01-1140	level 2	Remote Inspection	
RF01	RF01-1150	level 2	Remote Inspection	
RF01	RF01-1160	level 2	Remote Inspection	
RF01	RF01-1170	level 2	Remote Inspection	
RF01	RF01-1180	level 2	Remote Inspection	
RF01	RF01-1190	level 2	Remote Inspection	
RF01	RF01-1200	level 2	Remote Inspection	
RF01	RF01-1210	level 2	Remote Inspection	
RF01	RF01-1220	level 2	Remote Inspection	
RF01	RF01-1230	level 2	Remote Inspection	
RF01	RF01-1240	level 2	Remote Inspection	
RF01	RF01-1250	level 2	Remote Inspection	
RF01	RF01-1260	level 2	Remote Inspection	
RF01	RF01-1270	level 2	Remote Inspection	
RF01	RF01-1280	level 2	Remote Inspection	
RF01	RF01-1290	level 2	Remote Inspection	
RF01	RF01-1300	level 2	Not Found	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
RF01	RF01-1310	level 2	Remote Inspection	
RF01	RF01-1320	level 2	Remote Inspection	
RF01	RF01-1330	level 2	Not Found	
RF01	RF01-1340	level 2	Remote Inspection	
RF01	RF01-1350	level 2	Remote Inspection	
RF01	RF01-1360	level 2	Remote Inspection	
RF01	RF01-1370	level 2	Remote Inspection	
RF01	RF01-1380	level 2	Remote Inspection	
RF01	RF01-1390	level 2	Remote Inspection	
RF01	RF01-1400	level 2	Remote Inspection	
RF01	RF01-1410	level 2	Remote Inspection	
RF01	RF01-1420	level 2	Remote Inspection	
RF01	RF01-1430	level 2	Remote Inspection	
RF01	RF01-1440	level 2	Not Found	
RF01	RF01-1450	level 2	Remote Inspection	
RF01	RF01-1460	level 2	Remote Inspection	
RF01	RF01-1470	level 2	Remote Inspection	
RF01	RF01-1480	level 2	Remote Inspection	
RF01	RF01-1490	level 2	Remote Inspection	
RF01	RF01-1500	level 2	Remote Inspection	
RF01	RF01-1510	level 2	Remote Inspection	
RF01	RF01-1520	level 2	Remote Inspection	
RF01	RF01-1530	level 2	Remote Inspection	
RF01	RF01-1540	level 2	Remote Inspection	
RF01	RF01-1550	level 2	Remote Inspection	
RF01	RF01-1560	level 2	Remote Inspection	
RF01	RF01-1570	level 2	Remote Inspection	
RF01	RF01-1572	level 2	Remote Inspection	
RF01	RF01-1580	level 2	Remote Inspection	
RF01	RF01-1590	level 2	Not Found	
RF01	RF01-1600	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
RF01	RF01-1610	level 2	Remote Inspection	
RF01	RF01-1620	level 2	Remote Inspection	
RF01	RF01-1630	level 2	Remote Inspection	
RF01	RF01-1640	level 2	Remote Inspection	
RF01	RF01-1650	level 2	Remote Inspection	
RF01	RF01-1660	level 2	Remote Inspection	
RF01	RF01-1670	level 2	Remote Inspection	
RF01	RF01-1680	level 2	Not Found	
RF01	RF01-1690	level 2	Remote Inspection	
RF01	RF01-1700	level 2	No Access	Cannot access gated community
RF01	RF01-1710	level 2	No Access	Cannot access gated community
RF01	RF01-1720	level 2	No Access	Cannot access gated community
RF01	RF01-1730	level 2	No Access	Cannot access gated community
RF01	RF01-1740	level 2	Not Found	
RF01	RF01-1770	level 2	Not Found	Possible DNE
RF01	RF01-1780	level 2	Remote Inspection	
RF01	RF01-1790	level 2	Remote Inspection	
RF01	RF01-1800	level 2	Remote Inspection	
RF01	RF01-1810	level 2	Remote Inspection	
RF01	RF01-1820	level 2	Remote Inspection	
RF01	RF01-1830	level 2	Remote Inspection	
RF01	RF01-1840	level 2	Remote Inspection	
RF01	RF01-1850	level 2	Remote Inspection	
RF01	RF01-1860	level 2	Remote Inspection	
RF01	RF01-1870	level 2	Remote Inspection	
RF01	RF01-1880	level 2	Remote Inspection	
RF01	RF01-1890	level 2	Remote Inspection	
RF01	RF01-1900	level 2	Remote Inspection	
RF01	RF01-1910	level 2	Remote Inspection	
RF01	RF01-1920	level 2	Remote Inspection	
RF01	RF01-1930	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
RF01	RF01-1940	level 2	Remote Inspection	
RF01	RF01-1950	level 2	Remote Inspection	
RF01	RF01-1960	level 2	Remote Inspection	
RF01	RF01-1970	level 2	Remote Inspection	
RF01	RF01-1980	level 2	Remote Inspection	
RF01	RF01-1990	level 2	Remote Inspection	
RF01	RF01-2000	level 2	Remote Inspection	
RF01	RF01-2010	level 2	Remote Inspection	
RF01	RF01-2020	level 2	Remote Inspection	
RF01	RF01-2030	level 2	Remote Inspection	
RF01	RF01-2040	level 2	Remote Inspection	
RF01	RF01-2050	level 2	Remote Inspection	
RF01	RF01-2060	level 2	Remote Inspection	
RF01	RF01-2070	level 2	Remote Inspection	
RF01	RF01-2080	level 2	Remote Inspection	
RF01	RF01-2090	level 2	Remote Inspection	
RF01	RF01-2100	level 2	Remote Inspection	
RF01	RF01-2110	level 2	Remote Inspection	
RF01	RF01-2120	level 2	Buried or Marked	
RF01	RF01-2130	level 2	Remote Inspection	
RF01	RF01-2140	level 2	Remote Inspection	
RF01	RF01-2150	level 2	Remote Inspection	
RF01	RF01-2160	level 2	Remote Inspection	
RF01	RF01-2170	level 2	Remote Inspection	
RF01	RF01-2180	level 2	Remote Inspection	
RF01	RF01-2190	level 2	Remote Inspection	
RF01	RF01-2200	level 2	Remote Inspection	
RF01	RF01-2210	level 2	Remote Inspection	
RF01	RF01-2220	level 2	Remote Inspection	
RF01	RF01-2230	level 2	Remote Inspection	
RF01	RF01-2240	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
RF01	RF01-2250	level 2	Remote Inspection	
RF01	RF01-2260	level 2	Remote Inspection	
RF01	RF01-2270	level 2	Remote Inspection	
RF01	RF01-2280	level 2	Remote Inspection	
RF01	RF01-2290	level 2	Remote Inspection	
RF01	RF01-2300	level 2	Remote Inspection	
RF01	RF01-2310	level 2	Remote Inspection	
RF01	RF01-2320	level 2	Remote Inspection	
RF01	RF01-2330	level 2	Remote Inspection	
RF01	RF01-2340	level 2	Remote Inspection	
RF01	RF01-2350	level 2	Remote Inspection	
RF01	RF01-2360	level 2	Remote Inspection	
RF01	RF01-2370	level 2	Remote Inspection	
RF01	RF01-2380	level 2	Remote Inspection	
RF01	RF01-2390	level 2	Remote Inspection	
RF01	RF01-2400	level 2	Remote Inspection	
RF01	RF01-2610	level 2	Remote Inspection	
RF01	RF01-2620	level 2	Remote Inspection	
RF01	RF01-2630	level 2	Remote Inspection	
RF01	RF01-2640	level 2	Remote Inspection	
RF01	RF01-2650	level 2	Remote Inspection	
RF01	RF01-2660	level 2	Remote Inspection	
RF01	RF01-2670	level 2	Remote Inspection	
RF01	RF01-2680	level 2	Remote Inspection	
RF01	RF01-2690	level 2	Remote Inspection	
RF01	RF01-2700	level 2	Remote Inspection	
RF01	RF01-2710	level 2	Remote Inspection	
RF01	RF01-2720	level 2	Remote Inspection	
RF01	RF01-2730	level 2	Remote Inspection	
RF01	RF01-2740	level 2	Remote Inspection	
RF01	RF01-2750	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
RF01	RF01-2760	level 2	Remote Inspection	
RF01	RF01-2770	level 2	Remote Inspection	
RF01	RF01-2780	level 2	Remote Inspection	
RF01	RF01-2790	level 2	Remote Inspection	
RF01	RF01-2800	level 2	Remote Inspection	
RF01	RF01-2810	level 2	Remote Inspection	
RF01	RF01-2820	level 2	Remote Inspection	
RF01	RF01-2830	level 2	Remote Inspection	
RF01	RF01-2840	level 2	Remote Inspection	
RF01	RF01-2850	level 2	Remote Inspection	
RF01	RF01-2860	level 2	Remote Inspection	
RF01	RF01-2870	level 2	Remote Inspection	
RF01	RF01-2880	level 2	Remote Inspection	
RF01	RF01-2890	level 2	Remote Inspection	
RF01	RF01-2900	level 2	Remote Inspection	
RF01	RF01-2910	level 2	Remote Inspection	
RF01	RF01-2920	level 2	Remote Inspection	
RF01	RF01-2930	level 2	Remote Inspection	
RF01	RF01-2932	level 2	Not Found	
RF01	RF01-2940	level 2	Remote Inspection	
RF01	RF01-2950	level 2	Remote Inspection	
RF01	RF01-2960	level 2	Remote Inspection	
RF01	RF01-2970	level 2	Remote Inspection	
RF01	RF01-2980	level 2	Remote Inspection	
RF01	RF01-2990	level 2	Not Found	
RF01	RF01-3000	level 2	Remote Inspection	
RF01	RF01-3010	level 2	Remote Inspection	
RF01	RF01-3020	level 2	Remote Inspection	
RF01	RF01-3030	level 2	Remote Inspection	
RF01	RF01-3040	level 2	Remote Inspection	
RF01	RF01-3050	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
RF01	RF01-3060	level 2	Remote Inspection	
RF01	RF01-3070	level 2	Remote Inspection	
RF01	RF01-3080	level 2	Remote Inspection	
RF01	RF01-3090	level 2	Remote Inspection	
RF01	RF01-3560	level 2	Remote Inspection	
RF01	RF01-3570	level 2	Remote Inspection	
RF01	RF01-3580	level 2	Remote Inspection	
RF01	RF01-4000	level 2	Remote Inspection	
RF01	RF01-4010	level 2	Remote Inspection	
RF01	RF01-4020	level 2	Remote Inspection	
RF01	RF01-4030	level 2	Remote Inspection	
RF01	RF01-4040	level 2	Remote Inspection	
RF01	RF01-4050	level 2	Remote Inspection	
RF01	RF01-4060	level 2	Remote Inspection	
RF01	RF01-4070	level 2	Remote Inspection	
RF01	RF01-4080	level 2	Remote Inspection	
WL01	WL01-0010	level 2	Remote Inspection	
WL01	WL01-0020	level 2	Remote Inspection	
WL01	WL01-0030	level 2	Remote Inspection	
WL01	WL01-0040	level 2	Not Found	
WL01	WL01-0050	level 2	Remote Inspection	
WL01	WL01-0060	level 2	Remote Inspection	
WL01	WL01-0070	level 2	Remote Inspection	
WL01	WL01-0080	level 2	Remote Inspection	
WL01	WL01-0090	level 2	Remote Inspection	
WL01	WL01-0100	level 2	Remote Inspection	
WL01	WL01-0110	level 2	Remote Inspection	
WL01	WL01-0120	level 2	Remote Inspection	
WL01	WL01-0130	level 2	Remote Inspection	
WL01	WL01-0140	level 2	Remote Inspection	
WL01	WL01-0150	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
WL01	WL01-0160	level 2	Remote Inspection	
WL01	WL01-0170	level 2	Not Found	
WL01	WL01-0180	level 2	Not Found	
WL01	WL01-0190	level 2	Not Found	
WL01	WL01-0200	level 2	Not Found	
WL01	WL01-0210	level 2	Not Found	
WL01	WL01-0220	level 2	Remote Inspection	
WL01	WL01-0230	level 2	Remote Inspection	
WL01	WL01-0240	level 2	Remote Inspection	
WL01	WL01-0250	level 2	Remote Inspection	
WL01	WL01-0260	level 2	Remote Inspection	
WL01	WL01-0270	level 2	Remote Inspection	
WL01	WL01-0280	level 2	Remote Inspection	
WL01	WL01-0290	level 2	Remote Inspection	
WL01	WL01-0300	level 2	Remote Inspection	
WL01	WL01-0310	level 2	Remote Inspection	
WL01	WL01-0315	level 2	Remote Inspection	
WL01	WL01-0320	level 2	Remote Inspection	
WL01	WL01-0330	level 2	Remote Inspection	
WL01	WL01-0340	level 2	Remote Inspection	
WL01	WL01-0340A	level 2	Remote Inspection	
WL01	WL01-0340B	level 2	Remote Inspection	
WL01	WL01-0340C	level 2	Remote Inspection	
WL01	WL01-0340D	level 2	Remote Inspection	
WL01	WL01-0340E	level 2	Remote Inspection	
WL01	WL01-0340F	level 2	Remote Inspection	
WL01	WL01-0350	level 2	Remote Inspection	
WL01	WL01-0350A	level 2	Remote Inspection	
WL01	WL01-0350B	level 2	Remote Inspection	
WL01	WL01-0350C	level 2	Remote Inspection	
WL01	WL01-0350D	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
WL01	WL01-0350E	level 2	Remote Inspection	
WL01	WL01-0350F	level 2	Remote Inspection	
WL01	WL01-0350G	level 2	Remote Inspection	
WL01	WL01-0350H	level 2	Not Opened	Cover Seized
WL01	WL01-0360	level 2	Remote Inspection	
WL01	WL01-0370	level 2	Remote Inspection	
WL01	WL01-0380	level 2	Remote Inspection	
WL01	WL01-0390	level 2	Remote Inspection	
WL01	WL01-0400	level 2	Remote Inspection	
WL01	WL01-0410	level 2	Remote Inspection	
WL01	WL01-0420	level 2	Remote Inspection	
WL01	WL01-0440	level 2	Remote Inspection	
WL01	WL01-0450	level 2	Remote Inspection	
WL01	WL01-0460	level 2	Remote Inspection	
WL01	WL01-0470	level 2	Remote Inspection	
WL01	WL01-0480	level 2	Remote Inspection	
WL01	WL01-0490	level 2	Remote Inspection	
WL01	WL01-0500	level 2	Remote Inspection	
WL01	WL01-0510	level 2	Remote Inspection	
WL01	WL01-0520	level 2	Remote Inspection	
WL01	WL01-0530	level 2	Remote Inspection	
WL01	WL01-0540	level 2	Remote Inspection	
WL01	WL01-0550	level 2	Remote Inspection	
WL01	WL01-0560	level 2	Remote Inspection	
WL01	WL01-0570	level 2	Remote Inspection	
WL01	WL01-0580	level 2	Remote Inspection	
WL01	WL01-0590	level 2	Remote Inspection	
WL01	WL01-0600	level 2	Remote Inspection	
WL01	WL01-0610	level 2	Remote Inspection	
WL01	WL01-0620	level 2	Remote Inspection	
WL01	WL01-0630	level 2	Remote Inspection	

Manhole Inspection Status

Basin	Manhole Number	NASSCO Inspection Level	Inspection Status	Comments
WL01	WL01-0640	level 2	Remote Inspection	
WL01	WL01-0650	level 2	Remote Inspection	
WL01	WL01-0660	level 2	Not Found	
WL01	WL01-0670	level 2	Remote Inspection	
WL01	WL01-0680	level 2	Remote Inspection	
WL01	WL01-0690	level 2	Remote Inspection	
WL01	WL01-0700	level 2	Remote Inspection	
WL01	WL01-0710	level 2	Remote Inspection	
WL01	WL01-0720	level 2	Remote Inspection	
WL01	WL01-0730	level 2	Remote Inspection	
WL01	WL01-0740	level 2	Remote Inspection	
WL01	WL01-0750	level 2	Remote Inspection	
WL01	WL01-0760	level 2	Remote Inspection	

APPENDIX B

NASSCO MACP Scores



NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-0005	No Structural Defect	0000
M003-0010	No Structural Defect	0000
M003-0015	No Structural Defect	0000
M003-0017	3	3200
M003-0020	No Structural Defect	0000
M003-0030	No Structural Defect	0000
M003-0035	3	3100
M003-0037	3	3200
M003-0040	No Structural Defect	0000
M003-0050	No Structural Defect	0000
M003-0060	No Structural Defect	0000
M003-0070	No Structural Defect	0000
M003-0080	No Structural Defect	0000
M003-0090	No Structural Defect	0000
M003-0100	No Structural Defect	0000
M003-0110	2	2100
M003-0120	No Structural Defect	0000
M003-0150	No Structural Defect	0000
M003-0160	1	1100
M003-0170	No Structural Defect	0000
M003-0185	1	1100
M003-0190	No Structural Defect	0000
M003-0200	4	4100
M003-0204	5	5100
M003-0205	No Structural Defect	0000
M003-0210	No Structural Defect	0000
M003-0220	No Structural Defect	0000
M003-0230	4	4131
M003-0240	No Structural Defect	0000
M003-0250	3	3111
M003-0260	No Structural Defect	0000
M003-0270	No Structural Defect	0000
M003-0280	No Structural Defect	0000
M003-0290	No Structural Defect	0000
M003-0300	No Structural Defect	0000
M003-0310	No Structural Defect	0000
M003-0330	No Structural Defect	0000
M003-0340	No Structural Defect	0000
M003-0350	2	2100
M003-0380	No Structural Defect	0000
M003-0390	No Structural Defect	0000
M003-0400	No Structural Defect	0000
M003-0410	No Structural Defect	0000
M003-0410A	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-0410B	No Structural Defect	0000
M003-0420	No Structural Defect	0000
M003-0430	5	5231
M003-0440	4	4100
M003-0450	No Structural Defect	0000
M003-0460	No Structural Defect	0000
M003-0470	No Structural Defect	0000
M003-0480	No Structural Defect	0000
M003-0490	2	2100
M003-0510	3	3200
M003-0520	3	3200
M003-0525	3	3100
M003-0530	No Structural Defect	0000
M003-0540	No Structural Defect	0000
M003-0560	No Structural Defect	0000
M003-0580	No Structural Defect	0000
M003-0590	No Structural Defect	0000
M003-0600	3	3100
M003-0620	No Structural Defect	0000
M003-0630	No Structural Defect	0000
M003-0640	5	5131
M003-0650	3	3121
M003-0660	No Structural Defect	0000
M003-0670	No Structural Defect	0000
M003-0680	3	3100
M003-0695	4	4133
M003-0705	3	3100
M003-0715	3	3100
M003-0725	No Structural Defect	0000
M003-0735	5	5100
M003-0740	No Structural Defect	0000
M003-0750	5	5100
M003-0760	No Structural Defect	0000
M003-0770	No Structural Defect	0000
M003-0780	No Structural Defect	0000
M003-0790	No Structural Defect	0000
M003-0800	No Structural Defect	0000
M003-0820	No Structural Defect	0000
M003-0830	No Structural Defect	0000
M003-0840	No Structural Defect	0000
M003-0850	3	3400
M003-0860	3	3100
M003-0870	5	5131
M003-0880	3	3100

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-0890	3	3111
M003-0900	3	3100
M003-0910	3	3200
M003-0920	3	3200
M003-0924	No Structural Defect	0000
M003-0928	No Structural Defect	0000
M003-0930	3	3211
M003-0940	3	3200
M003-0950	3	3211
M003-0960	3	3200
M003-0970	No Structural Defect	0000
M003-0980	1	1300
M003-0990	3	3300
M003-1000	3	3500
M003-1010	4	4431
M003-1020	4	4400
M003-1030	No Structural Defect	0000
M003-1040	5	5100
M003-1050	3	3100
M003-1060	No Structural Defect	0000
M003-1070	No Structural Defect	0000
M003-1090	No Structural Defect	0000
M003-1100	5	5100
M003-1110	5	5100
M003-1120	No Structural Defect	0000
M003-1140	3	3200
M003-1150	3	3200
M003-1160	3	3300
M003-1200	3	3300
M003-1210	3	3400
M003-1220	3	3400
M003-1230	3	3300
M003-1240	3	3400
M003-1250	3	3300
M003-1260	4	4133
M003-1270	3	3100
M003-1290	3	3300
M003-1300	3	3312
M003-1310	3	3200
M003-1320	3	3300
M003-1340	3	3300
M003-1350	3	3200
M003-1350A	No Structural Defect	0000
M003-1350B	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-1360	3	3300
M003-1360A	No Structural Defect	0000
M003-1370	3	3500
M003-1373	5	5141
M003-1377	4	4131
M003-1380	4	4132
M003-1390	3	3100
M003-1400	No Structural Defect	0000
M003-1410	3	3121
M003-1420	3	3100
M003-1450	No Structural Defect	0000
M003-1460	3	3100
M003-1470	3	3200
M003-1480	3	3100
M003-1490	No Structural Defect	0000
M003-1510	No Structural Defect	0000
M003-1520	No Structural Defect	0000
M003-1530	4	4131
M003-1540	No Structural Defect	0000
M003-1550	4	4200
M003-1560	4	4200
M003-1570	3	3300
M003-1580	3	3100
M003-1600	4	4121
M003-1610	5	5141
M003-1620	4	4100
M003-1640	No Structural Defect	0000
M003-1650	No Structural Defect	0000
M003-1660	No Structural Defect	0000
M003-1670	No Structural Defect	0000
M003-1680	3	3121
M003-1690	No Structural Defect	0000
M003-1700	No Structural Defect	0000
M003-1710	No Structural Defect	0000
M003-1720	2	2100
M003-1730	No Structural Defect	0000
M003-1740	No Structural Defect	0000
M003-1750	2	2100
M003-1760	3	3100
M003-1770	No Structural Defect	0000
M003-1780	No Structural Defect	0000
M003-1790	No Structural Defect	0000
M003-1800	No Structural Defect	0000
M003-1810	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-1820	5	5132
M003-1840	No Structural Defect	0000
M003-1870	No Structural Defect	0000
M003-1880	No Structural Defect	0000
M003-1890	No Structural Defect	0000
M003-1900	No Structural Defect	0000
M003-1910	No Structural Defect	0000
M003-1920	No Structural Defect	0000
M003-1930	4	4100
M003-1940	4	4200
M003-1950	No Structural Defect	0000
M003-1960	2	2100
M003-1970	3	3100
M003-1990	No Structural Defect	0000
M003-2000	No Structural Defect	0000
M003-2002	No Structural Defect	0000
M003-2010	No Structural Defect	0000
M003-2020	1	1100
M003-2030	No Structural Defect	0000
M003-2040	3	3112
M003-2050	No Structural Defect	0000
M003-2060	No Structural Defect	0000
M003-2070	No Structural Defect	0000
M003-2080	No Structural Defect	0000
M003-2090	No Structural Defect	0000
M003-2100	1	1100
M003-2110	No Structural Defect	0000
M003-2120	No Structural Defect	0000
M003-2130	No Structural Defect	0000
M003-2140	1	1100
M003-2150	1	1300
M003-2160	1	1300
M003-2170	No Structural Defect	0000
M003-2180	1	1100
M003-2190	No Structural Defect	0000
M003-2200	5	5100
M003-2210	No Structural Defect	0000
M003-2220	No Structural Defect	0000
M003-2230	1	1100
M003-2240	1	1100
M003-2250	No Structural Defect	0000
M003-2260	1	1100
M003-2270	No Structural Defect	0000
M003-2280	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-2290	No Structural Defect	0000
M003-2300	No Structural Defect	0000
M003-2310	No Structural Defect	0000
M003-2320	No Structural Defect	0000
M003-2330	No Structural Defect	0000
M003-2340	No Structural Defect	0000
M003-2350	No Structural Defect	0000
M003-2360	No Structural Defect	0000
M003-2370	No Structural Defect	0000
M003-2380	No Structural Defect	0000
M003-2390	No Structural Defect	0000
M003-2400	No Structural Defect	0000
M003-2410	No Structural Defect	0000
M003-2420	No Structural Defect	0000
M003-2430	No Structural Defect	0000
M003-2440	No Structural Defect	0000
M003-2450	No Structural Defect	0000
M003-2460	No Structural Defect	0000
M003-2470	No Structural Defect	0000
M003-2480	No Structural Defect	0000
M003-2490	No Structural Defect	0000
M003-2500	No Structural Defect	0000
M003-2510	1	1100
M003-2520	No Structural Defect	0000
M003-2530	No Structural Defect	0000
M003-2540	No Structural Defect	0000
M003-2550	No Structural Defect	0000
M003-2560	No Structural Defect	0000
M003-2570	No Structural Defect	0000
M003-2580	No Structural Defect	0000
M003-2590	No Structural Defect	0000
M003-2600	No Structural Defect	0000
M003-2610	No Structural Defect	0000
M003-2620	3	3100
M003-2630	No Structural Defect	0000
M003-2640	No Structural Defect	0000
M003-2650	No Structural Defect	0000
M003-2660	No Structural Defect	0000
M003-2670	No Structural Defect	0000
M003-2680	No Structural Defect	0000
M003-2690	No Structural Defect	0000
M003-2700	No Structural Defect	0000
M003-2710	No Structural Defect	0000
M003-2720	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-2730	No Structural Defect	0000
M003-2740	No Structural Defect	0000
M003-2750	3	3111
M003-2760	5	5111
M003-2770	No Structural Defect	0000
M003-2780	No Structural Defect	0000
M003-2790	No Structural Defect	0000
M003-2800	5	5100
M003-2820	No Structural Defect	0000
M003-2830	3	3200
M003-2840	1	1100
M003-2850	No Structural Defect	0000
M003-2860	No Structural Defect	0000
M003-2870	No Structural Defect	0000
M003-2880	No Structural Defect	0000
M003-2900	4	4112
M003-2910	5	5111
M003-2920	1	1100
M003-2930	No Structural Defect	0000
M003-2940	3	3100
M003-2960	No Structural Defect	0000
M003-2970	No Structural Defect	0000
M003-2980	5	5300
M003-2990	3	3111
M003-3000	3	3200
M003-3010	3	3112
M003-3020	No Structural Defect	0000
M003-3030	No Structural Defect	0000
M003-3040	No Structural Defect	0000
M003-3050	No Structural Defect	0000
M003-3060	No Structural Defect	0000
M003-3070	No Structural Defect	0000
M003-3080	No Structural Defect	0000
M003-3090	1	1100
M003-3100	1	1200
M003-3110	No Structural Defect	0000
M003-3120	No Structural Defect	0000
M003-3130	No Structural Defect	0000
M003-3140	3	3111
M003-3150	No Structural Defect	0000
M003-3160	1	1200
M003-3170	3	3100
M003-3180	No Structural Defect	0000
M003-3190	3	3300

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-3200	5	5112
M003-3210	3	3111
M003-3220	No Structural Defect	0000
M003-3230	1	1200
M003-3240	1	1200
M003-3250	1	1100
M003-3260	3	3100
M003-3270	3	3111
M003-3280	No Structural Defect	0000
M003-3290	2	2112
M003-3300	No Structural Defect	0000
M003-3310	No Structural Defect	0000
M003-3320	5	5100
M003-3330	5	5111
M003-3340	No Structural Defect	0000
M003-3350	No Structural Defect	0000
M003-3360	No Structural Defect	0000
M003-3370	No Structural Defect	0000
M003-3380	5	5131
M003-3390	No Structural Defect	0000
M003-3400	No Structural Defect	0000
M003-3410	No Structural Defect	0000
M003-3420	No Structural Defect	0000
M003-3430	No Structural Defect	0000
M003-3440	No Structural Defect	0000
M003-3450	No Structural Defect	0000
M003-3460	No Structural Defect	0000
M003-3470	No Structural Defect	0000
M003-3480	3	3100
M003-3490	No Structural Defect	0000
M003-3500	4	4100
M003-3510	4	4100
M003-3530	No Structural Defect	0000
M003-3540	No Structural Defect	0000
M003-3550	No Structural Defect	0000
M003-3560	5	5100
M003-3570	No Structural Defect	0000
M003-3580	No Structural Defect	0000
M003-3590	No Structural Defect	0000
M003-3600	No Structural Defect	0000
M003-3610	No Structural Defect	0000
M003-3620	No Structural Defect	0000
M003-3630	No Structural Defect	0000
M003-3640	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-3650	No Structural Defect	0000
M003-3660	No Structural Defect	0000
M003-3670	No Structural Defect	0000
M003-3680	No Structural Defect	0000
M003-3690	No Structural Defect	0000
M003-3700	No Structural Defect	0000
M003-3710	No Structural Defect	0000
M003-3720	No Structural Defect	0000
M003-3730	No Structural Defect	0000
M003-3740	No Structural Defect	0000
M003-3750	No Structural Defect	0000
M003-3760	No Structural Defect	0000
M003-3770	No Structural Defect	0000
M003-3780	No Structural Defect	0000
M003-3790	No Structural Defect	0000
M003-3800	No Structural Defect	0000
M003-3810	No Structural Defect	0000
M003-3820	No Structural Defect	0000
M003-3830	3	3100
M003-3830A	No Structural Defect	0000
M003-3850	5	5100
M003-3860	No Structural Defect	0000
M003-3870	No Structural Defect	0000
M003-3872	No Structural Defect	0000
M003-3880	No Structural Defect	0000
M003-3890	3	3100
M003-3900	No Structural Defect	0000
M003-3910	No Structural Defect	0000
M003-3920	No Structural Defect	0000
M003-3930	No Structural Defect	0000
M003-3940	No Structural Defect	0000
M003-3950	No Structural Defect	0000
M003-3960	No Structural Defect	0000
M003-3980	No Structural Defect	0000
M003-3990	No Structural Defect	0000
M003-4000	No Structural Defect	0000
M003-4010	No Structural Defect	0000
M003-4020	No Structural Defect	0000
M003-4030	No Structural Defect	0000
M003-4040	No Structural Defect	0000
M003-4050	No Structural Defect	0000
M003-4060	No Structural Defect	0000
M003-4070	No Structural Defect	0000
M003-4080	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-4090	No Structural Defect	0000
M003-4100	No Structural Defect	0000
M003-4110	No Structural Defect	0000
M003-4120	No Structural Defect	0000
M003-4130	No Structural Defect	0000
M003-4140	No Structural Defect	0000
M003-4150	No Structural Defect	0000
M003-4160	No Structural Defect	0000
M003-4170	No Structural Defect	0000
M003-4180	No Structural Defect	0000
M003-4190	No Structural Defect	0000
M003-4200	No Structural Defect	0000
M003-4210	No Structural Defect	0000
M003-4220	No Structural Defect	0000
M003-4230	No Structural Defect	0000
M003-4240	No Structural Defect	0000
M003-4250	No Structural Defect	0000
M003-4260	No Structural Defect	0000
M003-4270	No Structural Defect	0000
M003-4280	No Structural Defect	0000
M003-4290	No Structural Defect	0000
M003-4300	No Structural Defect	0000
M003-4310	No Structural Defect	0000
M003-4320	No Structural Defect	0000
M003-4330	No Structural Defect	0000
M003-4340	No Structural Defect	0000
M003-4350	No Structural Defect	0000
M003-4360	No Structural Defect	0000
M003-4370	No Structural Defect	0000
M003-4380	No Structural Defect	0000
M003-4390	No Structural Defect	0000
M003-4410	No Structural Defect	0000
M003-4420	No Structural Defect	0000
M003-4430	No Structural Defect	0000
M003-4440	No Structural Defect	0000
M003-4450	No Structural Defect	0000
M003-4460	No Structural Defect	0000
M003-4480	No Structural Defect	0000
M003-4490	No Structural Defect	0000
M003-4500	No Structural Defect	0000
M003-4510	No Structural Defect	0000
M003-4520	No Structural Defect	0000
M003-4530	No Structural Defect	0000
M003-4530A	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-4540	No Structural Defect	0000
M003-4550	No Structural Defect	0000
M003-4555	No Structural Defect	0000
M003-4560	No Structural Defect	0000
M003-4570	No Structural Defect	0000
M003-4580	No Structural Defect	0000
M003-4590	No Structural Defect	0000
M003-4600	No Structural Defect	0000
M003-4610	No Structural Defect	0000
M003-4620	No Structural Defect	0000
M003-4640	No Structural Defect	0000
M003-4810	No Structural Defect	0000
M003-4820	2	2100
M003-4830	No Structural Defect	0000
M003-4840	No Structural Defect	0000
M003-4850	No Structural Defect	0000
M003-4860	No Structural Defect	0000
M003-4870	No Structural Defect	0000
M003-4880	No Structural Defect	0000
M003-4890	No Structural Defect	0000
M003-4900	No Structural Defect	0000
M003-4910	No Structural Defect	0000
M003-4920	No Structural Defect	0000
M003-4930	No Structural Defect	0000
M003-4940	No Structural Defect	0000
M003-4950	No Structural Defect	0000
M003-4960	No Structural Defect	0000
M003-4970	No Structural Defect	0000
M003-4980	No Structural Defect	0000
M003-4990	No Structural Defect	0000
M003-5010	No Structural Defect	0000
M003-5012	No Structural Defect	0000
M003-5014	No Structural Defect	0000
M003-5016	No Structural Defect	0000
M003-5020	No Structural Defect	0000
M003-5030	No Structural Defect	0000
M003-5040	No Structural Defect	0000
M003-5050	No Structural Defect	0000
M003-5060	No Structural Defect	0000
M003-5070	No Structural Defect	0000
M003-5090	No Structural Defect	0000
M003-5120	No Structural Defect	0000
M003-5130	No Structural Defect	0000
M003-5135	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M003-5136	No Structural Defect	0000
M003-5140	No Structural Defect	0000
M003-5150	No Structural Defect	0000
M003-5160	No Structural Defect	0000
M003-5170	No Structural Defect	0000
M003-5180	No Structural Defect	0000
M003-5200	No Structural Defect	0000
M003-5210	No Structural Defect	0000
M003-5220	No Structural Defect	0000
M003-5230	No Structural Defect	0000
M003-5240	No Structural Defect	0000
M003-5250	No Structural Defect	0000
M003-5260	No Structural Defect	0000
M003-5270	No Structural Defect	0000
M003-5280	No Structural Defect	0000
M003-5290	No Structural Defect	0000
M003-5300	No Structural Defect	0000
M003-5310	No Structural Defect	0000
M003-5320	No Structural Defect	0000
M003-5330	No Structural Defect	0000
M003-5340	No Structural Defect	0000
M003-5360	No Structural Defect	0000
M003-5370	No Structural Defect	0000
M003-5380	No Structural Defect	0000
M003-5390	No Structural Defect	0000
M003-5400	No Structural Defect	0000
M003-5410	No Structural Defect	0000
M003-5420	1	1100
M003-5430	No Structural Defect	0000
M003-5440	No Structural Defect	0000
M003-5450	No Structural Defect	0000
M003-5460	No Structural Defect	0000
M003-5470	No Structural Defect	0000
M003-5480	No Structural Defect	0000
M003-5490	No Structural Defect	0000
M003-5500	No Structural Defect	0000
M003-5510	No Structural Defect	0000
M003-5520	No Structural Defect	0000
M003-5530	No Structural Defect	0000
M003-5540	No Structural Defect	0000
M004-1670	3	3100
M004-1680	2	2100
M005-0010	No Structural Defect	0000
M005-0020	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M005-0050	5	5100
M005-0060	3	3221
M005-0070	5	5200
M005-0080	1	1100
M005-0090	5	5100
M005-0100	2	2100
M005-0110	No Structural Defect	0000
M005-0120	3	3100
M005-0130	3	3121
M005-0140	4	4200
M005-0150	No Structural Defect	0000
M005-0160	4	4100
M005-0180	No Structural Defect	0000
M005-0180A	2	2100
M005-0190	No Structural Defect	0000
M005-0195	No Structural Defect	0000
M005-0200	No Structural Defect	0000
M005-0217	No Structural Defect	0000
M005-0220	No Structural Defect	0000
M005-0230	No Structural Defect	0000
M005-0245	3	3100
M005-0250	3	3100
M005-0260	3	3200
M005-0270	3	3111
M005-0280	No Structural Defect	0000
M005-0290	3	3100
M005-0310	No Structural Defect	0000
M005-0320	3	3100
M005-0330	3	3100
M005-0333	3	3200
M005-0337	No Structural Defect	0000
M005-0339	No Structural Defect	0000
M005-0340	3	3100
M005-0350	No Structural Defect	0000
M005-0360	No Structural Defect	0000
M005-0370	3	3200
M005-0375	No Structural Defect	0000
M005-0379	No Structural Defect	0000
M005-0379A	No Structural Defect	0000
M005-0380	5	5142
M005-0390	No Structural Defect	0000
M005-0393	3	3200
M005-0393A	No Structural Defect	0000
M005-0395	5	5141

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M005-0396	No Structural Defect	0000
M005-0398	No Structural Defect	0000
M005-0400	No Structural Defect	0000
M005-0410	No Structural Defect	0000
M005-0420	3	3100
M005-0430	No Structural Defect	0000
M005-0432	No Structural Defect	0000
M005-0440	2	2100
M005-0445	No Structural Defect	0000
M005-0460	3	3200
M005-0460A	1	1100
M005-0460B	No Structural Defect	0000
M005-0460C	3	3100
M005-0460D	3	3100
M005-0470	3	3200
M005-0480	No Structural Defect	0000
M005-0500A	No Structural Defect	0000
M005-0500B	No Structural Defect	0000
M005-0501	5	5334
M005-0505	No Structural Defect	0000
M005-0506	No Structural Defect	0000
M005-0510	No Structural Defect	0000
M005-0520	No Structural Defect	0000
M005-0530	No Structural Defect	0000
M005-0540	No Structural Defect	0000
M005-0550	No Structural Defect	0000
M005-0560	No Structural Defect	0000
M005-0567	No Structural Defect	0000
M005-0570	No Structural Defect	0000
M005-0580	No Structural Defect	0000
M005-0590	No Structural Defect	0000
M005-0595	No Structural Defect	0000
M005-0600	No Structural Defect	0000
M005-0610	5	5221
M005-0620	1	1100
M005-0631	No Structural Defect	0000
M005-0631A	3	3100
M005-0650	No Structural Defect	0000
M005-0660	No Structural Defect	0000
M005-0680	3	3300
M005-0711	No Structural Defect	0000
M005-0721	No Structural Defect	0000
M005-0721A	No Structural Defect	0000
M005-0721B	4	4131

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M005-0730	2	2200
M005-0731	5	5131
M005-0731A	No Structural Defect	0000
M005-0731B	No Structural Defect	0000
M005-0741	No Structural Defect	0000
M005-0749	No Structural Defect	0000
M005-0750	2	2100
M005-0760	2	2100
M005-0770	No Structural Defect	0000
M005-0780	3	3121
M005-0790	2	2100
M005-0800	2	2100
M005-0831	No Structural Defect	0000
M005-0840	No Structural Defect	0000
M005-0860	5	5141
M005-0870	2	2100
M005-0880	No Structural Defect	0000
M005-0890	3	3100
M005-0910	3	3200
M005-0920	No Structural Defect	0000
M005-0940	2	2100
M005-0960	3	3221
M005-0970	5	5122
M005-0991	5	5132
M005-0998	No Structural Defect	0000
M005-1000	5	5200
M005-1010	4	4200
M005-1020	5	5100
M005-1030	4	4100
M005-1040	3	3100
M005-1050	4	4211
M005-1060	5	5100
M005-1070	5	5100
M005-1080	5	5100
M005-1090	3	3100
M005-1100	3	3100
M005-1110	5	5132
M005-1120	3	3100
M005-1130	5	5132
M005-1135	5	5100
M005-1140	4	4200
M005-1150	5	5131
M005-1155	No Structural Defect	0000
M005-1160	4	4100

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
M005-1170	No Structural Defect	0000
M005-1180	3	3100
M005-1200	3	3100
M005-1210	5	5100
M005-1230	No Structural Defect	0000
M005-1240	No Structural Defect	0000
M005-1250	3	3100
M005-1260	No Structural Defect	0000
M005-1270	No Structural Defect	0000
M005-1280	3	3100
M005-1290	No Structural Defect	0000
M005-1300	3	3100
M005-1500	4	4132
M005-1510	3	3300
M005-1520	No Structural Defect	0000
M005-1530	4	4231
M005-1550	No Structural Defect	0000
M005-1560	5	5100
M005-1570	No Structural Defect	0000
M005-1580	4	4100
M005-1590	No Structural Defect	0000
M005-1610	No Structural Defect	0000
M005-1620	No Structural Defect	0000
M005-1630	No Structural Defect	0000
M005-1640	3	3100
M005-1650	No Structural Defect	0000
M005-1670	No Structural Defect	0000
M005-1680	No Structural Defect	0000
M005-1690	5	5131
M005-1700	No Structural Defect	0000
M005-1700A	No Structural Defect	0000
M005-1710	1	1100
M005-1720	No Structural Defect	0000
M005-1725	No Structural Defect	0000
M005-1730	No Structural Defect	0000
M005-1740	No Structural Defect	0000
M005-1750	No Structural Defect	0000
M005-1760	No Structural Defect	0000
M005-1770	No Structural Defect	0000
RF01-0010	No Structural Defect	0000
RF01-0020	No Structural Defect	0000
RF01-0060	No Structural Defect	0000
RF01-0070	No Structural Defect	0000
RF01-0080	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
RF01-0090	No Structural Defect	0000
RF01-0100	No Structural Defect	0000
RF01-0102	No Structural Defect	0000
RF01-0110	No Structural Defect	0000
RF01-0120	No Structural Defect	0000
RF01-0130	No Structural Defect	0000
RF01-0150	No Structural Defect	0000
RF01-0160	No Structural Defect	0000
RF01-0170	3	3100
RF01-0180	No Structural Defect	0000
RF01-0190	No Structural Defect	0000
RF01-0200	No Structural Defect	0000
RF01-0210	No Structural Defect	0000
RF01-0230	3	3100
RF01-0240	No Structural Defect	0000
RF01-0250	No Structural Defect	0000
RF01-0260	3	3200
RF01-0310	No Structural Defect	0000
RF01-0340	3	3100
RF01-0350	No Structural Defect	0000
RF01-0360	No Structural Defect	0000
RF01-0380	No Structural Defect	0000
RF01-0390	No Structural Defect	0000
RF01-0400	1	1100
RF01-0410	1	1200
RF01-0412	No Structural Defect	0000
RF01-0414	No Structural Defect	0000
RF01-0420	3	3421
RF01-0430	No Structural Defect	0000
RF01-0440	No Structural Defect	0000
RF01-0450	3	3100
RF01-0460	3	3200
RF01-0470	3	3100
RF01-0480	3	3100
RF01-0490	3	3100
RF01-0500	No Structural Defect	0000
RF01-0510	No Structural Defect	0000
RF01-0520	3	3100
RF01-0530	3	3300
RF01-0540	No Structural Defect	0000
RF01-0550	3	3100
RF01-0560	3	3121
RF01-0570	No Structural Defect	0000
RF01-0580	3	3100

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
RF01-0590	No Structural Defect	0000
RF01-0600	No Structural Defect	0000
RF01-0610	No Structural Defect	0000
RF01-0620	3	3200
RF01-0630	No Structural Defect	0000
RF01-0640	No Structural Defect	0000
RF01-0650	No Structural Defect	0000
RF01-0710	3	3121
RF01-0720	No Structural Defect	0000
RF01-0730	5	5100
RF01-0740	No Structural Defect	0000
RF01-0750	5	5100
RF01-0760	3	3121
RF01-0770	5	5133
RF01-0780	3	3100
RF01-0790	No Structural Defect	0000
RF01-0800	5	5100
RF01-0810	No Structural Defect	0000
RF01-0820	No Structural Defect	0000
RF01-0830	No Structural Defect	0000
RF01-0840	3	3100
RF01-0850	No Structural Defect	0000
RF01-0860	1	1100
RF01-0865	1	1100
RF01-0870	No Structural Defect	0000
RF01-0880	No Structural Defect	0000
RF01-0890	No Structural Defect	0000
RF01-0900	No Structural Defect	0000
RF01-0910	4	4100
RF01-0920	3	3100
RF01-0930	No Structural Defect	0000
RF01-0940	No Structural Defect	0000
RF01-0950	No Structural Defect	0000
RF01-0960	2	2100
RF01-0970	No Structural Defect	0000
RF01-0980	No Structural Defect	0000
RF01-0990	5	5131
RF01-1000	No Structural Defect	0000
RF01-1010	No Structural Defect	0000
RF01-1020	No Structural Defect	0000
RF01-1030	No Structural Defect	0000
RF01-1050	No Structural Defect	0000
RF01-1060	No Structural Defect	0000
RF01-1062	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
RF01-1070	No Structural Defect	0000
RF01-1080	3	3100
RF01-1100	2	2100
RF01-1110	No Structural Defect	0000
RF01-1120	No Structural Defect	0000
RF01-1130	No Structural Defect	0000
RF01-1140	No Structural Defect	0000
RF01-1150	No Structural Defect	0000
RF01-1160	No Structural Defect	0000
RF01-1170	No Structural Defect	0000
RF01-1180	5	5100
RF01-1190	No Structural Defect	0000
RF01-1200	No Structural Defect	0000
RF01-1210	No Structural Defect	0000
RF01-1220	No Structural Defect	0000
RF01-1230	No Structural Defect	0000
RF01-1240	No Structural Defect	0000
RF01-1250	No Structural Defect	0000
RF01-1260	No Structural Defect	0000
RF01-1270	No Structural Defect	0000
RF01-1280	3	3111
RF01-1290	3	3213
RF01-1310	No Structural Defect	0000
RF01-1320	3	3100
RF01-1340	1	1300
RF01-1350	No Structural Defect	0000
RF01-1360	No Structural Defect	0000
RF01-1370	3	3100
RF01-1380	No Structural Defect	0000
RF01-1390	No Structural Defect	0000
RF01-1400	No Structural Defect	0000
RF01-1410	No Structural Defect	0000
RF01-1420	No Structural Defect	0000
RF01-1430	No Structural Defect	0000
RF01-1450	No Structural Defect	0000
RF01-1460	No Structural Defect	0000
RF01-1470	No Structural Defect	0000
RF01-1480	No Structural Defect	0000
RF01-1490	No Structural Defect	0000
RF01-1500	No Structural Defect	0000
RF01-1510	No Structural Defect	0000
RF01-1520	No Structural Defect	0000
RF01-1530	No Structural Defect	0000
RF01-1540	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
RF01-1550	No Structural Defect	0000
RF01-1560	No Structural Defect	0000
RF01-1570	No Structural Defect	0000
RF01-1572	No Structural Defect	0000
RF01-1580	3	3200
RF01-1600	No Structural Defect	0000
RF01-1610	No Structural Defect	0000
RF01-1620	No Structural Defect	0000
RF01-1630	No Structural Defect	0000
RF01-1640	No Structural Defect	0000
RF01-1650	No Structural Defect	0000
RF01-1660	No Structural Defect	0000
RF01-1670	3	3100
RF01-1690	No Structural Defect	0000
RF01-1780	5	5141
RF01-1790	4	4100
RF01-1800	3	3100
RF01-1810	No Structural Defect	0000
RF01-1820	No Structural Defect	0000
RF01-1830	No Structural Defect	0000
RF01-1840	No Structural Defect	0000
RF01-1850	No Structural Defect	0000
RF01-1860	3	3100
RF01-1870	No Structural Defect	0000
RF01-1880	No Structural Defect	0000
RF01-1890	3	3100
RF01-1900	3	3100
RF01-1910	No Structural Defect	0000
RF01-1920	No Structural Defect	0000
RF01-1930	No Structural Defect	0000
RF01-1940	No Structural Defect	0000
RF01-1950	No Structural Defect	0000
RF01-1960	No Structural Defect	0000
RF01-1970	No Structural Defect	0000
RF01-1980	No Structural Defect	0000
RF01-1990	No Structural Defect	0000
RF01-2000	No Structural Defect	0000
RF01-2010	No Structural Defect	0000
RF01-2030	No Structural Defect	0000
RF01-2040	No Structural Defect	0000
RF01-2050	No Structural Defect	0000
RF01-2060	No Structural Defect	0000
RF01-2070	No Structural Defect	0000
RF01-2090	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
RF01-2100	3	3100
RF01-2110	No Structural Defect	0000
RF01-2130	No Structural Defect	0000
RF01-2140	No Structural Defect	0000
RF01-2150	No Structural Defect	0000
RF01-2160	No Structural Defect	0000
RF01-2170	No Structural Defect	0000
RF01-2180	No Structural Defect	0000
RF01-2190	1	1100
RF01-2200	No Structural Defect	0000
RF01-2210	3	3111
RF01-2220	No Structural Defect	0000
RF01-2230	3	3100
RF01-2240	No Structural Defect	0000
RF01-2250	No Structural Defect	0000
RF01-2260	No Structural Defect	0000
RF01-2270	No Structural Defect	0000
RF01-2280	No Structural Defect	0000
RF01-2290	No Structural Defect	0000
RF01-2300	3	3100
RF01-2310	No Structural Defect	0000
RF01-2320	No Structural Defect	0000
RF01-2330	No Structural Defect	0000
RF01-2340	No Structural Defect	0000
RF01-2350	No Structural Defect	0000
RF01-2360	No Structural Defect	0000
RF01-2370	No Structural Defect	0000
RF01-2380	No Structural Defect	0000
RF01-2390	No Structural Defect	0000
RF01-2400	No Structural Defect	0000
RF01-2610	No Structural Defect	0000
RF01-2620	No Structural Defect	0000
RF01-2630	No Structural Defect	0000
RF01-2640	No Structural Defect	0000
RF01-2650	No Structural Defect	0000
RF01-2660	No Structural Defect	0000
RF01-2670	No Structural Defect	0000
RF01-2680	No Structural Defect	0000
RF01-2690	No Structural Defect	0000
RF01-2700	No Structural Defect	0000
RF01-2710	No Structural Defect	0000
RF01-2720	No Structural Defect	0000
RF01-2730	No Structural Defect	0000
RF01-2740	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
RF01-2750	No Structural Defect	0000
RF01-2760	No Structural Defect	0000
RF01-2770	No Structural Defect	0000
RF01-2780	No Structural Defect	0000
RF01-2790	No Structural Defect	0000
RF01-2800	5	5100
RF01-2810	No Structural Defect	0000
RF01-2820	No Structural Defect	0000
RF01-2830	No Structural Defect	0000
RF01-2840	No Structural Defect	0000
RF01-2850	2	2111
RF01-2860	3	3111
RF01-2870	1	1100
RF01-2880	3	3200
RF01-2890	No Structural Defect	0000
RF01-2900	3	3100
RF01-2910	No Structural Defect	0000
RF01-2920	No Structural Defect	0000
RF01-2930	3	3100
RF01-2940	No Structural Defect	0000
RF01-2950	No Structural Defect	0000
RF01-2960	No Structural Defect	0000
RF01-2970	No Structural Defect	0000
RF01-2980	No Structural Defect	0000
RF01-3000	2	2100
RF01-3010	No Structural Defect	0000
RF01-3020	No Structural Defect	0000
RF01-3030	No Structural Defect	0000
RF01-3040	No Structural Defect	0000
RF01-3050	No Structural Defect	0000
RF01-3060	No Structural Defect	0000
RF01-3070	No Structural Defect	0000
RF01-3080	No Structural Defect	0000
RF01-3090	No Structural Defect	0000
RF01-3560	No Structural Defect	0000
RF01-3570	3	3100
RF01-3580	3	3100
RF01-4000	No Structural Defect	0000
RF01-4010	No Structural Defect	0000
RF01-4020	No Structural Defect	0000
RF01-4030	No Structural Defect	0000
RF01-4040	No Structural Defect	0000
RF01-4050	No Structural Defect	0000
RF01-4060	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
WL01-0010	No Structural Defect	0000
WL01-0030	No Structural Defect	0000
WL01-0050	No Structural Defect	0000
WL01-0060	No Structural Defect	0000
WL01-0070	No Structural Defect	0000
WL01-0080	No Structural Defect	0000
WL01-0090	No Structural Defect	0000
WL01-0100	No Structural Defect	0000
WL01-0110	No Structural Defect	0000
WL01-0120	No Structural Defect	0000
WL01-0130	No Structural Defect	0000
WL01-0140	No Structural Defect	0000
WL01-0150	No Structural Defect	0000
WL01-0160	No Structural Defect	0000
WL01-0220	No Structural Defect	0000
WL01-0230	No Structural Defect	0000
WL01-0240	No Structural Defect	0000
WL01-0250	No Structural Defect	0000
WL01-0260	No Structural Defect	0000
WL01-0270	No Structural Defect	0000
WL01-0280	No Structural Defect	0000
WL01-0290	No Structural Defect	0000
WL01-0300	No Structural Defect	0000
WL01-0310	No Structural Defect	0000
WL01-0315	No Structural Defect	0000
WL01-0320	No Structural Defect	0000
WL01-0330	No Structural Defect	0000
WL01-0340	No Structural Defect	0000
WL01-0340A	3	3100
WL01-0340B	No Structural Defect	0000
WL01-0340C	No Structural Defect	0000
WL01-0340D	No Structural Defect	0000
WL01-0340E	No Structural Defect	0000
WL01-0340F	No Structural Defect	0000
WL01-0350	No Structural Defect	0000
WL01-0350A	No Structural Defect	0000
WL01-0350B	No Structural Defect	0000
WL01-0350C	No Structural Defect	0000
WL01-0350D	No Structural Defect	0000
WL01-0350E	No Structural Defect	0000
WL01-0350F	No Structural Defect	0000
WL01-0350G	No Structural Defect	0000
WL01-0360	No Structural Defect	0000
WL01-0370	No Structural Defect	0000

NASSCO MACP Score

Manhole Number	MACP Score	Structural Quick Score
WL01-0380	No Structural Defect	0000
WL01-0390	No Structural Defect	0000
WL01-0400	No Structural Defect	0000
WL01-0410	No Structural Defect	0000
WL01-0420	No Structural Defect	0000
WL01-0440	No Structural Defect	0000
WL01-0450	No Structural Defect	0000
WL01-0460	No Structural Defect	0000
WL01-0470	No Structural Defect	0000
WL01-0480	No Structural Defect	0000
WL01-0490	No Structural Defect	0000
WL01-0500	No Structural Defect	0000
WL01-0510	No Structural Defect	0000
WL01-0520	No Structural Defect	0000
WL01-0530	No Structural Defect	0000
WL01-0540	No Structural Defect	0000
WL01-0550	No Structural Defect	0000
WL01-0560	No Structural Defect	0000
WL01-0570	No Structural Defect	0000
WL01-0580	No Structural Defect	0000
WL01-0590	No Structural Defect	0000
WL01-0600	No Structural Defect	0000
WL01-0610	No Structural Defect	0000
WL01-0620	No Structural Defect	0000
WL01-0630	No Structural Defect	0000
WL01-0640	No Structural Defect	0000
WL01-0650	No Structural Defect	0000
WL01-0670	No Structural Defect	0000
WL01-0680	No Structural Defect	0000
WL01-0690	3	3100
WL01-0700	No Structural Defect	0000
WL01-0710	No Structural Defect	0000
WL01-0720	No Structural Defect	0000
WL01-0730	No Structural Defect	0000
WL01-0740	No Structural Defect	0000
WL01-0750	No Structural Defect	0000
WL01-0760	No Structural Defect	0000

APPENDIX C

Sewer Lines Smoke Tested

Sewer Lines Smoke Tested

Sub-Basin	Upstream Manhole	Downstream Manhole	Segment Length (ft)
M003	M003-0570	M003-0560	400
M003	EOL	M003-1330	70
M003	EOL	M003-1360	70
M003	M003-5240	M003-5230	174
M003	M003-5250	M003-5240	335
M003	M003-5260	M003-5250	335
M003	M003-5270	M003-5260	367
M003	M003-5280	M003-5270	207
M003	M003-5310	M003-5270	303
M003	M003-5290	M003-5280	202
M003	M003-5300	M003-5290	343
M003	M003-5320	M003-5310	360
M003	M003-5330	M003-5320	360
M003	M003-5340	M003-5330	240
M005	M005-0010	M004-0740	382
M005	M005-0060	M005-0050	150
M005	M006-0010	M005-0190	349
M005	M007-0010	M005-0190	388
M005	M005-0210	M005-0200	451
M005	M005-0217	M005-0210	333
M005	M005-0220	M005-0217	118
M005	M005-1700	M005-0217	353
M005	M005-0230	M005-0220	169
M005	M005-0240	M005-0230	350
M005	M005-0432	M005-0230	14
M005	M005-0245	M005-0240	135
M005	M005-0440	M005-0432	275
M005	M005-0445	M005-0440	340
M005	M005-0450	M005-0445	110
M005	M005-0480	M005-0450	354
M005	M005-0460	M005-0480	88
M005	M005-0470	M005-0480	332
M005	M005-0490	M005-0480	472
M005	M005-0500	M005-0490	141
M005	M005-0500A	M005-0500	77
M005	M005-0501	M005-0500	60
M005	M005-0503	M005-0500	0
M005	M005-0500B	M005-0500A	2
M005	M005-0500C	M005-0500B	106
M005	M005-0505	M005-0500C	103
M005	M005-0600	M005-0501	203
M005	M005-0506	M005-0505	102
M005	M005-0510	M005-0506	369
M005	M005-0520	M005-0510	149
M005	M005-0530	M005-0520	400

Sewer Lines Smoke Tested

Sub-Basin	Upstream Manhole	Downstream Manhole	Segment Length (ft)
M005	M005-0540	M005-0530	417
M005	M005-0550	M005-0540	218
M005	M005-0749	M005-0540	443
M005	M005-0557	M005-0550	171
M005	M005-0560	M005-0550	326
M005	M005-0563	M005-0557	19
M005	M005-0570	M005-0557	0
M005	M005-0567	M005-0563	97
M005	M005-0570	M005-0567	42
M005	M005-0580	M005-0570	57
M005	M005-0590	M005-0580	78
M005	M005-0595	M005-0590	257
M005	M005-0610	M005-0600	379
M005	M005-0620	M005-0610	460
M005	M005-0631	M005-0630	0
M005	M005-0690	M005-0630	0
M005	M005-0640	M005-0631	126
M005	M005-0711	M005-0631	287
M005	M005-0630	M005-0631A	196
M005	M005-0660	M005-0650	347
M005	M005-0670	M005-0660	148
M005	M005-0700	M005-0690	0
M005	M005-0710	M005-0700	0
M005	M005-0830	M005-0700	0
M005	M005-0720	M005-0710	0
M005	M005-0721	M005-0711	129
M005	M005-0730	M005-0720	0
M005	M005-0721A	M005-0721	135
M005	M005-0731	M005-0721	118
M005	M005-0721B	M005-0721A	237
M005	M005-0740	M005-0730	0
M005	M005-0700	M005-0731	311
M005	M005-0731A	M005-0731	311
M005	M005-0741	M005-0731	112
M005	M005-0731B	M005-0731A	403
M005	M005-0750	M005-0740	0
M005	M005-0991	M005-0741	254
M005	M005-0750	M005-0749	11
M005	M005-0760	M005-0750	180
M005	M005-0790	M005-0750	145
M005	M005-0770	M005-0760	85
M005	M005-0780	M005-0760	336
M005	M005-0800	M005-0790	240
M005	M005-0810	M005-0800	90
M005	M005-0990	M005-0830	0

Sewer Lines Smoke Tested

Sub-Basin	Upstream Manhole	Downstream Manhole	Segment Length (ft)
M005	M005-0840	M005-0831	178
M005	M005-0850	M005-0840	180
M005	M005-0860	M005-0840	196
M005	M005-0870	M005-0860	187
M005	M005-0910	M005-0860	109
M005	M005-0880	M005-0870	119
M005	M005-0890	M005-0880	185
M005	M005-0900A	M005-0890	135
M005	M005-0900	M005-0900A	78
M005	M005-0920	M005-0910	95
M005	M005-0960	M005-0910	191
M005	M005-0940	M005-0930	146
M005	M005-0950	M005-0940	111
M005	M005-0970	M005-0960	210
M005	M005-1000	M005-0990	0
M005	M005-0998	M005-0991	290
M005	M005-1000	M005-0998	38
M005	M005-1020	M005-1010	257
M005	M005-1040	M005-1030	159
M005	M005-1050	M005-1040	101
M005	M005-1070	M005-1040	225
M005	M005-1060	M005-1050	112
M005	M005-1080	M005-1070	126
M005	M005-1090	M005-1080	100
M005	M005-1110	M005-1100	54
M005	M005-1120	M005-1110	155
M005	M005-1130	M005-1120	180
M005	M005-1135	M005-1130	98
M005	M005-1150	M005-1140	145
M005	M005-1155	M005-1150	90
M005	M005-1160	M005-1150	210
M005	M005-1180	M005-1150	190
M005	M005-1170	M005-1160	250
M005	M005-1190	M005-1180	88
M005	M005-1200	M005-1180	51
M005	M005-1700A	M005-1700	62
M005	M005-1770	M005-1700A	98
M005	EOL	M005-1740	10
M005	EOL	M005-1760	10
RF01	RF01-2610	FC03-0450	636
RF01	RF01-2730	LIFT STATION	76
RF01	RF01-0020	RF01-0010	207
RF01	RF01-2720	RF01-0010	20
RF01	RF01-0070	RF01-0060	242
RF01	RF01-0080	RF01-0070	350

Sewer Lines Smoke Tested

Sub-Basin	Upstream Manhole	Downstream Manhole	Segment Length (ft)
RF01	RF01-0100	RF01-0070	41
RF01	RF01-0090	RF01-0080	395
RF01	RF01-0102	RF01-0100	108
RF01	RF01-0110	RF01-0100	308
RF01	RF01-0170	RF01-0102	242
RF01	RF01-0120	RF01-0110	122
RF01	RF01-0130	RF01-0120	217
RF01	RF01-0140	RF01-0130	350
RF01	RF01-0150	RF01-0140	246
RF01	RF01-0160	RF01-0140	235
RF01	RF01-0180	RF01-0170	169
RF01	RF01-0190	RF01-0180	269
RF01	RF01-0220	RF01-0210	388
RF01	RF01-0240	RF01-0210	262
RF01	RF01-0230	RF01-0220	300
RF01	RF01-0250	RF01-0240	183
RF01	RF01-0260	RF01-0250	309
RF01	RF01-0350	RF01-0340	49
RF01	RF01-0380	RF01-0340	382
RF01	RF01-0360	RF01-0350	301
RF01	RF01-0370	RF01-0360	211
RF01	RF01-0400	RF01-0390	157
RF01	RF01-0420	RF01-0390	342
RF01	RF01-0410	RF01-0400	301
RF01	RF01-0412	RF01-0410	373
RF01	RF01-0414	RF01-0412	341
RF01	RF01-0430	RF01-0420	228
RF01	RF01-0440	RF01-0430	76
RF01	RF01-0450	RF01-0440	178
RF01	RF01-0500	RF01-0440	349
RF01	RF01-0460	RF01-0450	379
RF01	RF01-0470	RF01-0460	197
RF01	RF01-0480	RF01-0470	206
RF01	RF01-0490	RF01-0480	255
RF01	RF01-0520	RF01-0510	215
RF01	RF01-0530	RF01-0520	212
RF01	RF01-0540	RF01-0530	211
RF01	RF01-0560	RF01-0530	208
RF01	RF01-0550	RF01-0540	148
RF01	RF01-0570	RF01-0560	86
RF01	RF01-0580	RF01-0570	198
RF01	RF01-0590	RF01-0580	239
RF01	RF01-0600	RF01-0590	258
RF01	RF01-0620	RF01-0590	190
RF01	RF01-0610	RF01-0600	396

Sewer Lines Smoke Tested

Sub-Basin	Upstream Manhole	Downstream Manhole	Segment Length (ft)
RF01	RF01-0630	RF01-0620	232
RF01	RF01-0640	RF01-0630	300
RF01	RF01-0650	RF01-0640	302
RF01	RF01-1700	RF01-0700	78
RF01	RF01-1720	RF01-0700	267
RF01	RF01-0720	RF01-0710	174
RF01	RF01-0730	RF01-0720	265
RF01	RF01-0800	RF01-0720	112
RF01	RF01-0740	RF01-0730	234
RF01	RF01-0750	RF01-0740	176
RF01	RF01-0760	RF01-0750	145
RF01	RF01-0770	RF01-0760	334
RF01	RF01-0780	RF01-0770	339
RF01	RF01-0790	RF01-0780	358
RF01	RF01-0810	RF01-0800	114
RF01	RF01-0820	RF01-0810	154
RF01	RF01-0830	RF01-0820	185
RF01	RF01-0870	RF01-0820	355
RF01	RF01-0840	RF01-0830	115
RF01	RF01-0850	RF01-0840	254
RF01	RF01-0860	RF01-0850	336
RF01	RF01-0865	RF01-0860	183
RF01	RF01-0880	RF01-0870	214
RF01	RF01-0890	RF01-0880	164
RF01	RF01-0900	RF01-0890	374
RF01	RF01-0920	RF01-0910	43
RF01	RF01-0930	RF01-0920	212
RF01	RF01-0940	RF01-0930	221
RF01	RF01-0950	RF01-0940	123
RF01	RF01-0960	RF01-0950	227
RF01	RF01-1010	RF01-0950	208
RF01	RF01-0970	RF01-0960	234
RF01	RF01-0980	RF01-0970	256
RF01	RF01-0990	RF01-0980	313
RF01	RF01-1000	RF01-0990	327
RF01	RF01-1020	RF01-1010	307
RF01	RF01-1100	RF01-1020	277
RF01	RF01-1040	RF01-1030	310
RF01	RF01-1060	RF01-1050	315
RF01	RF01-1062	RF01-1060	397
RF01	RF01-1070	RF01-1060	362
RF01	RF01-1110	RF01-1100	282
RF01	RF01-1120	RF01-1110	309
RF01	RF01-1140	RF01-1110	317
RF01	RF01-1130	RF01-1120	269

Sewer Lines Smoke Tested

Sub-Basin	Upstream Manhole	Downstream Manhole	Segment Length (ft)
RF01	RF01-1150	RF01-1140	236
RF01	RF01-1160	RF01-1150	155
RF01	RF01-1170	RF01-1150	254
RF01	RF01-1180	RF01-1170	254
RF01	RF01-1190	RF01-1180	327
RF01	RF01-1210	RF01-1200	276
RF01	RF01-1220	RF01-1210	207
RF01	RF01-1260	RF01-1220	218
RF01	RF01-1240	RF01-1230	151
RF01	RF01-1250	RF01-1240	290
RF01	RF01-1270	RF01-1260	253
RF01	RF01-1290	RF01-1280	384
RF01	RF01-1320	RF01-1290	345
RF01	RF01-1310	RF01-1300	257
RF01	EOL	RF01-1320	20
RF01	RF01-2190	RF01-1320	315
RF01	RF01-1350	RF01-1340	151
RF01	RF01-1440	RF01-1340	382
RF01	RF01-1360	RF01-1350	344
RF01	RF01-1370	RF01-1360	299
RF01	RF01-1380	RF01-1370	216
RF01	RF01-1390	RF01-1380	210
RF01	RF01-1410	RF01-1400	205
RF01	RF01-1420	RF01-1410	202
RF01	RF01-1430	RF01-1420	338
RF01	RF01-1450	RF01-1440	198
RF01	RF01-1460	RF01-1450	289
RF01	RF01-1510	RF01-1450	194
RF01	RF01-1470	RF01-1460	334
RF01	RF01-1480	RF01-1470	230
RF01	RF01-1490	RF01-1480	312
RF01	RF01-1500	RF01-1490	401
RF01	RF01-1520	RF01-1510	296
RF01	RF01-1530	RF01-1520	186
RF01	RF01-1570	RF01-1520	269
RF01	RF01-1550	RF01-1540	310
RF01	RF01-1560	RF01-1550	235
RF01	RF01-1572	RF01-1570	122
RF01	RF01-1590	RF01-1580	292
RF01	RF01-1640	RF01-1580	217
RF01	RF01-1600	RF01-1590	264
RF01	RF01-1610	RF01-1600	199
RF01	RF01-1620	RF01-1610	236
RF01	RF01-1630	RF01-1620	243
RF01	RF01-1650	RF01-1640	353

Sewer Lines Smoke Tested

Sub-Basin	Upstream Manhole	Downstream Manhole	Segment Length (ft)
RF01	RF01-1660	RF01-1650	216
RF01	RF01-1670	RF01-1660	354
RF01	RF01-1680	RF01-1670	130
RF01	RF01-1690	RF01-1680	255
RF01	RF01-1710	RF01-1700	400
RF01	RF01-1730	RF01-1720	110
RF01	RF01-1740	RF01-1730	351
RF01	RF01-1780	RF01-1740	72
RF01	RF01-1790	RF01-1780	319
RF01	RF01-1810	RF01-1780	218
RF01	RF01-1800	RF01-1790	245
RF01	RF01-1820	RF01-1810	217
RF01	RF01-1830	RF01-1820	170
RF01	RF01-1840	RF01-1830	114
RF01	RF01-1850	RF01-1840	228
RF01	RF01-1860	RF01-1850	90
RF01	RF01-1870	RF01-1860	277
RF01	RF01-1880	RF01-1870	90
RF01	RF01-1900	RF01-1890	222
RF01	RF01-1910	RF01-1900	168
RF01	RF01-1920	RF01-1910	199
RF01	RF01-3560	RF01-1910	16
RF01	RF01-1930	RF01-1920	125
RF01	RF01-1940	RF01-1930	165
RF01	RF01-1950	RF01-1940	341
RF01	RF01-2090	RF01-1940	358
RF01	RF01-1960	RF01-1950	364
RF01	RF01-1970	RF01-1960	144
RF01	RF01-1980	RF01-1970	207
RF01	RF01-2110	RF01-1970	173
RF01	RF01-1990	RF01-1980	193
RF01	RF01-2140	RF01-1980	219
RF01	RF01-2000	RF01-1990	334
RF01	RF01-2010	RF01-2000	281
RF01	RF01-2020	RF01-2010	313
RF01	RF01-2030	RF01-2020	352
RF01	RF01-2050	RF01-2040	216
RF01	RF01-2070	RF01-2060	84
RF01	RF01-2080	RF01-2070	137
RF01	RF01-2100	RF01-2090	334
RF01	RF01-2120	RF01-2110	393
RF01	RF01-2130	RF01-2120	179
RF01	RF01-2150	RF01-2140	293
RF01	RF01-2160	RF01-2150	365
RF01	RF01-2170	RF01-2160	355

Sewer Lines Smoke Tested

Sub-Basin	Upstream Manhole	Downstream Manhole	Segment Length (ft)
RF01	RF01-2180	RF01-2170	265
RF01	RF01-2200	RF01-2190	294
RF01	RF01-2210	RF01-2200	400
RF01	RF01-2220	RF01-2210	332
RF01	RF01-2230	RF01-2220	373
RF01	RF01-2240	RF01-2230	370
RF01	RF01-2250	RF01-2240	114
RF01	RF01-2260	RF01-2250	127
RF01	RF01-2270	RF01-2260	74
RF01	RF01-2280	RF01-2270	268
RF01	RF01-2330	RF01-2270	92
RF01	RF01-2290	RF01-2280	298
RF01	RF01-2380	RF01-2280	197
RF01	RF01-2300	RF01-2290	151
RF01	RF01-2310	RF01-2300	240
RF01	RF01-2320	RF01-2310	133
RF01	RF01-3010	RF01-2320	41
RF01	RF01-2340	RF01-2330	161
RF01	RF01-2350	RF01-2340	393
RF01	RF01-2360	RF01-2350	88
RF01	RF01-2370	RF01-2350	192
RF01	RF01-3090	RF01-2360	141
RF01	RF01-2390	RF01-2380	289
RF01	RF01-2400	RF01-2390	136
RF01	RF01-4000	RF01-2400	224
RF01	RF01-2620	RF01-2610	169
RF01	RF01-2630	RF01-2620	451
RF01	EOL	RF01-2630	0
RF01	RF01-2640	RF01-2630	382
RF01	RF01-2650	RF01-2640	129
RF01	RF01-2660	RF01-2650	355
RF01	RF01-2670	RF01-2660	435
RF01	RF01-2680	RF01-2670	219
RF01	RF01-2690	RF01-2680	395
RF01	RF01-2700	RF01-2690	161
RF01	RF01-2710	RF01-2700	230
RF01	RF01-2720	RF01-2710	42
RF01	RF01-2730	RF01-2710	16
RF01	RF01-0010	RF01-2730	21
RF01	RF01-2740	RF01-2730	236
RF01	RF01-2750	RF01-2740	238
RF01	RF01-2760	RF01-2750	363
RF01	RF01-2770	RF01-2760	149
RF01	RF01-0060	RF01-2770	183
RF01	RF01-0210	RF01-2770	175

Sewer Lines Smoke Tested

Sub-Basin	Upstream Manhole	Downstream Manhole	Segment Length (ft)
RF01	RF01-2780	RF01-2770	172
RF01	RF01-2790	RF01-2780	214
RF01	RF01-2800	RF01-2790	226
RF01	RF01-2810	RF01-2800	110
RF01	RF01-2820	RF01-2810	195
RF01	RF01-2830	RF01-2820	323
RF01	RF01-0340	RF01-2830	231
RF01	RF01-0910	RF01-2840	379
RF01	RF01-2850	RF01-2840	399
RF01	RF01-2860	RF01-2850	295
RF01	RF01-0710	RF01-2860	263
RF01	RF01-2870	RF01-2860	208
RF01	RF01-2880	RF01-2870	366
RF01	RF01-0700	RF01-2880	34
RF01	RF01-2890	RF01-2880	410
RF01	RF01-2900	RF01-2890	36
RF01	RF01-2910	RF01-2900	163
RF01	RF01-2920	RF01-2910	220
RF01	RF01-2930	RF01-2920	147
RF01	RF01-2932	RF01-2930	171
RF01	RF01-2940	RF01-2930	253
RF01	RF01-2960	RF01-2950	312
RF01	RF01-2970	RF01-2960	378
RF01	RF01-2980	RF01-2970	401
RF01	RF01-2990	RF01-2980	271
RF01	RF01-3000	RF01-2990	224
RF01	EOL-1	RF01-3000	11
RF01	EOL-2	RF01-3000	9
RF01	RF01-3020	RF01-3010	286
RF01	RF01-3030	RF01-3020	141
RF01	RF01-3040	RF01-3030	44
RF01	RF01-3050	RF01-3040	226
RF01	RF01-3060	RF01-3050	300
RF01	RF01-4010	RF01-3050	57
RF01	RF01-3070	RF01-3060	158
RF01	RF01-3080	RF01-3070	130
RF01	RF01-3570	RF01-3560	240
RF01	RF01-4020	RF01-4010	251
RF01	RF01-4030	RF01-4020	148
RF01	RF01-4040	RF01-4020	198
RF01	RF01-4050	RF01-4040	297
RF01	RF01-4060	RF01-4040	352
RF01	RF01-4070	RF01-4060	262
RF01	RF01-4080	RF01-4070	139
WL01	WL01-0060	WL01-0045	309

Sewer Lines Smoke Tested

Sub-Basin	Upstream Manhole	Downstream Manhole	Segment Length (ft)
WL01	EOL	WL01-0270	20
WL01	EOL	WL01-0320	20

APPENDIX D

Smoke Testing Defects



Smoke Testing Defects

Sub-Basin	Upstream Manhole	Downstream Manhole	Address	Defect	Smoke Intensity	Remarks
M003	M003-1060	M003-1050	4300 Planters Rd		Mainline Medium	153 feet from upstream manhole
M003	M003-2890	M003-2880	6916 Lookout Dr		Mainline Heavy	
M003	M003-0280	M003-0270	7346 Go Cart Lane		Mainline Medium	
M003	M003-0320	M003-0310	7200 S Zero St		Mainline Light	sink hole behind the tennis courts
M003	M003-0360	M003-0350	7200 S Zero St		Mainline Light	Low spot that holds a lot of water
M003	M003-0705	M003-0695	7300 S Zero St		Mainline Medium	Manhole is 4,580 ft SWt of Address
M005	M005-0680	M005-0670	6611 Rogers Ave		Mainline Heavy	
M005	M005-0310	M005-0300	3219 S 70th St		Mainline Heavy	
M005	M005-0930	M005-0920	7014 Riviera Dr		Mainline Light	
M005	M005-0410	M005-0400	6801 Dallas St		Mainline Medium	
M005	M005-0410	M005-0400	6801 Dallas St		Mainline Heavy	
M005	M005-1200	M005-1180	6901 S V St		Mainline Light	
M005	M005-1030	M005-1010	6820 Riviera Dr		Mainline Light	
M005	M005-1100	M005-1090	2511 S 67th St	Mainline (Multiple)	Medium	
M003	M003-0890	M003-0880	5404 Planters Rd		DSMH Medium	
M003	M003-2890	M003-2880	6907 Red Bud Dr		DSMH Light	Defect: the water meter by the manhole
M003	M003-2890	M003-2880	6907 Red Bud Dr		DSMH Light	
M003	M003-0250	M003-0230	7200 Golf Course Loop		DSMH Light	
M005	M005-0379	M005-0340	3215 S 70th St		DSMH Medium	
M003	M003-1360A	M003-1360	9207 HWY 71 S		USMH Heavy	
M003	M003-3440	M003-3430	8520 S 36th St		USMH Light	
M003	M003-3430	M003-3420	8520 S 36th St		USMH Light	
M003	M003-1373	M003-1370	4311 Burrough Rd		USMH Medium	
M003	M003-3320	M003-1410	9009 HWY 71 S		USMH Light	806 ft NW of address
M003	M003-0924	M003-0920	8425 HWY 45		USMH Medium	
M003	M003-2200	M003-2000	6100 Golf Course Loop		USMH Light	
M003	M003-3510	M003-3500	8600 HWY 71 S		USMH Medium	
M003	M003-1140	M003-1130	5520 Planters Rd		USMH Heavy	
M003	M003-1210	M003-1200	8425 HWY 45		USMH Heavy	
M003	M003-1290	M003-1280	5000 Burrough Rd		USMH Light	
M003	M003-1320	M003-1310	5000 Burrough Rd		USMH Light	
M003	M003-1330	M003-1320	5000 Burrough Rd		USMH Light	

Smoke Testing Defects

Sub-Basin	Upstream Manhole	Downstream Manhole	Address	Defect	Smoke Intensity	Remarks
M003	M003-1410	M003-1400	9009 HWY 71 S		USMH Medium	
M003	M003-1550	M003-1540	9500 Bridgeford Cir		USMH Light	
M003	M003-1110	M003-1100	5520 Planters Rd		USMH Medium	
M003	M003-2070	M003-2060	4916 Morgans Way		USMH Light	
M003	M003-2250	M003-2240	7300 S Zero St		USMH Heavy	Frame knocked loose
M003	M003-2830	M003-2820	5310 Twin Hills Dr		USMH Light	
M003	M003-2870	M003-2860	6901 Red Bud Dr		USMH Light	
M003	M003-2920	M003-2910	7200 Lookout Dr		USMH Light	
M003	M003-3330	M003-3320	8600 HWY 71 S		USMH Heavy	Low spot, swamp drains to MH
M003	M003-3340	M003-3330	8600 HWY 71 S		USMH Light	1,341.5 ft SE of address
M003	M003-1780	M003-1770	9713 Hanover Cir		USMH Medium	
M003	M003-0570	M003-0560	7600 Huntington Way		USMH Heavy	
M003	M003-0250	M003-0230	7200 Golf Course Loop		USMH Heavy	
M003	M003-0420	M003-0410A	6138 S 66th St		USMH Heavy	
M003	M003-0430	M003-0420	6116 S 66th St		USMH Medium	
M003	M003-1120	M003-1110	5520 Planters Rd		USMH Medium	
M003	M003-0640	M003-0630	7300 S Zero St		USMH Light	3,600 ft SW of Address
M003	M003-0650	M003-0640	7300 S Zero St		USMH Medium	3,600 ft SW of Address
M003	M003-0695	M003-0680	7300 S Zero St		USMH Medium	4,380 ft SW of Address
M003	M003-0750	M003-0740	7300 S Zero St		USMH Light	4,950 ft SW of Address
M003	M003-0840A	M003-0840	5520 Planters Rd		USMH Heavy	
M003	M003-0880	M003-0870	5404 Planters Rd		USMH Light	
M003	M003-0940	M003-0930	8425 HWY 45		USMH Heavy	
M003	M003-0950	M003-0940	8425 HWY 45		USMH Light	
M003	M003-1050	M003-1040	4300 Planters Rd		USMH Heavy	
M003	M003-0590	M003-0580	7112 Stonebrook Dr		USMH Light	
M003	M003-5070	M003-5030	7218 Stonebrook Dr		USMH Light	
M003	M003-3540	M003-3530	4800 Siegenthaler Rd		USMH Medium	Defect is 1,109 ft SE of address
M003	M003-4940	M003-4930	6900 Woodhaven Cir		USMH Medium	
M003	M003-5090	M003-5080	7304 Stonebrook Dr		USMH Light	
M005	M005-0980	M005-0970	2500 Riviera Ct		USMH Light	USMH under a wall
M005	M005-0650	M005-0640	6901 Rogers Ave		USMH Light	

Smoke Testing Defects

Sub-Basin	Upstream Manhole	Downstream Manhole	Address	Defect	Smoke Intensity	Remarks
M005	M005-0160	M005-0150	6700 S Independence St		USMH	Light
M005	M005-0320	M005-0310	3215 S 70th St		USMH	Light
M005	M005-0370	M005-0360	3101 S 70th St		USMH	Medium
M005	M005-1500	M005-0445	3321 S 74th St		USMH	Heavy
M005	M005-1140	M005-1010	6901 Riviera Dr		USMH	Medium
M005	M005-1010	M005-1000	6900 Riviera Dr		USMH	Light
M005	M005-0040	M005-0030	3807 S 69th St		USMH	Light
RF01	RF01-0510	RF01-0500	6304 Riley Park Dr		USMH	Medium
RF01	RF01-1030	RF01-1020	11215 Vista Ridge Ct		USMH	Light
WL01	WL01-0200	WL01-0190	5839 Painter Ln		USMH	Heavy
M005	M005-0290	M005-0270	3301 S 70th St		Catch Basin	Medium
M005	M005-0631A	M005-0620	7010 Rogers Ave		Catch Basin	Medium
M005	M005-0370	M005-0360	3105 S 70th St		Grease Trap	Light
M003	M003-0180	M003-0170	7401 S Zero St	Downspout Underground		Medium
M003	M003-0180	M003-0170	7401 S Zero St	Downspout Underground		Light
M003	M003-0180	M003-0170	7401 S Zero St	Downspout Underground		Light
RF01	RF01-2060	RF01-2050	5717 Thomas Rd	Downspout Underground		Light
M003	M003-3690	M003-3680	8112 Huntington Way	Area Drain		Light
M003	M003-3690	M003-3680	8112 Huntington Way	Area Drain		Light
M005	M005-0375	M005-0370	3100 S 70th St	Area Drain		Medium
RF01	RF01-1400	RF01-1390	7007 Riley Park Dr	Area Drain		Medium
M003	M003-1320	M003-1310	5000 Burrough Rd	Sewer Service, Private		Heavy
M003	M003-1610	M003-1600	9412 Darlington Cir	Sewer Service, Private		Heavy
M003	M003-2850	M003-2740	6804 Lookout Dr	Sewer Service, Private		Light
M003	M003-0735	M003-0725	7300 S Zero St	Sewer Service, Private		Medium
M005	M005-0160	M005-0150	6700 S Independence St	Sewer Service, Private		Medium
M005	M005-0310	M005-0300	3219 S 70th St	Sewer Service, Private		Light
M005	M005-0631A	M005-0620	7010 Rogers Ave	Sewer Service, Private		Medium
M005	M005-1300	M005-1290	6632 Sunchase Ln	Sewer Service, Private		Light
M005	M005-1280	M005-1270	3309 S 68th Cir	Sewer Service, Private		Light
M005	M005-1220	M005-1180	6901 S V St	Sewer Service, Private		Light
M005	M005-0460D	M005-0460C	7306 Rogers Ave	Sewer Service, Private		Medium

Smoke Testing Defects

Sub-Basin	Upstream Manhole	Downstream Manhole	Address	Defect	Smoke Intensity	Remarks
M005	M005-0070	M005-0060	3801 S 69th St	Sewer Service, Private	Heavy	
RF01	RF01-1580	RF01-1572	6900 Southfield Dr	Sewer Service, Private	Light	
RF01	RF01-1340	RF01-1330	11901 Southcrest Dr	Sewer Service, Private	Light	
RF01	RF01-0860	RF01-0850	5805 Meadow Brook Dr	Sewer Service, Private	Heavy	Large hole where smoke was observed
M003	M003-3250	M003-3240	7000 Millennium Dr	Cleanout Missing Cap, Private	Medium	
M003	M003-1740	M003-1720	3912 Brooken Hill Dr	Cleanout Missing Cap, Private	Medium	
M003	M003-2120	M003-2110	7409 Red Pine Dr	Cleanout Missing Cap, Private	Medium	
M003	M003-2320	M003-2310	6512 Parkfront Dr	Cleanout Missing Cap, Private	Medium	
M003	M003-1690	M003-1680	3905 Brooken Hill Dr	Cleanout Missing Cap, Private	Heavy	
M003	M003-0180	M003-0170	7401 S Zero St	Cleanout Missing Cap, Private	Light	
M003	M003-0180	M003-0170	7401 S Zero St	Cleanout Missing Cap, Private	Light	
M003	M003-0470	M003-0440	6401 Old Greenwood Rd	Cleanout Missing Cap, Private	Light	
M003	M003-1940	M003-1890	4004 Glen Flora Way	Cleanout Missing Cap, Private	Medium	
M003	M003-4280	M003-4270	6206 Red Oak Ct	Cleanout Missing Cap, Private	Medium	
M003	M003-3920	M003-3910	8400 S Zero St	Cleanout Missing Cap, Private	Heavy	
M003	M003-3040	M003-3030	7101 Red Bud Cir	Cleanout Missing Cap, Private	Medium	
M003	M003-2570	M003-2560	5504 Catina Ct	Cleanout Missing Cap, Private	Medium	
M003	M003-2360	M003-2350	5709 Remington Way	Cleanout Missing Cap, Private	Medium	
M003	M003-3200	M003-3140	6800 Blackjack Dr	Cleanout Missing Cap, Private	Light	
M003	M003-3910	M003-3900	8400 S Zero St	Cleanout Missing Cap, Private	Heavy	
M005	M005-1690	M005-1680	3410 S 74th St	Cleanout Missing Cap, Private	Medium	
M005	M005-0080	M005-0070	6736 S Jackson St	Cleanout Missing Cap, Private	Heavy	
M005	M005-0080	M005-0070	6731 S Jackson St	Cleanout Missing Cap, Private	Heavy	Grass has grown in and around defect
M005	M005-0160	M005-0150	6707 S Independence St	Cleanout Missing Cap, Private	Heavy	
M005	M005-0160	M005-0150	6719 S Independence St	Cleanout Missing Cap, Private	Heavy	
M005	M005-0160	M005-0150	6700 S Independence St	Cleanout Missing Cap, Private	Heavy	
M005	M005-1540	M005-1530	7612 Rogers Ave	Cleanout Missing Cap, Private	Heavy	
M005	M005-0650	M005-0640	6905 Rogers Ave	Cleanout Missing Cap, Private	Medium	
M005	M005-0831	M005-0741	7301 Rogers Ave	Cleanout Missing Cap, Private	Heavy	
M005	M005-0375	M005-0370	3100 S 70th St	Cleanout Missing Cap, Private	Light	
M005	M005-1500	M005-0445	3321 S 74th St	Cleanout Missing Cap, Private	Heavy	
M005	M005-0120	M005-0060	3701 S 69th St	Cleanout Missing Cap, Private	Heavy	

Smoke Testing Defects

Sub-Basin	Upstream Manhole	Downstream Manhole	Address	Defect	Smoke Intensity	Remarks
M005	M005-0831	M005-0741	7301 Rogers Ave	Cleanout Missing Cap, Private	Heavy	
M005	M005-1250	M005-1240	3413 S 68th Cir	Cleanout Missing Cap, Private	Medium	
M005	M005-0160	M005-0150	6701 S Independence St	Cleanout Missing Cap, Private	Heavy	
RF01	RF01-1330	RF01-1320	7206 Shady Ridge Ct	Cleanout Missing Cap, Private	Light	
RF01	RF01-2840	RF01-2830	6601 Highland Park Dr	Cleanout Missing Cap, Private	Medium	
RF01	RF01-3580	RF01-3570	12300 S 71 HWY	Cleanout Missing Cap, Private	Light	
RF01	RF01-1280	RF01-1270	7300 Highland Park Dr	Cleanout Missing Cap, Private	Light	
RF01	RF01-1050	RF01-1040	11112 Vista Ridge Ct	Cleanout Missing Cap, Private	Heavy	
RF01	RF01-1080	RF01-1070	6208 Rye Hill Rd E	Cleanout Missing Cap, Private	Heavy	
RF01	RF01-1090	RF01-1080	6300 Rye Hill Rd E	Cleanout Missing Cap, Private	Heavy	
RF01	RF01-1090	RF01-1080	6400 Rye Hill Rd E	Cleanout Missing Cap, Private	Heavy	Can't get a close view
RF01	RF01-1200	RF01-2720	7101 Highland Park Dr	Cleanout Missing Cap, Private	Heavy	No close up photo-no access
RF01	RF01-1230	RF01-1220	7201 Highland Park Dr	Cleanout Missing Cap, Private	Medium	
RF01	RF01-1890	RF01-1880	12110 Old Hwy 71	Cleanout Missing Cap, Private	Light	
M003	M003-3040	M003-3030	7106 Red Bud Cir	Cleanout Defective, Private	Heavy	
M003	M003-3120	M003-3110	6906 Black Gum Cir	Cleanout Defective, Private	Medium	
M003	M003-1740	M003-1720	3912 Brooken Hill Dr	Cleanout Defective, Private	Medium	
M003	M003-2040	M003-2030	6100 Golf Course Loop	Cleanout Defective, Private	Heavy	
M003	M003-3920	M003-3910	8400 S Zero St	Cleanout Defective, Private	Light	
M003	M003-3000	M003-2980	5200 Twin Hills Dr	Cleanout Defective, Private	Medium	
M003	M003-3120	M003-3110	6802 Black Gum Cir	Cleanout Defective, Private	Medium	
M003	M003-2190	M003-2180	7309 Millennium Dr	Cleanout Defective, Private	Light	
M003	M003-3120	M003-3110	6804 Black Gum Cir	Cleanout Defective, Private	Medium	
M003	M003-3120	M003-3110	6810 Black Gum Cir	Cleanout Defective, Private	Medium	
M003	M003-3150	M003-3140	6815 Blackjack Dr	Cleanout Defective, Private	Medium	
M003	M003-0160	M003-0150	7701 S Zero St	Cleanout Defective, Private	Heavy	
M003	M003-3120	M003-3110	6912 Black Gum Cir	Cleanout Defective, Private	Heavy	
M003	M003-0240	M003-0230	7200 Golf Course Loop	Cleanout Defective, Private	Light	
M003	M003-0160	M003-0150	7701 S Zero St	Cleanout Defective, Private	Heavy	
M003	M003-0180	M003-0170	7401 S Zero St	Cleanout Defective, Private	Light	
M003	M003-0180	M003-0170	7401 S Zero St	Cleanout Defective, Private	Medium	
M003	M003-0180	M003-0170	7401 S Zero St	Cleanout Defective, Private	Medium	

Smoke Testing Defects

Sub-Basin	Upstream Manhole	Downstream Manhole	Address	Defect	Smoke Intensity	Remarks
M003	M003-0180	M003-0170	7401 S Zero St	Cleanout Defective, Private	Light	
M003	M003-0180	M003-0170	7401 S Zero St	Cleanout Defective, Private	Light	
M003	M003-2350	M003-2340	6305 Remington Ct	Cleanout Defective, Private	Medium	
M003	M003-0230	M003-0220	7200 S Zero St	Cleanout Defective, Private	Light	
M003	M003-1610	M003-1600	9305 Darlington Cir	Cleanout Defective, Private	Medium	
M003	M003-0450	M003-0440	6309 Crimson St	Cleanout Defective, Private	Medium	
M003	M003-0460	M003-0450	6209 Crimson St	Cleanout Defective, Private	Light	
M003	M003-0460	M003-0450	6201 Crimson St	Cleanout Defective, Private	Medium	
M003	M003-1290	M003-1280	9109 HWY 45	Cleanout Defective, Private	Medium	124 ft from GPS, in empty field
M003	M003-1373	M003-1370	9207 HWY 71 S	Cleanout Defective, Private	Heavy	
M003	M003-1350B	M003-1350A	4501 Burrough Rd	Cleanout Defective, Private	Heavy	
M003	M003-0200	M003-0190	7109 S Zero St	Cleanout Defective, Private	Medium	
M003	M003-1290	M003-1280	9109 HWY 45	Cleanout Defective, Private	Medium	52 ft from GPS, in empty field
M003	M003-5140	M003-3480	8708 S 36th Terrace	Cleanout Defective, Private	Heavy	located in undeveloped, residential field
M003	M003-5120	M003-5110	7920 Rome Way	Cleanout Defective, Private	Light	
M003	M003-3900	M003-3890	8400 S Zero St	Cleanout Defective, Private	Medium	
M003	M003-3480	M003-3470	8600 S 36th Terrace	Cleanout Defective, Private	Heavy	
M003	M003-2420	M003-2410	5517 Remington Way	Cleanout Defective, Private	Medium	
M003	M003-5200	M003-5190	8809 Wildwood Way	Cleanout Defective, Private	Heavy	
M003	M003-3300	M003-3290	6900 Red Pine Dr	Cleanout Defective, Private	Light	
M003	M003-2630	M003-2620	5408 Catina Ct	Cleanout Defective, Private	Medium	
M005	M005-0631A	M005-0620	7010 Rogers Ave	Cleanout Defective, Private	Heavy	
M005	M005-0631A	M005-0620	7010 Rogers Ave	Cleanout Defective, Private	Heavy	
M005	M005-0631A	M005-0620	7010 Rogers Ave	Cleanout Defective, Private	Heavy	
M005	M005-1660	M005-1650	6801 Phoenix Ave	Cleanout Defective, Private	Heavy	
M005	M005-0370	M005-0360	3105 S 70th St	Cleanout Defective, Private	Medium	Grass grown around defect, not visible
M005	M005-0410A	M005-0410	6701 Dallas St	Cleanout Defective, Private	Heavy	
M005	M005-1520	M005-1510	3325 S 74th St	Cleanout Defective, Private	Medium	
M005	M005-1250	M005-1240	3412 S 68th Cir	Cleanout Defective, Private	Light	
M005	M005-0080	M005-0070	6800 S Jackson St	Cleanout Defective, Private	Heavy	
M005	M005-0070	M005-0060	6818 S Jackson St	Cleanout Defective, Private	Heavy	
M005	M005-0140	M005-0120	6836 S Independence St	Cleanout Defective, Private	Heavy	

Smoke Testing Defects

Sub-Basin	Upstream Manhole	Downstream Manhole	Address	Defect	Smoke Intensity	Remarks
M005	M005-0370	M005-0360	3105 S 70th St	Cleanout Defective, Private	Medium	
M005	M005-0160	M005-0150	6719 S Independence St	Cleanout Defective, Private	Heavy	
M005	M005-0080	M005-0070	6800 S Jackson St	Cleanout Defective, Private	Heavy	
M005	M005-0140	M005-0120	6836 S Independence St	Cleanout Defective, Private	Heavy	
M005	M005-0375	M005-0370	3000 S 70th St	Cleanout Defective, Private	Heavy	
M005	M005-0120	M005-0060	3719 S 69th St	Cleanout Defective, Private	Heavy	
M005	M005-0120	M005-0060	3701 S 69th St	Cleanout Defective, Private	Heavy	
M005	M005-0120	M005-0060	3719 S 69th St	Cleanout Defective, Private	Heavy	
M005	M005-0090	M005-0080	6706 S Jackson St	Cleanout Defective, Private	Heavy	
M005	M005-0090	M005-0080	6706 S Jackson St	Cleanout Defective, Private	Heavy	
M005	M005-0370	M005-0360	3105 S 70th St	Cleanout Defective, Private	Medium	
M005	M005-1210	M005-1200	6811 S V St	Cleanout Defective, Private	Heavy	
M005	M005-0831	M005-0741	7301 Rogers Ave	Cleanout Defective, Private	Heavy	
M005	M005-1210	M005-1200	6811 S V St	Cleanout Defective, Private	Medium	
M005	M005-1300	M005-1290	6621 Sunchase Ln	Cleanout Defective, Private	Heavy	
M005	M005-1300	M005-1290	6621 Sunchase Ln	Cleanout Defective, Private	Medium	
M005	M005-1300	M005-1290	6629 Sunchase Ln	Cleanout Defective, Private	Heavy	
M005	M005-0080	M005-0070	6806 S Jackson St	Cleanout Defective, Private	Heavy	
M005	M005-0631A	M005-0620	7010 Rogers Ave	Cleanout Defective, Private	Heavy	
RF01	RF01-1300	RF01-1290	7211 Shady Ridge Ct	Cleanout Defective, Private	Light	
RF01	RF01-1540	RF01-1530	6809 Hunter Crossing Dr	Cleanout Defective, Private	Medium	
RF01	RF01-0200	RF01-0190	10900 Woodland Dr	Cleanout Defective, Private	Heavy	
RF01	RF01-2950	RF01-2940	11808 Hwy 71 S	Cleanout Defective, Private	Heavy	
RF01	RF01-0390	RF01-0380	11700 Maple Park Dr	Cleanout Defective, Private	Light	
RF01	RF01-0310	RF01-2810	6807 Highland Park	Cleanout Defective, Private	Heavy	
RF01	RF01-2040	RF01-2030	5514 Thomas Rd	Cleanout Defective, Private	Light	
M003	M003-3540	M003-3530	4800 Siegenthaler Rd	Cleanout Defective, Public	Heavy	1,109 ft SE of address

APPENDIX E

Sewer Lines Cleaned and Televised with NASSCO Score



Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-0010	M003-0005	Clean Only	277	Clean Only
M003	M003-0015	M003-0010	Clean Only	216	Clean Only
M003	M003-0017	M003-0015	Clean Only	184	Clean Only
M003	M003-0020	M003-0015	Clean Only	59	Clean Only
M003	M003-0030	M003-0020	Clean Only	276	Clean Only
M003	M003-0035	M003-0030	Clean Only	61	Clean Only
M003	M003-0037	M003-0035	Clean Only	218	Clean Only
M003	M003-0040	M003-0035	Clean Only	340	Clean Only
M003	M003-0050	M003-0040	Clean Only	398	Clean Only
M003	M003-0060	M003-0050	Clean Only	403	Clean Only
M003	M003-0070	M003-0060	Clean Only	400	Clean Only
M003	M003-0080	M003-0070	No Scoreable Defect	154	0000
M003	M003-0090	M003-0080	Clean Only	276	Clean Only
M003	M003-0100	M003-0090	Clean Only	281	Clean Only
M003	M003-0110	M003-0100	2	199	2100
M003	M003-0120	M003-0110	Clean Only	272	Clean Only
M003	M003-0130	M003-0120	Clean Only	20	Clean Only
M003	M003-0205	M003-0120	No Scoreable Defect	174	0000
M003	M003-0140	M003-0130	Clean Only	400	Clean Only
M003	M003-0150	M003-0140	Clean Only	410	Clean Only
M003	M003-0160	M003-0150	Clean Only	400	Clean Only
M003	M003-0170	M003-0160	Clean Only	400	Clean Only
M003	M003-0180	M003-0170	Clean Only	391	Clean Only
M003	M003-0185	M003-0180	Clean Only	126	Clean Only
M003	M003-0190	M003-0185	Clean Only	246	Clean Only
M003	M003-4810	M003-0185	Clean Only	262	Clean Only
M003	M003-0200	M003-0190	Clean Only	307	Clean Only
M003	M003-0204	M003-0200	Clean Only	285	Clean Only
M003	M003-0210	M003-0205	Clean Only	295	Clean Only
M003	M003-3850	M003-0205	Clean Only	368	Clean Only
M003	M003-0220	M003-0210	Clean Only	153	Clean Only
M003	M003-0230	M003-0220	4	422	4100
M003	M003-0510	M003-0220	No Scoreable Defect	9	0000
M003	M003-0240	M003-0230	3	400	3321
M003	M003-0250	M003-0230	No Structural Defect	401	0000
M003	M003-0260	M003-0250	2	400	2111
M003	M003-0270	M003-0260	No Scoreable Defect	400	0000
M003	M004-1670	M003-0260	Clean Only	359	Clean Only
M003	M003-0280	M003-0270	3	399	3100
M003	M003-0290	M003-0280	No Scoreable Defect	400	0000
M003	M003-0300	M003-0290	2	300	2100
M003	M003-0310	M003-0300	2	400	2100
M003	M003-0380	M003-0300	3	409	3221
M003	M003-0320	M003-0310	2	325	2100

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-0330	M003-0310	2	400	2111
M003	M003-0340	M003-0330	1	400	1200
M003	M003-0350	M003-0340	2	277	2100
M003	M003-0360	M003-0350	No Scoreable Defect	188	0000
M003	M003-0390	M003-0380	2	413	2211
M003	M003-0400	M003-0390	Clean Only	418	Clean Only
M003	M003-0410	M003-0400	Clean Only	382	Clean Only
M003	M003-0420	M003-0410A	Clean Only	176	Clean Only
M003	M003-0430	M003-0420	Clean Only	297	Clean Only
M003	M003-0440	M003-0430	Clean Only	157	Clean Only
M003	M003-0450	M003-0440	Clean Only	300	Clean Only
M003	M003-0470	M003-0440	Clean Only	199	Clean Only
M003	M003-0460	M003-0450	Clean Only	311	Clean Only
M003	M003-0480	M003-0470	Clean Only	304	Clean Only
M003	M003-0500	M003-0470	Clean Only	395	Clean Only
M003	M003-0490	M003-0480	Clean Only	308	Clean Only
M003	M003-0520	M003-0510	No Structural Defect	395	0000
M003	M003-0525	M003-0520	Clean Only	316	Clean Only
M003	M003-0530	M003-0520	No Structural Defect	424	0000
M003	M003-0528	M003-0525	Clean Only	45	Clean Only
M003	M003-0540	M003-0530	No Structural Defect	376	0000
M003	M003-3760	M003-0530	Clean Only	26	Clean Only
M003	M003-0550	M003-0540	No Structural Defect	399	0000
M003	M003-0560	M003-0550	No Structural Defect	394	0000
M003	M003-0570	M003-0560	No Structural Defect	400	0000
M003	M003-3620	M003-0560	Clean Only	112	Clean Only
M003	M003-0580	M003-0570	No Structural Defect	408	0000
M003	M003-0590	M003-0580	2	357	2100
M003	M003-4290	M003-0580	Clean Only	14	Clean Only
M003	M003-0600	M003-0590	1	400	1000
M003	M003-0610	M003-0600	No Structural Defect	400	0000
M003	M003-0620	M003-0610	1	400	1N00
M003	M003-0630	M003-0620	No Scoreable Defect	400	0000
M003	M003-0640	M003-0630	No Scoreable Defect	397	0000
M003	M003-0650	M003-0640	1	339	1100
M003	M003-0660	M003-0650	No Structural Defect	431	0000
M003	M003-0670	M003-0660	No Structural Defect	327	0000
M003	M003-0680	M003-0670	No Scoreable Defect	377	0000
M003	M003-0695	M003-0680	Clean Only	401	Clean Only
M003	M003-0740	M003-0680	No Structural Defect	447	0000
M003	M003-0705	M003-0695	Clean Only	398	Clean Only
M003	M003-0715	M003-0705	Clean Only	402	Clean Only
M003	M003-0725	M003-0715	Clean Only	299	Clean Only
M003	M003-0735	M003-0725	Clean Only	303	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-1970	M003-0735	Clean Only	299	Clean Only
M003	M003-0750	M003-0740	No Structural Defect	483	0000
M003	M003-0760	M003-0750	No Structural Defect	480	0000
M003	M003-0770	M003-0760	No Structural Defect	480	0000
M003	M003-0780	M003-0770	No Scoreable Defect	493	0000
M003	M003-0790	M003-0780	No Structural Defect	347	0000
M003	M003-0800	M003-0790	No Structural Defect	468	0000
M003	M003-0810	M003-0800	No Structural Defect	477	0000
M003	M003-0820	M003-0810	No Structural Defect	201	0000
M003	M003-1090	M003-0810	Clean Only	235	Clean Only
M003	M003-0830	M003-0820	4	199	4100
M003	M003-0840	M003-0820	2	458	2111
M003	M003-0850	M003-0840	4	426	4231
M003	M003-0860	M003-0850	No Structural Defect	39	0000
M003	M003-0870	M003-0860	3	373	3100
M003	M003-0880	M003-0870	No Scoreable Defect	7	0000
M003	M003-0890	M003-0880	3	308	3100
M003	M003-0900	M003-0890	3	295	3121
M003	M003-0910	M003-0900	5	400	5137
M003	M003-0920	M003-0910	3	400	3526
M003	M003-0924	M003-0920	Clean Only	282	Clean Only
M003	M003-0930	M003-0920	2	225	2312
M003	M003-0928	M003-0924	Clean Only	386	Clean Only
M003	M003-0940	M003-0930	No Scoreable Defect	7	0000
M003	M003-0950	M003-0940	5	221	5245
M003	M003-0960	M003-0950	5	255	5142
M003	M003-0970	M003-0960	No Structural Defect	116	0000
M003	M003-0980	M003-0970	3	44	3121
M003	M003-1030	M003-0970	2	46	2100
M003	M003-0990	M003-0980	Clean Only	388	Clean Only
M003	M003-1000	M003-0990	Clean Only	144	Clean Only
M003	M003-1010	M003-1000	5	226	5944
M003	M003-1020	M003-1010	5	325	5B4A
M003	M003-1040	M003-1030	Clean Only	72	Clean Only
M003	M003-1050	M003-1040	Clean Only	83	Clean Only
M003	M003-1060	M003-1050	Clean Only	232	Clean Only
M003	M003-1070	M003-1060	5	387	5347
M003	M003-1080	M003-1070	5	399	5134
M003	M003-1100	M003-1090	Clean Only	400	Clean Only
M003	M003-1110	M003-1100	Clean Only	400	Clean Only
M003	M003-1120	M003-1110	Clean Only	400	Clean Only
M003	M003-1130	M003-1120	Clean Only	342	Clean Only
M003	M003-1140	M003-1130	Clean Only	202	Clean Only
M003	M003-1150	M003-1140	Clean Only	400	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-1160	M003-1150	Clean Only	400	Clean Only
M003	M003-1170	M003-1160	Clean Only	405	Clean Only
M003	M003-1180	M003-1170	Clean Only	400	Clean Only
M003	M003-1190	M003-1180	Clean Only	400	Clean Only
M003	M003-1200	M003-1190	Clean Only	142	Clean Only
M003	M003-1210	M003-1200	Clean Only	150	Clean Only
M003	M003-1220	M003-1210	Clean Only	154	Clean Only
M003	M003-1230	M003-1220	Clean Only	154	Clean Only
M003	M003-1240	M003-1230	Clean Only	147	Clean Only
M003	M003-1250	M003-1240	Clean Only	222	Clean Only
M003	M003-1260	M003-1250	Clean Only	119	Clean Only
M003	M003-1270	M003-1260	Clean Only	353	Clean Only
M003	M003-3530	M003-1260	Clean Only	63	Clean Only
M003	M003-1280	M003-1270	Clean Only	185	Clean Only
M003	M003-1290	M003-1280	Clean Only	400	Clean Only
M003	M003-1300	M003-1290	Clean Only	65	Clean Only
M003	M003-1310	M003-1300	Clean Only	135	Clean Only
M003	M003-1320	M003-1310	Clean Only	151	Clean Only
M003	M003-1330	M003-1320	Clean Only	312	Clean Only
M003	EOL	M003-1330	Clean Only	70	Clean Only
M003	M003-1340	M003-1330	Clean Only	292	Clean Only
M003	M003-1350	M003-1340	Clean Only	397	Clean Only
M003	M003-1350A	M003-1350	Clean Only	70	Clean Only
M003	M003-1360	M003-1350	Clean Only	403	Clean Only
M003	M003-1350B	M003-1350A	Clean Only	171	Clean Only
M003	EOL	M003-1360	Clean Only	70	Clean Only
M003	M003-1370	M003-1360	Clean Only	391	Clean Only
M003	M003-1373	M003-1370	Clean Only	77	Clean Only
M003	M003-1380	M003-1370	Clean Only	227	Clean Only
M003	M003-1377	M003-1373	Clean Only	233	Clean Only
M003	M003-1390	M003-1380	Clean Only	388	Clean Only
M003	M003-1420	M003-1380	Clean Only	26	Clean Only
M003	M003-1400	M003-1390	Clean Only	401	Clean Only
M003	M003-1410	M003-1400	Clean Only	394	Clean Only
M003	M003-3320	M003-1410	1	280	1100
M003	M003-1430	M003-1420	No Structural Defect	203	0000
M003	M003-1440	M003-1430	Clean Only	88	Clean Only
M003	M003-3830	M003-1430	Clean Only	107	Clean Only
M003	M003-1450	M003-1440	Clean Only	99	Clean Only
M003	M003-1460	M003-1450	Clean Only	105	Clean Only
M003	M003-1470	M003-1460	Clean Only	135	Clean Only
M003	M003-1480	M003-1470	Clean Only	115	Clean Only
M003	M003-1490	M003-1480	Clean Only	87	Clean Only
M003	M003-1670	M003-1480	Clean Only	278	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-1500	M003-1490	Clean Only	178	Clean Only
M003	M003-1510	M003-1500	Clean Only	304	Clean Only
M003	M003-1520	M003-1510	Clean Only	132	Clean Only
M003	M003-1590	M003-1510	Clean Only	220	Clean Only
M003	M003-1530	M003-1520	Clean Only	272	Clean Only
M003	M003-1540	M003-1530	Clean Only	371	Clean Only
M003	M003-1550	M003-1540	Clean Only	156	Clean Only
M003	M003-1560	M003-1550	Clean Only	281	Clean Only
M003	M003-1570	M003-1560	Clean Only	263	Clean Only
M003	M003-1580	M003-1570	Clean Only	328	Clean Only
M003	M003-1600	M003-1590	Clean Only	119	Clean Only
M003	M003-1610	M003-1600	Clean Only	345	Clean Only
M003	M003-1620	M003-1610	Clean Only	225	Clean Only
M003	M003-1630	M003-1620	Clean Only	244	Clean Only
M003	M003-1640	M003-1630	Clean Only	247	Clean Only
M003	M003-1650	M003-1640	Clean Only	129	Clean Only
M003	M003-1660	M003-1650	Clean Only	123	Clean Only
M003	M003-1680	M003-1670	Clean Only	144	Clean Only
M003	M003-1690	M003-1680	Clean Only	56	Clean Only
M003	M003-1700	M003-1690	Clean Only	141	Clean Only
M003	M003-1710	M003-1700	Clean Only	110	Clean Only
M003	M003-1720	M003-1710	Clean Only	93	Clean Only
M003	M003-1730	M003-1720	Clean Only	316	Clean Only
M003	M003-1740	M003-1720	Clean Only	260	Clean Only
M003	M003-1750	M003-1740	Clean Only	119	Clean Only
M003	M003-1760	M003-1750	Clean Only	55	Clean Only
M003	M003-1770	M003-1760	Clean Only	283	Clean Only
M003	M003-1780	M003-1770	Clean Only	112	Clean Only
M003	M003-1790	M003-1780	Clean Only	205	Clean Only
M003	M003-1800	M003-1790	Clean Only	182	Clean Only
M003	M003-1820	M003-1790	Clean Only	67	Clean Only
M003	M003-1810	M003-1800	Clean Only	128	Clean Only
M003	M003-1830	M003-1820	Clean Only	340	Clean Only
M003	M003-1890	M003-1820	Clean Only	293	Clean Only
M003	M003-1840	M003-1830	Clean Only	49	Clean Only
M003	M003-1850	M003-1840	Clean Only	235	Clean Only
M003	M003-1860	M003-1850	Clean Only	110	Clean Only
M003	M003-1870	M003-1850	Clean Only	122	Clean Only
M003	M003-1880	M003-1870	Clean Only	59	Clean Only
M003	M003-1900	M003-1890	Clean Only	192	Clean Only
M003	M003-1940	M003-1890	Clean Only	263	Clean Only
M003	M003-1910	M003-1900	Clean Only	107	Clean Only
M003	M003-1920	M003-1910	Clean Only	153	Clean Only
M003	M003-1930	M003-1920	Clean Only	106	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-1950	M003-1940	Clean Only	123	Clean Only
M003	M003-1960	M003-1950	Clean Only	246	Clean Only
M003	M003-1980	M003-1970	Clean Only	298	Clean Only
M003	M003-1990	M003-1980	Clean Only	304	Clean Only
M003	M003-2000	M003-1990	Clean Only	393	Clean Only
M003	M003-2002	M003-2000	Clean Only	45	Clean Only
M003	M003-2200	M003-2000	Clean Only	353	Clean Only
M003	M003-2010	M003-2002	Clean Only	400	Clean Only
M003	M003-2020	M003-2010	Clean Only	400	Clean Only
M003	M003-2030	M003-2020	Clean Only	400	Clean Only
M003	M003-2040	M003-2030	Clean Only	400	Clean Only
M003	M003-2050	M003-2040	Clean Only	400	Clean Only
M003	M003-2060	M003-2050	Clean Only	400	Clean Only
M003	M003-2070	M003-2060	Clean Only	400	Clean Only
M003	M003-2080	M003-2070	Clean Only	400	Clean Only
M003	M003-2090	M003-2080	Clean Only	157	Clean Only
M003	M003-2100	M003-2090	Clean Only	166	Clean Only
M003	M003-2140	M003-2090	Clean Only	245	Clean Only
M003	M003-2110	M003-2100	Clean Only	360	Clean Only
M003	M003-2120	M003-2110	Clean Only	360	Clean Only
M003	M003-2130	M003-2120	Clean Only	360	Clean Only
M003	M003-2150	M003-2140	Clean Only	108	Clean Only
M003	M003-2160	M003-2150	Clean Only	85	Clean Only
M003	M003-2170	M003-2160	Clean Only	160	Clean Only
M003	M003-2180	M003-2170	Clean Only	280	Clean Only
M003	M003-2190	M003-2180	Clean Only	350	Clean Only
M003	M003-2210	M003-2200	Clean Only	350	Clean Only
M003	M003-2220	M003-2210	Clean Only	307	Clean Only
M003	M003-2230	M003-2220	Clean Only	141	Clean Only
M003	M003-2240	M003-2230	Clean Only	400	Clean Only
M003	M003-2250	M003-2240	Clean Only	400	Clean Only
M003	M003-2260	M003-2250	Clean Only	400	Clean Only
M003	M003-2270	M003-2260	Clean Only	399	Clean Only
M003	M003-2280	M003-2270	Clean Only	92	Clean Only
M003	M003-2290	M003-2280	Clean Only	158	Clean Only
M003	M003-2430	M003-2280	5	254	5121
M003	M003-2300	M003-2290	Clean Only	300	Clean Only
M003	M003-2310	M003-2300	Clean Only	300	Clean Only
M003	M003-2320	M003-2310	Clean Only	302	Clean Only
M003	M003-2330	M003-2320	Clean Only	230	Clean Only
M003	M003-2380	M003-2320	Clean Only	268	Clean Only
M003	M003-2340	M003-2330	Clean Only	323	Clean Only
M003	M003-2350	M003-2340	Clean Only	195	Clean Only
M003	M003-2360	M003-2350	Clean Only	85	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-2370	M003-2350	Clean Only	280	Clean Only
M003	M003-2390	M003-2380	Clean Only	106	Clean Only
M003	M003-2400	M003-2390	Clean Only	270	Clean Only
M003	M003-2410	M003-2400	Clean Only	197	Clean Only
M003	M003-2420	M003-2410	Clean Only	111	Clean Only
M003	M003-2440	M003-2430	Clean Only	153	Clean Only
M003	M003-2540	M003-2430	Clean Only	120	Clean Only
M003	M003-2450	M003-2440	Clean Only	174	Clean Only
M003	M003-2470	M003-2440	Clean Only	297	Clean Only
M003	M003-2460	M003-2450	Clean Only	112	Clean Only
M003	M003-2480	M003-2470	Clean Only	137	Clean Only
M003	M003-2490	M003-2480	Clean Only	147	Clean Only
M003	M003-2500	M003-2490	Clean Only	214	Clean Only
M003	M003-2510	M003-2500	Clean Only	177	Clean Only
M003	M003-2520	M003-2510	Clean Only	177	Clean Only
M003	M003-2530	M003-2520	Clean Only	202	Clean Only
M003	M003-2550	M003-2540	Clean Only	352	Clean Only
M003	M003-2560	M003-2550	Clean Only	16	Clean Only
M003	M003-2730	M003-2550	Clean Only	194	Clean Only
M003	M003-2570	M003-2560	Clean Only	163	Clean Only
M003	M003-2580	M003-2570	Clean Only	65	Clean Only
M003	M003-2620	M003-2570	Clean Only	184	Clean Only
M003	M003-2590	M003-2580	Clean Only	105	Clean Only
M003	M003-2600	M003-2590	Clean Only	298	Clean Only
M003	M003-2610	M003-2600	Clean Only	137	Clean Only
M003	M003-2630	M003-2620	Clean Only	238	Clean Only
M003	M003-2640	M003-2630	Clean Only	70	Clean Only
M003	M003-2650	M003-2630	Clean Only	236	Clean Only
M003	M003-2660	M003-2650	Clean Only	179	Clean Only
M003	M003-2670	M003-2660	Clean Only	126	Clean Only
M003	M003-2680	M003-2670	Clean Only	180	Clean Only
M003	M003-2690	M003-2680	Clean Only	242	Clean Only
M003	M003-2700	M003-2690	Clean Only	123	Clean Only
M003	M003-2710	M003-2700	Clean Only	156	Clean Only
M003	M003-2720	M003-2710	Clean Only	266	Clean Only
M003	M003-2740	M003-2730	Clean Only	147	Clean Only
M003	M003-2750	M003-2740	Clean Only	140	Clean Only
M003	M003-2850	M003-2740	Clean Only	226	Clean Only
M003	M003-2760	M003-2750	Clean Only	146	Clean Only
M003	M003-2770	M003-2760	Clean Only	361	Clean Only
M003	M003-2780	M003-2770	Clean Only	403	Clean Only
M003	M003-2790	M003-2780	Clean Only	400	Clean Only
M003	M003-2800	M003-2790	Clean Only	179	Clean Only
M003	M003-2810	M003-2800	Clean Only	80	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-2820	M003-2810	Clean Only	154	Clean Only
M003	M003-2830	M003-2820	Clean Only	107	Clean Only
M003	M003-2840	M003-2830	Clean Only	102	Clean Only
M003	M003-2860	M003-2850	Clean Only	182	Clean Only
M003	M003-2870	M003-2860	Clean Only	186	Clean Only
M003	M003-3070	M003-2860	Clean Only	309	Clean Only
M003	M003-2880	M003-2870	Clean Only	158	Clean Only
M003	M003-2890	M003-2880	Clean Only	217	Clean Only
M003	M003-3020	M003-2880	Clean Only	341	Clean Only
M003	M003-2900	M003-2890	Clean Only	339	Clean Only
M003	M003-2910	M003-2900	Clean Only	305	Clean Only
M003	M003-2920	M003-2910	Clean Only	255	Clean Only
M003	M003-2930	M003-2920	Clean Only	247	Clean Only
M003	M003-2940	M003-2930	Clean Only	88	Clean Only
M003	M003-2960	M003-2930	Clean Only	240	Clean Only
M003	M003-2950	M003-2940	Clean Only	70	Clean Only
M003	M003-2970	M003-2960	Clean Only	180	Clean Only
M003	M003-2980	M003-2970	Clean Only	221	Clean Only
M003	M003-2990	M003-2980	Clean Only	85	Clean Only
M003	M003-3000	M003-2980	Clean Only	221	Clean Only
M003	M003-3010	M003-3000	Clean Only	151	Clean Only
M003	M003-3030	M003-3020	Clean Only	303	Clean Only
M003	M003-3040	M003-3030	Clean Only	319	Clean Only
M003	M003-3050	M003-3030	Clean Only	266	Clean Only
M003	M003-3060	M003-3050	Clean Only	334	Clean Only
M003	M003-3065	M003-3060	Clean Only	390	Clean Only
M003	M003-3080	M003-3070	Clean Only	334	Clean Only
M003	M003-3110	M003-3070	Clean Only	270	Clean Only
M003	M003-3090	M003-3080	Clean Only	251	Clean Only
M003	M003-3100	M003-3090	Clean Only	193	Clean Only
M003	M003-3120	M003-3110	Clean Only	365	Clean Only
M003	M003-3130	M003-3110	Clean Only	285	Clean Only
M003	M003-3140	M003-3130	Clean Only	295	Clean Only
M003	M003-3150	M003-3140	Clean Only	400	Clean Only
M003	M003-3200	M003-3140	Clean Only	108	Clean Only
M003	M003-3160	M003-3150	Clean Only	400	Clean Only
M003	M003-3170	M003-3160	Clean Only	400	Clean Only
M003	M003-3180	M003-3170	Clean Only	125	Clean Only
M003	M003-3190	M003-3180	Clean Only	88	Clean Only
M003	M003-3210	M003-3200	Clean Only	258	Clean Only
M003	M003-3220	M003-3210	Clean Only	72	Clean Only
M003	M003-3230	M003-3220	Clean Only	195	Clean Only
M003	M003-3240	M003-3230	Clean Only	280	Clean Only
M003	M003-3280	M003-3230	Clean Only	333	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-3250	M003-3240	Clean Only	350	Clean Only
M003	M003-3260	M003-3250	Clean Only	296	Clean Only
M003	M003-3270	M003-3260	Clean Only	264	Clean Only
M003	M003-3290	M003-3280	Clean Only	285	Clean Only
M003	M003-3300	M003-3290	Clean Only	360	Clean Only
M003	M003-3310	M003-3300	Clean Only	360	Clean Only
M003	M003-3330	M003-3320	Clean Only	386	Clean Only
M003	M003-3340	M003-3330	Clean Only	380	Clean Only
M003	M003-3350	M003-3340	Clean Only	400	Clean Only
M003	M003-3360	M003-3350	Clean Only	399	Clean Only
M003	M003-3370	M003-3360	Clean Only	285	Clean Only
M003	M003-3490	M003-3360	Clean Only	100	Clean Only
M003	M003-3380	M003-3370	Clean Only	291	Clean Only
M003	M003-3390	M003-3380	Clean Only	196	Clean Only
M003	M003-3400	M003-3390	Clean Only	389	Clean Only
M003	M003-3410	M003-3400	Clean Only	71	Clean Only
M003	M003-3420	M003-3410	Clean Only	194	Clean Only
M003	M003-3430	M003-3420	Clean Only	121	Clean Only
M003	M003-3440	M003-3430	No Scoreable Defect	50	0000
M003	M003-3450	M003-3440	Clean Only	148	Clean Only
M003	M003-3460	M003-3450	Clean Only	70	Clean Only
M003	M003-3470	M003-3460	Clean Only	173	Clean Only
M003	M003-3480	M003-3470	Clean Only	342	Clean Only
M003	M003-5140	M003-3480	Clean Only	100	Clean Only
M003	M003-3500	M003-3490	Clean Only	158	Clean Only
M003	M003-3510	M003-3500	Clean Only	250	Clean Only
M003	M003-3540	M003-3530	Clean Only	52	Clean Only
M003	M003-3590	M003-3530	Clean Only	350	Clean Only
M003	M003-3550	M003-3540	Clean Only	400	Clean Only
M003	M003-3560	M003-3550	Clean Only	400	Clean Only
M003	M003-3570	M003-3560	Clean Only	398	Clean Only
M003	M003-3580	M003-3570	Clean Only	381	Clean Only
M003	M003-3600	M003-3590	Clean Only	220	Clean Only
M003	M003-3610	M003-3600	Clean Only	240	Clean Only
M003	M003-3630	M003-3620	Clean Only	85	Clean Only
M003	M003-3640	M003-3630	Clean Only	118	Clean Only
M003	M003-3650	M003-3640	Clean Only	237	Clean Only
M003	M003-3720	M003-3640	Clean Only	169	Clean Only
M003	M003-3660	M003-3650	Clean Only	244	Clean Only
M003	M003-3670	M003-3660	Clean Only	387	Clean Only
M003	M003-3710	M003-3660	Clean Only	117	Clean Only
M003	M003-3680	M003-3670	Clean Only	390	Clean Only
M003	M003-3690	M003-3680	Clean Only	363	Clean Only
M003	M003-3700	M003-3690	Clean Only	248	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-3730	M003-3720	Clean Only	96	Clean Only
M003	M003-3740	M003-3730	Clean Only	283	Clean Only
M003	M003-3750	M003-3740	Clean Only	89	Clean Only
M003	M003-3770	M003-3760	Clean Only	132	Clean Only
M003	M003-3780	M003-3770	Clean Only	96	Clean Only
M003	M003-3790	M003-3780	Clean Only	175	Clean Only
M003	M003-3800	M003-3790	Clean Only	165	Clean Only
M003	M003-3810	M003-3800	Clean Only	172	Clean Only
M003	M003-3820	M003-3810	Clean Only	122	Clean Only
M003	M003-3830A	M003-3830	Clean Only	373	Clean Only
M003	M003-3860	M003-3850	Clean Only	154	Clean Only
M003	M003-3870	M003-3860	Clean Only	101	Clean Only
M003	M003-3872	M003-3870	Clean Only	19	Clean Only
M003	M003-4500	M003-3870	Clean Only	64	Clean Only
M003	M003-3880	M003-3872	Clean Only	364	Clean Only
M003	M003-3890	M003-3880	Clean Only	267	Clean Only
M003	M003-3900	M003-3890	Clean Only	398	Clean Only
M003	M003-4030	M003-3890	Clean Only	32	Clean Only
M003	M003-3910	M003-3900	Clean Only	78	Clean Only
M003	M003-3920	M003-3910	Clean Only	9	Clean Only
M003	M003-3930	M003-3920	Clean Only	115	Clean Only
M003	M003-3940	M003-3930	Clean Only	50	Clean Only
M003	M003-3950	M003-3940	Clean Only	400	Clean Only
M003	M003-3960	M003-3950	Clean Only	198	Clean Only
M003	M003-3970	M003-3960	Clean Only	337	Clean Only
M003	M003-3980	M003-3970	Clean Only	147	Clean Only
M003	M003-4020	M003-3970	Clean Only	111	Clean Only
M003	M003-3990	M003-3980	Clean Only	314	Clean Only
M003	M003-4000	M003-3990	Clean Only	391	Clean Only
M003	M003-4010	M003-4000	Clean Only	290	Clean Only
M003	M003-4830	M003-4020	Clean Only	106	Clean Only
M003	M003-4040	M003-4030	Clean Only	213	Clean Only
M003	M003-4050	M003-4040	Clean Only	390	Clean Only
M003	M003-4060	M003-4050	Clean Only	300	Clean Only
M003	M003-4140	M003-4050	Clean Only	135	Clean Only
M003	M003-4070	M003-4060	Clean Only	145	Clean Only
M003	M003-4080	M003-4070	Clean Only	333	Clean Only
M003	M003-4170	M003-4070	Clean Only	244	Clean Only
M003	M003-4090	M003-4080	Clean Only	301	Clean Only
M003	M003-4210	M003-4080	Clean Only	358	Clean Only
M003	M003-4100	M003-4090	Clean Only	340	Clean Only
M003	M003-4240	M003-4090	Clean Only	310	Clean Only
M003	M003-4110	M003-4100	Clean Only	353	Clean Only
M003	M003-4270	M003-4100	Clean Only	129	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-4120	M003-4110	Clean Only	143	Clean Only
M003	M003-4130	M003-4120	Clean Only	202	Clean Only
M003	M003-4150	M003-4140	Clean Only	157	Clean Only
M003	M003-4160	M003-4150	Clean Only	204	Clean Only
M003	M003-4180	M003-4170	Clean Only	245	Clean Only
M003	M003-4190	M003-4180	Clean Only	192	Clean Only
M003	M003-4200	M003-4190	Clean Only	232	Clean Only
M003	M003-4220	M003-4210	Clean Only	257	Clean Only
M003	M003-4230	M003-4220	Clean Only	140	Clean Only
M003	M003-4250	M003-4240	Clean Only	239	Clean Only
M003	M003-4260	M003-4250	Clean Only	230	Clean Only
M003	M003-4280	M003-4270	Clean Only	226	Clean Only
M003	M003-4300	M003-4290	Clean Only	296	Clean Only
M003	M003-4310	M003-4300	Clean Only	355	Clean Only
M003	M003-4320	M003-4310	Clean Only	155	Clean Only
M003	M003-4970	M003-4310	Clean Only	94	Clean Only
M003	M003-4330	M003-4320	Clean Only	375	Clean Only
M003	M003-4340	M003-4330	Clean Only	259	Clean Only
M003	M003-4350	M003-4340	Clean Only	154	Clean Only
M003	M003-4360	M003-4350	Clean Only	307	Clean Only
M003	M003-4400	M003-4350	Clean Only	156	Clean Only
M003	M003-4370	M003-4360	Clean Only	250	Clean Only
M003	M003-4440	M003-4360	Clean Only	165	Clean Only
M003	M003-4380	M003-4370	Clean Only	195	Clean Only
M003	M003-4390	M003-4380	Clean Only	190	Clean Only
M003	M003-4410	M003-4400	Clean Only	295	Clean Only
M003	M003-4420	M003-4410	Clean Only	135	Clean Only
M003	M003-4430	M003-4420	Clean Only	149	Clean Only
M003	M003-4450	M003-4440	Clean Only	169	Clean Only
M003	M003-4460	M003-4450	Clean Only	110	Clean Only
M003	M003-4470	M003-4460	Clean Only	117	Clean Only
M003	M003-4480	M003-4470	Clean Only	350	Clean Only
M003	M003-4490	M003-4470	Clean Only	225	Clean Only
M003	M003-4510	M003-4500	Clean Only	283	Clean Only
M003	M003-4520	M003-4510	Clean Only	81	Clean Only
M003	M003-4530	M003-4520	Clean Only	121	Clean Only
M003	M003-4640	M003-4530	Clean Only	137	Clean Only
M003	M003-4540	M003-4530A	Clean Only	288	Clean Only
M003	M003-4550	M003-4540	Clean Only	380	Clean Only
M003	M003-4555	M003-4550	Clean Only	82	Clean Only
M003	EOL	M003-4555	Clean Only	155	Clean Only
M003	M003-4560	M003-4555	Clean Only	268	Clean Only
M003	M003-4570	M003-4560	Clean Only	102	Clean Only
M003	M003-4580	M003-4570	Clean Only	238	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-4620	M003-4570	Clean Only	135	Clean Only
M003	M003-4590	M003-4580	Clean Only	265	Clean Only
M003	M003-4610	M003-4580	Clean Only	103	Clean Only
M003	M003-4600	M003-4590	Clean Only	79	Clean Only
M003	M003-4630	M003-4620	Clean Only	217	Clean Only
M003	M003-4820	M003-4810	Clean Only	190	Clean Only
M003	PRVT_6	M003-4820	Clean Only	66	Clean Only
M003	M003-4840	M003-4830	Clean Only	238	Clean Only
M003	M003-4850	M003-4840	Clean Only	261	Clean Only
M003	M003-4860	M003-4850	Clean Only	149	Clean Only
M003	M003-4910	M003-4850	Clean Only	365	Clean Only
M003	M003-4870	M003-4860	Clean Only	187	Clean Only
M003	M003-4880	M003-4870	Clean Only	370	Clean Only
M003	M003-4890	M003-4880	Clean Only	142	Clean Only
M003	M003-4900	M003-4890	Clean Only	333	Clean Only
M003	M003-4920	M003-4910	Clean Only	270	Clean Only
M003	M003-4930	M003-4920	Clean Only	169	Clean Only
M003	M003-4940	M003-4930	Clean Only	57	Clean Only
M003	M003-4950	M003-4940	Clean Only	168	Clean Only
M003	M003-4960	M003-4950	Clean Only	255	Clean Only
M003	M003-4980	M003-4970	Clean Only	119	Clean Only
M003	M003-4990	M003-4980	Clean Only	128	Clean Only
M003	M003-5000	M003-4990	Clean Only	209	Clean Only
M003	M003-5010	M003-5000	Clean Only	276	Clean Only
M003	M003-5012	M003-5010	Clean Only	323	Clean Only
M003	M003-5020	M003-5010	Clean Only	154	Clean Only
M003	M003-5014	M003-5012	Clean Only	139	Clean Only
M003	M003-5016	M003-5014	Clean Only	282	Clean Only
M003	M003-5030	M003-5020	Clean Only	130	Clean Only
M003	M003-5040	M003-5030	Clean Only	156	Clean Only
M003	M003-5070	M003-5030	Clean Only	345	Clean Only
M003	M003-5050	M003-5040	Clean Only	308	Clean Only
M003	M003-5060	M003-5050	Clean Only	309	Clean Only
M003	M003-5230	M003-5060	Clean Only	300	Clean Only
M003	M003-5080	M003-5070	Clean Only	211	Clean Only
M003	M003-5090	M003-5080	Clean Only	69	Clean Only
M003	M003-5100	M003-5080	Clean Only	74	Clean Only
M003	M003-5110	M003-5100	Clean Only	272	Clean Only
M003	M003-5120	M003-5110	Clean Only	144	Clean Only
M003	M003-5130	M003-5120	Clean Only	218	Clean Only
M003	M003-5135	M003-5130	Clean Only	103	Clean Only
M003	M003-5136	M003-5135	Clean Only	74	Clean Only
M003	M003-5150	M003-5140	Clean Only	181	Clean Only
M003	M003-5180	M003-5140	Clean Only	180	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M003	M003-5160	M003-5150	Clean Only	306	Clean Only
M003	M003-5170	M003-5160	Clean Only	224	Clean Only
M003	M003-5170A	M003-5170	Clean Only	204	Clean Only
M003	M003-5170B	M003-5170A	Clean Only	250	Clean Only
M003	M003-5170C	M003-5170B	Clean Only	235	Clean Only
M003	M003-5170D	M003-5170C	Clean Only	116	Clean Only
M003	M003-5170E	M003-5170C	Clean Only	246	Clean Only
M003	M003-5190	M003-5180	Clean Only	147	Clean Only
M003	M003-5200	M003-5190	Clean Only	123	Clean Only
M003	M003-5210	M003-5200	Clean Only	219	Clean Only
M003	M003-5220	M003-5210	Clean Only	157	Clean Only
M003	M003-5220A	M003-5220	Clean Only	125	Clean Only
M003	M003-5220B	M003-5220A	Clean Only	147	Clean Only
M003	M003-5220I	M003-5220A	Clean Only	167	Clean Only
M003	M003-5220C	M003-5220B	Clean Only	124	Clean Only
M003	M003-5220D	M003-5220C	Clean Only	130	Clean Only
M003	M003-5220E	M003-5220D	Clean Only	311	Clean Only
M003	M003-5220F	M003-5220E	Clean Only	80	Clean Only
M003	M003-5220G	M003-5220F	Clean Only	160	Clean Only
M003	M003-5220H	M003-5220G	Clean Only	162	Clean Only
M003	M003-5220J	M003-5220I	Clean Only	81	Clean Only
M003	M003-5220K	M003-5220J	Clean Only	83	Clean Only
M003	M003-5220L	M003-5220K	Clean Only	114	Clean Only
M003	M003-5220M	M003-5220L	Clean Only	310	Clean Only
M003	M003-5240	M003-5230	Clean Only	174	Clean Only
M003	M003-5250	M003-5240	Clean Only	335	Clean Only
M003	M003-5260	M003-5250	Clean Only	335	Clean Only
M003	M003-5270	M003-5260	Clean Only	367	Clean Only
M003	M003-5280	M003-5270	Clean Only	207	Clean Only
M003	M003-5310	M003-5270	Clean Only	303	Clean Only
M003	M003-5290	M003-5280	Clean Only	202	Clean Only
M003	M003-5300	M003-5290	Clean Only	343	Clean Only
M003	M003-5320	M003-5310	Clean Only	360	Clean Only
M003	M003-5330	M003-5320	Clean Only	360	Clean Only
M003	M003-5340	M003-5330	Clean Only	240	Clean Only
M005	M005-0020	M005-0010	No Structural Defect	400	0000
M005	M005-0195	M005-0010	Clean Only	123	Clean Only
M005	M005-0030	M005-0020	No Structural Defect	404	0000
M005	M005-1730	M005-0020	Clean Only	327	Clean Only
M005	M005-0040	M005-0030	No Structural Defect	396	0000
M005	M005-0050	M005-0040	No Structural Defect	275	0000
M005	M005-0060	M005-0050	2	150	2500
M005	M005-0170	M005-0050	No Scoreable Defect	123	0000
M005	M005-0070	M005-0060	No Structural Defect	321	0000

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M005	M005-0120	M005-0060	No Structural Defect	367	0000
M005	M005-0080	M005-0070	No Structural Defect	345	0000
M005	M005-0090	M005-0080	1	354	1100
M005	M005-0100	M005-0090	2	61	2100
M005	M005-0110	M005-0090	No Structural Defect	400	0000
M005	M005-0130	M005-0120	No Scoreable Defect	85	0000
M005	M005-0140	M005-0120	1	315	1100
M005	M005-1550	M005-0130	Clean Only	75	Clean Only
M005	M005-0150	M005-0140	No Structural Defect	353	0000
M005	M005-0160	M005-0150	No Structural Defect	231	0000
M005	M005-0180A	M005-0170	No Scoreable Defect	305	0000
M005	M005-0190	M005-0180	No Structural Defect	518	0000
M005	M005-0180	M005-0180A	No Scoreable Defect	245	0000
M005	M005-0200	M005-0195	Clean Only	174	Clean Only
M005	M005-1750	M005-0195	Clean Only	60	Clean Only
M005	M005-0210	M005-0200	Clean Only	450	Clean Only
M005	M005-0217	M005-0210	Clean Only	329	Clean Only
M005	M005-0220	M005-0217	Clean Only	117	Clean Only
M005	M005-1700	M005-0217	Clean Only	348	Clean Only
M005	M005-0230	M005-0220	Clean Only	165	Clean Only
M005	M005-0240	M005-0230	3	350	3100
M005	M005-0432	M005-0230	Clean Only	13	Clean Only
M005	M005-0245	M005-0240	2	135	2100
M005	M005-0250	M005-0245	2	170	2200
M005	M005-1680	M005-0245	Clean Only	188	Clean Only
M005	M005-0260	M005-0250	2	400	2100
M005	M005-0270	M005-0260	2	360	2100
M005	M005-0280	M005-0270	Clean Only	170	Clean Only
M005	M005-0290	M005-0270	Clean Only	75	Clean Only
M005	M005-1230	M005-0280	Clean Only	133	Clean Only
M005	M005-0300	M005-0290	Clean Only	178	Clean Only
M005	M005-0310	M005-0300	Clean Only	190	Clean Only
M005	M005-0320	M005-0310	Clean Only	115	Clean Only
M005	M005-0330	M005-0320	Clean Only	149	Clean Only
M005	M005-0333	M005-0330	Clean Only	12	Clean Only
M005	M005-0337	M005-0333	Clean Only	284	Clean Only
M005	M005-0340	M005-0333	Clean Only	34	Clean Only
M005	M005-0339	M005-0337	Clean Only	120	Clean Only
M005	M005-0350	M005-0340	Clean Only	392	Clean Only
M005	M005-0379	M005-0340	Clean Only	243	Clean Only
M005	M005-0360	M005-0350	Clean Only	131	Clean Only
M005	M005-0370	M005-0360	Clean Only	94	Clean Only
M005	M005-0375	M005-0370	Clean Only	138	Clean Only
M005	M005-0379A	M005-0379	Clean Only	244	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M005	M005-0380	M005-0379	Clean Only	18	Clean Only
M005	M005-0393	M005-0390	Clean Only	312	Clean Only
M005	M005-0400	M005-0390	Clean Only	169	Clean Only
M005	M005-0395	M005-0393A	Clean Only	73	Clean Only
M005	M005-0396	M005-0395	Clean Only	301	Clean Only
M005	M005-0398	M005-0395	Clean Only	290	Clean Only
M005	M005-0410	M005-0400	Clean Only	66	Clean Only
M005	M005-0420	M005-0410A	Clean Only	181	Clean Only
M005	M005-0430	M005-0420	Clean Only	141	Clean Only
M005	M005-0440	M005-0432	Clean Only	275	Clean Only
M005	M005-0445	M005-0440	Clean Only	334	Clean Only
M005	M005-0450	M005-0445	Clean Only	110	Clean Only
M005	M005-1500	M005-0445	Clean Only	337	Clean Only
M005	M005-0480	M005-0450	Clean Only	350	Clean Only
M005	M005-0460A	M005-0460	Clean Only	297	Clean Only
M005	M005-0460	M005-0480	No Structural Defect	88	0000
M005	M005-0490	M005-0480	Clean Only	471	Clean Only
M005	M005-0500	M005-0490	Clean Only	137	Clean Only
M005	M005-0501	M005-0500	No Structural Defect	61	0000
M005	M005-0503	M005-0500	Clean Only	20	Clean Only
M005	M005-0505	M005-0500C	Clean Only	60	Clean Only
M005	M005-0600	M005-0501	3	206	3100
M005	PRVT_2	M005-0501	Clean Only	49	Clean Only
M005	M005-0506	M005-0505	Clean Only	103	Clean Only
M005	M005-0510	M005-0506	Clean Only	359	Clean Only
M005	M005-0520	M005-0510	Clean Only	148	Clean Only
M005	M005-0530	M005-0520	Clean Only	400	Clean Only
M005	M005-0540	M005-0530	Clean Only	415	Clean Only
M005	M005-0550	M005-0540	Clean Only	215	Clean Only
M005	M005-0749	M005-0540	Clean Only	430	Clean Only
M005	M005-0557	M005-0550	No Scoreable Defect	185	0000
M005	M005-0560	M005-0550	Clean Only	326	Clean Only
M005	M005-0563	M005-0557	Clean Only	18	Clean Only
M005	M005-0567	M005-0563	Clean Only	92	Clean Only
M005	M005-0570	M005-0567	Clean Only	44	Clean Only
M005	M005-0580	M005-0570	1	66	1300
M005	M005-0590	M005-0580	2	87	2100
M005	M005-0595	M005-0590	5	257	5131
M005	M005-0610	M005-0600	3	373	3100
M005	M005-0620	M005-0610	4	460	4121
M005	M005-0631A	M005-0620	4	135	4100
M005	M005-0640	M005-0631	No Structural Defect	126	0000
M005	M005-0711	M005-0631	No Scoreable Defect	287	0000
M005	M005-0630	M005-0631A	Clean Only	179	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M005	M005-0650	M005-0640	1	450	1300
M005	M005-0660	M005-0650	No Scoreable Defect	350	0000
M005	M005-0670	M005-0660	No Structural Defect	150	0000
M005	M005-0680	M005-0670	2	214	2200
M005	M005-0721	M005-0711	2	129	2100
M005	M005-0731	M005-0721	No Scoreable Defect	119	0000
M005	M005-0741	M005-0731	No Scoreable Defect	110	0000
M005	M005-0831	M005-0741	No Scoreable Defect	120	0000
M005	M005-0991	M005-0741	No Structural Defect	257	0000
M005	M005-0750	M005-0749	Clean Only	9	Clean Only
M005	M005-0760	M005-0750	3	180	3100
M005	M005-0790	M005-0750	1	139	1200
M005	M005-0770	M005-0760	No Structural Defect	85	0000
M005	M005-0780	M005-0760	4	336	4100
M005	M005-0800	M005-0790	5	241	5121
M005	M005-0810	M005-0800	5	90	5341
M005	M005-0840	M005-0831	Clean Only	178	Clean Only
M005	M005-0850	M005-0840	2	180	2100
M005	M005-0860	M005-0840	Clean Only	194	Clean Only
M005	M005-0870	M005-0860	Clean Only	187	Clean Only
M005	M005-0910	M005-0860	5	116	5131
M005	M005-0880	M005-0870	Clean Only	119	Clean Only
M005	M005-0890	M005-0880	5	185	5421
M005	M005-0900A	M005-0890	1	135	1100
M005	M005-0900	M005-0900A	No Scoreable Defect	78	0000
M005	M005-0920	M005-0910	4	102	4127
M005	M005-0960	M005-0910	5	191	5117
M005	M005-0930	M005-0920	4	350	4113
M005	M005-0940	M005-0930	1	146	1100
M005	M005-0950	M005-0940	No Structural Defect	111	0000
M005	M005-0970	M005-0960	5	210	5241
M005	M005-0980	M005-0970	2	82	2500
M005	M005-0998	M005-0991	No Scoreable Defect	289	0000
M005	M005-1000	M005-0998	Clean Only	41	Clean Only
M005	M005-1010	M005-1000	1	134	1400
M005	M005-1020	M005-1010	5	260	5241
M005	M005-1030	M005-1010	4	170	4121
M005	M005-1140	M005-1010	No Structural Defect	40	0000
M005	M005-1040	M005-1030	5	150	5331
M005	M005-1050	M005-1040	No Structural Defect	100	0000
M005	M005-1070	M005-1040	5	225	5131
M005	M005-1060	M005-1050	5	125	5111
M005	M005-1080	M005-1070	1	125	1500
M005	M005-1090	M005-1080	5	100	5131

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M005	M005-1100	M005-1090	4	194	4131
M005	M005-1110	M005-1100	Clean Only	50	Clean Only
M005	M005-1120	M005-1110	Clean Only	155	Clean Only
M005	M005-1130	M005-1120	No Structural Defect	180	0000
M005	M005-1135	M005-1130	Clean Only	98	Clean Only
M005	M005-1150	M005-1140	2	145	2200
M005	M005-1155	M005-1150	5	88	5300
M005	M005-1160	M005-1150	5	230	5242
M005	M005-1180	M005-1150	1	185	1100
M005	M005-1170	M005-1160	2	240	2100
M005	M005-1190	M005-1180	1	88	1400
M005	M005-1200	M005-1180	1	50	1100
M005	M005-1220	M005-1180	5	175	5121
M005	M005-1210	M005-1200	5	123	5742
M005	M005-1240	M005-1230	Clean Only	189	Clean Only
M005	M005-1250	M005-1240	Clean Only	153	Clean Only
M005	M005-1260	M005-1240	Clean Only	34	Clean Only
M005	M005-1270	M005-1260	Clean Only	110	Clean Only
M005	M005-1290	M005-1260	Clean Only	328	Clean Only
M005	M005-1280	M005-1270	Clean Only	187	Clean Only
M005	M005-1300	M005-1290	Clean Only	326	Clean Only
M005	M005-1510	M005-1500	Clean Only	237	Clean Only
M005	M005-1520	M005-1510	Clean Only	50	Clean Only
M005	M005-1530	M005-1520	Clean Only	330	Clean Only
M005	M005-1540	M005-1530	Clean Only	110	Clean Only
M005	M005-1560	M005-1550	Clean Only	50	Clean Only
M005	M005-1570	M005-1560	Clean Only	89	Clean Only
M005	M005-1580	M005-1570	Clean Only	91	Clean Only
M005	M005-1610	M005-1570	Clean Only	117	Clean Only
M005	M005-1590	M005-1580	Clean Only	307	Clean Only
M005	M005-1600	M005-1590	Clean Only	208	Clean Only
M005	M005-1710	M005-1600	Clean Only	237	Clean Only
M005	M005-1620	M005-1610	No Scoreable Defect	70	0000
M005	M005-1630	M005-1620	Clean Only	208	Clean Only
M005	M005-1670	M005-1620	Clean Only	207	Clean Only
M005	M005-1640	M005-1630	Clean Only	38	Clean Only
M005	M005-1650	M005-1640	Clean Only	79	Clean Only
M005	M005-1660	M005-1650	Clean Only	203	Clean Only
M005	M005-1720	M005-1660	Clean Only	82	Clean Only
M005	M005-1690	M005-1680	Clean Only	188	Clean Only
M005	M005-1770	M005-1700A	Clean Only	102	Clean Only
M005	M005-1725	M005-1720	Clean Only	202	Clean Only
M005	M005-1740	M005-1730	Clean Only	202	Clean Only
M005	M005-1760	M005-1750	Clean Only	203	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
M005	EOL	M005-1760	Clean Only	10	Clean Only
PRVT_1	PRVT_1	PRVT_2	Clean Only	198	Clean Only
PRVT_7	PRVT_7	PRVT_6	Clean Only	21	Clean Only
PRVT_8	PRVT_8	PRVT_7	Clean Only	438	Clean Only
RF01	RF01-2610	FC03-0450	Clean Only	681	Clean Only
RF01	RF01-2730	LS	Clean Only	76	Clean Only
RF01	RF01-0020	RF01-0010	Clean Only	206	Clean Only
RF01	RF01-0070	RF01-0060	Clean Only	241	Clean Only
RF01	RF01-0080	RF01-0070	Clean Only	350	Clean Only
RF01	RF01-0100	RF01-0070	Clean Only	42	Clean Only
RF01	RF01-0090	RF01-0080	Clean Only	399	Clean Only
RF01	RF01-0102	RF01-0100	Clean Only	110	Clean Only
RF01	RF01-0110	RF01-0100	Clean Only	309	Clean Only
RF01	RF01-0170	RF01-0102	Clean Only	240	Clean Only
RF01	RF01-0120	RF01-0110	Clean Only	122	Clean Only
RF01	RF01-0130	RF01-0120	Clean Only	217	Clean Only
RF01	RF01-0140	RF01-0130	Clean Only	350	Clean Only
RF01	RF01-0150	RF01-0140	Clean Only	246	Clean Only
RF01	RF01-0160	RF01-0140	Clean Only	238	Clean Only
RF01	RF01-0180	RF01-0170	Clean Only	169	Clean Only
RF01	RF01-0190	RF01-0180	Clean Only	268	Clean Only
RF01	RF01-0200	RF01-0190	Clean Only	269	Clean Only
RF01	RF01-0220	RF01-0210	Clean Only	388	Clean Only
RF01	RF01-0240	RF01-0210	Clean Only	264	Clean Only
RF01	RF01-0230	RF01-0220	Clean Only	300	Clean Only
RF01	RF01-0250	RF01-0240	Clean Only	184	Clean Only
RF01	RF01-0260	RF01-0250	Clean Only	310	Clean Only
RF01	RF01-0350	RF01-0340	Clean Only	52	Clean Only
RF01	RF01-0380	RF01-0340	Clean Only	381	Clean Only
RF01	RF01-0360	RF01-0350	Clean Only	300	Clean Only
RF01	RF01-0370	RF01-0360	Clean Only	211	Clean Only
RF01	RF01-0390	RF01-0380	Clean Only	298	Clean Only
RF01	RF01-0400	RF01-0390	Clean Only	160	Clean Only
RF01	RF01-0420	RF01-0390	Clean Only	339	Clean Only
RF01	RF01-0410	RF01-0400	Clean Only	300	Clean Only
RF01	RF01-0412	RF01-0410	Clean Only	370	Clean Only
RF01	RF01-0414	RF01-0412	Clean Only	342	Clean Only
RF01	RF01-0430	RF01-0420	Clean Only	229	Clean Only
RF01	RF01-0440	RF01-0430	Clean Only	76	Clean Only
RF01	RF01-0450	RF01-0440	Clean Only	178	Clean Only
RF01	RF01-0500	RF01-0440	Clean Only	347	Clean Only
RF01	RF01-0460	RF01-0450	Clean Only	379	Clean Only
RF01	RF01-0470	RF01-0460	Clean Only	197	Clean Only
RF01	RF01-0480	RF01-0470	Clean Only	205	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
RF01	RF01-0490	RF01-0480	Clean Only	253	Clean Only
RF01	RF01-0510	RF01-0500	Clean Only	197	Clean Only
RF01	RF01-0520	RF01-0510	Clean Only	215	Clean Only
RF01	RF01-0530	RF01-0520	Clean Only	210	Clean Only
RF01	RF01-0540	RF01-0530	Clean Only	211	Clean Only
RF01	RF01-0560	RF01-0530	Clean Only	206	Clean Only
RF01	RF01-0550	RF01-0540	Clean Only	149	Clean Only
RF01	RF01-0570	RF01-0560	Clean Only	83	Clean Only
RF01	RF01-0580	RF01-0570	Clean Only	201	Clean Only
RF01	RF01-0590	RF01-0580	Clean Only	238	Clean Only
RF01	RF01-0600	RF01-0590	Clean Only	258	Clean Only
RF01	RF01-0620	RF01-0590	Clean Only	190	Clean Only
RF01	RF01-0610	RF01-0600	Clean Only	395	Clean Only
RF01	RF01-0630	RF01-0620	Clean Only	230	Clean Only
RF01	RF01-0640	RF01-0630	Clean Only	304	Clean Only
RF01	RF01-0650	RF01-0640	Clean Only	300	Clean Only
RF01	RF01-1700	RF01-0700	Clean Only	78	Clean Only
RF01	RF01-1720	RF01-0700	Clean Only	265	Clean Only
RF01	RF01-0720	RF01-0710	Clean Only	174	Clean Only
RF01	RF01-0730	RF01-0720	Clean Only	264	Clean Only
RF01	RF01-0800	RF01-0720	Clean Only	113	Clean Only
RF01	RF01-0740	RF01-0730	Clean Only	232	Clean Only
RF01	RF01-0750	RF01-0740	Clean Only	175	Clean Only
RF01	RF01-0760	RF01-0750	Clean Only	145	Clean Only
RF01	RF01-0770	RF01-0760	Clean Only	335	Clean Only
RF01	RF01-0780	RF01-0770	Clean Only	336	Clean Only
RF01	RF01-0790	RF01-0780	Clean Only	358	Clean Only
RF01	RF01-0810	RF01-0800	Clean Only	113	Clean Only
RF01	RF01-0820	RF01-0810	Clean Only	157	Clean Only
RF01	RF01-0830	RF01-0820	Clean Only	186	Clean Only
RF01	RF01-0870	RF01-0820	Clean Only	355	Clean Only
RF01	RF01-0840	RF01-0830	Clean Only	114	Clean Only
RF01	RF01-0850	RF01-0840	Clean Only	254	Clean Only
RF01	RF01-0860	RF01-0850	Clean Only	338	Clean Only
RF01	RF01-0865	RF01-0860	Clean Only	182	Clean Only
RF01	RF01-0880	RF01-0870	Clean Only	211	Clean Only
RF01	RF01-0890	RF01-0880	Clean Only	169	Clean Only
RF01	RF01-0900	RF01-0890	Clean Only	375	Clean Only
RF01	RF01-0920	RF01-0910	Clean Only	42	Clean Only
RF01	RF01-0930	RF01-0920	Clean Only	212	Clean Only
RF01	RF01-0940	RF01-0930	Clean Only	221	Clean Only
RF01	RF01-0950	RF01-0940	Clean Only	125	Clean Only
RF01	RF01-0960	RF01-0950	Clean Only	225	Clean Only
RF01	RF01-1010	RF01-0950	Clean Only	208	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
RF01	RF01-0970	RF01-0960	Clean Only	235	Clean Only
RF01	RF01-0980	RF01-0970	Clean Only	255	Clean Only
RF01	RF01-0990	RF01-0980	Clean Only	314	Clean Only
RF01	RF01-1000	RF01-0990	Clean Only	336	Clean Only
RF01	RF01-1020	RF01-1010	Clean Only	307	Clean Only
RF01	RF01-1030	RF01-1020	Clean Only	77	Clean Only
RF01	RF01-1100	RF01-1020	Clean Only	276	Clean Only
RF01	RF01-1040	RF01-1030	Clean Only	310	Clean Only
RF01	RF01-1050	RF01-1040	Clean Only	187	Clean Only
RF01	RF01-1060	RF01-1050	Clean Only	317	Clean Only
RF01	RF01-1062	RF01-1060	Clean Only	398	Clean Only
RF01	RF01-1070	RF01-1060	Clean Only	361	Clean Only
RF01	RF01-1080	RF01-1070	Clean Only	320	Clean Only
RF01	RF01-1090	RF01-1080	Clean Only	121	Clean Only
RF01	RF01-1110	RF01-1100	Clean Only	283	Clean Only
RF01	RF01-1120	RF01-1110	Clean Only	305	Clean Only
RF01	RF01-1140	RF01-1110	Clean Only	315	Clean Only
RF01	RF01-1130	RF01-1120	Clean Only	272	Clean Only
RF01	RF01-1150	RF01-1140	Clean Only	235	Clean Only
RF01	RF01-1160	RF01-1150	Clean Only	155	Clean Only
RF01	RF01-1170	RF01-1150	Clean Only	255	Clean Only
RF01	RF01-1180	RF01-1170	Clean Only	255	Clean Only
RF01	RF01-1190	RF01-1180	Clean Only	321	Clean Only
RF01	RF01-1210	RF01-1200	Clean Only	268	Clean Only
RF01	RF01-1220	RF01-1210	Clean Only	205	Clean Only
RF01	RF01-1230	RF01-1220	Clean Only	337	Clean Only
RF01	RF01-1260	RF01-1220	Clean Only	227	Clean Only
RF01	RF01-1240	RF01-1230	Clean Only	152	Clean Only
RF01	RF01-1250	RF01-1240	Clean Only	291	Clean Only
RF01	RF01-1270	RF01-1260	Clean Only	248	Clean Only
RF01	RF01-1280	RF01-1270	Clean Only	365	Clean Only
RF01	RF01-1290	RF01-1280	Clean Only	384	Clean Only
RF01	RF01-1300	RF01-1290	Clean Only	194	Clean Only
RF01	RF01-1320	RF01-1290	Clean Only	346	Clean Only
RF01	RF01-1310	RF01-1300	Clean Only	257	Clean Only
RF01	RF01-1330	RF01-1320	Clean Only	254	Clean Only
RF01	RF01-2190	RF01-1320	Clean Only	319	Clean Only
RF01	RF01-1340	RF01-1330	Clean Only	221	Clean Only
RF01	RF01-1350	RF01-1340	Clean Only	152	Clean Only
RF01	RF01-1440	RF01-1340	Clean Only	391	Clean Only
RF01	RF01-1360	RF01-1350	Clean Only	343	Clean Only
RF01	RF01-1370	RF01-1360	Clean Only	298	Clean Only
RF01	RF01-1380	RF01-1370	Clean Only	217	Clean Only
RF01	RF01-1390	RF01-1380	Clean Only	210	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
RF01	RF01-1400	RF01-1390	Clean Only	360	Clean Only
RF01	RF01-1410	RF01-1400	Clean Only	205	Clean Only
RF01	RF01-1420	RF01-1410	Clean Only	200	Clean Only
RF01	RF01-1430	RF01-1420	Clean Only	339	Clean Only
RF01	RF01-1450	RF01-1440	Clean Only	198	Clean Only
RF01	RF01-1460	RF01-1450	Clean Only	287	Clean Only
RF01	RF01-1510	RF01-1450	Clean Only	194	Clean Only
RF01	RF01-1470	RF01-1460	Clean Only	337	Clean Only
RF01	RF01-1480	RF01-1470	Clean Only	235	Clean Only
RF01	RF01-1490	RF01-1480	Clean Only	313	Clean Only
RF01	RF01-1500	RF01-1490	Clean Only	400	Clean Only
RF01	RF01-1520	RF01-1510	Clean Only	296	Clean Only
RF01	RF01-1530	RF01-1520	Clean Only	186	Clean Only
RF01	RF01-1570	RF01-1520	Clean Only	274	Clean Only
RF01	RF01-1540	RF01-1530	Clean Only	243	Clean Only
RF01	RF01-1550	RF01-1540	Clean Only	309	Clean Only
RF01	RF01-1560	RF01-1550	Clean Only	233	Clean Only
RF01	RF01-1572	RF01-1570	Clean Only	122	Clean Only
RF01	RF01-1580	RF01-1572	Clean Only	306	Clean Only
RF01	RF01-1590	RF01-1580	Clean Only	292	Clean Only
RF01	RF01-1640	RF01-1580	Clean Only	216	Clean Only
RF01	RF01-1600	RF01-1590	Clean Only	264	Clean Only
RF01	RF01-1610	RF01-1600	Clean Only	200	Clean Only
RF01	RF01-1620	RF01-1610	Clean Only	236	Clean Only
RF01	RF01-1630	RF01-1620	Clean Only	241	Clean Only
RF01	RF01-1650	RF01-1640	Clean Only	354	Clean Only
RF01	RF01-1660	RF01-1650	Clean Only	216	Clean Only
RF01	RF01-1670	RF01-1660	Clean Only	355	Clean Only
RF01	RF01-1680	RF01-1670	Clean Only	130	Clean Only
RF01	RF01-1690	RF01-1680	Clean Only	255	Clean Only
RF01	RF01-1710	RF01-1700	Clean Only	400	Clean Only
RF01	RF01-1730	RF01-1720	Clean Only	111	Clean Only
RF01	RF01-1740	RF01-1730	Clean Only	351	Clean Only
RF01	RF01-1780	RF01-1740	Clean Only	72	Clean Only
RF01	RF01-1790	RF01-1780	Clean Only	319	Clean Only
RF01	RF01-1810	RF01-1780	Clean Only	218	Clean Only
RF01	RF01-1800	RF01-1790	Clean Only	252	Clean Only
RF01	RF01-1820	RF01-1810	Clean Only	216	Clean Only
RF01	RF01-1830	RF01-1820	Clean Only	173	Clean Only
RF01	RF01-1840	RF01-1830	Clean Only	105	Clean Only
RF01	RF01-1850	RF01-1840	No Scoreable Defect	227	0000
RF01	RF01-1860	RF01-1850	Clean Only	90	Clean Only
RF01	RF01-1870	RF01-1860	Clean Only	276	Clean Only
RF01	RF01-1880	RF01-1870	Clean Only	91	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
RF01	RF01-1890	RF01-1880	Clean Only	304	Clean Only
RF01	RF01-1900	RF01-1890	Clean Only	220	Clean Only
RF01	RF01-1910	RF01-1900	Clean Only	169	Clean Only
RF01	RF01-1920	RF01-1910	Clean Only	200	Clean Only
RF01	RF01-3560	RF01-1910	Clean Only	15	Clean Only
RF01	RF01-1930	RF01-1920	Clean Only	125	Clean Only
RF01	RF01-1940	RF01-1930	Clean Only	165	Clean Only
RF01	RF01-1950	RF01-1940	Clean Only	341	Clean Only
RF01	RF01-2090	RF01-1940	Clean Only	360	Clean Only
RF01	RF01-1960	RF01-1950	Clean Only	363	Clean Only
RF01	RF01-1970	RF01-1960	Clean Only	144	Clean Only
RF01	RF01-1980	RF01-1970	Clean Only	207	Clean Only
RF01	RF01-2110	RF01-1970	Clean Only	173	Clean Only
RF01	RF01-1990	RF01-1980	Clean Only	193	Clean Only
RF01	RF01-2140	RF01-1980	Clean Only	219	Clean Only
RF01	RF01-2000	RF01-1990	Clean Only	334	Clean Only
RF01	RF01-2010	RF01-2000	Clean Only	280	Clean Only
RF01	RF01-2020	RF01-2010	Clean Only	313	Clean Only
RF01	RF01-2030	RF01-2020	Clean Only	352	Clean Only
RF01	RF01-2040	RF01-2030	Clean Only	290	Clean Only
RF01	RF01-2050	RF01-2040	Clean Only	216	Clean Only
RF01	RF01-2060	RF01-2050	Clean Only	365	Clean Only
RF01	RF01-2070	RF01-2060	Clean Only	84	Clean Only
RF01	RF01-2080	RF01-2070	Clean Only	137	Clean Only
RF01	RF01-2100	RF01-2090	Clean Only	329	Clean Only
RF01	RF01-2120	RF01-2110	Clean Only	393	Clean Only
RF01	RF01-2130	RF01-2120	Clean Only	179	Clean Only
RF01	RF01-2150	RF01-2140	Clean Only	293	Clean Only
RF01	RF01-2160	RF01-2150	Clean Only	364	Clean Only
RF01	RF01-2170	RF01-2160	Clean Only	355	Clean Only
RF01	RF01-2180	RF01-2170	Clean Only	265	Clean Only
RF01	RF01-2200	RF01-2190	Clean Only	292	Clean Only
RF01	RF01-2210	RF01-2200	Clean Only	400	Clean Only
RF01	RF01-2220	RF01-2210	Clean Only	332	Clean Only
RF01	RF01-2230	RF01-2220	Clean Only	371	Clean Only
RF01	RF01-2240	RF01-2230	Clean Only	371	Clean Only
RF01	RF01-2250	RF01-2240	Clean Only	112	Clean Only
RF01	RF01-2260	RF01-2250	Clean Only	128	Clean Only
RF01	RF01-2270	RF01-2260	Clean Only	76	Clean Only
RF01	RF01-2280	RF01-2270	Clean Only	268	Clean Only
RF01	RF01-2330	RF01-2270	Clean Only	95	Clean Only
RF01	RF01-2290	RF01-2280	Clean Only	297	Clean Only
RF01	RF01-2380	RF01-2280	Clean Only	196	Clean Only
RF01	RF01-2300	RF01-2290	Clean Only	150	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
RF01	RF01-2310	RF01-2300	Clean Only	241	Clean Only
RF01	RF01-2320	RF01-2310	Clean Only	132	Clean Only
RF01	RF01-3010	RF01-2320	Clean Only	41	Clean Only
RF01	RF01-2340	RF01-2330	Clean Only	161	Clean Only
RF01	RF01-2350	RF01-2340	Clean Only	387	Clean Only
RF01	RF01-2360	RF01-2350	Clean Only	91	Clean Only
RF01	RF01-2370	RF01-2350	Clean Only	194	Clean Only
RF01	RF01-3090	RF01-2360	Clean Only	141	Clean Only
RF01	RF01-2390	RF01-2380	Clean Only	289	Clean Only
RF01	RF01-2400	RF01-2390	Clean Only	134	Clean Only
RF01	RF01-4000	RF01-2400	Clean Only	224	Clean Only
RF01	RF01-2620	RF01-2610	Clean Only	167	Clean Only
RF01	RF01-2630	RF01-2620	Clean Only	444	Clean Only
RF01	RF01-2640	RF01-2630	Clean Only	381	Clean Only
RF01	RF01-2650	RF01-2640	Clean Only	126	Clean Only
RF01	RF01-2660	RF01-2650	Clean Only	355	Clean Only
RF01	RF01-2670	RF01-2660	Clean Only	437	Clean Only
RF01	RF01-2680	RF01-2670	Clean Only	220	Clean Only
RF01	RF01-2690	RF01-2680	Clean Only	395	Clean Only
RF01	RF01-2700	RF01-2690	Clean Only	160	Clean Only
RF01	RF01-2710	RF01-2700	Clean Only	232	Clean Only
RF01	RF01-1200	RF01-2720	Clean Only	82	Clean Only
RF01	RF01-0010	RF01-2730	Clean Only	21	Clean Only
RF01	RF01-2740	RF01-2730	Clean Only	235	Clean Only
RF01	RF01-2750	RF01-2740	Clean Only	237	Clean Only
RF01	RF01-2760	RF01-2750	Clean Only	362	Clean Only
RF01	RF01-2770	RF01-2760	Clean Only	150	Clean Only
RF01	RF01-0060	RF01-2770	Clean Only	182	Clean Only
RF01	RF01-0210	RF01-2770	Clean Only	174	Clean Only
RF01	RF01-2780	RF01-2770	Clean Only	172	Clean Only
RF01	RF01-2790	RF01-2780	Clean Only	211	Clean Only
RF01	RF01-2800	RF01-2790	Clean Only	227	Clean Only
RF01	RF01-2810	RF01-2800	Clean Only	110	Clean Only
RF01	RF01-0310	RF01-2810	Clean Only	111	Clean Only
RF01	RF01-2820	RF01-2810	Clean Only	194	Clean Only
RF01	RF01-2830	RF01-2820	Clean Only	322	Clean Only
RF01	RF01-0340	RF01-2830	Clean Only	233	Clean Only
RF01	RF01-2840	RF01-2830	Clean Only	368	Clean Only
RF01	RF01-0910	RF01-2840	Clean Only	375	Clean Only
RF01	RF01-2850	RF01-2840	Clean Only	399	Clean Only
RF01	RF01-2860	RF01-2850	Clean Only	295	Clean Only
RF01	RF01-0710	RF01-2860	Clean Only	203	Clean Only
RF01	RF01-2870	RF01-2860	Clean Only	207	Clean Only
RF01	RF01-2880	RF01-2870	Clean Only	366	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
RF01	RF01-0700	RF01-2880	Clean Only	35	Clean Only
RF01	RF01-2890	RF01-2880	Clean Only	411	Clean Only
RF01	RF01-2900	RF01-2890	Clean Only	37	Clean Only
RF01	RF01-2910	RF01-2900	Clean Only	165	Clean Only
RF01	RF01-2920	RF01-2910	Clean Only	222	Clean Only
RF01	RF01-2930	RF01-2920	Clean Only	142	Clean Only
RF01	RF01-2932	RF01-2930	Clean Only	171	Clean Only
RF01	RF01-2940	RF01-2930	Clean Only	253	Clean Only
RF01	RF01-2950	RF01-2940	Clean Only	254	Clean Only
RF01	RF01-2960	RF01-2950	Clean Only	325	Clean Only
RF01	RF01-2970	RF01-2960	Clean Only	372	Clean Only
RF01	RF01-2980	RF01-2970	Clean Only	401	Clean Only
RF01	RF01-2990	RF01-2980	Clean Only	271	Clean Only
RF01	RF01-3000	RF01-2990	Clean Only	224	Clean Only
RF01	RF01-3020	RF01-3010	Clean Only	285	Clean Only
RF01	RF01-3030	RF01-3020	Clean Only	141	Clean Only
RF01	RF01-3040	RF01-3030	Clean Only	44	Clean Only
RF01	RF01-3050	RF01-3040	Clean Only	226	Clean Only
RF01	RF01-3060	RF01-3050	Clean Only	300	Clean Only
RF01	RF01-4010	RF01-3050	Clean Only	65	Clean Only
RF01	RF01-3070	RF01-3060	Clean Only	158	Clean Only
RF01	RF01-3080	RF01-3070	Clean Only	130	Clean Only
RF01	RF01-3570	RF01-3560	Clean Only	240	Clean Only
RF01	RF01-3580	RF01-3570	Clean Only	151	Clean Only
RF01	RF01-4020	RF01-4010	Clean Only	247	Clean Only
RF01	RF01-4030	RF01-4020	Clean Only	148	Clean Only
RF01	RF01-4040	RF01-4020	Clean Only	198	Clean Only
RF01	RF01-4050	RF01-4040	Clean Only	297	Clean Only
RF01	RF01-4060	RF01-4040	Clean Only	352	Clean Only
RF01	RF01-4070	RF01-4060	Clean Only	262	Clean Only
RF01	RF01-4080	RF01-4070	Clean Only	139	Clean Only
WL01	WL01-0010	M003-0090	Clean Only	400	Clean Only
WL01	WL01-0020	WL01-0010	Clean Only	256	Clean Only
WL01	WL01-0030	WL01-0020	Clean Only	370	Clean Only
WL01	WL01-0250	WL01-0020	Clean Only	214	Clean Only
WL01	WL01-0040	WL01-0030	Clean Only	194	Clean Only
WL01	WL01-0050	WL01-0040	Clean Only	379	Clean Only
WL01	WL01-0070	WL01-0060	Clean Only	212	Clean Only
WL01	WL01-0080	WL01-0070	Clean Only	197	Clean Only
WL01	WL01-0090	WL01-0080	Clean Only	264	Clean Only
WL01	WL01-0100	WL01-0090	Clean Only	211	Clean Only
WL01	WL01-0110	WL01-0100	Clean Only	296	Clean Only
WL01	WL01-0120	WL01-0110	Clean Only	323	Clean Only
WL01	WL01-0130	WL01-0120	Clean Only	236	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
WL01	WL01-0140	WL01-0130	Clean Only	183	Clean Only
WL01	WL01-0150	WL01-0140	Clean Only	402	Clean Only
WL01	WL01-0160	WL01-0150	Clean Only	400	Clean Only
WL01	WL01-0170	WL01-0160	Clean Only	394	Clean Only
WL01	WL01-0180	WL01-0170	Clean Only	329	Clean Only
WL01	WL01-0190	WL01-0180	Clean Only	221	Clean Only
WL01	WL01-0200	WL01-0190	Clean Only	223	Clean Only
WL01	WL01-0210	WL01-0200	Clean Only	159	Clean Only
WL01	WL01-0220	WL01-0210	Clean Only	209	Clean Only
WL01	WL01-0230	WL01-0220	Clean Only	165	Clean Only
WL01	WL01-0240	WL01-0230	Clean Only	143	Clean Only
WL01	WL01-0270	WL01-0240	Clean Only	400	Clean Only
WL01	WL01-0260	WL01-0250	Clean Only	130	Clean Only
WL01	EOL	WL01-0270	Clean Only	20	Clean Only
WL01	WL01-0280	WL01-0270	Clean Only	400	Clean Only
WL01	WL01-0290	WL01-0280	Clean Only	325	Clean Only
WL01	WL01-0300	WL01-0290	Clean Only	375	Clean Only
WL01	WL01-0310	WL01-0300	Clean Only	300	Clean Only
WL01	WL01-0315	WL01-0310	Clean Only	242	Clean Only
WL01	WL01-0320	WL01-0315	Clean Only	148	Clean Only
WL01	WL01-0690	WL01-0315	Clean Only	79	Clean Only
WL01	EOL	WL01-0320	Clean Only	20	Clean Only
WL01	WL01-0330	WL01-0320	Clean Only	260	Clean Only
WL01	WL01-0340	WL01-0330	Clean Only	400	Clean Only
WL01	WL01-0350	WL01-0340A	Clean Only	333	Clean Only
WL01	WL01-0640	WL01-0350	Clean Only	332	Clean Only
WL01	WL01-0360	WL01-0350A	Clean Only	61	Clean Only
WL01	WL01-0370	WL01-0360	Clean Only	106	Clean Only
WL01	WL01-0380	WL01-0370	Clean Only	217	Clean Only
WL01	WL01-0460	WL01-0370	Clean Only	182	Clean Only
WL01	WL01-0390	WL01-0380	Clean Only	400	Clean Only
WL01	WL01-0400	WL01-0390	Clean Only	126	Clean Only
WL01	WL01-0410	WL01-0400	Clean Only	274	Clean Only
WL01	WL01-0440	WL01-0400	Clean Only	140	Clean Only
WL01	WL01-0420	WL01-0410	Clean Only	315	Clean Only
WL01	WL01-0500	WL01-0420	Clean Only	313	Clean Only
WL01	WL01-0450	WL01-0440	Clean Only	185	Clean Only
WL01	WL01-0470	WL01-0460	Clean Only	143	Clean Only
WL01	WL01-0480	WL01-0470	Clean Only	143	Clean Only
WL01	WL01-0490	WL01-0480	Clean Only	315	Clean Only
WL01	WL01-0510	WL01-0500	Clean Only	183	Clean Only
WL01	WL01-0520	WL01-0510	Clean Only	160	Clean Only
WL01	WL01-0530	WL01-0520	Clean Only	181	Clean Only
WL01	WL01-0540	WL01-0530	Clean Only	212	Clean Only

Sewer Lines Cleaned and Televised with NASSCO Score

Basin	Upstream Manhole	Downstream Manhole	NASSCO PACP Score	Length (ft)	Structural Quick Score
WL01	WL01-0550	WL01-0540	No Scoreable Defect	136	0000
WL01	WL01-0560	WL01-0550	Clean Only	45	Clean Only
WL01	WL01-0570	WL01-0560	Clean Only	246	Clean Only
WL01	WL01-0580	WL01-0570	Clean Only	340	Clean Only
WL01	WL01-0630	WL01-0570	Clean Only	78	Clean Only
WL01	WL01-0590	WL01-0580	Clean Only	177	Clean Only
WL01	WL01-0600	WL01-0590	Clean Only	189	Clean Only
WL01	WL01-0610	WL01-0600	Clean Only	242	Clean Only
WL01	WL01-0620	WL01-0610	Clean Only	111	Clean Only
WL01	WL01-0650	WL01-0640	Clean Only	121	Clean Only
WL01	WL01-0660	WL01-0650	Clean Only	197	Clean Only
WL01	WL01-0670	WL01-0660	Clean Only	266	Clean Only
WL01	WL01-0680	WL01-0670	Clean Only	266	Clean Only
WL01	WL01-0700	WL01-0690	Clean Only	203	Clean Only
WL01	WL01-0710	WL01-0700	Clean Only	331	Clean Only
WL01	WL01-0720	WL01-0710	Clean Only	69	Clean Only
WL01	WL01-0730	WL01-0720	Clean Only	177	Clean Only
WL01	WL01-0740	WL01-0730	Clean Only	322	Clean Only
WL01	WL01-0750	WL01-0740	Clean Only	94	Clean Only
WL01	WL01-0760	WL01-0750	Clean Only	367	Clean Only

Attachment 2
2018 In-House SSA Condition Assessment Report

CONDITION ASSESSMENT REPORT

March 2019

Condition Assessment Report
2018 Sanitary Sewer Assessment
Sub-Basins: HR01, HL01, and D000

City of Fort Smith



March 2019

I certify, approve, and seal the following documents and all attachments thereto, in accordance with, and under penalty of, Arkansas State law and federal law as a licensed engineer in the State of Arkansas.



Date: 2-4-2019 Registration No.: 8394

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2018 IN-HOUSE SANITARY SEWER ASSESSMENT

System Overview

The City of Fort Smith Sewer Line Maintenance Program conducted a pilot-program Sanitary Sewer Assessment (SSA) in three sub-basins as part of the Consent Decree Program. The sub-basins chosen for the pilot program were HR01, HL01 and D000, which are small in size and mainly comprised of single family residences. These sub-basins consists of approximately 71 manholes and a total of 11,911 linear feet of sanitary sewer pipe, and can be seen on Figure 1. Sub-Basin Locations. Table 1 outlines the quantities of assets within these sub-basins.

The following tasks were performed as part of this SSA work:

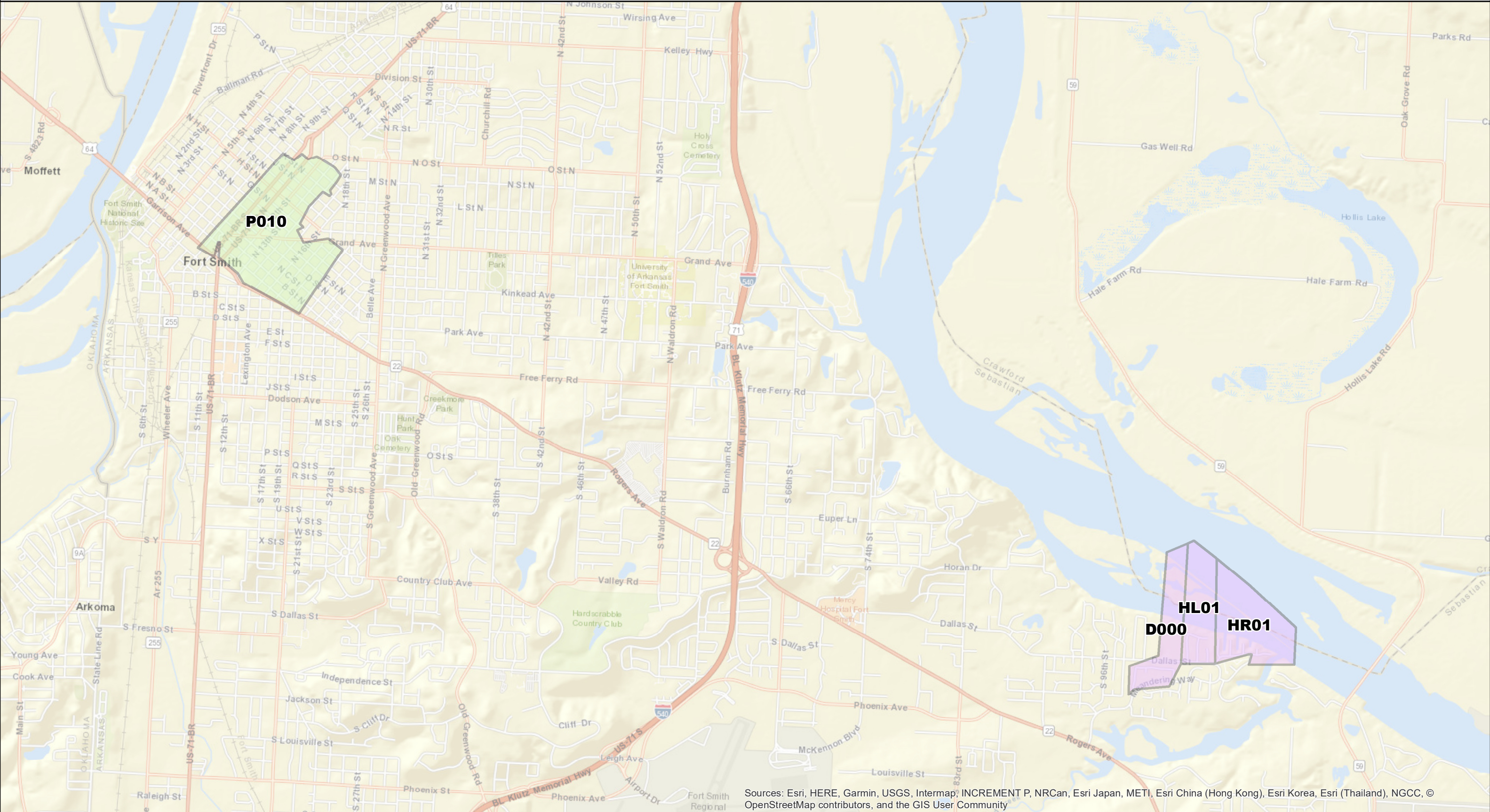
- Flow monitoring
- Manhole Condition Assessment (NASSCO Level 2 Inspections)
- Smoke Testing
- Cleaning and Televising of Sanitary Sewers
- Dyed Water Flooding
- Defect Analysis/Grading

The Condition Assessment Report addresses the results from field inspection. NASSCO scores for manholes and sewer lines are also provided.

Table 1. Sub-Basin Statistics

Sub-Basin Name	Number of Manholes	Length of Sewer Pipe	
		Linear Feet	Miles
D000	28	4,359	0.83
HL01	21	3,813	0.72
HR01	22	3,739	0.71
Totals	71	11,911	2.26

City of Fort Smith, AR



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



 2018 Study Area  Control Basin P010

Figure 1.
Sub Basin
Locations

Project Approach

Flow Monitoring

Flow-monitoring within sub-basins D000, HL01, and HR01 was conducted in 2018 to establish current flow rates. A flow meter is installed downstream of Pump Station 17 (Old Harbor Pump Station), and all flow from HR01 is collected in this pump station. There are no other sub-basins that feed into Pump Station 17. A flow meter is also installed downstream of Pump Station 23 (104th Street Pump Station), and all flow from D000 and HL01 is collected in this pump station. Flow meters P010-01 and P011-01 were installed by RJN to establish flows for sub-basin P010, as a control. Rehabilitation efforts will not be made in sub-basin P010 for several years, and for that reason sub-basin P010 was chosen to serve as a control basin. Once rehabilitation efforts on the 2018 In-House SSA sub-basins have been completed, post rehabilitation flow monitoring will be conducted. Flow meters P010-01 and P011-01 will be reinstalled by RJN during post rehabilitation flow monitoring to help determine the effectiveness of the rehabilitation efforts. Table 2 provides a breakdown of the meters used to monitor each sub-basin. Figure 2 depicts the flow meter locations used in the 2018 In-House SSA.

Table 2. Sub-Basin Flow Monitoring Assignments

Sub-Basin	Meter Name	Sub-Basin Size (LF)
D000, HL01	Pump Station 23 Meter	8,172
HR01	Pump Station 17 Meter	3,739
P010 ¹	P010-01, P011-01	36,476

Manhole Condition Assessment

Manhole inspections were conducted utilizing NASSCO MACP Level 2 inspection standards. A level 2 inspection grades manhole defects on a scale of 1 to 5, with 5 having the most severe defects. All inspection data was entered into GraniteNet software.

Smoke Testing

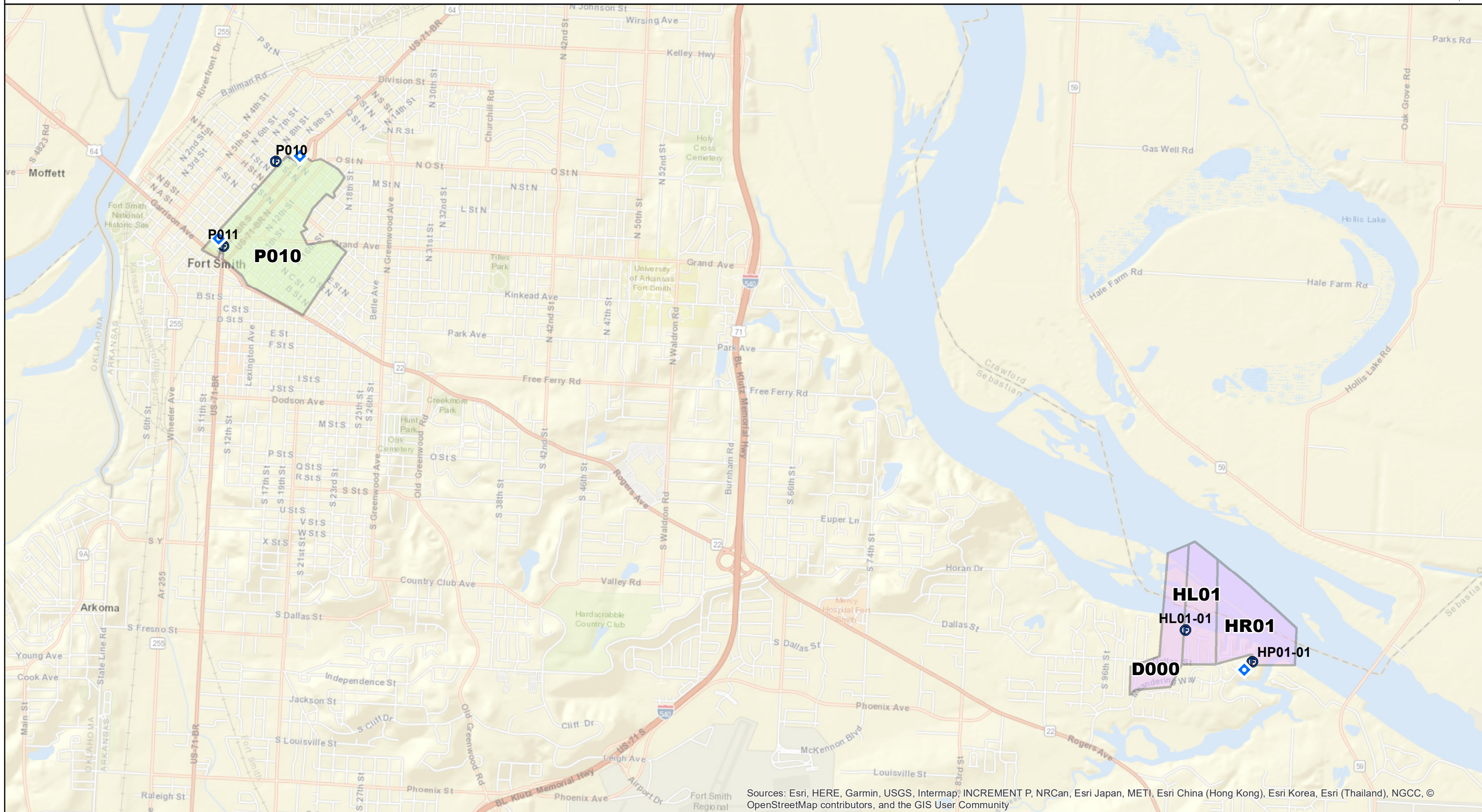
Smoke testing was conducted using the single-blower method, and pipelines were not isolated. Defects were noted where smoke was observed. These defects include potential service cleanout defects, potential service line defects, potential gravity sewer line leaks, and potential cross connections with the storm water system, downspouts, or area storm drains. A picture of the defect, location map, address, and defect type were recorded.

Cleaning and Televising of Sanitary Sewers

Closed-circuit television inspection (CCTV) investigations were performed on all sewer lines within the studied sub-basins. NASSCO PACP inspection standards were utilized and results were entered into GraniteNet software, which developed an overall score between 1 and 5 for each gravity line. All gravity lines within each sub-basin were cleaned.

¹ Control Basin; flow monitoring performed by RJN

City of Fort Smith, AR



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



 Flow Meter Location  Rain Gauge Location

Figure 2.
Flow Meter
Locations

Dyed Water Flooding

Dyed water flooding was performed on selected defects identified during smoke testing. These defects consisted of potential gravity sewer line leaks and potential cross-connections with the storm water system.

Night Flow Isolation

Night flow isolation was not performed, because identified infiltration did not exceed 10,000 gallons per day per 1,000 linear feet.

Inspection Quantities and Results

Flow Monitoring

Table 3 summarizes the dry and wet-weather flow rates experienced by each sub-basin during the flow monitoring, which occurred between March 24 and May 21, 2018.

Table 3. Sub-Basin Flow Monitoring Summary

Sub-Basin	Sub-Basin Size (LF)	Average Dry-Weather Flow (MGD)	Peak Dry-Weather Flow (MGD)	Peak Wet-Weather Flow (MGD)
D000, HL01	8,172	0.00147	0.0519	0.0710
HR01	3,739	0.000561	0.0278	0.0381
P010 ²	36,476	0.629	0.907	4.474

Manhole Condition Assessment

71 manholes were contained within Sub-Basins D000, HL01, and HR01. All manholes were fully inspected. A detailed list of manholes inspected is provided in Appendix A.

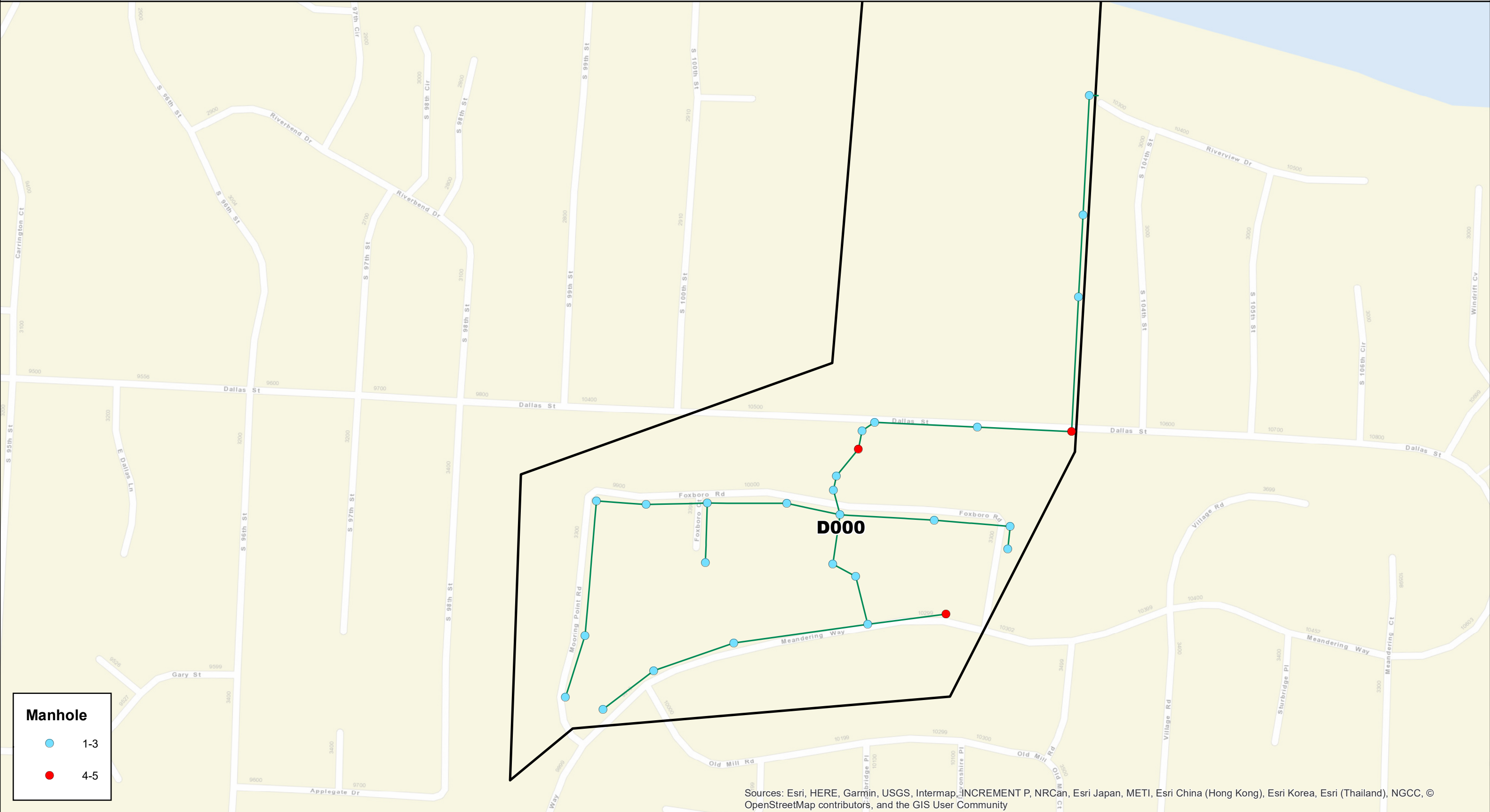
NASSCO MACP defect grades were used to generate scores for all manholes. The peak defect grade was utilized to provide an overall score for each manhole. The breakdown of manholes by structural score can be seen in Table 4. A list of each manhole NASSCO MACP score is provided in Appendix A. Figures 3, 4, and 5 show the distribution of scores for each manhole.

Table 4. NASSCO MACP Structural Score Summary

		NASSCO Score					
Sub-Basin	No Defects	1	2	3	4	5	Total
D000	0	13	0	12	1	2	28
HL01	0	9	1	6	4	1	21
HR01	0	6	3	5	5	3	22
Total	0	28	4	23	10	6	71

² Control Basin; flow monitoring performed by RJN

City of Fort Smith, AR



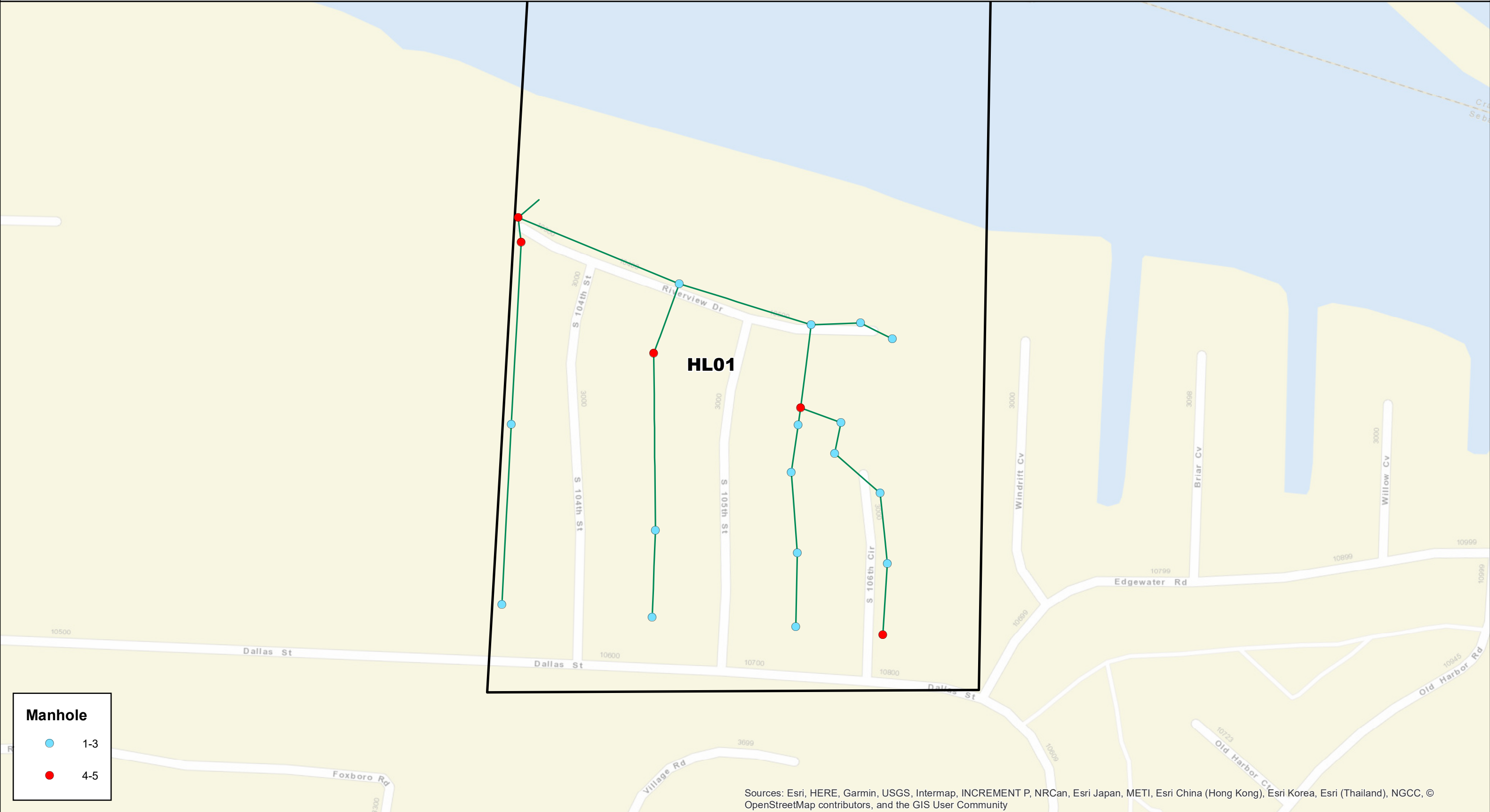
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— Gravity Main □ Basin Boundaries

Figure 3
MACP Scores
Sub-Basin D000

City of Fort Smith, AR



Manhole

- 1-3
- 4-5

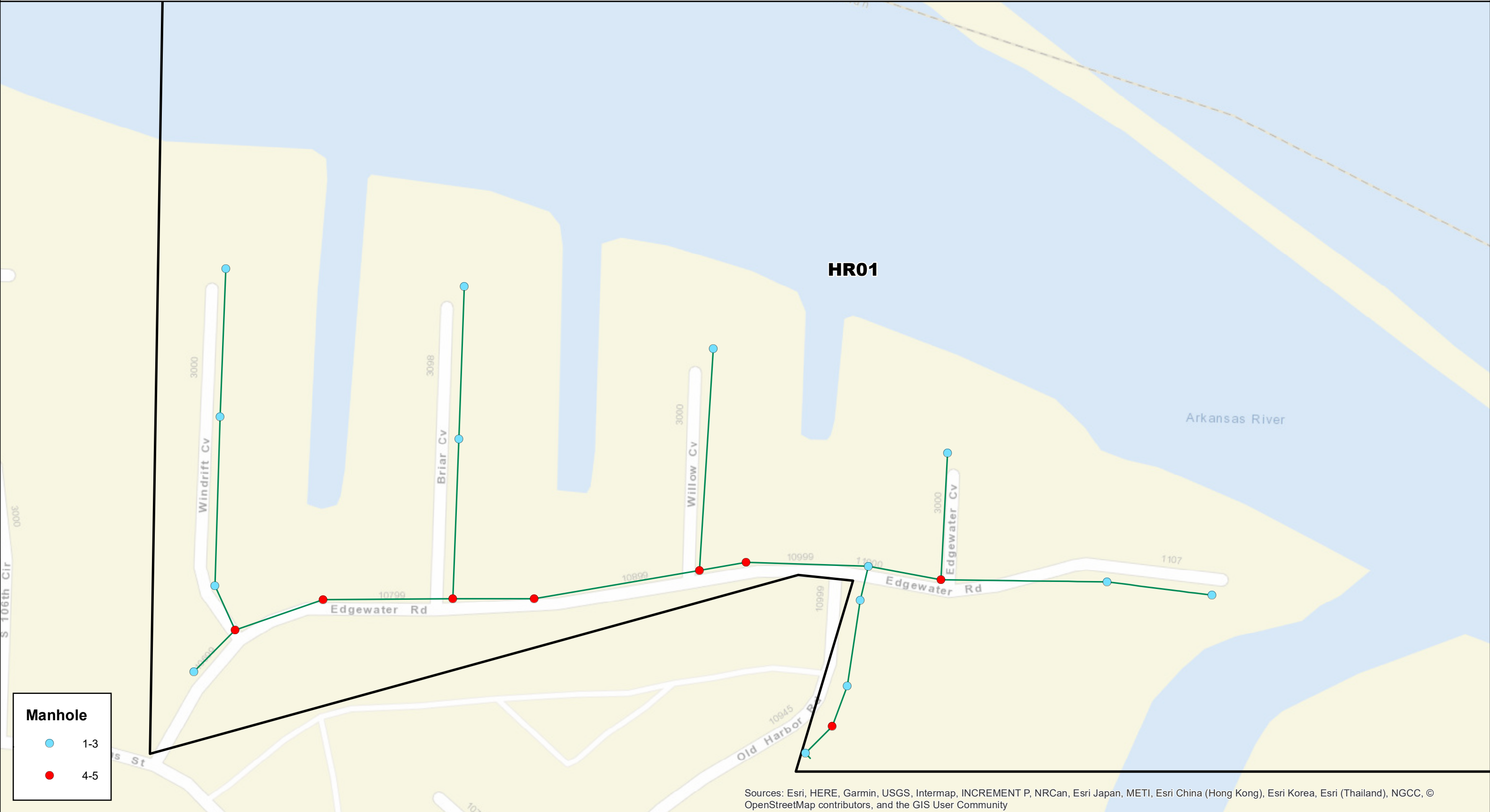
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— Gravity Main
 Basin Boundaries



Figure 4.
 MACP Scores
 Sub-Basin HL01

City of Fort Smith, AR



Manhole

- 1-3
- 4-5

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



— Gravity Main □ Basin Boundaries

Figure 5.
MACP Scores
Sub-Basin HR01

Smoke Testing

A total of 11,911 linear feet (LF) of sanitary sewer lines were smoke tested within sub-basins D000, HL01, and HR01. A list of sewer lines smoke tested is provided in Appendix B. Smoke testing discovered 37 defects. Of the 37 defects, 20 were identified as public defects and 17 were identified as potential private defects. Table 5 provides a detailed breakdown of the types and quantity of defects identified per sub-basin. Appendix C contains a list of all smoke testing defects and their locations.

Table 5. Smoke Testing Defects

Sub-Basin	Cracked Manhole Wall	Cross Connection	Possible Main Line	Private Building Lateral	Private Defective Cleanout	Public Building Lateral	Public Defective Cleanout
D000	3	3	0	0	4	0	1
HL01	4	0	0	1	3	0	0
HR01	2	2	1	1	8	3	1
Total	9	5	1	2	15	3	2

Defect Definitions:

- *Cracked Manhole Wall – Smoke observed near manhole; possible defect in the wall, cone, frame, or other portion of the manhole*
- *Cross Connection – Smoke observed from a pipe or connection into the wastewater system from a source that is unable to be properly identified*
- *Possible Main Line – Smoke observed near the main-line; possible defect in the main line pipe*
- *Private Building Lateral – Smoke observed near portion of the sewer service line servicing a structure located outside of the City’s right-of-way (ROW)*
- *Private Defective Cleanout – Smoke observed in or around clean-out, riser, or clean-out cap located outside of the City’s right-of-way (ROW)*
- *Public Building Lateral – Smoke observed near portion of the sewer service line servicing a structure located within or at the border of the City’s right-of-way (ROW)*
- *Public Defective Cleanout – Smoke observed in or around clean-out, riser, or clean-out cap located within or at the border of the City’s right-of-way (ROW)*

Cleaning and Televising of Sanitary Sewers

A total of 12,356 linear feet of gravity sewer lines were cleaned and televised. Table 6 outlines the footage cleaned in each sub-basin, and the total footage within the studied sub-basin. All non-plastic sanitary lines, along with plastic lines installed prior to 1995 were cleaned, smoke-tested, and televised. All 12,356 linear feet were small-diameter piping (less than 21-inch diameter). Figures 6, 7, and 8 depict all lines that were cleaned, smoke-tested, and televised, and a detailed list is provided in Appendix B.

NASSCO PACP defect grades were used to generate scores for all sewer lines. The peak defect grade was utilized to provide an overall score for each sewer line. Scores were on a scale of 1 to 5 with a score of 5 assigned to the sewer lines in the worst condition. The breakdown of linear footage in each sub-basin, by score, is shown in Table 7. A complete list of the NASSCO PACP score for every sewer line is provided in Appendix B. Figures 6, 7, and 8 show the distribution of scores for every sewer line.

Table 6. 2018 In-House SSA Cleaning

Sub-Basin	Footage Cleaned & Televised	Total Footage in Sub-Basin
D000	4,359	4,359
HL01	3,813	3,813
HR01	3,739	3,739
Total	11,911	11,911

Table 7. NASSCO PACP Score Summary

Sub-Basin	No Defects	NASSCO Score (Linear Feet)					Total
		1	2	3	4	5	
D000	2,508	0	142	531	336	842	4,359
HL01	1,160	0		302	1,018	1,333	3,813
HR01	1,670	0			1,562	507	3,739
Total	5,338	0	142	833	2,916	2,682	11,911

City of Fort Smith, AR



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community




 Basin Boundaries

Figure 6.
PACP Scores
Sub-Basin D000

City of Fort Smith, AR



Gravity Main

- No Defect
- 1-3
- 4-5

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community


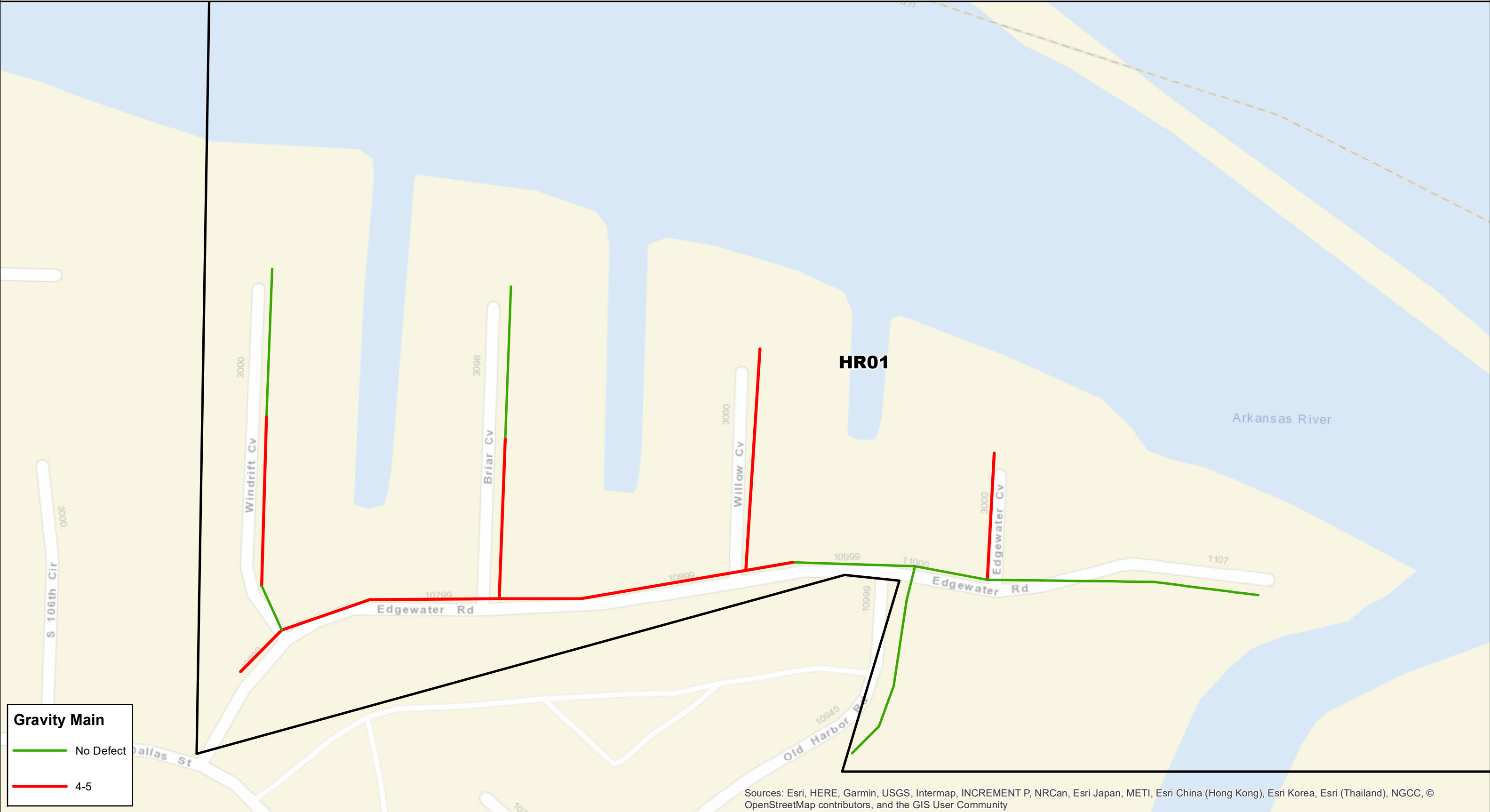
 Basin Boundaries



Figure 7.
PACP Scores
Sub-Basin HL01

City of Fort Smith, AR



Gravity Main

- No Defect
- 4-5

Basin Boundaries

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



Figure 8.
PACP Scores
Sub-Basin HR01

Dyed Water Flooding

A total of 3 dye tests (934 linear feet) were performed within 11,911 linear feet of small diameter pipe within the three studied sub-basins. Defects dye-tested consisted of potential gravity sewer lines and potential cross-connections with the storm water system. A breakdown of positive and negative tests per sub-basin can be found in Table 8. Several lines had multiple tests conducted at various locations. Table 9 contains the number of tests and not the number of line segments tested. Dye test results did not identify any direct discharges of flow to or from the sanitary sewer system. The defects tested are identified as indirect sources. Results from dye testing are shown in Table 10.

Table 8. Dye Test Results Summary

Sub-Basin	Positive ³	Negative ⁴	Could Not Test
HR01	0	1	0
HL01	0	0	0
D000	1	1	0
Total	1	2	0

Table 9. Dye Test Category Summary

Type of Test	Positive ⁵	Negative ⁶	Could Not Test
Gravity Sewer Line	1	2	0
Catch Basin	0	0	0
Total	1	2	0

Table 10. Dye Test Results Break-Down

Sub-Basin	Upstream Manhole	Downstream Manhole	Type of Test	Test Result
D000	D000-0080 (1)	D000-0050 (1)	Storm Drain	Negative
D000	D000-0080 (2)	D000-0050 (2)	Storm Drain	Positive
HR01	HR01-0170	HR01-0160	Storm Drain	Negative

³ Positive = Dye observed at downstream manhole

⁴ Negative = No dye observed at downstream manhole

⁵ Positive = Dye observed at downstream manhole

⁶ Negative = No dye observed at downstream manhole

Results Summary

The In-House Sanitary Sewer Assessment conducted during 2018 included the study of 71 manholes, smoke testing, cleaning, and televising 11,911 linear feet of sanitary sewer line, and performing 3 dye tests in the study area. Table 11 summarizes the number of manholes and linear feet of sewer lines with a NASSCO grade of 4 or 5

Table 11. NASSCO Score 4 & 5 and I&I Threshold Summary

Sub-Basin	Manholes	Sewer Lines (Linear Feet)
D000	3	1,178
HL01	5	2,351
HR01	8	2,069
Total	16	5,598

Appendix A - MACP Score

Sub-Basin	Manhole Name2	NASSCO MACP Structural Peak Score	NASSCO MACP Structural Quick- Score
HR01	HR01-0120	4	4113
HR01	HR01-0140	3	3113
HR01	HR01-0190	1	1400
HR01	HR01-0030	4	4132
HR01	HR01-0160	3	3226
HR01	HR01-0020	2	2113
HR01	HR01-0170	2	2113
HR01	HR01-0180	1	1300
HR01	HR01-0130	4	4113
HR01	HR01-0150	3	3213
HR01	HR01-0100	3	3113
HR01	HR01-0110	2	2313
HR01	HR01-0080	4	4113
HR01	HR01-0090	4	4431
HR01	HR01-0040	3	3113
HR01	HR01-0060	5	5213
HR01	HR01-0050	5	5113
HR01	HR01-0070	1	1300
HR01	HR01-0016	1	1300
HR01	HR01-0018	1	1300
HR01	HR01-0012	1	1300
HR01	HR01-0014	5	5113
D000	D000-0036	3	3113
D000	D000-0037	1	1300
D000	D000-0038	3	3113
D000	D000-0060	4	4131
D000	D000-0080	1	1300
D000	D000-0090	3	3113
D000	D000-0010	3	3113
D000	D000-0110	3	3113
D000	D000-0120	1	1300
D000	D000-0130	1	1300
D000	D000-0140	3	3113
D000	D000-0150	1	1300
D000	D000-0160	1	1300
D000	D000-0170	1	1300
D000	D000-0004	3	3212
D000	D000-0005	3	3212
D000	D000-0006	3	3112
D000	D000-0007	5	5131
D000	D000-0008	1	1300
D000	D000-0009	1	1300
D000	D000-0020	5	5113
D000	D000-0025	1	1300
D000	D000-0030	1	1300
D000	D000-0035	1	1300
D000	D000-0043	1	1300
D000	D000-0046	3	3212
D000	D000-0050	3	3121
D000	D000-0100	3	3112
HL01	HL01-0020	4	4131
HL01	HL01-0030	4	4131
HL01	HL01-0040	1	1400
HL01	HL01-0050	1	1300
HL01	HL01-0060	3	3122
HL01	HL01-0070	4	4113
HL01	HL01-0080	1	1300
HL01	HL01-0090	3	3113
HL01	HL01-0100	2	2113
HL01	HL01-0110	1	1300
HL01	HL01-0120	1	1300
HL01	HL01-0130	5	5131
HL01	HL01-0135	1	1300
HL01	HL01-0140	1	1300
HL01	HL01-0150	1	1300
HL01	HL01-0162	3	3121
HL01	HL01-0160	1	1300
HL01	HL01-0165	3	3113
HL01	HL01-0170	3	3113
HL01	HL01-0180	3	3113
HL01	HL01-0190	4	4113
Total		71	

Appendix B - Smoke Testing and PACP Scores

Sub-Basin	Line Segment Name	Smoke Tested?	Pipe Diameter (In.)	GIS Segment Length (Ft.)	NASSCO PACP Structural Peak Score	NASSCO PACP Structural Quick-Score
HR01	HR01-0014_HR01-0012	Yes	8	52	0	0000
HR01	HR01-0016_HR01-0014	Yes	8	71	0	0000
HR01	HR01-0018_HR01-0016	Yes	8	140	0	0000
HR01	HR01-0020_HR01-0018	Yes	8	54	0	0000
HR01	HR01-0030_HR01-0020	Yes	8	111	0	0000
HR01	HR01-0040_HR01-0030	Yes	8	206	5	5100
HR01	HR01-0050_HR01-0020	Yes	8	199	0	0000
HR01	HR01-0060_HR01-0050	Yes	8	75	4	4100
HR01	HR01-0070_HR01-0060	Yes	8	366	4	4123
HR01	HR01-0080_HR01-0060	Yes	8	301	5	5100
HR01	HR01-0090_HR01-0080	Yes	8	106	4	4100
HR01	HR01-0100_HR01-0090	Yes	8	261	4	4100
HR01	HR01-0110_HR01-0100	Yes	8	246	0	0000
HR01	HR01-0120_HR01-0090	Yes	8	198	4	4135
HR01	HR01-0130_HR01-0120	Yes	8	134	4	4137
HR01	HR01-0140_HR01-0130	Yes	8	136	4	4300
HR01	HR01-0150_HR01-0130	Yes	8	81	0	0000
HR01	HR01-0160_HR01-0150	Yes	8	286	4	4131
HR01	HR01-0170_HR01-0160	Yes	8	266	0	0000
HR01	HR01-0180_HR01-0030	Yes	8	275	0	0000
HR01	HR01-0190_HR01-0180	Yes	8	175	0	0000
D000	D000-0160_D000-0150	Yes	8	396	3	3200
D000	D000-0170_D000-0160	Yes	8	186	0	0000
D000	D000-0110_D000-0035	Yes	8	157	4	4300
D000	D000-0120_D000-0110	Yes	8	231	5	5100
D000	D000-0140_D000-0120	Yes	8	176	0	0000
D000	D000-0150_D000-0140	Yes	8	145	0	0000
D000	D000-0130_D000-0120	Yes	8	172	0	0000
D000	D000-0036_D000-0035	Yes	8	277	5	5100
D000	D000-0038_D000-0037	Yes	8	65	0	0000
D000	D000-0037_D000-0036	Yes	8	225	0	0000
D000	D000-0090_D000-0080	Yes	6	280	0	0000
D000	D000-0100_D000-0090	Yes	6	179	4	4100
D000	D000-0060_D000-0050	Yes	6	231	0	0000
D000	D000-0080_D000-0050	Yes	6	334	5	5341
D000	D000-0046_D000-0043	Yes	8	77	3	3100
D000	D000-0043_D000-0035	Yes	8	143	0	0000
D000	D000-0035_D000-0030	Yes	8	96	0	0000
D000	D000-0020_D000-0010	Yes	8	58	3	3100
D000	D000-0010_D000-0009	Yes	8	41	0	0000
D000	D000-0009_D000-0008	Yes	8	0	0	0000
D000	D000-0008_D000-0007	Yes	8	0	0	0000
D000	D000-0025_D000-0020	Yes	8	98	0	0000
D000	D000-0030_D000-0025	Yes	8	39	0	0000
D000	D000-0050_D000-0046	Yes	8	142	2	2100
D000	D000-0007_D000-0006	Yes	8	0	0	0000
D000	D000-0004_HL01-0020	Yes	8	22	0	0000
D000	D000-0005_D000-0004	Yes	8	350	0	0000
D000	D000-0006_D000-0005	Yes	8	239	0	0000
HL01	HL01-0162_HL01-0130	Yes	8	91	0	0000
HL01	HL01-0165_HL01-0162	Yes	8	66	0	0000
HL01	HL01-0170_HL01-0165	Yes	8	130	4	4131
HL01	HL01-0150_HL01-0140	Yes	8	175	0	0000
HL01	HL01-0160_HL01-0150	Yes	8	159	0	0000
HL01	HL01-0090_HL01-0080	Yes	8	188	4	4232
HL01	HL01-0100_HL01-0060	Yes	8	302	3	3400
HL01	HL01-0110_HL01-0100	Yes	8	105	4	4131
HL01	HL01-0120_HL01-0110	Yes	8	75	0	0000
HL01	HL01-0130_HL01-0100	Yes	8	215	0	0000
HL01	HL01-0140_HL01-0135	Yes	8	105	0	0000
HL01	HL01-0180_HL01-0170	Yes	8	154	0	0000
HL01	HL01-0190_HL01-0180	Yes	8	153	5	5200
HL01	HL01-0135_HL01-0130	Yes	8	35	0	0000
HL01	HL01-0080_HL01-0070	Yes	8	388	5	5134
HL01	HL01-0070_HL01-0060	Yes	8	160	4	4131
HL01	HL01-0020_PS 23	Yes	8	85	0	0000
HL01	HL01-0060_HL01-0020	Yes	8	382	4	4139
HL01	HL01-0030_HL01-0020	Yes	8	53	4	4200
HL01	HL01-0040_HL01-0030	Yes	8	396	5	5141
HL01	HL01-0050_HL01-0040	Yes	8	396	5	5131

Total Footage 11,911

Appendix C - Smoke Testing Defects

Sub-Basin	Line Segment Name	Address	Defect	Remarks
D000	D000-0004:HL01-0020	10101 Dallas Street	None	
D000	D000-0005:D000-0004	10101 Dallas Street	None	
D000	D000-0006:D000-0005	10101 Dallas Street	None	
D000	D000-0007:D000-0006	10101 Dallas Street	Cracked MH Walls	MH D000-0007 appears to have possible defects in walls; may need repair or reseal
D000	D000-0008:D000-0007	10101 Dallas Street	None	
D000	D000-0009:D000-0008	10101 Dallas Street	None	
D000	D000-0010:D000-0009	10017 Foxboro Road	None	
D000	D000-0020:D000-0010	10017 Foxboro Road	None	
D000	D000-0025:D000-0020	10017 Foxboro Road	None	
D000	D000-0030:D000-0025	10017 Foxboro Road	None	
D000	D000-0035:D000-0030	10017 Foxboro Road	None	
D000	D000-0036:D000-0035	10016 Foxboro Road	None	
D000	D000-0036:D000-0035	10017 Foxboro Road	None	
D000	D000-0036:D000-0035	10100 Foxboro Road	None	
D000	D000-0036:D000-0035	10101 Foxboro Road	None	
D000	D000-0036:D000-0035	10104 Foxboro Road	None	
D000	D000-0036:D000-0035	10105 Foxboro Road	None	
D000	D000-0037:D000-0036	10108 Foxboro Road	None	
D000	D000-0037:D000-0036	10109 Foxboro Road	None	
D000	D000-0037:D000-0036	10112 Foxboro Road	None	
D000	D000-0037:D000-0036	10113 Foxboro Road	None	
D000	D000-0037:D000-0036	10117 Foxboro Road	None	
D000	D000-0038:D000-0037	3301 Foxboro Road	None	
D000	D000-0038:D000-0037	3305 Foxboro Road	None	
D000	D000-0038:D000-0037	3309 Foxboro Road	None	
D000	D000-0043:D000-0035	10016 Foxboro Road	None	
D000	D000-0046:D000-0043	10016 Foxboro Road	None	
D000	D000-0050:D000-0046	10119 Meandering Way	Public Defective Cleanouts	One cleanout cap is missing from clean out in or near utility easement.
D000	D000-0050:D000-0046	10119 Meandering Way	Cracked MH Walls	DSMH D000-0046 has broken concrete around the ring. Repair MH task needed.
D000	D000-0060:D000-0050	10200 Meandering Way	None	
D000	D000-0060:D000-0050	10201 Meandering Way	None	
D000	D000-0060:D000-0050	10206 Meandering Way	None	
D000	D000-0060:D000-0050	10207 Meandering Way	None	
D000	D000-0060:D000-0050	10212 Meandering Way	None	
D000	D000-0060:D000-0050	10213 Meandering Way	None	
D000	D000-0080:D000-0050	10018 Meandering Way	None	
D000	D000-0080:D000-0050	10019 Meandering Way	Private Defective Cleanouts	Possible cleanout with missing or broken cap. Smoke coming out from ground that has a bush planted ton top of it; unable to see or feel clean-out due to bush.
D000	D000-0080:D000-0050	10100 Meandering Way	None	
D000	D000-0080:D000-0050	10101 Meandering Way	None	
D000	D000-0080:D000-0050	10106 Meandering Way	None	
D000	D000-0080:D000-0050	10107 Meandering Way	Cross-Connection	Possible cross-connection. Smoke coming out of opening of storm drain box.
D000	D000-0080:D000-0050	10107 Meandering Way	Private Defective Cleanouts	Private cleanout is missing cap
D000	D000-0080:D000-0050	10112 Meandering Way	Cross-Connection	Possible cross-connection into storm drain. Smoke seen coming from storm drain box.
D000	D000-0080:D000-0050	10112 Meandering Way	Private Defective Cleanouts	One two-way cleanout is missing both caps
D000	D000-0080:D000-0050	10113 Meandering Way	Cross-Connection	Smoke coming from storm drain box
D000	D000-0080:D000-0050	10118 Meandering Way	None	
D000	D000-0090:D000-0080	10000 Meandering Way	None	
D000	D000-0090:D000-0080	10001 Meandering Way	None	
D000	D000-0090:D000-0080	10006 Meandering Way	Private Defective Cleanouts	Private cleanout is missing cap
D000	D000-0090:D000-0080	10007 Meandering Way	None	
D000	D000-0090:D000-0080	10012 Meandering Way	None	
D000	D000-0090:D000-0080	10013 Meandering Way	None	
D000	D000-0100:D000-0090	9901 Meandering Way	None	
D000	D000-0100:D000-0090	9906 Meandering Way	None	
D000	D000-0100:D000-0090	9909 Meandering Way	None	
D000	D000-0100:D000-0090	9915 Meandering Way	Cracked MH Walls	MH D000-0090 has smoke coming out of driveway around manhole. Possible cracked walls
D000	D000-0110:D000-0035	10012 Foxboro Road	None	
D000	D000-0110:D000-0035	10013 Foxboro Road	None	
D000	D000-0120:D000-0110	10000 Foxboro Road	None	
D000	D000-0120:D000-0110	10001 Foxboro Road	None	
D000	D000-0120:D000-0110	10005 Foxboro Road	None	
D000	D000-0120:D000-0110	10008 Foxboro Road	None	
D000	D000-0120:D000-0110	10009 Foxboro Road	None	
D000	D000-0130:D000-0120	3303 Foxboro Court	None	
D000	D000-0130:D000-0120	3304 Foxboro Court	None	
D000	D000-0130:D000-0120	3308 Foxboro Court	None	
D000	D000-0140:D000-0120	9908 Foxboro Road	None	
D000	D000-0140:D000-0120	9913 Foxboro Road	None	
D000	D000-0140:D000-0120	9917 Foxboro Road	None	
D000	D000-0150:D000-0140	9900 Foxboro Road	None	
D000	D000-0150:D000-0140	9909 Foxboro Road	None	
D000	D000-0160:D000-0150	3401 Mooring Point Road	None	
D000	D000-0160:D000-0150	3400 Mooring Point Road	None	
D000	D000-0160:D000-0150	3309 Mooring Point Road	None	
D000	D000-0160:D000-0150	3312 Mooring Point Road	None	

Appendix C - Smoke Testing Defects

Sub-Basin	Line Segment Name	Address	Defect	Remarks
D000	D000-0160:D000-0150	3305 Mooring Point Road	None	
D000	D000-0160:D000-0150	3308 Mooring Point Road	None	
D000	D000-0160:D000-0150	9901 Foxboro Road	None	
D000	D000-0160:D000-0150	3304 Mooring Point Road	None	
D000	D000-0160:D000-0150	9905 Foxboro Road	None	
D000	D000-0160:D000-0150	3300 Mooring Point Road	None	
D000	D000-0170:D000-0160	3412 Mooring Point Road	None	
D000	D000-0170:D000-0160	3408 Mooring Point Road	None	
D000	D000-0170:D000-0160	3404 Mooring Point Road	None	
HL01	HL01-0020:PS 23	10309 Riverview Drive	None	
HL01	HL01-0030:HL01-0020	3000 South 104th Street	Cracked MH Walls	Concrete around ring & lid is broken; smoke detected all the way around
HL01	HL01-0040:HL01-0030	3012 South 104th Street	Private Defective Cleanouts	Both cleanouts are missing caps
HL01	HL01-0040:HL01-0030	3008 South 104th Street	None	
HL01	HL01-0040:HL01-0030	3004 South 104th Street	None	
HL01	HL01-0040:HL01-0030	3000 South 104th Street	Cracked MH Walls	
HL01	HL01-0050:HL01-0040	3112 South 104th Street	None	
HL01	HL01-0050:HL01-0040	3108 South 104th Street	None	
HL01	HL01-0050:HL01-0040	3104 South 104th Street	None	
HL01	HL01-0050:HL01-0040	3100 South 104th Street	None	
HL01	HL01-0050:HL01-0040	3020 South 104th Street	None	
HL01	HL01-0050:HL01-0040	3016 South 104th Street	Cracked MH Walls	Smoke was detected 5" outside of manhole ring all the way around.
HL01	HL01-0060:HL01-0020	10313 Riverview Drive	None	
HL01	HL01-0060:HL01-0020	10401 Riverview Drive	None	
HL01	HL01-0060:HL01-0020	10400 Riverview Drive	None	
HL01	HL01-0070:HL01-0060	10404 Riverview Drive	None	
HL01	HL01-0070:HL01-0060	10408 Riverview Drive	None	
HL01	HL01-0080:HL01-0070	3021 South 104th Street	None	
HL01	HL01-0080:HL01-0070	3017 South 104th Street	None	
HL01	HL01-0080:HL01-0070	3013 South 104th Street	None	
HL01	HL01-0080:HL01-0070	3009 South 104th Street	None	
HL01	HL01-0080:HL01-0070	3005 South 104th Street	None	
HL01	HL01-0080:HL01-0070	3016 South 105th Street	Private Building Lateral	Smoke detected coming out of the ground around the clean-out
HL01	HL01-0080:HL01-0070	3012 South 105th Street	None	
HL01	HL01-0080:HL01-0070	3008 South 105th Street	None	
HL01	HL01-0080:HL01-0070	3004 South 105th Street	None	
HL01	HL01-0090:HL01-0080	3109 South 104th Street	None	
HL01	HL01-0090:HL01-0080	3105 South 104th Street	None	
HL01	HL01-0090:HL01-0080	3101 South 104th Street	None	
HL01	HL01-0090:HL01-0080	3112 South 105th Street	None	
HL01	HL01-0090:HL01-0080	3108 South 105th Street	None	
HL01	HL01-0090:HL01-0080	3104 South 105th Street	None	
HL01	HL01-0090:HL01-0080	3100 South 105th Street	None	
HL01	HL01-0100:HL01-0060	3000 South 105th Street	None	
HL01	HL01-0110:HL01-0100	10505 Riverview Drive	None	
HL01	HL01-0110:HL01-0100	10509 Riverview Drive	None	
HL01	HL01-0120:HL01-0110	10516 Riverview Drive	None	
HL01	HL01-0120:HL01-0110	10512 Riverview Drive	None	
HL01	HL01-0120:HL01-0110	10508 Riverview Drive	None	
HL01	HL01-0130:HL01-0100	3005 South 105th Street	None	
HL01	HL01-0140:HL01-0130	3005 South 105th Street	None	
HL01	HL01-0150:HL01-0140	3017 South 105th Street	Private Defective Cleanouts	Smoke detected out of broken clean-out cap
HL01	HL01-0150:HL01-0140	3101 South 105th Street	None	
HL01	HL01-0160:HL01-0150	3105 South 105th Street	None	
HL01	HL01-0160:HL01-0150	3109 South 105th Street	None	
HL01	HL01-0160:HL01-0150	3113 South 105th Street	None	
HL01	HL01-0160:HL01-0130	3001 South 106th Circle	None	
HL01	HL01-0165:HL01-0160	3001 South 106th Circle	Cracked MH Walls	Smoke detected all the way around the ring. No concrete around ring.
HL01	HL01-0170:HL01-0165	3005 South 106th Circle	None	
HL01	HL01-0180:HL01-0170	3008 South 106th Circle	None	
HL01	HL01-0180:HL01-0170	3009 South 106th Circle	None	
HL01	HL01-0180:HL01-0170	3101 South 106th Circle	None	
HL01	HL01-0180:HL01-0170	3106 South 106th Circle	None	
HL01	HL01-0180:HL01-0170	3108 South 106th Circle	None	
HL01	HL01-0180:HL01-0170	3105 South 106th Circle	None	
HL01	HL01-0180:HL01-0170	3109 South 106th Circle	None	
HL01	HL01-0180:HL01-0170	3113 South 106th Circle	None	
HL01	HL01-0180:HL01-0170	3102 South 106th Circle	None	
HL01	HL01-0190:HL01-0180	3112 South 106th Circle	Private Defective Cleanouts	Cleanout cap is broken
HR01	HR01-0014:HR01-0012	10908 Old Harbor Rd.	None	
HR01	HR01-0016:HR01-0014	10908 Old Harbor Rd.	None	
HR01	HR01-0018:HR01-0016	10908 Old Harbor Rd.	Private Defective Cleanouts	Clean-out needs cap
HR01	HR01-0018:HR01-0016	10908 Old Harbor Rd.	Private Defective Cleanouts	Clean-out needs cap
HR01	HR01-0018:HR01-0016	10908 Old Harbor Rd.	Private Defective Cleanouts	Clean-out needs cap
HR01	HR01-0020:HR01-0018	10908 Old Harbor Rd.	None	
HR01	HR01-0030:HR01-0020	11007 Edgewater Rd.	None	
HR01	HR01-0030:HR01-0020	3001 Edgewater Cove	None	
HR01	HR01-0040:HR01-0030	3004 Edgewater Cove	None	
HR01	HR01-0040:HR01-0030	3000 Edgewater Cove	None	
HR01	HR01-0040:HR01-0030	3001 Edgewater Cove	None	

Appendix C - Smoke Testing Defects

Sub-Basin	Line Segment Name	Address	Defect	Remarks
HR01	HR01-0040:HR01-0030	3005 Edgewater Cove	None	
HR01	HR01-0050:HR01-0020	10907 Edgewater Rd.	None	
HR01	HR01-0050:HR01-0020	11001 Edgewater Rd.	None	
HR01	HR01-0060:HR01-0050	10900 Edgewater Rd.	Private Building Lateral	Smoke coming out from below sidewalk near CO.
HR01	HR01-0060:HR01-0050	10900 Edgewater Rd.	Private Defective Cleanouts	
HR01	HR01-0060:HR01-0050	10906 Edgewater Rd.	None	
HR01	HR01-0070:HR01-0060	3000 Willow Cove	None	
HR01	HR01-0070:HR01-0060	3001 Willow Cove	Cross-Connection	Smoke observed from storm drain box.
HR01	HR01-0070:HR01-0060	3004 Willow Cove	None	
HR01	HR01-0070:HR01-0060	3005 Willow Cove	Private Defective Cleanouts	Clean-out needs cap
HR01	HR01-0070:HR01-0060	3008 Willow Cove	None	
HR01	HR01-0070:HR01-0060	3009 Willow Cove	Public Defective Cleanouts	Cap present; could be crack or loose connection
HR01	HR01-0070:HR01-0060	3012 Willow Cove	None	
HR01	HR01-0070:HR01-0060	3013 Willow Cove	None	
HR01	HR01-0080:HR01-0060	10808 Edgewater Rd.	None	
HR01	HR01-0080:HR01-0060	10809 Edgewater Rd.	Public Building Lateral	Smoke coming out of ground over sewer main but could be a service defect as well. CCTV recommended to confirm issue
HR01	HR01-0080:HR01-0060	10809 Edgewater Rd.	Possible Main Line	Smoke coming out of ground over sewer main but could be a service defect as well. CCTV recommended to confirm issue
HR01	HR01-0080:HR01-0060	10814 Edgewater Rd.	None	
HR01	HR01-0080:HR01-0060	10815 Edgewater Rd.	None	
HR01	HR01-0080:HR01-0060	10820 Edgewater Rd.	None	
HR01	HR01-0090:HR01-0080	10801 Edgewater Rd.	None	
HR01	HR01-0090:HR01-0080	10800 Edgewater Rd.	None	
HR01	HR01-0090:HR01-0080	10805 Edgewater Rd.	None	
HR01	HR01-0100:HR01-0090	3016 Briar Cove	None	
HR01	HR01-0100:HR01-0090	3017 Briar Cove	Private Defective Cleanouts	One, two way clean-out (Double-cap) have defect caps.
HR01	HR01-0100:HR01-0090	3020 Briar Cove	None	
HR01	HR01-0110:HR01-0100	3000 Briar Cove	None	
HR01	HR01-0110:HR01-0100	3001 Briar Cove	None	
HR01	HR01-0110:HR01-0100	3004 Briar Cove	None	
HR01	HR01-0110:HR01-0100	3005 Briar Cove	None	
HR01	HR01-0110:HR01-0100	3008 Briar Cove	None	
HR01	HR01-0110:HR01-0100	3009 Briar Cove	None	
HR01	HR01-0110:HR01-0100	3012 Briar Cove	None	
HR01	HR01-0110:HR01-0100	3013 Briar Cove	None	
HR01	HR01-0120:HR01-0090	10708 Edgewater Rd.	None	
HR01	HR01-0120:HR01-0090	10713 Edgewater Rd.	None	
HR01	HR01-0120:HR01-0090	10714 Edgewater Rd.	None	
HR01	HR01-0120:HR01-0090	10720 Edgewater Rd.	None	
HR01	HR01-0130:HR01-0120	10700 Edgewater Rd.	None	
HR01	HR01-0130:HR01-0120	10701 Edgewater Rd.	None	
HR01	HR01-0130:HR01-0120	10705 Edgewater Rd.	Private Defective Cleanouts	Clean-out cap is cracked next to house DSMH 0120 may have defective walls. Smoke could possibly be coming from main outside of MH.
HR01	HR01-0130:HR01-0120	10709 Edgewater Rd.	Cracked MH Walls	
HR01	HR01-0140:HR01-0130	10616 Meandering Way	Public Building Lateral	
HR01	HR01-0140:HR01-0130	10617 Edgewater Rd.	None	
HR01	HR01-0140:HR01-0130	10618 Edgewater Rd.	None	
HR01	HR01-0140:HR01-0130	3030 Windrift Cove	Cracked MH Walls	Defects at DSMH 0130 could possibly be coming from main line outside of MH.
HR01	HR01-0140:HR01-0130	3030 Windrift Cove	Private Defective Cleanouts	Defects at DSMH 0130 could possibly be coming from main line outside of MH.
HR01	HR01-0150:HR01-0130	3028 Windrift Cove	None	
HR01	HR01-0160:HR01-0150	3016 Windrift Cove	None	
HR01	HR01-0160:HR01-0150	3017 Windrift Cove	None	
HR01	HR01-0160:HR01-0150	3020 Windrift Cove	None	
HR01	HR01-0160:HR01-0150	3021 Windrift Cove	None	
HR01	HR01-0160:HR01-0150	3024 Windrift Cove	None	
HR01	HR01-0170:HR01-0160	3000 Windrift Cove	Cross-Connection	Smoke was coming out of storm drain box in front of property and 1' outside of storm drain box.
HR01	HR01-0170:HR01-0160	3001 Windrift Cove	Public Building Lateral	Smoke coming out of driveway at marked spot; possibly service near utility easement.
HR01	HR01-0170:HR01-0160	3004 Windrift Cove	None	
HR01	HR01-0170:HR01-0160	3005 Windrift Cove	None	
HR01	HR01-0170:HR01-0160	3008 Windrift Cove	None	
HR01	HR01-0170:HR01-0160	3009 Windrift Cove	None	
HR01	HR01-0170:HR01-0160	3012 Windrift Cove	None	
HR01	HR01-0170:HR01-0160	3013 Windrift Cove	None	
HR01	HR01-0180:HR01-0030	12000 Edgewater Road	None	
HR01	HR01-0180:HR01-0030	12002 Edgewater Road	None	
HR01	HR01-0180:HR01-0030	12004 Edgewater Road	None	
HR01	HR01-0180:HR01-0030	12006 Edgewater Road	None	
HR01	HR01-0180:HR01-0030	12005 Edgewater Road	None	
HR01	HR01-0180:HR01-0030	12007 Edgewater Road	None	
HR01	HR01-0190:HR01-0180	12008 Edgewater Road	None	
HR01	HR01-0190:HR01-0180	12009 Edgewater Road	None	
HR01	HR01-0190:HR01-0180	12010 Edgewater Road	None	
HR01	HR01-0190:HR01-0180	12011 Edgewater Road	None	
HR01	HR01-0190:HR01-0180	12012 Edgewater Road	None	
HR01	HR01-0190:HR01-0180	12013 Edgewater Road	None	
HR01	HR01-0190:HR01-0180	12014 Edgewater Road	None	

Appendix C - Smoke Testing Defects

Sub-Basin	Line Segment Name	Address	Defect	Remarks
HR01	HR01-0190:HR01-0180	12015 Edgewater Road	None	
HR01	HR01-0190:HR01-0180	12018 Edgewater Road	None	
HR01	HR01-0190:HR01-0180	12019 Edgewater Road	None	
HR01	HR01-0190:HR01-0180	12017 Edgewater Road	None	

Attachment 3
2017 SSA Remedial Measures Plan

February 2019

Remedial Measures Plan

2017 Sanitary Sewer Plan

**Sub-Basins: FL02, MC06, MC07, MC08,
Z001, and portions of P009**

prepared for the



City of Fort Smith, Arkansas

prepared by

RJN Group, Inc.

1808 S. C Street

Fort Smith, Arkansas 72901

(479) 709-9439

February 14, 2019

Mrs. Michelle Dodroe, P.E.
City of Fort Smith
Utility Department
801 Carnall Ave. #500
Fort Smith, AR 72901

Subject: City of Fort Smith, Arkansas
Sanitary Sewer Assessment – Year 2017 SSA Remedial Measures Plan

Dear Mrs. Dodroe:

In accordance with the February 24, 2017 Engineering Agreement and a part of Fort Smith Consent Decree program, RJN Group, Inc. is pleased to submit this Remedial Measures Plan for the above referenced project.

This report includes the analysis and results from six sub-basins (FL02, MC06, MC07, MC08, Z001, and portions of P009) investigated during the 2017 sanitary sewer assessment.

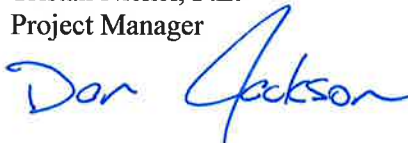
We appreciate the opportunity to work with the City of Fort Smith and the excellent cooperation from the staff throughout the project. We look forward to working with the City in the future. Should you have any questions, please do not hesitate to contact us.

Respectfully Submitted,

RJN GROUP, INC.



Tristan Nickel, P.E.
Project Manager



Daniel Jackson, P.E.
Vice President

TAN/cs/3080
Enclosure

Remedial Measures Plan
2017 Sanitary Sewer Assessment
Sub-Basins: FL02, MC06, MC07, MC08, Z001, and Portions of P009

City of Fort Smith



February 2019

I hereby certify that this report was prepared under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Arkansas.

Tristan Nickel

Date: 2/14/19 Registration No.: 15813



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2017 REMEDIAL MEASURES PLAN

SANITARY SEWER ASSESSMENT – 2017 REMEDIAL MEASURES PLAN

The City of Fort Smith, Arkansas contracted RJN Group, Inc. to conduct a Sanitary Sewer Assessment (SSA) in six (6) sub-basins as part of their Consent Decree program. The six (6) sub-basins were FL02, MC06, MC07, MC08, P009, and Z001, consisting of 1,325 manholes and 304,523 linear feet or 57.6 miles of sanitary sewer pipe.

RJN Group, Inc. services included the following tasks:

- Flow Monitoring
- Manhole Condition Assessment (NASSCO Level 2 Inspections)
- Smoke Testing
- Cleaning and Televising of Sanitary Sewers
- Dyed Water Flooding
- Defect Analysis/Grading
- Manhole and Sewer Line Rehabilitation Recommendations

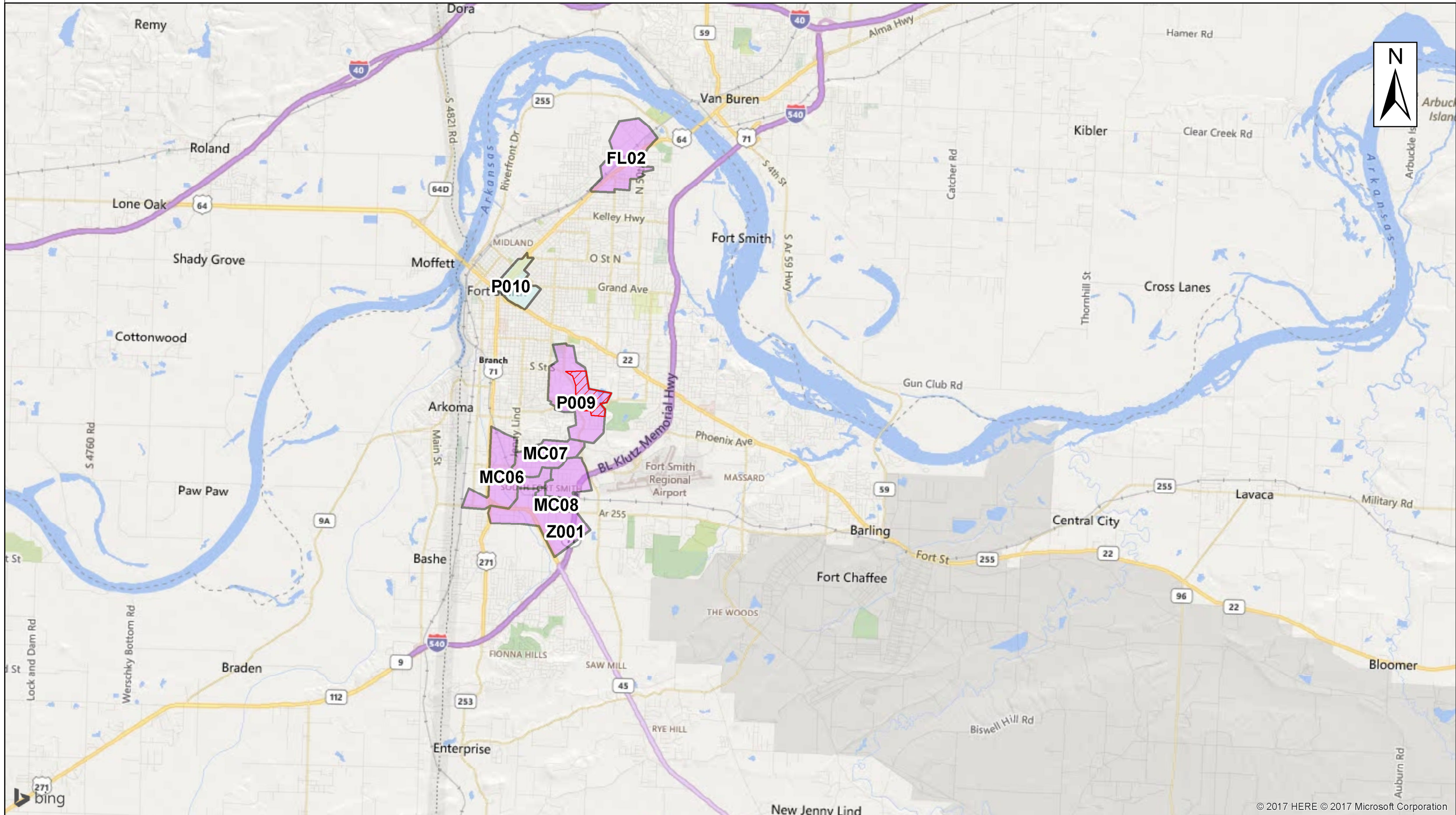
This Remedial Measures Plan discusses the rehabilitation recommendations along with the methodology used to develop the recommendations.

SYSTEM OVERVIEW

The 2017 SSA consisted of six (6) sub-basins (FL02, MC06, MC07, MC08, P009, and Z001). Table 1 summarizes the quantity of manholes and sewer line inspected per sub-basin. Figure 1 shows the sub-basins studied.

Sub-Basins	Number of Manholes	Length of Sewer Pipe	
		Linear Feet	Miles
FL02	201	51,966	9.8
MC06	265	58,942	11.2
MC07	207	40,594	7.7
MC08	86	23,788	4.5
P009	252	50,823	9.6
Z001	314	78,410	14.8
Total	1,325	304,523	57.6

City of Fort Smith, AR



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MANHOLE CONDITION ASSESSMENT

Manhole inspections were conducted utilizing NASSCO MACP Level 2 inspection standards. A level 2 inspection grades manhole defects on a scale of 1 to 5, with 5 having the most severe defects. All inspection data was entered into the Innovyze software, InfoMaster. This software generated grades for all defects notated during inspection. InfoMaster generated defect grades and overall scores were developed for each manhole. A decision tree was developed within InfoMaster to generate the recommended remedial measures for each manhole.

All inspected manholes passed through the remainder of the decision tree to determine the best rehabilitation method for the entire manhole. MACP defect grades are only given for the chimney, cone, wall, bench and channel of a manhole. Per NASSCO defects in the cover, adjustment ring, frame or frame seal are not graded. A series of questions were built into the decision tree to account for these defects when determining the best rehabilitation for the entire manhole.

SMOKE TESTING

Smoke testing was conducted using the dual-blower method. Individual pipelines were isolated where applicable. Defects were noted where smoke was observed. Defects include defective service cleanouts, defective service lines, potential mainline leaks, potential cross-connections with the storm water system, downspouts or area drains. Pictures of the defect, GPS location, address and defect type are recorded.

CLEANING AND TELEVISIONING OF SANITARY SEWERS

Closed circuit television inspection (CCTV) investigations were performed on all non-plastic sewer lines and plastic sewer lines installed prior to 1995. Investigations utilized NASSCO PACP inspection standards. All investigation data was entered into InfoMaster. InfoMaster generated defect grades and overall scores were developed for each line segment using a 1 to 5 scale.

A decision tree was developed in InfoMaster to generate the recommended remedial measures for each line segment. All inspected sewer lines passed through the remainder of the decision tree to determine the best rehabilitation method for the entire line segment.

DYED WATER FLOODING

Dyed water flooding was performed on selected defects identified during smoke testing. These defects consisted of potential mainline leaks and potential cross-connections with the storm water system. Potential mainline leaks on line segments that had a NASSCO score of 4 or 5 from the CCTV condition assessment were not tested.

Dye water flooding is conducted to simulate a rain event. This is executed by flooding the area of a potential defect with dyed water. A flow measurement is taken prior to beginning the test and after a positive result is achieved. The difference between the two measurements represents the quantity of inflow that would enter the sanitary system during a wet-weather event.

REMEDIAL MEASURES

MANHOLE RECOMMENDATIONS

Based on the City's GIS 1,325 manholes were contained within the six sub-basins. From this, 1,162 (88%) were fully inspected. The 163 manholes remaining were unable to be inspected.

NASSCO MACP defect grades were used to generate scores for all manholes. Scores are on a scale of 1 to 5 with 5 being in the worst condition. All inspected manholes were run through the decision tree to receive a rehabilitation recommendation. The breakdown of manholes in each sub-basin, by score, can be seen in Table 2. Table 3 summarizes the recommended manhole rehabilitation by sub-basin. Appendix A defines the rehabilitation action for each manhole.

Table 2
NASSCO MACP SCORE SUMMARY

Sub-Basin	Not Inspected	No Scorable Defect	NASSCO Score					Total
			1	2	3	4	5	
FL02	22	21	8	13	33	19	85	201
MC06	33	37	21	38	49	26	61	265
MC07	26	38	13	24	32	27	47	207
MC08	7	10	4	17	10	11	27	86
P009	40	49	8	10	26	25	94	252
Z001	35	67	22	46	58	24	84	314
Total	163	222	54	148	208	132	398	1,325

Table 3
MANHOLE REHABILITATION SUMMARY^{1/}

Sub-Basin	CMOM	Replacement	Chemical	Coat Wall	Coat Cone	Coat Chimney	New Frame and Cover	Coat Adjustment	Total
			Grout Lower 18 Inches						
FL02	9	71	25	8	4	3	92	27	239
MC06	17	57	16	13	5	5	148	30	291
MC07	12	49	13	12	7	2	114	45	254
MC08	8	23	10	7	1	0	43	24	116
P009	18	75	22	23	13	3	104	30	288
Z001	37	54	43	15	6	3	189	54	401
Total	101	329	129	78	36	16	690	210	1,589

^{1/} Manholes could have multiple action rehabilitation items.

SEWER LINE RECOMMENDATIONS

A total of 304,523 linear feet (57.6 miles) of gravity sewer lines were cleaned. All non-plastic sanitary lines, along with plastic lines installed prior to 1995 were televised. A total of 199,028 linear feet (35 miles) was televised within the six sub-basins studied in 2017.

NASSCO PACP defect grades were used to generate scores for all sanitary gravity lines. Scores are on a scale of 1 to 5 with a score of 5 assigned to the sewer lines with the worst condition. PACP scores, by sub-basin, are summarized in Table 4. Table 5 outlines the preliminary recommended construction technique by sub-basin.

Sub-Basin	No Defects	NASSCO Score (linear feet)					Total
		1	2	3	4	5	
FL02	2,502	1,449	6,434	8,219	6,758	11,864	37,225
MC06	569	113	3,513	16,612	6,791	9,902	37,501
MC07	1,600	0	1,708	8,463	5,036	10,892	27,698
MC08	788	457	1,503	10,735	2,251	4,867	20,601
P009	1,440	521	2,524	2,962	3,693	7,405	18,545
Z001	4,573	871	13,945	17,422	9,724	10,923	57,458
Total	11,472	3,411	29,628	64,413	34,253	55,852	199,028

Sub-Basin	CMOM	CIPP	Pipe Burst	Open Cut	Point Repairs		Total
					Quantity	Length ^{1/}	
FL02	18,604	2,200	8,912	6,456	8	1,053	37,225
MC06	20,807	3,654	10,939	1,816	9	285	37,501
MC07	11,770	2,105	7,440	5,490	4	892	27,698
MC08	13,484	1,645	3,506	1,719	1	248	20,601
P009	7,447	759	4,132	5,221	9	986	18,545
Z001	36,811	6,350	8,047	4,393	15	1,857	57,458
Total	108,923	16,712	42,977	25,095	46	5,321	199,028

1/ Measurements are for complete segments.

PRIVATE SERVICE LINE DEFECTS

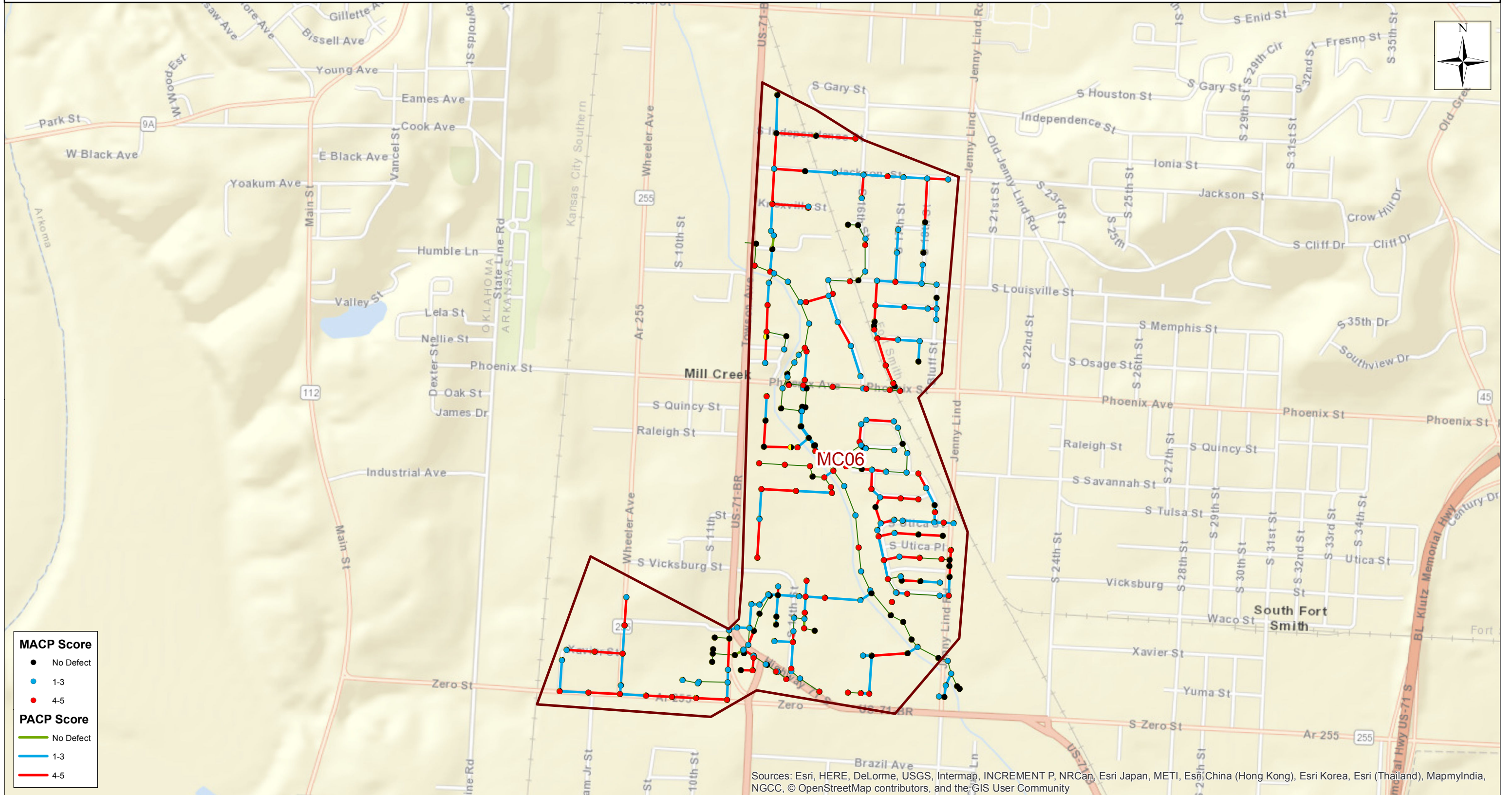
A total of 304,523 linear feet of sanitary sewer lines were smoke tested during the 2017 SSA. There were 225 defective segments located during smoke testing. The Private Service Line Report dated January 2018 will be provided to the City of Fort Smith. This report contains the address, description of defect, photograph of the defect, and other pertinent information.

RECOMMENDATIONS SUMMARY

The sanitary sewer assessment conducted in 2017 included the study of 1,325 manholes, smoke testing 304,523 linear feet of sanitary sewer line, cleaning and televising 199,028 linear feet of sanitary sewer line, and dye testing 32 segments in the study. Rehabilitation recommendations have been provided for 350 manholes and 90,105 linear feet of sanitary sewer lines. Table 6 summarizes the number of manholes and linear feet of sewer line that had a NASSCO grade 4 or 5 broken down by sub-basin. Figures 4 thru 9 outline the location of NASSCO 4 and 5's along with the lines and manholes that scored 1, 2 or 3 and will fall into the City's CMOM program.

Sub-Basin	Manholes	Sewer Lines (linear feet)
FL02	104	18,621
MC06	87	16,694
MC07	74	15,928
MC08	38	7,118
P009	119	11,098
Z001	108	20,647
Total	530	90,105

City of Fort Smith, AR



MACP Score

- No Defect
- 1-3
- 4-5

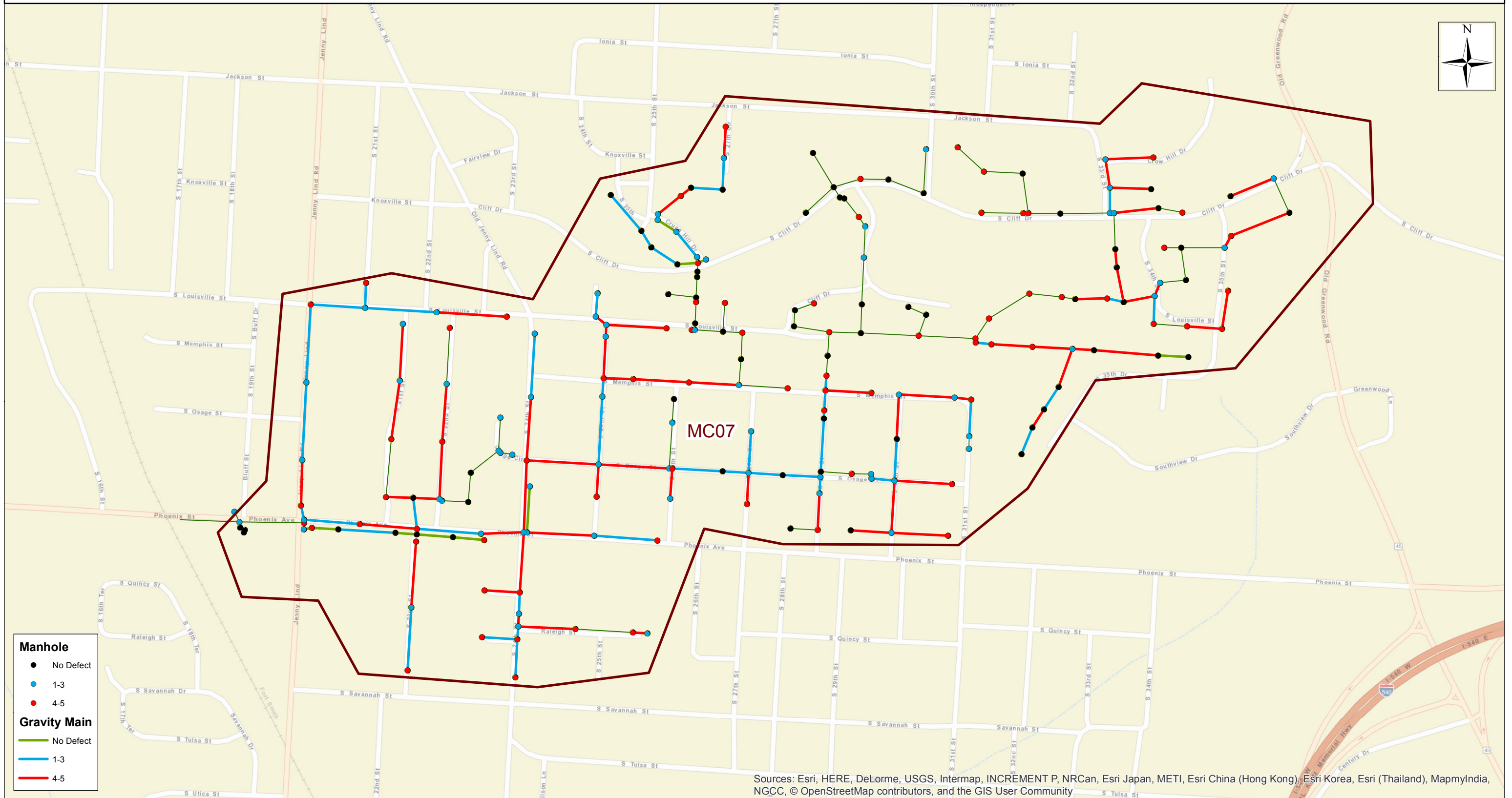
PACP Score

- No Defect
- 1-3
- 4-5

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

● Uninspected Manholes — Gravity Sewer Basin Boundary

City of Fort Smith, AR



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

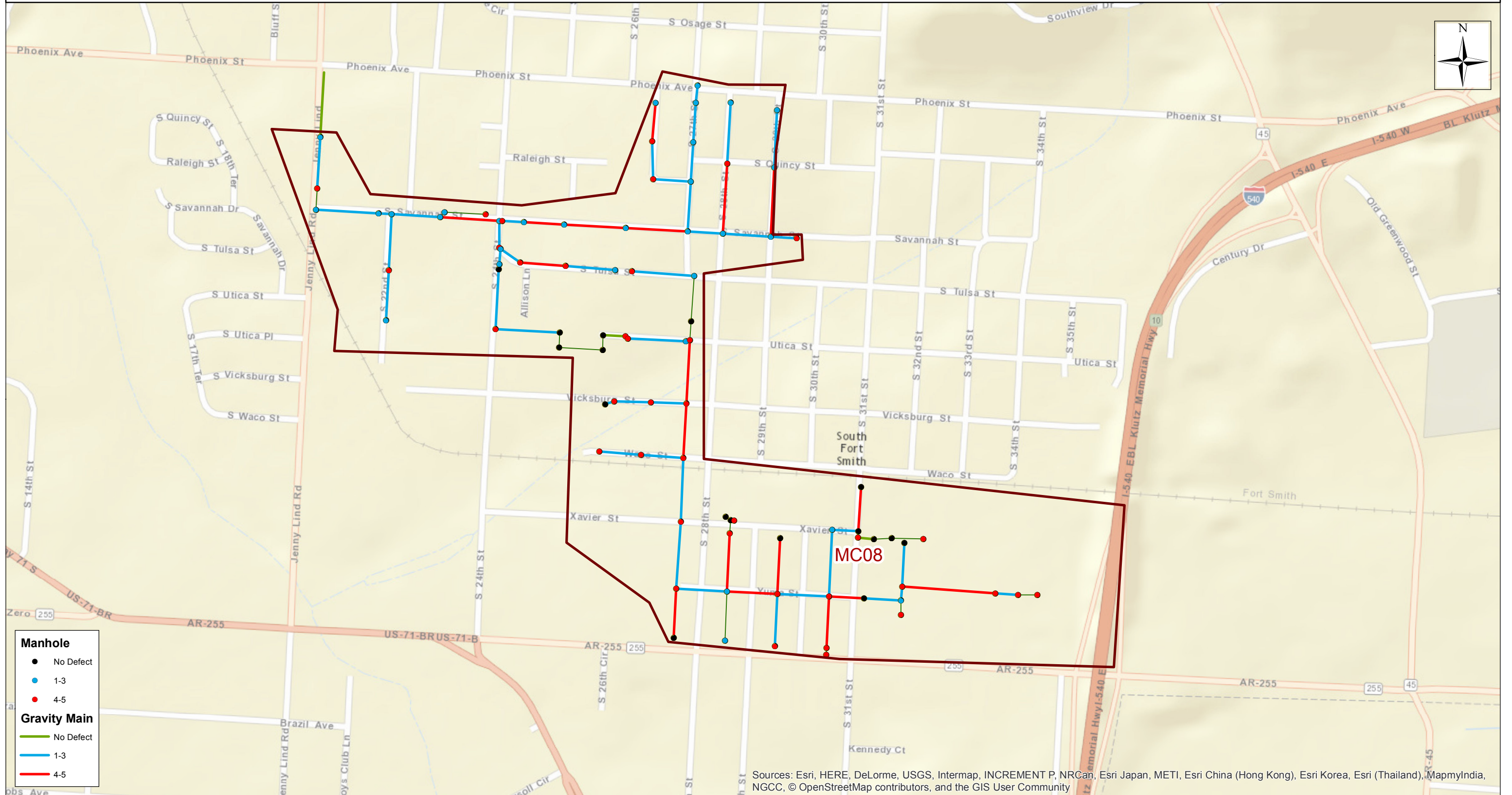


● Uninspected Manholes — Gravity Sewer □ Basin Boundary



Figure 4
NASSCO Scores
Sub-Basin MC07

City of Fort Smith, AR



Manhole

- No Defect
- 1-3
- 4-5

Gravity Main

- No Defect
- 1-3
- 4-5

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

City of Fort Smith, AR

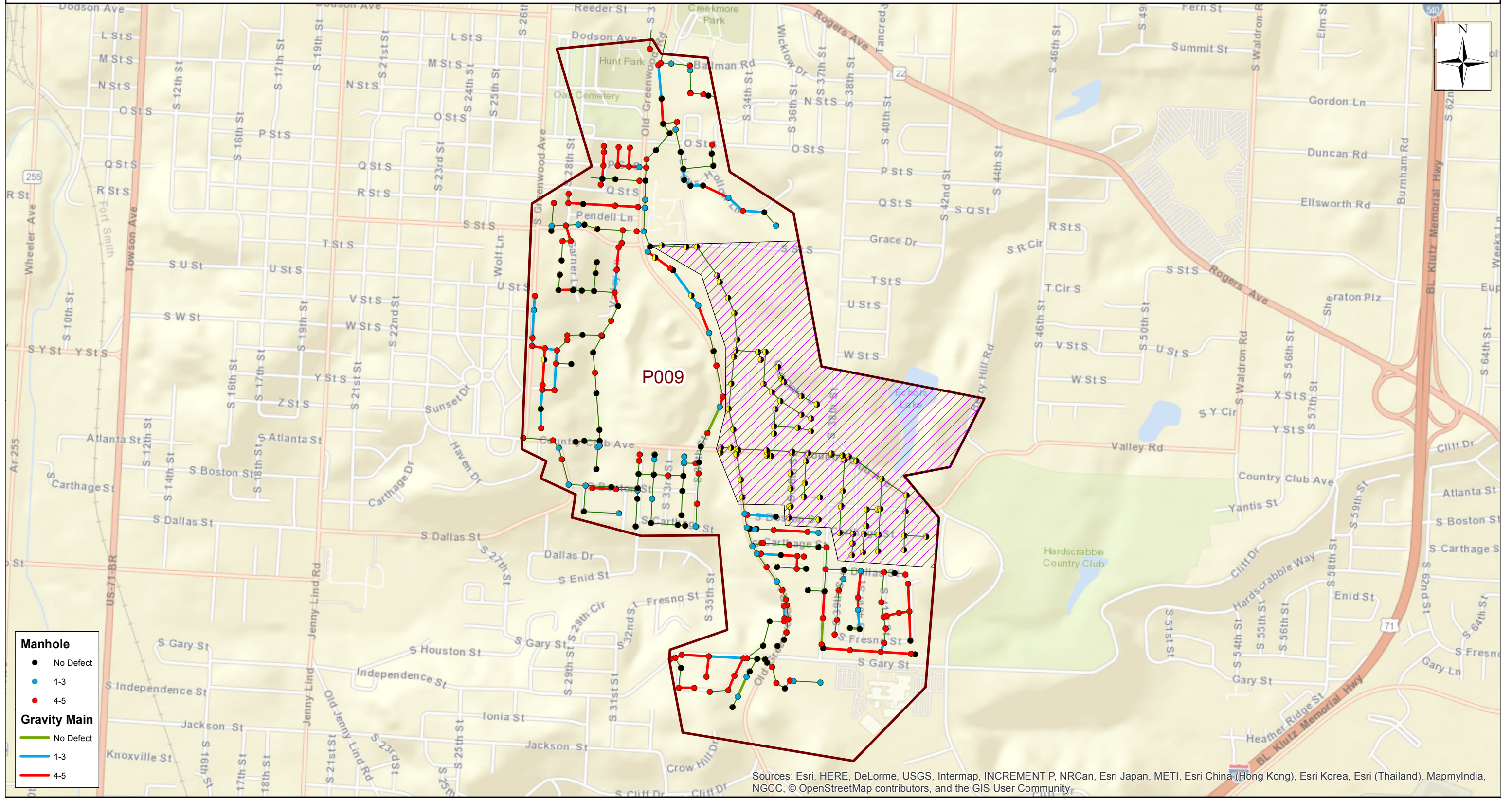


Figure 6
NASSCO Scores
Sub-Basin P009

City of Fort Smith, AR

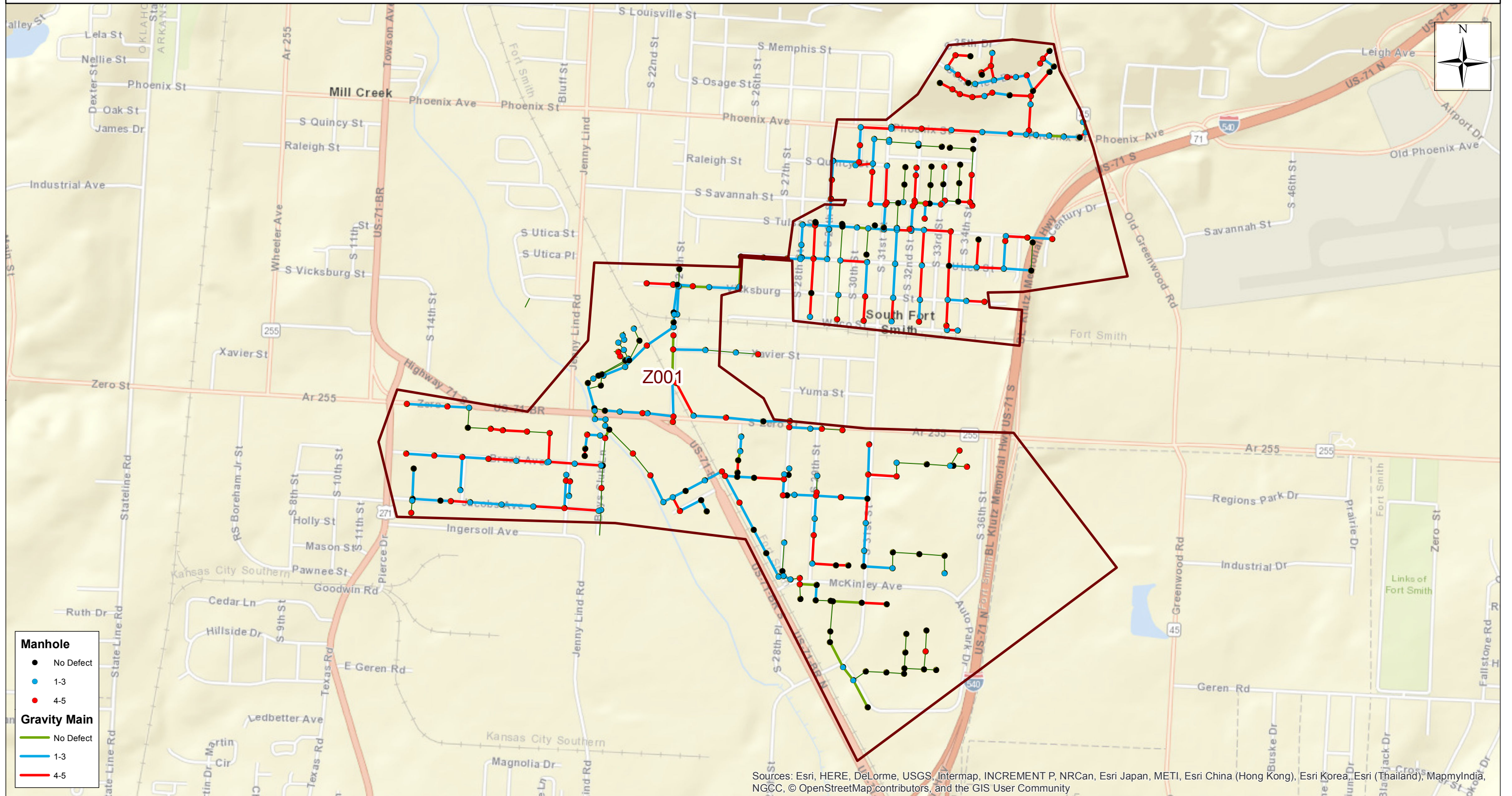


Figure 7
NASSCO Scores
Sub-Basin Z001

APPENDICES

APPENDIX A

RECOMMENDED REHABILITATION – MANHOLES

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
FL02	FL02-0010	No Scoreable Defect	New Frame and Cover, Coat Adjustment
FL02	FL02-0015	3	New Frame and Cover, Coat Adjustment
FL02	FL02-0020	5	Replacement
FL02	FL02-0030	5	Replacement
FL02	FL02-0040	5	Replacement
FL02	FL02-0050	2	New Frame and Cover, Coat Adjustment
FL02	FL02-0060	2	New Frame and Cover, Coat Adjustment
FL02	FL02-0065	3	New Frame and Cover
FL02	FL02-0070	Not Inspected	-
FL02	FL02-0080	1	New Frame and Cover, Coat Adjustment
FL02	FL02-0090	2	New Frame and Cover
FL02	FL02-0100	No Scoreable Defect	New Frame and Cover
FL02	FL02-0110	1	New Frame and Cover, Coat Adjustment
FL02	FL02-0120	No Scoreable Defect	New Frame and Cover
FL02	FL02-0130	5	Replacement
FL02	FL02-0140	5	Chemical Grout Lower 18 Inches
FL02	FL02-0150	4	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
FL02	FL02-0160	No Scoreable Defect	New Frame and Cover
FL02	FL02-0170	Not Inspected	-
FL02	FL02-0180	4	Replacement
FL02	FL02-0190	3	New Frame and Cover
FL02	FL02-0200	3	New Frame and Cover
FL02	FL02-0210	5	Replacement
FL02	FL02-0220	No Scoreable Defect	New Frame and Cover, Coat Adjustment
FL02	FL02-0222	1	New Frame and Cover
FL02	FL02-0230	3	New Frame and Cover
FL02	FL02-0240	4	Replacement
FL02	FL02-0250	5	Replacement
FL02	FL02-0260	5	Replacement
FL02	FL02-0262	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-0264	No Scoreable Defect	New Frame and Cover
FL02	FL02-0266	Not Inspected	-
FL02	FL02-0270	3	New Frame and Cover
FL02	FL02-0280	No Scoreable Defect	New Frame and Cover, Coat Adjustment
FL02	FL02-0290	5	Replacement
FL02	FL02-0300	5	Replacement
FL02	FL02-0310	5	Replacement
FL02	FL02-0320	5	Replacement
FL02	FL02-0330	No Scoreable Defect	New Frame and Cover
FL02	FL02-0340	5	Replacement
FL02	FL02-0350	3	New Frame and Cover
FL02	FL02-0360	5	Chemical Grout Lower 18 Inches, Coat Chimney
FL02	FL02-0370	4	Replacement
FL02	FL02-0370A	No Scoreable Defect	New Frame and Cover
FL02	FL02-0380	4	Replacement
FL02	FL02-0390	5	Replacement
FL02	FL02-0400	Not Inspected	-
FL02	FL02-0410	Not Inspected	-
FL02	FL02-0420	4	Replacement
FL02	FL02-0430	1	New Frame and Cover
FL02	FL02-0440	5	Chemical Grout Lower 18 Inches
FL02	FL02-0450	5	Chemical Grout Lower 18 Inches
FL02	FL02-0455	Not Inspected	-
FL02	FL02-0460	Not Inspected	-
FL02	FL02-0470	5	Replacement
FL02	FL02-0480	4	Replacement
FL02	FL02-0490	Not Inspected	-
FL02	FL02-0500	2	New Frame and Cover
FL02	FL02-0505	Not Inspected	-
FL02	FL02-0516	3	CMOM

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
FL02	FL02-0518	5	Replacement
FL02	FL02-0520	4	Coat Wall, Coat Chimney, New Frame and Cover
FL02	FL02-0522	No Scoreable Defect	New Frame and Cover
FL02	FL02-0524	No Scoreable Defect	New Frame and Cover
FL02	FL02-0526	4	Coat Wall, New Frame and Cover
FL02	FL02-0527	5	Replacement
FL02	FL02-0528	Not Inspected	-
FL02	FL02-0528A	1	CMOM
FL02	FL02-0530	4	Chemical Grout Lower 18 Inches
FL02	FL02-0540	4	Replacement
FL02	FL02-0540A	5	Replacement
FL02	FL02-0550	Not Inspected	-
FL02	FL02-0560	Not Inspected	-
FL02	FL02-0570	2	New Frame and Cover
FL02	FL02-0580	5	Replacement
FL02	FL02-0590	3	New Frame and Cover
FL02	FL02-0592	5	Replacement
FL02	FL02-0595	5	Replacement
FL02	FL02-0600	3	New Frame and Cover
FL02	FL02-0610	1	CMOM
FL02	FL02-0613	Not Inspected	-
FL02	FL02-0620	5	Replacement
FL02	FL02-0630	4	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
FL02	FL02-0640	3	New Frame and Cover
FL02	FL02-0650	3	New Frame and Cover, Coat Adjustment
FL02	FL02-0660	1	CMOM
FL02	FL02-0660A	Not Inspected	-
FL02	FL02-0660B	5	Replacement
FL02	FL02-0660C	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-0670	5	Replacement
FL02	FL02-0673	5	Replacement
FL02	FL02-0674	Not Inspected	-
FL02	FL02-0675	3	New Frame and Cover
FL02	FL02-0677	Not Inspected	-
FL02	FL02-0680	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-0680A	No Scoreable Defect	New Frame and Cover
FL02	FL02-0690	5	Replacement
FL02	FL02-0700	2	CMOM
FL02	FL02-0705	3	CMOM
FL02	FL02-0710	5	Replacement
FL02	FL02-0720	4	Replacement
FL02	FL02-0730	5	Replacement
FL02	FL02-0740	Not Inspected	-
FL02	FL02-0750	3	New Frame and Cover
FL02	FL02-0760	5	Replacement
FL02	FL02-0770	Not Inspected	-
FL02	FL02-0780	5	Replacement
FL02	FL02-0790	5	Replacement
FL02	FL02-0800	5	Replacement
FL02	FL02-0810	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-0820	No Scoreable Defect	New Frame and Cover
FL02	FL02-0830	No Scoreable Defect	New Frame and Cover
FL02	FL02-0850	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
FL02	FL02-0860	3	New Frame and Cover, Coat Adjustment
FL02	FL02-0865	5	Replacement
FL02	FL02-0867	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-0870	5	Replacement
FL02	FL02-0880	3	New Frame and Cover
FL02	FL02-0890	2	New Frame and Cover
FL02	FL02-0900	No Scoreable Defect	New Frame and Cover

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
FL02	FL02-0910	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-0920	5	Coat Wall, New Frame and Cover
FL02	FL02-0930	5	Replacement
FL02	FL02-0940	3	New Frame and Cover
FL02	FL02-0950	No Scoreable Defect	New Frame and Cover
FL02	FL02-0960	3	New Frame and Cover, Coat Adjustment
FL02	FL02-0970	3	New Frame and Cover
FL02	FL02-0980	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-0990	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-1000	3	New Frame and Cover, Coat Adjustment
FL02	FL02-1010	3	New Frame and Cover
FL02	FL02-1020	5	Replacement
FL02	FL02-1030	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
FL02	FL02-1050	1	CMOM
FL02	FL02-1070	No Scoreable Defect	New Frame and Cover
FL02	FL02-1080	No Scoreable Defect	New Frame and Cover, Coat Adjustment
FL02	FL02-1085	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-1090	5	Replacement
FL02	FL02-1100	5	Replacement
FL02	FL02-1130	5	Coat Wall, Coat Cone, New Frame and Cover
FL02	FL02-1140	5	Replacement
FL02	FL02-1150	2	New Frame and Cover
FL02	FL02-1160	Not Inspected	-
FL02	FL02-1170	Not Inspected	-
FL02	FL02-1180	5	Replacement
FL02	FL02-1180A	5	Coat Wall, New Frame and Cover, Coat Adjustment
FL02	FL02-1190	Not Inspected	-
FL02	FL02-1200	5	Replacement
FL02	FL02-1202	4	Chemical Grout Lower 18 Inches, Coat Cone
FL02	FL02-1210	5	Coat Wall, Coat Cone, New Frame and Cover, Coat Adjustment
FL02	FL02-1220	5	Replacement
FL02	FL02-1230	5	Replacement
FL02	FL02-1240	5	Replacement
FL02	FL02-1250	5	Replacement
FL02	FL02-1260	2	New Frame and Cover, Coat Adjustment
FL02	FL02-1260A	3	New Frame and Cover
FL02	FL02-1270	5	Chemical Grout Lower 18 Inches, Coat Chimney, New Frame and Cover
FL02	FL02-1275	2	New Frame and Cover
FL02	FL02-1280	3	New Frame and Cover
FL02	FL02-1290	5	Replacement
FL02	FL02-1300	5	Coat Wall, New Frame and Cover
FL02	FL02-1310	5	Replacement
FL02	FL02-1320	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-1330	3	New Frame and Cover
FL02	FL02-1340	3	New Frame and Cover
FL02	FL02-1350	3	New Frame and Cover, Coat Adjustment
FL02	FL02-1360	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-1370	4	Replacement
FL02	FL02-1380	5	Replacement
FL02	FL02-1390	4	Replacement
FL02	FL02-1398	3	New Frame and Cover, Coat Adjustment
FL02	FL02-1400	5	Replacement
FL02	FL02-1410	No Scoreable Defect	New Frame and Cover
FL02	FL02-1420	3	Coat Adjustment
FL02	FL02-1425	No Scoreable Defect	CMOM
FL02	FL02-1430	2	New Frame and Cover
FL02	FL02-1440	5	Replacement
FL02	FL02-1450	5	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-1460	5	Replacement
FL02	FL02-1470	3	New Frame and Cover

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
FL02	FL02-1480	2	New Frame and Cover, Coat Adjustment
FL02	FL02-1490	5	Replacement
FL02	FL02-1500	Not Inspected	-
FL02	FL02-1510	4	Chemical Grout Lower 18 Inches, New Frame and Cover
FL02	FL02-1520	4	Replacement
FL02	FL02-1530	5	Replacement
FL02	FL02-1540	5	Replacement
FL02	FL02-1550	5	Coat Wall, Coat Cone, New Frame and Cover
FL02	FL02-1560	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
FL02	FL02-1570	4	Replacement
FL02	FL02-1580	No Scoreable Defect	CMOM
FL02	FL02-1590	2	New Frame and Cover, Coat Adjustment
FL02	FL02-1600	5	Replacement
FL02	FL02-1610	5	Replacement
FL02	FL02-1620	3	New Frame and Cover
FL02	FL02-1630	5	Replacement
FL02	FL02-1640	3	New Frame and Cover
FL02	FL02-1650	5	Replacement
FL02	FL02-1660	5	Replacement
FL02	FL02-1670	5	Replacement
FL02	FL02-1680	3	New Frame and Cover, Coat Adjustment
MC06	MC06-0010	5	Replacement
MC06	MC06-0010A	No Scoreable Defect	New Frame and Cover
MC06	MC06-0016	4	Coat Wall, Coat Chimney
MC06	MC06-0016A	Not Inspected	-
MC06	MC06-0020	3	CMOM
MC06	MC06-0025	3	CMOM
MC06	MC06-0030	3	New Frame and Cover
MC06	MC06-0050	5	Replacement
MC06	MC06-0060	4	Chemical Grout Lower 18 Inches, Coat Wall
MC06	MC06-0060A	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC06	MC06-0060B	1	CMOM
MC06	MC06-0070	3	New Frame and Cover, Coat Adjustment
MC06	MC06-0080	2	New Frame and Cover
MC06	MC06-0090	2	New Frame and Cover, Coat Adjustment
MC06	MC06-0100	5	Replacement
MC06	MC06-0110	2	New Frame and Cover, Coat Adjustment
MC06	MC06-0115	4	Replacement
MC06	MC06-0120	3	New Frame and Cover
MC06	MC06-0130	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC06	MC06-0140	No Scoreable Defect	New Frame and Cover
MC06	MC06-0150	5	Replacement
MC06	MC06-0160	Not Inspected	-
MC06	MC06-0170	No Scoreable Defect	New Frame and Cover
MC06	MC06-0180	2	New Frame and Cover
MC06	MC06-0190	3	New Frame and Cover, Coat Adjustment
MC06	MC06-0200	1	Coat Adjustment
MC06	MC06-0205	5	Replacement
MC06	MC06-0210	3	New Frame and Cover, Coat Adjustment
MC06	MC06-0220	2	New Frame and Cover, Coat Adjustment
MC06	MC06-0230	3	New Frame and Cover, Coat Adjustment
MC06	MC06-0240	No Scoreable Defect	New Frame and Cover
MC06	MC06-0250	No Scoreable Defect	New Frame and Cover
MC06	MC06-0260	2	CMOM
MC06	MC06-0270	3	New Frame and Cover
MC06	MC06-0280	4	Replacement
MC06	MC06-0290	5	Replacement
MC06	MC06-0300	5	Chemical Grout Lower 18 Inches, Coat Chimney, New Frame and Cover
MC06	MC06-0305	5	Coat Wall, New Frame and Cover
MC06	MC06-0310	5	Replacement

Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
MC06	MC06-0318	3	New Frame and Cover, Coat Adjustment
MC06	MC06-0320	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
MC06	MC06-0330	5	Coat Wall, New Frame and Cover, Coat Adjustment
MC06	MC06-0335	4	Coat Wall, New Frame and Cover, Coat Adjustment
MC06	MC06-0340	Not Inspected	-
MC06	MC06-0350	5	Replacement
MC06	MC06-0360	5	Replacement
MC06	MC06-0370	5	Replacement
MC06	MC06-0380	2	New Frame and Cover
MC06	MC06-0390	3	New Frame and Cover
MC06	MC06-0400	Not Inspected	-
MC06	MC06-0410	5	Replacement
MC06	MC06-0412	No Scoreable Defect	New Frame and Cover
MC06	MC06-0414	No Scoreable Defect	New Frame and Cover
MC06	MC06-0420	5	Replacement
MC06	MC06-0430	5	Coat Wall, Coat Cone, New Frame and Cover
MC06	MC06-0440	1	New Frame and Cover
MC06	MC06-0450	3	New Frame and Cover
MC06	MC06-0460	3	CMOM
MC06	MC06-0470	Not Inspected	-
MC06	MC06-0480	1	New Frame and Cover
MC06	MC06-0490	4	Replacement
MC06	MC06-0500	3	New Frame and Cover
MC06	MC06-0510	1	New Frame and Cover
MC06	MC06-0520	3	New Frame and Cover, Coat Adjustment
MC06	MC06-0525	1	New Frame and Cover
MC06	MC06-0530	3	New Frame and Cover
MC06	MC06-0542	1	New Frame and Cover
MC06	MC06-0544	No Scoreable Defect	New Frame and Cover
MC06	MC06-0546	No Scoreable Defect	CMOM
MC06	MC06-0548	Not Inspected	-
MC06	MC06-0550	2	New Frame and Cover
MC06	MC06-0560	No Scoreable Defect	New Frame and Cover
MC06	MC06-0570	Not Inspected	-
MC06	MC06-0580	5	Replacement
MC06	MC06-0590	5	Replacement
MC06	MC06-0600	1	CMOM
MC06	MC06-0605	No Scoreable Defect	New Frame and Cover
MC06	MC06-0610	1	New Frame and Cover
MC06	MC06-0620	2	New Frame and Cover
MC06	MC06-0621	4	Chemical Grout Lower 18 Inches, New Frame and Cover
MC06	MC06-0630	2	New Frame and Cover
MC06	MC06-0640	1	New Frame and Cover, Coat Adjustment
MC06	MC06-0650	3	New Frame and Cover
MC06	MC06-0660	5	Chemical Grout Lower 18 Inches
MC06	MC06-0670	No Scoreable Defect	New Frame and Cover
MC06	MC06-0680	3	New Frame and Cover
MC06	MC06-0690	3	New Frame and Cover
MC06	MC06-0700	3	New Frame and Cover
MC06	MC06-0710	2	New Frame and Cover
MC06	MC06-0720	Not Inspected	-
MC06	MC06-0730	2	New Frame and Cover
MC06	MC06-0740	4	Replacement
MC06	MC06-0750	1	New Frame and Cover
MC06	MC06-0760	5	Replacement
MC06	MC06-0770	5	Replacement
MC06	MC06-0780	Not Inspected	-
MC06	MC06-0790	3	New Frame and Cover
MC06	MC06-0800	1	New Frame and Cover
MC06	MC06-0810	3	New Frame and Cover

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
MC06	MC06-0820	3	New Frame and Cover
MC06	MC06-0830	4	Replacement
MC06	MC06-0835	3	New Frame and Cover
MC06	MC06-0840	4	Replacement
MC06	MC06-0850	Not Inspected	-
MC06	MC06-0860	3	New Frame and Cover
MC06	MC06-0870	5	Replacement
MC06	MC06-0880	3	New Frame and Cover
MC06	MC06-0890	4	Replacement
MC06	MC06-0900	1	New Frame and Cover
MC06	MC06-0910	No Scoreable Defect	New Frame and Cover
MC06	MC06-0920	No Scoreable Defect	New Frame and Cover
MC06	MC06-0930	4	Replacement
MC06	MC06-0940	3	New Frame and Cover
MC06	MC06-0950	5	Replacement
MC06	MC06-0960	5	Replacement
MC06	MC06-0970	Not Inspected	-
MC06	MC06-0980	Not Inspected	-
MC06	MC06-0990	5	Chemical Grout Lower 18 Inches, New Frame and Cover
MC06	MC06-1000	2	New Frame and Cover
MC06	MC06-1010	No Scoreable Defect	New Frame and Cover
MC06	MC06-1020	No Scoreable Defect	New Frame and Cover
MC06	MC06-1030	2	New Frame and Cover
MC06	MC06-1040	1	New Frame and Cover
MC06	MC06-1050	4	Replacement
MC06	MC06-1050A	5	Chemical Grout Lower 18 Inches, New Frame and Cover
MC06	MC06-1060	4	Replacement
MC06	MC06-1070	2	New Frame and Cover
MC06	MC06-1080	4	Coat Wall, Coat Cone, Coat Chimney, New Frame and Cover
MC06	MC06-1090	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC06	MC06-1100	5	Replacement
MC06	MC06-1120	Not Inspected	-
MC06	MC06-1120A	3	New Frame and Cover
MC06	MC06-1120B	2	CMOM
MC06	MC06-1128	Not Inspected	-
MC06	MC06-1128A	1	New Frame and Cover
MC06	MC06-1130	5	Chemical Grout Lower 18 Inches
MC06	MC06-1130A	2	New Frame and Cover
MC06	MC06-1135	No Scoreable Defect	New Frame and Cover
MC06	MC06-1135A	2	New Frame and Cover
MC06	MC06-1138	No Scoreable Defect	New Frame and Cover
MC06	MC06-1140	No Scoreable Defect	New Frame and Cover
MC06	MC06-1140A	2	New Frame and Cover
MC06	MC06-1150	Not Inspected	-
MC06	MC06-1150A	4	Coat Wall, Coat Chimney
MC06	MC06-1160	5	Replacement
MC06	MC06-1170	Not Inspected	-
MC06	MC06-1180	Not Inspected	-
MC06	MC06-1190	4	Coat Wall, Coat Cone, New Frame and Cover
MC06	MC06-1200	Not Inspected	-
MC06	MC06-1205	5	Replacement
MC06	MC06-1210	4	Replacement
MC06	MC06-1212	5	Coat Wall, Coat Cone, New Frame and Cover
MC06	MC06-1212A	No Scoreable Defect	New Frame and Cover
MC06	MC06-1212B	5	Chemical Grout Lower 18 Inches
MC06	MC06-1212C	5	Replacement
MC06	MC06-1212D	5	Replacement
MC06	MC06-1214	5	Coat Wall, New Frame and Cover
MC06	MC06-1216	5	Replacement
MC06	MC06-1220	5	Coat Chimney

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
MC06	MC06-1230	5	Replacement
MC06	MC06-1240	2	New Frame and Cover
MC06	MC06-1250	5	Replacement
MC06	MC06-1260	3	New Frame and Cover
MC06	MC06-1270	3	New Frame and Cover
MC06	MC06-1280	5	Replacement
MC06	MC06-1290	3	New Frame and Cover
MC06	MC06-1300	3	New Frame and Cover
MC06	MC06-1310	5	Coat Cone, New Frame and Cover, Coat Adjustment
MC06	MC06-1320	4	Chemical Grout Lower 18 Inches, New Frame and Cover
MC06	MC06-1330	5	Replacement
MC06	MC06-1340	4	Replacement
MC06	MC06-1350	3	New Frame and Cover
MC06	MC06-1351	5	Coat Wall
MC06	MC06-1352	No Scoreable Defect	New Frame and Cover
MC06	MC06-1355	2	New Frame and Cover
MC06	MC06-1360	3	New Frame and Cover
MC06	MC06-1370	4	Replacement
MC06	MC06-1380	1	New Frame and Cover, Coat Adjustment
MC06	MC06-1390	5	Replacement
MC06	MC06-1410	2	New Frame and Cover
MC06	MC06-1420	No Scoreable Defect	New Frame and Cover
MC06	MC06-1430	2	New Frame and Cover
MC06	MC06-1440	Not Inspected	-
MC06	MC06-1450	Not Inspected	-
MC06	MC06-1460	1	New Frame and Cover
MC06	MC06-1470	Not Inspected	-
MC06	MC06-1480	Not Inspected	-
MC06	MC06-1490	Not Inspected	-
MC06	MC06-1500	2	New Frame and Cover
MC06	MC06-1510	2	New Frame and Cover, Coat Adjustment
MC06	MC06-1510A	3	New Frame and Cover, Coat Adjustment
MC06	MC06-1515	Not Inspected	-
MC06	MC06-1520	Not Inspected	-
MC06	MC06-1530	Not Inspected	-
MC06	MC06-1540	Not Inspected	-
MC06	MC06-1550	Not Inspected	-
MC06	MC06-1560	3	New Frame and Cover, Coat Adjustment
MC06	MC06-1560A	5	Coat Wall, New Frame and Cover
MC06	MC06-1570	5	Replacement
MC06	MC06-1580	Not Inspected	-
MC06	MC06-1590	3	New Frame and Cover
MC06	MC06-1600	Not Inspected	-
MC06	MC06-1610	5	Chemical Grout Lower 18 Inches, New Frame and Cover
MC06	MC06-1620	2	New Frame and Cover
MC06	MC06-1630	5	Chemical Grout Lower 18 Inches, New Frame and Cover
MC06	MC06-1640	3	CMOM
MC06	MC06-1650	3	New Frame and Cover
MC06	MC06-1660	3	New Frame and Cover
MC06	MC06-1670	2	New Frame and Cover, Coat Adjustment
MC06	MC06-1680	3	New Frame and Cover
MC06	MC06-1690	Not Inspected	-
MC06	MC06-1700	Not Inspected	-
MC06	MC06-1710	2	New Frame and Cover
MC06	MC06-1715	2	CMOM
MC06	MC06-1720	4	Replacement
MC06	MC06-1730	5	Chemical Grout Lower 18 Inches, New Frame and Cover
MC06	MC06-1740	5	Replacement
MC06	MC06-1750	5	Replacement
MC06	MC06-1760	5	Replacement

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
MC06	MC06-1770	5	Replacement
MC06	MC06-1780	4	Replacement
MC06	MC06-1790	1	New Frame and Cover
MC06	MC06-1800	3	New Frame and Cover
MC06	MC06-1810	4	Replacement
MC06	MC06-1820	5	Replacement
MC06	MC06-1830	3	New Frame and Cover, Coat Adjustment
MC06	MC06-1840	5	Replacement
MC06	MC06-1850	2	New Frame and Cover
MC06	MC06-1855	3	CMOM
MC06	MC06-1860	No Scoreable Defect	New Frame and Cover
MC06	MC06-1870	No Scoreable Defect	CMOM
MC06	MC06-1875	No Scoreable Defect	New Frame and Cover
MC06	MC06-1880	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC06	MC06-1890	3	New Frame and Cover
MC06	MC06-1891	No Scoreable Defect	CMOM
MC06	MC06-1892	1	New Frame and Cover
MC06	MC06-1893	2	New Frame and Cover
MC06	MC06-1894	1	New Frame and Cover
MC06	MC06-1895	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC06	MC06-1900	No Scoreable Defect	New Frame and Cover
MC06	MC06-1910	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC06	MC06-1920	3	New Frame and Cover
MC06	MC06-1930	4	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
MC06	MC06-1940	5	Replacement
MC06	MC06-1950	4	Replacement
MC06	MC06-1960	No Scoreable Defect	CMOM
MC06	MC06-1970	Not Inspected	-
MC06	MC06-2000	5	Replacement
MC06	MC06-2010	1	New Frame and Cover
MC06	MC06-2020	3	New Frame and Cover
MC06	MC06-2030	3	New Frame and Cover
MC06	MC06-2040	2	New Frame and Cover
MC06	MC06-2050	5	Chemical Grout Lower 18 Inches, New Frame and Cover
MC06	MC06-2060	2	New Frame and Cover
MC06	MC06-2070	5	Chemical Grout Lower 18 Inches
MC06	MC06-2080	No Scoreable Defect	CMOM
MC06	MC06-2090	2	New Frame and Cover, Coat Adjustment
MC06	MC06-2100	5	Replacement
MC06	MC06-2110	2	New Frame and Cover
MC06	MC06-2120	No Scoreable Defect	New Frame and Cover
MC06	MC06-2130	No Scoreable Defect	New Frame and Cover
MC06	MC06-2210	3	New Frame and Cover, Coat Adjustment
MC06	MC06-2300	2	New Frame and Cover
MC06	MC06-2300A	2	CMOM
MC06	MC06-2310	2	CMOM
MC07	MC07-0010	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0015	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0020	No Scoreable Defect	New Frame and Cover
MC07	MC07-0022	No Scoreable Defect	New Frame and Cover
MC07	MC07-0025	No Scoreable Defect	New Frame and Cover
MC07	MC07-0030	4	Replacement
MC07	MC07-0040	2	CMOM
MC07	MC07-0043	5	Replacement
MC07	MC07-0050	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0060	3	New Frame and Cover
MC07	MC07-0070	5	Coat Cone, New Frame and Cover, Coat Adjustment
MC07	MC07-0080	3	New Frame and Cover
MC07	MC07-0090	5	Replacement
MC07	MC07-0100	2	New Frame and Cover

Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
MC07	MC07-0110	5	Chemical Grout Lower 18 Inches, Coat Wall
MC07	MC07-0120	5	Replacement
MC07	MC07-0130	4	Coat Wall, New Frame and Cover, Coat Adjustment
MC07	MC07-0140	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0142	5	Coat Wall, Coat Cone, Coat Chimney
MC07	MC07-0150	5	Replacement
MC07	MC07-0160	No Scoreable Defect	New Frame and Cover
MC07	MC07-0170	5	Coat Wall, Coat Cone
MC07	MC07-0180	5	Replacement
MC07	MC07-0190	3	CMOM
MC07	MC07-0200	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0210	3	New Frame and Cover
MC07	MC07-0220	4	Replacement
MC07	MC07-0230	2	New Frame and Cover
MC07	MC07-0240	5	Replacement
MC07	MC07-0250	2	New Frame and Cover, Coat Adjustment
MC07	MC07-0260	2	CMOM
MC07	MC07-0270	5	Replacement
MC07	MC07-0280	4	Replacement
MC07	MC07-0290	2	New Frame and Cover, Coat Adjustment
MC07	MC07-0300	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0310	5	Replacement
MC07	MC07-0320	5	Replacement
MC07	MC07-0330	5	Replacement
MC07	MC07-0340	4	Chemical Grout Lower 18 Inches, New Frame and Cover
MC07	MC07-0350	4	Replacement
MC07	MC07-0360	2	New Frame and Cover
MC07	MC07-0370	1	New Frame and Cover, Coat Adjustment
MC07	MC07-0380	4	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
MC07	MC07-0390	5	Replacement
MC07	MC07-0400	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0410	2	New Frame and Cover
MC07	MC07-0420	2	New Frame and Cover, Coat Adjustment
MC07	MC07-0430	4	Coat Cone, New Frame and Cover, Coat Adjustment
MC07	MC07-0440	2	New Frame and Cover, Coat Adjustment
MC07	MC07-0450	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
MC07	MC07-0460	1	New Frame and Cover, Coat Adjustment
MC07	MC07-0470	3	New Frame and Cover
MC07	MC07-0480	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0490	3	New Frame and Cover
MC07	MC07-0500	5	Replacement
MC07	MC07-0510	4	Replacement
MC07	MC07-0520	5	Replacement
MC07	MC07-0530	3	New Frame and Cover
MC07	MC07-0540	4	Replacement
MC07	MC07-0550	Not Inspected	-
MC07	MC07-0560	5	Replacement
MC07	MC07-0570	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC07	MC07-0580	5	Chemical Grout Lower 18 Inches, Coat Chimney, New Frame and Cover, Coat Adjustment
MC07	MC07-0590	1	New Frame and Cover
MC07	MC07-0600	4	Replacement
MC07	MC07-0610	No Scoreable Defect	New Frame and Cover
MC07	MC07-0620	4	Chemical Grout Lower 18 Inches, New Frame and Cover
MC07	MC07-0630	Not Inspected	-
MC07	MC07-0640	No Scoreable Defect	New Frame and Cover
MC07	MC07-0650	Not Inspected	-
MC07	MC07-0660	Not Inspected	-
MC07	MC07-0670	4	Replacement
MC07	MC07-0680	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0690	Not Inspected	-

Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
MC07	MC07-0700	Not Inspected	-
MC07	MC07-0710	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC07	MC07-0720	Not Inspected	-
MC07	MC07-0740	1	New Frame and Cover
MC07	MC07-0750	3	New Frame and Cover
MC07	MC07-0760	3	New Frame and Cover
MC07	MC07-0770	1	New Frame and Cover
MC07	MC07-0780	4	Chemical Grout Lower 18 Inches, Coat Wall
MC07	MC07-0790	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC07	MC07-0800	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC07	MC07-0810	1	New Frame and Cover, Coat Adjustment
MC07	MC07-0820	4	Coat Wall, New Frame and Cover
MC07	MC07-0828	1	New Frame and Cover, Coat Adjustment
MC07	MC07-0830	4	Replacement
MC07	MC07-0840	2	New Frame and Cover, Coat Adjustment
MC07	MC07-0860	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC07	MC07-0870	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0880	2	New Frame and Cover
MC07	MC07-0890	4	Replacement
MC07	MC07-0900	Not Inspected	-
MC07	MC07-0910	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0910A	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC07	MC07-0912	No Scoreable Defect	New Frame and Cover
MC07	MC07-0920	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0930	4	Coat Wall, New Frame and Cover
MC07	MC07-0940	No Scoreable Defect	CMOM
MC07	MC07-0945	1	New Frame and Cover, Coat Adjustment
MC07	MC07-0945A	1	New Frame and Cover
MC07	MC07-0945B	5	Replacement
MC07	MC07-0950	2	New Frame and Cover, Coat Adjustment
MC07	MC07-0960	4	Replacement
MC07	MC07-0970	3	New Frame and Cover, Coat Adjustment
MC07	MC07-0980	No Scoreable Defect	New Frame and Cover
MC07	MC07-0990	5	Replacement
MC07	MC07-1000	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC07	MC07-1010	2	New Frame and Cover
MC07	MC07-1020	3	CMOM
MC07	MC07-1030	5	Coat Wall, Coat Cone, New Frame and Cover
MC07	MC07-1040	3	New Frame and Cover, Coat Adjustment
MC07	MC07-1040A	1	New Frame and Cover, Coat Adjustment
MC07	MC07-1050	5	Replacement
MC07	MC07-1060	5	Replacement
MC07	MC07-1070	4	Replacement
MC07	MC07-1080	4	Replacement
MC07	MC07-1090	No Scoreable Defect	New Frame and Cover
MC07	MC07-1100	5	Replacement
MC07	MC07-1110	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC07	MC07-1120	5	Chemical Grout Lower 18 Inches, New Frame and Cover
MC07	MC07-1123	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC07	MC07-1127	Not Inspected	-
MC07	MC07-1130	5	Replacement
MC07	MC07-1140	5	Chemical Grout Lower 18 Inches, New Frame and Cover
MC07	MC07-1150	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
MC07	MC07-1160	4	Coat Wall, New Frame and Cover
MC07	MC07-1170	2	New Frame and Cover, Coat Adjustment
MC07	MC07-1180	No Scoreable Defect	New Frame and Cover
MC07	MC07-1190	Not Inspected	-
MC07	MC07-1200	Not Inspected	-
MC07	MC07-1210	Not Inspected	-
MC07	MC07-1220	Not Inspected	-

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
MC07	MC07-1230	Not Inspected	-
MC07	MC07-1240	No Scoreable Defect	New Frame and Cover
MC07	MC07-1250	5	Replacement
MC07	MC07-1260	5	Coat Wall, Coat Cone, New Frame and Cover
MC07	MC07-1265	5	Chemical Grout Lower 18 Inches, New Frame and Cover
MC07	MC07-1270	No Scoreable Defect	New Frame and Cover
MC07	MC07-1280	4	Replacement
MC07	MC07-1290	No Scoreable Defect	New Frame and Cover
MC07	MC07-1300	3	New Frame and Cover
MC07	MC07-1310	4	Replacement
MC07	MC07-1320	5	Replacement
MC07	MC07-1330	5	Replacement
MC07	MC07-1340	5	Replacement
MC07	MC07-1350	3	New Frame and Cover
MC07	MC07-1360	No Scoreable Defect	New Frame and Cover
MC07	MC07-1370	No Scoreable Defect	CMOM
MC07	MC07-1380	5	Replacement
MC07	MC07-1390	3	New Frame and Cover
MC07	MC07-1400	5	Replacement
MC07	MC07-1410	Not Inspected	-
MC07	MC07-1420	3	New Frame and Cover
MC07	MC07-1430	No Scoreable Defect	New Frame and Cover
MC07	MC07-1440	Not Inspected	-
MC07	MC07-1450	Not Inspected	-
MC07	MC07-1460	2	New Frame and Cover
MC07	MC07-1470	Not Inspected	-
MC07	MC07-1480	5	Replacement
MC07	MC07-1490	2	New Frame and Cover
MC07	MC07-1500	3	New Frame and Cover
MC07	MC07-1510	Not Inspected	-
MC07	MC07-1520	2	New Frame and Cover, Coat Adjustment
MC07	MC07-1530	4	Coat Wall, New Frame and Cover
MC07	MC07-1540	Not Inspected	-
MC07	MC07-1550	5	Replacement
MC07	MC07-1560	5	Replacement
MC07	MC07-1570	4	Replacement
MC07	MC07-1580	Not Inspected	-
MC07	MC07-1590	5	Chemical Grout Lower 18 Inches, New Frame and Cover
MC07	MC07-1600	5	Replacement
MC07	MC07-1610	No Scoreable Defect	New Frame and Cover
MC07	MC07-1620	2	New Frame and Cover
MC07	MC07-1630	2	CMOM
MC07	MC07-1640	4	Replacement
MC07	MC07-1650	Not Inspected	-
MC07	MC07-1660	Not Inspected	-
MC07	MC07-1670	No Scoreable Defect	New Frame and Cover
MC07	MC07-1680	No Scoreable Defect	New Frame and Cover
MC07	MC07-1690	Not Inspected	-
MC07	MC07-1700	5	Replacement
MC07	MC07-1710	Not Inspected	-
MC07	MC07-1720	Not Inspected	-
MC07	MC07-1730	2	New Frame and Cover
MC07	MC07-2000	3	New Frame and Cover
MC07	MC07-2010	No Scoreable Defect	New Frame and Cover
MC07	MC07-2020	No Scoreable Defect	CMOM
MC07	MC07-2030	2	New Frame and Cover
MC07	MC07-2040	1	New Frame and Cover, Coat Adjustment
MC07	MC07-2050	2	New Frame and Cover
MC07	MC07-2060	2	New Frame and Cover
MC07	MC07-2200	No Scoreable Defect	New Frame and Cover

Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
MC07	MC07-2210	No Scoreable Defect	New Frame and Cover
MC07	MC07-2220	5	Replacement
MC07	MC07-2230	3	New Frame and Cover
MC07	MC07-2240	5	Coat Wall, Coat Cone
MC07	MC07-2250	No Scoreable Defect	New Frame and Cover
MC07	MC07-2260	No Scoreable Defect	New Frame and Cover
MC07	MC07-2270	No Scoreable Defect	CMOM
MC07	MC07-2280	No Scoreable Defect	CMOM
MC07	MC07-2290	5	Chemical Grout Lower 18 Inches
MC07	MC07-2300	1	New Frame and Cover
MC07	MC07-2310	3	CMOM
MC07	MC07-2320	1	New Frame and Cover
MC07	MC07-2330	No Scoreable Defect	CMOM
MC08	MC08-0010	3	New Frame and Cover, Coat Adjustment
MC08	MC08-0015	5	Replacement
MC08	MC08-0020	2	New Frame and Cover, Coat Adjustment
MC08	MC08-0030	3	New Frame and Cover, Coat Adjustment
MC08	MC08-0040	3	New Frame and Cover, Coat Adjustment
MC08	MC08-0050	5	Replacement
MC08	MC08-0060	2	New Frame and Cover, Coat Adjustment
MC08	MC08-0070	3	New Frame and Cover
MC08	MC08-0075	2	New Frame and Cover, Coat Adjustment
MC08	MC08-0078	5	Replacement
MC08	MC08-0078A	2	New Frame and Cover
MC08	MC08-0080	4	Replacement
MC08	MC08-0085	3	New Frame and Cover
MC08	MC08-0090	1	New Frame and Cover
MC08	MC08-0100	2	New Frame and Cover, Coat Adjustment
MC08	MC08-0110	1	New Frame and Cover, Coat Adjustment
MC08	MC08-0140	2	New Frame and Cover, Coat Adjustment
MC08	MC08-0150	4	Replacement
MC08	MC08-0160	4	Chemical Grout Lower 18 Inches, New Frame and Cover
MC08	MC08-0170	2	New Frame and Cover
MC08	MC08-0180	2	New Frame and Cover, Coat Adjustment
MC08	MC08-0190	2	New Frame and Cover, Coat Adjustment
MC08	MC08-0195	2	New Frame and Cover, Coat Adjustment
MC08	MC08-0200	2	New Frame and Cover, Coat Adjustment
MC08	MC08-0210	5	Chemical Grout Lower 18 Inches, New Frame and Cover
MC08	MC08-0220	3	New Frame and Cover
MC08	MC08-0230	2	New Frame and Cover, Coat Adjustment
MC08	MC08-0240	4	Replacement
MC08	MC08-0250	3	New Frame and Cover
MC08	MC08-0260	2	New Frame and Cover
MC08	MC08-0270	3	New Frame and Cover, Coat Adjustment
MC08	MC08-0273	Not Inspected	-
MC08	MC08-0280	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
MC08	MC08-0290	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
MC08	MC08-0300	3	New Frame and Cover
MC08	MC08-0310	4	Replacement
MC08	MC08-0320	No Scoreable Defect	CMOM
MC08	MC08-0322	No Scoreable Defect	CMOM
MC08	MC08-0324	No Scoreable Defect	CMOM
MC08	MC08-0326	No Scoreable Defect	CMOM
MC08	MC08-0330	5	Replacement
MC08	MC08-0337	3	New Frame and Cover, Coat Adjustment
MC08	MC08-0337A	4	Replacement
MC08	MC08-0340	5	Replacement
MC08	MC08-0340A	No Scoreable Defect	CMOM
MC08	MC08-0350	5	Coat Wall, New Frame and Cover
MC08	MC08-0360	4	Replacement

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
MC08	MC08-0370	5	Replacement
MC08	MC08-0371	Not Inspected	-
MC08	MC08-0380	5	Replacement
MC08	MC08-0390	5	Replacement
MC08	MC08-0400	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
MC08	MC08-0410	5	Replacement
MC08	MC08-0420	4	Coat Wall, Coat Cone, New Frame and Cover, Coat Adjustment
MC08	MC08-0430	Not Inspected	-
MC08	MC08-0440	1	New Frame and Cover, Coat Adjustment
MC08	MC08-0450	4	Coat Wall, New Frame and Cover
MC08	MC08-0460	2	CMOM
MC08	MC08-0470	5	Replacement
MC08	MC08-0480	No Scoreable Defect	New Frame and Cover
MC08	MC08-0490	5	Replacement
MC08	MC08-0500	5	Coat Wall, New Frame and Cover
MC08	MC08-0510	5	Replacement
MC08	MC08-0510A	5	Replacement
MC08	MC08-0520	1	New Frame and Cover
MC08	MC08-0530	No Scoreable Defect	New Frame and Cover
MC08	MC08-0530A	4	Chemical Grout Lower 18 Inches
MC08	MC08-0540	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC08	MC08-0545	No Scoreable Defect	New Frame and Cover
MC08	MC08-0550	2	New Frame and Cover, Coat Adjustment
MC08	MC08-0550A	5	Chemical Grout Lower 18 Inches
MC08	MC08-0560	5	Replacement
MC08	MC08-0570	5	Replacement
MC08	MC08-0580	5	Chemical Grout Lower 18 Inches, Coat Wall
MC08	MC08-0590	5	Replacement
MC08	MC08-2000	2	CMOM
MC08	MC08-2010	5	Replacement
MC08	MC08-2020	Not Inspected	-
MC08	MC08-2030	Not Inspected	-
MC08	MC08-2030A	5	Coat Wall, New Frame and Cover
MC08	MC08-2100	Not Inspected	-
MC08	MC08-2400	2	CMOM
MC08	MC08-2410	4	Chemical Grout Lower 18 Inches, Coat Wall
MC08	MC08-2430	No Scoreable Defect	New Frame and Cover, Coat Adjustment
MC08	MC08-2430A	5	Chemical Grout Lower 18 Inches
MC08	MC08-2430B	Not Inspected	-
P009	P009-0010	5	Replacement
P009	P009-0021	4	Coat Wall, New Frame and Cover
P009	P009-0021A	4	Coat Wall, New Frame and Cover
P009	P009-0030	No Scoreable Defect	New Frame and Cover
P009	P009-0040	Not Inspected	-
P009	P009-0050	5	Replacement
P009	P009-0060	3	New Frame and Cover
P009	P009-0070	Not Inspected	-
P009	P009-0075	Not Inspected	-
P009	P009-0076	Not Inspected	-
P009	P009-0077	Not Inspected	-
P009	P009-0078	4	Replacement
P009	P009-0080	Not Inspected	-
P009	P009-0090	No Scoreable Defect	New Frame and Cover, Coat Adjustment
P009	P009-0100	No Scoreable Defect	New Frame and Cover
P009	P009-0110	3	New Frame and Cover, Coat Adjustment
P009	P009-0115	5	Chemical Grout Lower 18 Inches
P009	P009-0120	No Scoreable Defect	New Frame and Cover
P009	P009-0130	2	New Frame and Cover
P009	P009-0140	Not Inspected	-
P009	P009-0150	Not Inspected	-

Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
P009	P009-0160	4	Coat Wall, New Frame and Cover
P009	P009-0165	4	Coat Wall, New Frame and Cover
P009	P009-0170	3	CMOM
P009	P009-0180	4	Coat Wall, New Frame and Cover
P009	P009-0185	5	Chemical Grout Lower 18 Inches, Coat Chimney, New Frame and Cover, Coat Adjustment
P009	P009-0190	5	Replacement
P009	P009-0195	5	Replacement
P009	P009-0200	No Scoreable Defect	New Frame and Cover
P009	P009-0202	5	Chemical Grout Lower 18 Inches, Coat Wall
P009	P009-0202A	No Scoreable Defect	CMOM
P009	P009-0210	No Scoreable Defect	New Frame and Cover
P009	P009-0220	5	Replacement
P009	P009-0220A	5	Chemical Grout Lower 18 Inches, Coat Wall
P009	P009-0230	5	Replacement
P009	P009-0235	1	CMOM
P009	P009-0240	3	CMOM
P009	P009-0245	5	Chemical Grout Lower 18 Inches
P009	P009-0250	5	Replacement
P009	P009-0260	Not Inspected	-
P009	P009-0270	4	Replacement
P009	P009-0280	5	Chemical Grout Lower 18 Inches
P009	P009-0290	1	New Frame and Cover
P009	P009-0295	5	Replacement
P009	P009-0300	5	Replacement
P009	P009-0310	No Scoreable Defect	CMOM
P009	P009-0320	No Scoreable Defect	CMOM
P009	P009-0330	3	CMOM
P009	P009-0340	5	Chemical Grout Lower 18 Inches
P009	P009-0350	1	CMOM
P009	P009-0360	Not Inspected	-
P009	P009-0370	5	Replacement
P009	P009-0380	5	Chemical Grout Lower 18 Inches, Coat Wall
P009	P009-0390	Not Inspected	-
P009	P009-0400	5	Chemical Grout Lower 18 Inches, Coat Wall
P009	P009-0410	5	Replacement
P009	P009-0420	5	Replacement
P009	P009-0430	5	Replacement
P009	P009-0440	Not Inspected	-
P009	P009-0450	Not Inspected	-
P009	P009-0460	Not Inspected	-
P009	P009-0465	No Scoreable Defect	CMOM
P009	P009-0468	Not Inspected	-
P009	P009-0470	No Scoreable Defect	New Frame and Cover
P009	P009-0480	No Scoreable Defect	New Frame and Cover
P009	P009-0490	Not Inspected	-
P009	P009-0500	Not Inspected	-
P009	P009-0510	5	Replacement
P009	P009-0516	5	Replacement
P009	P009-0520	Not Inspected	-
P009	P009-0530	Not Inspected	-
P009	P009-0540	5	Replacement
P009	P009-0550	Not Inspected	-
P009	P009-0560	Not Inspected	-
P009	P009-0570	Not Inspected	-
P009	P009-0580	Not Inspected	-
P009	P009-0590	Not Inspected	-
P009	P009-0600	2	New Frame and Cover, Coat Adjustment
P009	P009-0610	2	New Frame and Cover
P009	P009-0620	Not Inspected	-
P009	P009-0630	Not Inspected	-

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
P009	P009-0633	5	Replacement
P009	P009-0636	4	Replacement
P009	P009-0640	5	Replacement
P009	P009-0650	5	Coat Wall
P009	P009-0660	5	Replacement
P009	P009-0670	5	Replacement
P009	P009-0680	5	Replacement
P009	P009-0690	2	CMOM
P009	P009-0700	5	Replacement
P009	P009-0710	5	Replacement
P009	P009-0720	5	Replacement
P009	P009-0730	5	Replacement
P009	P009-0740	Not Inspected	-
P009	P009-0750	5	Replacement
P009	P009-0802	3	New Frame and Cover
P009	P009-0810	5	Replacement
P009	P009-0820	Not Inspected	-
P009	P009-0825	3	New Frame and Cover
P009	P009-0830	3	New Frame and Cover
P009	P009-0835	No Scoreable Defect	New Frame and Cover, Coat Adjustment
P009	P009-0840	5	Chemical Grout Lower 18 Inches, New Frame and Cover
P009	P009-0845	4	Replacement
P009	P009-0862	3	New Frame and Cover
P009	P009-0870	No Scoreable Defect	New Frame and Cover
P009	P009-0870A	5	Replacement
P009	P009-0880	No Scoreable Defect	New Frame and Cover
P009	P009-0885	4	Coat Wall, New Frame and Cover
P009	P009-0890	4	Chemical Grout Lower 18 Inches
P009	P009-0900	4	Replacement
P009	P009-0910	3	New Frame and Cover
P009	P009-0920	3	New Frame and Cover
P009	P009-0920A	1	New Frame and Cover
P009	P009-0930	3	New Frame and Cover
P009	P009-0940	No Scoreable Defect	New Frame and Cover
P009	P009-0945	4	Replacement
P009	P009-0950	No Scoreable Defect	New Frame and Cover
P009	P009-0960	Not Inspected	-
P009	P009-0970	Not Inspected	-
P009	P009-0980	3	New Frame and Cover, Coat Adjustment
P009	P009-0990	No Scoreable Defect	New Frame and Cover
P009	P009-1000	3	New Frame and Cover
P009	P009-1010	No Scoreable Defect	New Frame and Cover
P009	P009-1020	No Scoreable Defect	New Frame and Cover, Coat Adjustment
P009	P009-1030	No Scoreable Defect	New Frame and Cover, Coat Adjustment
P009	P009-1040	No Scoreable Defect	New Frame and Cover
P009	P009-1050	5	Replacement
P009	P009-1060	5	Coat Wall, Coat Cone, New Frame and Cover
P009	P009-1070	No Scoreable Defect	New Frame and Cover
P009	P009-1072	3	New Frame and Cover
P009	P009-1080	Not Inspected	-
P009	P009-1090	No Scoreable Defect	New Frame and Cover
P009	P009-1100	No Scoreable Defect	New Frame and Cover
P009	P009-1110	2	New Frame and Cover
P009	P009-1120	No Scoreable Defect	Coat Adjustment
P009	P009-1130	3	New Frame and Cover
P009	P009-1140	3	New Frame and Cover, Coat Adjustment
P009	P009-1150	5	Chemical Grout Lower 18 Inches, New Frame and Cover
P009	P009-1160	3	New Frame and Cover, Coat Adjustment
P009	P009-1170	5	Replacement
P009	P009-1180	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
P009	P009-1193	No Scoreable Defect	New Frame and Cover
P009	P009-1950	1	New Frame and Cover, Coat Adjustment
P009	P009-1952	5	Coat Wall, Coat Cone, New Frame and Cover
P009	P009-1960	No Scoreable Defect	New Frame and Cover
P009	P009-1980	2	New Frame and Cover
P009	P009-1982	No Scoreable Defect	New Frame and Cover
P009	P009-1984	2	New Frame and Cover
P009	P009-1986	2	New Frame and Cover
P009	P009-1988	No Scoreable Defect	New Frame and Cover
P009	P009-1990	5	Coat Cone, New Frame and Cover
P009	P009-2000	5	Chemical Grout Lower 18 Inches, New Frame and Cover
P009	P009-2005	3	New Frame and Cover
P009	P009-2020	2	New Frame and Cover
P009	P009-2023	5	Coat Cone, New Frame and Cover, Coat Adjustment
P009	P009-2024	5	Replacement
P009	P009-2040	1	New Frame and Cover, Coat Adjustment
P009	P009-2042	4	Replacement
P009	P009-2045	Not Inspected	-
P009	P009-2050	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
P009	P009-2055	5	Coat Cone, New Frame and Cover, Coat Adjustment
P009	P009-2060	5	Replacement
P009	P009-2060A	No Scoreable Defect	New Frame and Cover
P009	P009-2070	Not Inspected	-
P009	P009-2080	4	Replacement
P009	P009-2085	2	New Frame and Cover, Coat Adjustment
P009	P009-2090	4	Replacement
P009	P009-2095	4	Replacement
P009	P009-2100	5	Coat Wall, Coat Cone, New Frame and Cover
P009	P009-2110	5	Replacement
P009	P009-2115	4	Replacement
P009	P009-2120	5	Replacement
P009	P009-2130	4	Replacement
P009	P009-2135	5	Coat Cone, New Frame and Cover, Coat Adjustment
P009	P009-2140	No Scoreable Defect	New Frame and Cover, Coat Adjustment
P009	P009-2150	Not Inspected	-
P009	P009-2160	No Scoreable Defect	New Frame and Cover
P009	P009-2165	Not Inspected	-
P009	P009-2170	5	Replacement
P009	P009-2180	No Scoreable Defect	CMOM
P009	P009-2190	No Scoreable Defect	New Frame and Cover
P009	P009-2192	3	New Frame and Cover
P009	P009-2200	3	CMOM
P009	P009-2205	Not Inspected	-
P009	P009-2210	5	Replacement
P009	P009-2220	5	Replacement
P009	P009-2230	4	Replacement
P009	P009-2240	5	Replacement
P009	P009-2250	5	Replacement
P009	P009-2255	5	Replacement
P009	P009-2260	5	Replacement
P009	P009-2270	5	Replacement
P009	P009-2272	5	Replacement
P009	P009-2275	No Scoreable Defect	CMOM
P009	P009-2280	5	Replacement
P009	P009-2290	5	Replacement
P009	P009-2300	5	Replacement
P009	P009-2310	Not Inspected	-
P009	P009-2320	5	Replacement
P009	P009-2330	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
P009	P009-2340	No Scoreable Defect	New Frame and Cover

Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
P009	P009-2350	No Scoreable Defect	New Frame and Cover, Coat Adjustment
P009	P009-2360	5	Coat Wall, New Frame and Cover
P009	P009-2370	5	Replacement
P009	P009-2380	No Scoreable Defect	New Frame and Cover, Coat Adjustment
P009	P009-2390	3	New Frame and Cover
P009	P009-2400	5	Replacement
P009	P009-2410	5	Coat Wall, Coat Cone, New Frame and Cover, Coat Adjustment
P009	P009-2420	5	Coat Cone, New Frame and Cover, Coat Adjustment
P009	P009-2430	3	New Frame and Cover
P009	P009-2440	5	Replacement
P009	P009-2450	3	New Frame and Cover
P009	P009-2460	No Scoreable Defect	CMOM
P009	P009-2470	Not Inspected	-
P009	P009-2480	5	Replacement
P009	P009-2490	Not Inspected	-
P009	P009-2500	4	Coat Wall, New Frame and Cover
P009	P009-2510	5	Replacement
P009	P009-2520	4	Replacement
P009	P009-2523	5	Replacement
P009	P009-2526	4	Coat Wall, Coat Cone, Coat Chimney, New Frame and Cover
P009	P009-2530	5	Replacement
P009	P009-2540	5	Replacement
P009	P009-2550	No Scoreable Defect	New Frame and Cover, Coat Adjustment
P009	P009-2560	4	Replacement
P009	P009-2570	5	Replacement
P009	P009-2580	5	Replacement
P009	P009-2590	5	Replacement
P009	P009-2600	No Scoreable Defect	CMOM
P009	P009-2610	5	Replacement
P009	P009-2620	Not Inspected	-
P009	P009-2880	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
P009	P009-2880A	5	Replacement
P009	P009-2890	5	Chemical Grout Lower 18 Inches, Coat Wall
P009	P009-2900	No Scoreable Defect	CMOM
P009	P009-2910	5	Chemical Grout Lower 18 Inches, New Frame and Cover
P009	P009-2920	1	New Frame and Cover
P009	P009-2930	5	Chemical Grout Lower 18 Inches, Coat Wall
P009	P009-2940	No Scoreable Defect	CMOM
P009	P009-2950	No Scoreable Defect	New Frame and Cover, Coat Adjustment
P009	P009-2960	5	Coat Wall, Coat Cone, New Frame and Cover, Coat Adjustment
P009	P009-2970	4	Coat Wall, Coat Cone, New Frame and Cover
P009	P009-2980	No Scoreable Defect	New Frame and Cover, Coat Adjustment
P009	P009-2990	5	Coat Wall, Coat Cone, New Frame and Cover
P009	P009-3000	3	New Frame and Cover
P009	P009-3010	1	New Frame and Cover
P009	P009-3020	3	New Frame and Cover
P009	P009-3030	No Scoreable Defect	New Frame and Cover
P009	P009-3030A	5	Chemical Grout Lower 18 Inches
P009	P009-3030B	5	Chemical Grout Lower 18 Inches, Coat Chimney
P009	P009-3030C	No Scoreable Defect	New Frame and Cover
P009	P009-3040	No Scoreable Defect	CMOM
Z001	Z001-0001	Not Inspected	-
Z001	Z001-0010	No Scoreable Defect	New Frame and Cover
Z001	Z001-0010A	3	CMOM
Z001	Z001-0010B	No Scoreable Defect	CMOM
Z001	Z001-0010C	No Scoreable Defect	CMOM
Z001	Z001-0010D	2	New Frame and Cover
Z001	Z001-0010E	3	New Frame and Cover
Z001	Z001-0010F	2	New Frame and Cover
Z001	Z001-0010G	2	New Frame and Cover

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
Z001	Z001-0010H	2	CMOM
Z001	Z001-0010I	2	New Frame and Cover
Z001	Z001-0010J	No Scoreable Defect	New Frame and Cover
Z001	Z001-0010K	No Scoreable Defect	New Frame and Cover
Z001	Z001-0010L	No Scoreable Defect	CMOM
Z001	Z001-0010M	No Scoreable Defect	New Frame and Cover
Z001	Z001-0010O	4	Coat Wall
Z001	Z001-0010P	5	Chemical Grout Lower 18 Inches, Coat Wall
Z001	Z001-0020	3	New Frame and Cover
Z001	Z001-0030	2	CMOM
Z001	Z001-0040	5	Coat Wall, Coat Cone, New Frame and Cover
Z001	Z001-0050	3	New Frame and Cover
Z001	Z001-0050A	Not Inspected	-
Z001	Z001-0060	3	New Frame and Cover
Z001	Z001-0070	Not Inspected	-
Z001	Z001-0080	Not Inspected	-
Z001	Z001-0090	3	New Frame and Cover
Z001	Z001-0090A	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-0100	5	Replacement
Z001	Z001-0110	5	Replacement
Z001	Z001-0120	1	New Frame and Cover, Coat Adjustment
Z001	Z001-0130	3	New Frame and Cover
Z001	Z001-0140	Not Inspected	-
Z001	Z001-0150	3	New Frame and Cover, Coat Adjustment
Z001	Z001-0160	3	New Frame and Cover, Coat Adjustment
Z001	Z001-0170	1	New Frame and Cover
Z001	Z001-0180	No Scoreable Defect	New Frame and Cover
Z001	Z001-0190	3	New Frame and Cover
Z001	Z001-0210	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
Z001	Z001-0210A	1	New Frame and Cover, Coat Adjustment
Z001	Z001-0210B	2	New Frame and Cover, Coat Adjustment
Z001	Z001-0210C	5	Replacement
Z001	Z001-0250	No Scoreable Defect	New Frame and Cover, Coat Adjustment
Z001	Z001-0260	3	New Frame and Cover
Z001	Z001-0270	5	Replacement
Z001	Z001-0275	3	New Frame and Cover
Z001	Z001-0280	5	Replacement
Z001	Z001-0290	5	Replacement
Z001	Z001-0300	5	Replacement
Z001	Z001-0310	5	Replacement
Z001	Z001-0320	3	New Frame and Cover, Coat Adjustment
Z001	Z001-0330	5	Replacement
Z001	Z001-0340	Not Inspected	-
Z001	Z001-0350	5	Replacement
Z001	Z001-0360	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
Z001	Z001-0370	2	CMOM
Z001	Z001-0380	5	Replacement
Z001	Z001-0390	5	Replacement
Z001	Z001-0460	2	New Frame and Cover
Z001	Z001-0470	5	Coat Wall
Z001	Z001-0480	No Scoreable Defect	CMOM
Z001	Z001-0483	Not Inspected	-
Z001	Z001-0490	3	New Frame and Cover
Z001	Z001-0500	3	New Frame and Cover
Z001	Z001-0510	2	New Frame and Cover, Coat Adjustment
Z001	Z001-0520	5	Replacement
Z001	Z001-0530	4	Replacement
Z001	Z001-0540	5	Replacement
Z001	Z001-0550	5	Replacement
Z001	Z001-0560	No Scoreable Defect	New Frame and Cover

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
Z001	Z001-0570	1	CMOM
Z001	Z001-0580	4	Replacement
Z001	Z001-0590	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
Z001	Z001-0600	3	New Frame and Cover, Coat Adjustment
Z001	Z001-0610	3	New Frame and Cover
Z001	Z001-0620	5	Replacement
Z001	Z001-0630	4	Replacement
Z001	Z001-0640	3	New Frame and Cover
Z001	Z001-0650	5	Replacement
Z001	Z001-0660	5	Replacement
Z001	Z001-0670	1	New Frame and Cover
Z001	Z001-0680	4	Replacement
Z001	Z001-0685	5	Chemical Grout Lower 18 Inches, Coat Wall
Z001	Z001-0690	2	New Frame and Cover
Z001	Z001-0700	2	New Frame and Cover
Z001	Z001-0710	2	New Frame and Cover
Z001	Z001-0720	1	New Frame and Cover
Z001	Z001-0730	No Scoreable Defect	New Frame and Cover
Z001	Z001-0730A	4	Replacement
Z001	Z001-0740	No Scoreable Defect	New Frame and Cover
Z001	Z001-0740A	2	CMOM
Z001	Z001-0745	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-0750	Not Inspected	-
Z001	Z001-0751	No Scoreable Defect	CMOM
Z001	Z001-0752	2	New Frame and Cover
Z001	Z001-0754	3	New Frame and Cover
Z001	Z001-0756	3	New Frame and Cover
Z001	Z001-0758	3	New Frame and Cover
Z001	Z001-0760	No Scoreable Defect	New Frame and Cover
Z001	Z001-0770	5	Coat Wall, New Frame and Cover
Z001	Z001-0776	No Scoreable Defect	New Frame and Cover
Z001	Z001-0780	4	Coat Wall, Coat Cone, New Frame and Cover
Z001	Z001-0790	2	New Frame and Cover
Z001	Z001-0800	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
Z001	Z001-0810	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-0820	2	New Frame and Cover
Z001	Z001-0830	3	New Frame and Cover
Z001	Z001-0840	5	Replacement
Z001	Z001-0850	No Scoreable Defect	CMOM
Z001	Z001-0860	Not Inspected	-
Z001	Z001-0870	Not Inspected	-
Z001	Z001-0880	2	New Frame and Cover
Z001	Z001-0890	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-0900	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-0910	5	Coat Wall, Coat Chimney, New Frame and Cover
Z001	Z001-0920	No Scoreable Defect	New Frame and Cover
Z001	Z001-0930	Not Inspected	-
Z001	Z001-0940	3	New Frame and Cover
Z001	Z001-0950	1	New Frame and Cover
Z001	Z001-0960	3	New Frame and Cover
Z001	Z001-0970	4	Chemical Grout Lower 18 Inches
Z001	Z001-0980	5	Replacement
Z001	Z001-0990	No Scoreable Defect	CMOM
Z001	Z001-1000	Not Inspected	-
Z001	Z001-1010	No Scoreable Defect	CMOM
Z001	Z001-1012	No Scoreable Defect	New Frame and Cover
Z001	Z001-1020	No Scoreable Defect	New Frame and Cover
Z001	Z001-1030	No Scoreable Defect	New Frame and Cover
Z001	Z001-1040	No Scoreable Defect	New Frame and Cover
Z001	Z001-1050	No Scoreable Defect	CMOM

Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
Z001	Z001-1060	No Scoreable Defect	CMOM
Z001	Z001-1070	3	New Frame and Cover, Coat Adjustment
Z001	Z001-1080	3	New Frame and Cover
Z001	Z001-1090	No Scoreable Defect	New Frame and Cover
Z001	Z001-1100	5	Replacement
Z001	Z001-1110	5	Coat Wall, Coat Cone
Z001	Z001-1120	Not Inspected	-
Z001	Z001-1130	3	New Frame and Cover
Z001	Z001-1140	5	Chemical Grout Lower 18 Inches, Coat Chimney, New Frame and Cover
Z001	Z001-1150	3	CMOM
Z001	Z001-1160	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-1170	3	New Frame and Cover
Z001	Z001-1180	Not Inspected	-
Z001	Z001-1190	No Scoreable Defect	CMOM
Z001	Z001-1200	5	Replacement
Z001	Z001-1210	No Scoreable Defect	CMOM
Z001	Z001-1220	4	Chemical Grout Lower 18 Inches, Coat Wall
Z001	Z001-1230	5	Coat Chimney
Z001	Z001-1240	5	Chemical Grout Lower 18 Inches, Coat Wall
Z001	Z001-1250	2	CMOM
Z001	Z001-1260	3	New Frame and Cover
Z001	Z001-1270	No Scoreable Defect	CMOM
Z001	Z001-1280	2	New Frame and Cover
Z001	Z001-1290	No Scoreable Defect	CMOM
Z001	Z001-1300	No Scoreable Defect	New Frame and Cover
Z001	Z001-1310	No Scoreable Defect	CMOM
Z001	Z001-1320	2	New Frame and Cover
Z001	Z001-1400	3	New Frame and Cover
Z001	Z001-1410	No Scoreable Defect	New Frame and Cover
Z001	Z001-1420	1	New Frame and Cover
Z001	Z001-1425	No Scoreable Defect	New Frame and Cover
Z001	Z001-1430	4	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-1500	4	Chemical Grout Lower 18 Inches
Z001	Z001-1510	2	CMOM
Z001	Z001-1600	No Scoreable Defect	CMOM
Z001	Z001-1610	2	Coat Adjustment
Z001	Z001-1620	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-1630	No Scoreable Defect	CMOM
Z001	Z001-1640	No Scoreable Defect	New Frame and Cover
Z001	Z001-1650	3	New Frame and Cover
Z001	Z001-1660	2	New Frame and Cover
Z001	Z001-1670	No Scoreable Defect	CMOM
Z001	Z001-1680	No Scoreable Defect	New Frame and Cover
Z001	Z001-1690	No Scoreable Defect	New Frame and Cover
Z001	Z001-1700	No Scoreable Defect	New Frame and Cover
Z001	Z001-1710	No Scoreable Defect	New Frame and Cover
Z001	Z001-1710A	No Scoreable Defect	New Frame and Cover
Z001	Z001-1710B	5	Chemical Grout Lower 18 Inches
Z001	Z001-1710C	No Scoreable Defect	New Frame and Cover, Coat Adjustment
Z001	Z001-1720	No Scoreable Defect	CMOM
Z001	Z001-1730	No Scoreable Defect	New Frame and Cover, Coat Adjustment
Z001	Z001-1740	No Scoreable Defect	CMOM
Z001	Z001-1750	2	CMOM
Z001	Z001-1760	No Scoreable Defect	CMOM
Z001	Z001-1770	2	New Frame and Cover
Z001	Z001-1780	4	Coat Wall, New Frame and Cover
Z001	Z001-1790	3	New Frame and Cover
Z001	Z001-1800	3	New Frame and Cover, Coat Adjustment
Z001	Z001-1810	1	New Frame and Cover, Coat Adjustment
Z001	Z001-1820	3	New Frame and Cover, Coat Adjustment

Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
Z001	Z001-1830	2	New Frame and Cover, Coat Adjustment
Z001	Z001-1840	5	Replacement
Z001	Z001-1850	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
Z001	Z001-1860	3	New Frame and Cover
Z001	Z001-1870	5	Replacement
Z001	Z001-1880	5	Replacement
Z001	Z001-1890	1	New Frame and Cover, Coat Adjustment
Z001	Z001-1900	3	New Frame and Cover
Z001	Z001-1910	3	New Frame and Cover
Z001	Z001-1920	5	Replacement
Z001	Z001-1930	1	New Frame and Cover, Coat Adjustment
Z001	Z001-1940	1	New Frame and Cover, Coat Adjustment
Z001	Z001-1950	5	Replacement
Z001	Z001-1960	1	New Frame and Cover, Coat Adjustment
Z001	Z001-1970	3	New Frame and Cover, Coat Adjustment
Z001	Z001-1980	2	New Frame and Cover, Coat Adjustment
Z001	Z001-1990	2	New Frame and Cover, Coat Adjustment
Z001	Z001-2000	No Scoreable Defect	New Frame and Cover, Coat Adjustment
Z001	Z001-2010	5	Coat Wall, New Frame and Cover
Z001	Z001-2020	3	New Frame and Cover
Z001	Z001-2030	4	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-2040	Not Inspected	-
Z001	Z001-2050	5	Replacement
Z001	Z001-2060	3	New Frame and Cover
Z001	Z001-2070	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-2080	4	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-2090	5	Replacement
Z001	Z001-2100	Not Inspected	-
Z001	Z001-2110	No Scoreable Defect	New Frame and Cover
Z001	Z001-2120	Not Inspected	-
Z001	Z001-2130	Not Inspected	-
Z001	Z001-2140	4	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-2150	5	Replacement
Z001	Z001-2160	No Scoreable Defect	New Frame and Cover, Coat Adjustment
Z001	Z001-2170	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-2180	1	New Frame and Cover
Z001	Z001-2190	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-2200	3	New Frame and Cover, Coat Adjustment
Z001	Z001-2210	5	Replacement
Z001	Z001-2220	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-2220A	Not Inspected	-
Z001	Z001-2230	3	New Frame and Cover
Z001	Z001-2240	2	New Frame and Cover
Z001	Z001-2250	Not Inspected	-
Z001	Z001-2260	5	Replacement
Z001	Z001-2270	1	New Frame and Cover, Coat Adjustment
Z001	Z001-2280	4	Coat Wall, Coat Cone, New Frame and Cover
Z001	Z001-2290	Not Inspected	-
Z001	Z001-2300	1	New Frame and Cover
Z001	Z001-2310	2	New Frame and Cover
Z001	Z001-2320	5	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-2320A	No Scoreable Defect	New Frame and Cover
Z001	Z001-2320B	No Scoreable Defect	New Frame and Cover
Z001	Z001-2330	5	Replacement
Z001	Z001-2340	No Scoreable Defect	New Frame and Cover, Coat Adjustment
Z001	Z001-2350	3	New Frame and Cover
Z001	Z001-2360	No Scoreable Defect	New Frame and Cover
Z001	Z001-2360A	No Scoreable Defect	New Frame and Cover
Z001	Z001-2360B	No Scoreable Defect	New Frame and Cover
Z001	Z001-2370	3	New Frame and Cover

Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
Z001	Z001-2380	2	CMOM
Z001	Z001-2390	5	Replacement
Z001	Z001-2400	2	New Frame and Cover
Z001	Z001-2410	4	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
Z001	Z001-2420	5	Chemical Grout Lower 18 Inches, Coat Cone
Z001	Z001-2430	3	New Frame and Cover
Z001	Z001-2440	2	New Frame and Cover
Z001	Z001-2450	2	New Frame and Cover, Coat Adjustment
Z001	Z001-2460	Not Inspected	-
Z001	Z001-2470	4	Chemical Grout Lower 18 Inches, New Frame and Cover
Z001	Z001-2470A	4	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
Z001	Z001-2480	5	Replacement
Z001	Z001-2490	5	Replacement
Z001	Z001-2500	1	New Frame and Cover, Coat Adjustment
Z001	Z001-2510	2	CMOM
Z001	Z001-2520	1	New Frame and Cover
Z001	Z001-2530	1	CMOM
Z001	Z001-2540	1	CMOM
Z001	Z001-2550	No Scoreable Defect	New Frame and Cover
Z001	Z001-2560	No Scoreable Defect	New Frame and Cover
Z001	Z001-2570	2	New Frame and Cover, Coat Adjustment
Z001	Z001-2580	2	New Frame and Cover
Z001	Z001-2590	2	New Frame and Cover
Z001	Z001-2600	No Scoreable Defect	New Frame and Cover, Coat Adjustment
Z001	Z001-2600A	2	New Frame and Cover
Z001	Z001-2610	Not Inspected	-
Z001	Z001-2620	2	New Frame and Cover, Coat Adjustment
Z001	Z001-2630	Not Inspected	-
Z001	Z001-2640	Not Inspected	-
Z001	Z001-2650	3	New Frame and Cover, Coat Adjustment
Z001	Z001-2660	2	New Frame and Cover, Coat Adjustment
Z001	Z001-2670	2	New Frame and Cover
Z001	Z001-2680	3	New Frame and Cover, Coat Adjustment
Z001	Z001-2680A	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
Z001	Z001-2690	3	New Frame and Cover, Coat Adjustment
Z001	Z001-2690C	No Scoreable Defect	New Frame and Cover
Z001	Z001-2700	5	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
Z001	Z001-2710	5	Chemical Grout Lower 18 Inches
Z001	Z001-2720	5	Chemical Grout Lower 18 Inches
Z001	Z001-2730	5	Replacement
Z001	Z001-2740	5	Replacement
Z001	Z001-2750	Not Inspected	-
Z001	Z001-2760	Not Inspected	-
Z001	Z001-2770	Not Inspected	-
Z001	Z001-2780	5	Replacement
Z001	Z001-2790	3	New Frame and Cover
Z001	Z001-2800	No Scoreable Defect	CMOM
Z001	Z001-2810	4	Chemical Grout Lower 18 Inches, Coat Cone
Z001	Z001-2820	5	Chemical Grout Lower 18 Inches, Coat Wall
Z001	Z001-2830	Not Inspected	-
Z001	Z001-2840	Not Inspected	-
Z001	Z001-2850	Not Inspected	-
Z001	Z001-2860	5	Replacement
Z001	Z001-2870	5	Replacement
Z001	Z001-2880	5	Chemical Grout Lower 18 Inches
Z001	Z001-2890	No Scoreable Defect	CMOM
Z001	Z001-2900	No Scoreable Defect	New Frame and Cover
Z001	Z001-2910	Not Inspected	-
Z001	Z001-2920	2	New Frame and Cover
Z001	Z001-2930	2	New Frame and Cover, Coat Adjustment

Manhole Rehabilitation Recommendations

Basin	ID	MACP Score	Rehab Actions
Z001	Z001-2940	3	New Frame and Cover, Coat Adjustment
Z001	Z001-2950	4	Replacement
Z001	Z001-2960	5	Replacement
Z001	Z001-2970	No Scoreable Defect	New Frame and Cover
Z001	Z001-2980	3	New Frame and Cover, Coat Adjustment
Z001	Z001-2990	4	Chemical Grout Lower 18 Inches, New Frame and Cover, Coat Adjustment
Z001	Z001-3000	2	New Frame and Cover
Z001	Z001-3010	3	New Frame and Cover
Z001	Z001-3020	3	New Frame and Cover
Z001	Z001-3030	Not Inspected	-
Z001	Z001-3040	1	New Frame and Cover
Z001	Z001-3050	Not Inspected	-
Z001	Z001-3060	Not Inspected	-
Z001	Z001-3070	4	Replacement
Z001	Z001-3080	1	New Frame and Cover, Coat Adjustment
Z001	Z001-3090	4	Replacement
Z001	Z001-3100	5	Replacement
Z001	Z001-3110	3	New Frame and Cover
Z001	Z001-3120	5	Chemical Grout Lower 18 Inches
Z001	Z001-3140	5	Replacement
Z001	Z001-3150	5	Replacement
Z001	Z001-3160	5	Replacement
Z001	Z001-3170	3	New Frame and Cover, Coat Adjustment
Z001	Z001-3180	3	New Frame and Cover
Z001	Z001-3190	5	Chemical Grout Lower 18 Inches
Z001	Z001-3200	3	New Frame and Cover
Z001	Z001-3210	No Scoreable Defect	Coat Adjustment

APPENDIX B

RECOMMENDED REHABILITATION – SEWER LINES

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
FL02	FL02-0010:FL02-0008	FL02-0010	FL02-0008	18	292	4	Open Cut
FL02	FL02-0015:FL02-0020	FL02-0015	FL02-0020	15	142	4	CIPP
FL02	FL02-0020:FL02-0010	FL02-0020	FL02-0010	10	153	4	CIPP
FL02	FL02-0030:FL02-0020	FL02-0030	FL02-0020	10	296	4	Pipe Burst
FL02	FL02-0040:FL02-0040A	FL02-0040	FL02-0040A	10	104	3	CMOM
FL02	FL02-0040A:FL02-0030	FL02-0040A	FL02-0030	10	304	No Defect	CMOM
FL02	FL02-0060:FL02-0050	FL02-0060	FL02-0050	6	149	No Defect	CMOM
FL02	FL02-0065:FL02-0060	FL02-0065	FL02-0060	6	413	3	CMOM
FL02	FL02-0080:FL02-0070	FL02-0080	FL02-0070	6	353	4	Pipe Burst
FL02	FL02-0090:FL02-0080	FL02-0090	FL02-0080	6	47	No Defect	CMOM
FL02	FL02-0100:FL02-0090	FL02-0100	FL02-0090	6	69	No Defect	CMOM
FL02	FL02-0110:FL02-0100	FL02-0110	FL02-0100	6	263	2	CMOM
FL02	FL02-0120:FL02-0050	FL02-0120	FL02-0050	12	295	3	CMOM
FL02	FL02-0130:FL02-0120	FL02-0130	FL02-0120	6	299	2	CMOM
FL02	FL02-0140:FL02-0130	FL02-0140	FL02-0130	6	306	3	CMOM
FL02	FL02-0150:FL02-0140	FL02-0150	FL02-0140	6	227	2	CMOM
FL02	FL02-0180:FL02-0120	FL02-0180	FL02-0120	12	470	3	CMOM
FL02	FL02-0190:FL02-0180	FL02-0190	FL02-0180	6	300	1	CMOM
FL02	FL02-0200:FL02-0190	FL02-0200	FL02-0190	6	287	No Defect	CMOM
FL02	FL02-0210:FL02-0200	FL02-0210	FL02-0200	6	317	No Defect	CMOM
FL02	FL02-0220:FL02-0180	FL02-0220	FL02-0180	12	436	2	CMOM
FL02	FL02-0230:FL02-0220	FL02-0230	FL02-0220	12	327	2	CMOM
FL02	FL02-0240:FL02-0230	FL02-0240	FL02-0230	12	301	3	CMOM
FL02	FL02-0250:FL02-0240	FL02-0250	FL02-0240	10	250	4	Pipe Burst
FL02	FL02-0260:FL02-0250	FL02-0260	FL02-0250	10	50	2	CMOM
FL02	FL02-0270:FL02-0260	FL02-0270	FL02-0260	10	211	2	CMOM
FL02	FL02-0280:FL02-0270	FL02-0280	FL02-0270	6	23	1	CMOM
FL02	FL02-0290:FL02-0280	FL02-0290	FL02-0280	6	276	No Defect	CMOM
FL02	FL02-0300:FL02-0270	FL02-0300	FL02-0270	10	338	3	CMOM
FL02	FL02-0310:FL02-0300	FL02-0310	FL02-0300	10	327	1	CMOM
FL02	FL02-0320:FL02-0310	FL02-0320	FL02-0310	8	245	2	CMOM
FL02	FL02-0330:FL02-0320	FL02-0330	FL02-0320	8	248	5	Open Cut
FL02	FL02-0340:FL02-0330	FL02-0340	FL02-0330	8	423	4	Pipe Burst
FL02	FL02-0350:FL02-0340	FL02-0350	FL02-0340	8	193	2	CMOM
FL02	FL02-0360:FL02-0015	FL02-0360	FL02-0015	18	681	4	Open Cut
FL02	FL02-0370A:FL02-0360	FL02-0370A	FL02-0360	18	525	4	Open Cut
FL02	FL02-0380:FL02-0370	FL02-0380	FL02-0370	6	148	4	Pipe Burst
FL02	FL02-0390:FL02-0380	FL02-0390	FL02-0380	6	285	4	Pipe Burst
FL02	FL02-0420:FL02-0390	FL02-0420	FL02-0390	6	316	4	Pipe Burst
FL02	FL02-0430:FL02-0420	FL02-0430	FL02-0420	6	294	4	Pipe Burst
FL02	FL02-0455:FL02-0450	FL02-0455	FL02-0450	6	173	3	CMOM
FL02	FL02-0460:FL02-0430	FL02-0460	FL02-0430	6	212	4	Pipe Burst
FL02	FL02-0470:FL02-0460	FL02-0470	FL02-0460	6	107	5	Open Cut
FL02	FL02-0480:FL02-0470	FL02-0480	FL02-0470	6	111	3	CMOM
FL02	FL02-0490:FL02-0480	FL02-0490	FL02-0480	6	60	5	Open Cut
FL02	FL02-0500:FL02-0480	FL02-0500	FL02-0480	6	266	2	CMOM
FL02	FL02-0505:FL02-0500	FL02-0505	FL02-0500	6	67	3	CMOM
FL02	FL02-0516:FL02-0370	FL02-0516	FL02-0370	15	58	3	CMOM
FL02	FL02-0518:FL02-0516	FL02-0518	FL02-0516	12	82	No Defect	CMOM
FL02	FL02-0520:FL02-0518	FL02-0520	FL02-0518	12	238	3	CMOM
FL02	FL02-0522:FL02-0520	FL02-0522	FL02-0520	12	346	3	CMOM
FL02	FL02-0526:FL02-0524	FL02-0526	FL02-0524	12	307	4	Point Repair
FL02	FL02-0527:FL02-0524	FL02-0527	FL02-0524	12	831	5	Open Cut
FL02	FL02-0528A:FL02-0528	FL02-0528A	FL02-0528	8	232	2	CMOM
FL02	FL02-0530:FL02-0528A	FL02-0530	FL02-0528A	8	10	No Defect	CMOM

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
FL02	FL02-0540:FL02-0530	FL02-0540	FL02-0530	8	51	2	CMOM
FL02	FL02-0540A:FL02-0540	FL02-0540A	FL02-0540	8	451	2	CMOM
FL02	FL02-0550:FL02-0540	FL02-0550	FL02-0540	8	525	3	CMOM
FL02	FL02-0560:FL02-0550	FL02-0560	FL02-0550	6	325	4	Pipe Burst
FL02	FL02-0570:FL02-0540A	FL02-0570	FL02-0540A	8	29	2	CMOM
FL02	FL02-0580:FL02-0570	FL02-0580	FL02-0570	8	46	1	CMOM
FL02	FL02-0590:FL02-0580	FL02-0590	FL02-0580	8	111	5	Pipe Burst
FL02	FL02-0592:FL02-0590	FL02-0592	FL02-0590	6	209	1	CMOM
FL02	FL02-0595:FL02-0595A	FL02-0595	FL02-0595A	6	115	2	CMOM
FL02	FL02-0595A:FL02-0592	FL02-0595A	FL02-0592	6	161	No Defect	CMOM
FL02	FL02-0600:FL02-0590	FL02-0600	FL02-0590	8	353	5	CIPP
FL02	FL02-0610:FL02-0600	FL02-0610	FL02-0600	8	353	2	CMOM
FL02	FL02-0613:FL02-0610	FL02-0613	FL02-0610	6	299	5	Pipe Burst
FL02	FL02-0620:FL02-0610	FL02-0620	FL02-0610	6	127	5	Pipe Burst
FL02	FL02-0630:FL02-0620	FL02-0630	FL02-0620	6	147	5	Pipe Burst
FL02	FL02-0640:FL02-0630	FL02-0640	FL02-0630	6	374	5	Open Cut
FL02	FL02-0650:FL02-0640	FL02-0650	FL02-0640	6	450	5	Open Cut
FL02	FL02-0660:FL02-0650	FL02-0660	FL02-0650	6	397	5	Open Cut
FL02	FL02-0660A:FL02-0660	FL02-0660A	FL02-0660	6	340	5	Open Cut
FL02	FL02-0660B:FL02-0660A	FL02-0660B	FL02-0660A	6	291	5	Pipe Burst
FL02	FL02-0670:FL02-0527	FL02-0670	FL02-0527	12	220	5	CIPP
FL02	FL02-0673:FL02-0670	FL02-0673	FL02-0670	8	307	5	CIPP
FL02	FL02-0674:FL02-0673	FL02-0674	FL02-0673	8	214	5	CIPP
FL02	FL02-0675:FL02-0674	FL02-0675	FL02-0674	8	78	4	CIPP
FL02	FL02-0677:FL02-0675	FL02-0677	FL02-0675	6	143	4	Open Cut
FL02	FL02-0680:FL02-0670	FL02-0680	FL02-0670	12	183	3	CMOM
FL02	FL02-0730:FL02-0720	FL02-0730	FL02-0720	8	381	3	CMOM
FL02	FL02-0740:FL02-0730	FL02-0740	FL02-0730	8	348	3	CMOM
FL02	FL02-0750:FL02-0740	FL02-0750	FL02-0740	8	299	4	Pipe Burst
FL02	FL02-0760:FL02-0750	FL02-0760	FL02-0750	8	357	2	CMOM
FL02	FL02-0770:FL02-0760	FL02-0770	FL02-0760	8	276	2	CMOM
FL02	FL02-0780:FL02-0770	FL02-0780	FL02-0770	8	247	No Defect	CMOM
FL02	FL02-0790:FL02-0780	FL02-0790	FL02-0780	8	421	No Defect	CMOM
FL02	FL02-0800:FL02-0790	FL02-0800	FL02-0790	8	346	5	Point Repair
FL02	FL02-1090:FL02-0820	FL02-1090	FL02-0820	10	377	5	Open Cut
FL02	FL02-1100:FL02-1090	FL02-1100	FL02-1090	10	358	5	Pipe Burst
FL02	FL02-1130:FL02-0750	FL02-1130	FL02-0750	8	170	3	CMOM
FL02	FL02-1140:FL02-1130	FL02-1140	FL02-1130	8	445	3	CMOM
FL02	FL02-1150:FL02-1140	FL02-1150	FL02-1140	8	145	1	CMOM
FL02	FL02-1160:FL02-1150	FL02-1160	FL02-1150	8	130	3	CMOM
FL02	FL02-1180:FL02-1170	FL02-1180	FL02-1170	8	304	4	CIPP
FL02	FL02-1180A:FL02-1180	FL02-1180A	FL02-1180	8	63	2	CMOM
FL02	FL02-1190:FL02-1180A	FL02-1190	FL02-1180A	8	423	3	CMOM
FL02	FL02-1200:FL02-1190	FL02-1200	FL02-1190	8	319	3	CMOM
FL02	FL02-1202:FL02-1200	FL02-1202	FL02-1200	8	183	3	CMOM
FL02	FL02-1210:FL02-1100	FL02-1210	FL02-1100	10	156	2	CMOM
FL02	FL02-1220:FL02-1210	FL02-1220	FL02-1210	6	135	2	CMOM
FL02	FL02-1230:FL02-1220	FL02-1230	FL02-1220	6	118	2	CMOM
FL02	FL02-1240:FL02-1230	FL02-1240	FL02-1230	6	400	2	CMOM
FL02	FL02-1250:FL02-1210	FL02-1250	FL02-1210	10	108	4	CIPP
FL02	FL02-1260:FL02-1250	FL02-1260	FL02-1250	10	375	5	Open Cut
FL02	FL02-1275:FL02-1270	FL02-1275	FL02-1270	8	56	No Defect	CMOM
FL02	FL02-1290:FL02-1280	FL02-1290	FL02-1280	8	447	5	Open Cut
FL02	FL02-1300:FL02-1290	FL02-1300	FL02-1290	6	334	5	Pipe Burst
FL02	FL02-1310:FL02-1280	FL02-1310	FL02-1280	8	349	5	Pipe Burst

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
FL02	FL02-1320:FL02-1310	FL02-1320	FL02-1310	6	377	5	Open Cut
FL02	FL02-1330:FL02-1310	FL02-1330	FL02-1310	6	400	5	Pipe Burst
FL02	FL02-1340:FL02-1330	FL02-1340	FL02-1330	8	389	3	CMOM
FL02	FL02-1350:FL02-1310	FL02-1350	FL02-1310	8	330	3	CMOM
FL02	FL02-1360:FL02-1350	FL02-1360	FL02-1350	6	364	3	CMOM
FL02	FL02-1370:FL02-1350	FL02-1370	FL02-1350	6	379	2	CMOM
FL02	FL02-1380:FL02-1370	FL02-1380	FL02-1370	6	408	3	CMOM
FL02	FL02-1390:FL02-1260	FL02-1390	FL02-1260	10	246	4	CIPP
FL02	FL02-1398:FL02-1390	FL02-1398	FL02-1390	6	327	5	Pipe Burst
FL02	FL02-1400:FL02-1398	FL02-1400	FL02-1398	6	52	4	Pipe Burst
FL02	FL02-1410:FL02-1400	FL02-1410	FL02-1400	6	276	4	Pipe Burst
FL02	FL02-1420:FL02-1410	FL02-1420	FL02-1410	6	300	5	Pipe Burst
FL02	FL02-1440:FL02-1430	FL02-1440	FL02-1430	6	317	5	Pipe Burst
FL02	FL02-1450:FL02-1390	FL02-1450	FL02-1390	8	75	4	CIPP
FL02	FL02-1480:FL02-1470	FL02-1480	FL02-1470	6	401	3	CMOM
FL02	FL02-1490:FL02-1480	FL02-1490	FL02-1480	6	352	5	Pipe Burst
FL02	FL02-1500:FL02-1490	FL02-1500	FL02-1490	6	188	5	Pipe Burst
FL02	FL02-1520:FL02-1510	FL02-1520	FL02-1510	8	302	2	CMOM
FL02	FL02-1530:FL02-1520	FL02-1530	FL02-1520	6	447	5	Pipe Burst
FL02	FL02-1550:FL02-1540	FL02-1550	FL02-1540	6	257	5	Open Cut
FL02	FL02-1560:FL02-1550	FL02-1560	FL02-1550	6	367	5	Pipe Burst
FL02	FL02-1570:FL02-1560	FL02-1570	FL02-1560	6	333	5	Pipe Burst
FL02	FL02-1580:FL02-1570	FL02-1580	FL02-1570	6	174	4	Pipe Burst
FL02	FL02-1590:FL02-1398	FL02-1590	FL02-1398	6	126	2	CMOM
FL02	FL02-1610:FL02-0590	FL02-1610	FL02-0590	6	376	2	CMOM
FL02	FL02-1620:FL02-1610	FL02-1620	FL02-1610	6	399	1	CMOM
FL02	FL02-1630:FL02-1620	FL02-1630	FL02-1620	6	400	5	Point Repair
FL02	FL02-1640:FL02-1630	FL02-1640	FL02-1630	6	163	5	Pipe Burst
FL02	FL02-1650:FL02-1640	FL02-1650	FL02-1640	6	8	No Defect	CMOM
FL02	FL02-1660:FL02-1650	FL02-1660	FL02-1650	6	60	No Defect	CMOM
FL02	FL02-1670:FL02-1660	FL02-1670	FL02-1660	6	9	No Defect	CMOM
FL02	FL02-1680:FL02-1670	FL02-1680	FL02-1670	6	173	5	Open Cut
MC06	MC06-0016A:MC06-0016	MC06-0016A	MC06-0016	8	281	3	CMOM
MC06	MC06-0050:MC06-0030	MC06-0050	MC06-0030	8	278	3	CMOM
MC06	MC06-0060:MC06-0050	MC06-0060	MC06-0050	8	331	5	Pipe Burst
MC06	MC06-0070:MC06-0070A	MC06-0070	MC06-0070A	8	328	5	Open Cut
MC06	MC06-0070A:MC06-0060	MC06-0070A	MC06-0060	8	62	3	CMOM
MC06	MC06-0080:MC06-0016A	MC06-0080	MC06-0016A	8	171	No Defect	CMOM
MC06	MC06-0090:MC06-0080	MC06-0090	MC06-0080	8	63	3	CMOM
MC06	MC06-0100:MC06-0090	MC06-0100	MC06-0090	8	337	3	CMOM
MC06	MC06-0110:MC06-0100	MC06-0110	MC06-0100	6	450	5	Open Cut
MC06	MC06-0115:MC06-0110	MC06-0115	MC06-0110	6	15	3	CMOM
MC06	MC06-0120:MC06-0100	MC06-0120	MC06-0100	8	439	5	Pipe Burst
MC06	MC06-0130:MC06-0120	MC06-0130	MC06-0120	8	445	4	CIPP
MC06	MC06-0140:MC06-0130	MC06-0140	MC06-0130	8	494	5	CIPP
MC06	MC06-0150:MC06-0140	MC06-0150	MC06-0140	6	494	5	Pipe Burst
MC06	MC06-0160:MC06-0130	MC06-0160	MC06-0130	6	474	3	CMOM
MC06	MC06-0170:MC06-0120	MC06-0170	MC06-0120	8	385	4	Open Cut
MC06	MC06-0180:MC06-0170	MC06-0180	MC06-0170	8	374	3	CMOM
MC06	MC06-0190:MC06-0180	MC06-0190	MC06-0180	8	358	3	CMOM
MC06	MC06-0200:MC06-0190	MC06-0200	MC06-0190	6	291	5	Pipe Burst
MC06	MC06-0205:MC06-0190	MC06-0205	MC06-0190	8	298	3	CMOM
MC06	MC06-0210:MC06-0205	MC06-0210	MC06-0205	8	196	3	CMOM
MC06	MC06-0220:MC06-0210	MC06-0220	MC06-0210	8	297	3	CMOM
MC06	MC06-0230:MC06-0220	MC06-0230	MC06-0220	6	260	5	CIPP

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
MC06	MC06-0240:MC06-0220	MC06-0240	MC06-0220	8	546	4	Pipe Burst
MC06	MC06-0250:MC06-0240	MC06-0250	MC06-0240	6	380	3	CMOM
MC06	MC06-0300:MC06-0290	MC06-0300	MC06-0290	15	356	3	CMOM
MC06	MC06-0340:MC06-0335	MC06-0340	MC06-0335	8	90	2	CMOM
MC06	MC06-0350:MC06-0340	MC06-0350	MC06-0340	8	40	3	CMOM
MC06	MC06-0360:MC06-0350	MC06-0360	MC06-0350	8	240	4	Pipe Burst
MC06	MC06-0370:MC06-0360	MC06-0370	MC06-0360	8	351	4	Pipe Burst
MC06	MC06-0380:MC06-0370	MC06-0380	MC06-0370	6	255	5	Pipe Burst
MC06	MC06-0390:MC06-0380	MC06-0390	MC06-0380	6	272	3	CMOM
MC06	MC06-0400:MC06-0390	MC06-0400	MC06-0390	6	251	3	CMOM
MC06	MC06-0410:MC06-0370	MC06-0410	MC06-0370	8	117	3	CMOM
MC06	MC06-0420:MC06-0414	MC06-0420	MC06-0414	8	204	5	Pipe Burst
MC06	MC06-0430:MC06-0420	MC06-0430	MC06-0420	6	359	3	CMOM
MC06	MC06-0440:MC06-0430	MC06-0440	MC06-0430	6	292	3	CMOM
MC06	MC06-0450:MC06-0440	MC06-0450	MC06-0440	6	109	5	Pipe Burst
MC06	MC06-0460:MC06-0450	MC06-0460	MC06-0450	8	135	2	CMOM
MC06	MC06-0470:MC06-0450	MC06-0470	MC06-0450	6	133	3	CMOM
MC06	MC06-0480:MC06-0420	MC06-0480	MC06-0420	6	308	4	Pipe Burst
MC06	MC06-0490:MC06-0480	MC06-0490	MC06-0480	6	227	3	CMOM
MC06	MC06-0500:MC06-0490	MC06-0500	MC06-0490	6	363	3	CMOM
MC06	MC06-0510:MC06-0500	MC06-0510	MC06-0500	6	287	3	CMOM
MC06	MC06-0520:MC06-0490	MC06-0520	MC06-0490	6	326	3	CMOM
MC06	MC06-0530:MC06-0520	MC06-0530	MC06-0520	6	231	3	CMOM
MC06	MC06-0542:MC06-0305	MC06-0542	MC06-0305	10	35	3	CMOM
MC06	MC06-0560:MC06-0550	MC06-0560	MC06-0550	10	188	3	CMOM
MC06	MC06-0570:MC06-0560	MC06-0570	MC06-0560	10	287	3	CMOM
MC06	MC06-0580:MC06-0570	MC06-0580	MC06-0570	10	114	3	CMOM
MC06	MC06-0590:MC06-0580	MC06-0590	MC06-0580	10	351	5	CIPP
MC06	MC06-0630:MC06-0621	MC06-0630	MC06-0621	6	217	5	Pipe Burst
MC06	MC06-0640:MC06-0630	MC06-0640	MC06-0630	6	87	3	CMOM
MC06	MC06-0650:MC06-0640	MC06-0650	MC06-0640	6	338	5	Pipe Burst
MC06	MC06-0660:MC06-0590	MC06-0660	MC06-0590	10	146	3	CMOM
MC06	MC06-0680:MC06-0670	MC06-0680	MC06-0670	10	127	5	Pipe Burst
MC06	MC06-0690:MC06-0680	MC06-0690	MC06-0680	8	175	5	Point Repair
MC06	MC06-0740:MC06-0680	MC06-0740	MC06-0680	10	238	4	Pipe Burst
MC06	MC06-0750:MC06-0740	MC06-0750	MC06-0740	8	148	3	CMOM
MC06	MC06-0760:MC06-0750	MC06-0760	MC06-0750	6	255	5	Pipe Burst
MC06	MC06-0770:MC06-0760	MC06-0770	MC06-0760	6	222	5	Open Cut
MC06	MC06-0780:MC06-0750	MC06-0780	MC06-0750	8	137	5	CIPP
MC06	MC06-0790:MC06-0780	MC06-0790	MC06-0780	8	212	5	Pipe Burst
MC06	MC06-0800:MC06-0790	MC06-0800	MC06-0790	6	170	4	Pipe Burst
MC06	MC06-0820:MC06-0810	MC06-0820	MC06-0810	6	397	3	CMOM
MC06	MC06-0830:MC06-0820	MC06-0830	MC06-0820	6	117	3	CMOM
MC06	MC06-0835:MC06-0830	MC06-0835	MC06-0830	6	125	2	CMOM
MC06	MC06-0840:MC06-0820	MC06-0840	MC06-0820	6	125	3	CMOM
MC06	MC06-0850:MC06-0840	MC06-0850	MC06-0840	6	90	3	CMOM
MC06	MC06-0860:MC06-0850	MC06-0860	MC06-0850	6	234	3	CMOM
MC06	MC06-0870:MC06-0860	MC06-0870	MC06-0860	6	208	5	Pipe Burst
MC06	MC06-0880:MC06-0790	MC06-0880	MC06-0790	8	98	3	CMOM
MC06	MC06-0890:MC06-0880	MC06-0890	MC06-0880	8	80	5	CIPP
MC06	MC06-0900:MC06-0890	MC06-0900	MC06-0890	6	203	4	Pipe Burst
MC06	MC06-0910:MC06-0900	MC06-0910	MC06-0900	6	297	5	Pipe Burst
MC06	MC06-0920:MC06-0910	MC06-0920	MC06-0910	8	301	5	Pipe Burst
MC06	MC06-0930:MC06-0890	MC06-0930	MC06-0890	8	301	3	CMOM
MC06	MC06-0940:MC06-0930	MC06-0940	MC06-0930	6	199	5	Pipe Burst

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
MC06	MC06-0950:MC06-0940	MC06-0950	MC06-0940	6	251	5	Pipe Burst
MC06	MC06-0990:MC06-0930	MC06-0990	MC06-0930	8	240	3	CMOM
MC06	MC06-1020:MC06-1010	MC06-1020	MC06-1010	6	234	5	Pipe Burst
MC06	MC06-1030:MC06-1020	MC06-1030	MC06-1020	6	244	2	CMOM
MC06	MC06-1050:MC06-1040	MC06-1050	MC06-1040	6	10	3	CMOM
MC06	MC06-1060:MC06-1050	MC06-1060	MC06-1050	6	131	3	CMOM
MC06	MC06-1080:MC06-1070	MC06-1080	MC06-1070	6	113	1	CMOM
MC06	MC06-1090:MC06-1080	MC06-1090	MC06-1080	6	235	2	CMOM
MC06	MC06-1100:MC06-1090	MC06-1100	MC06-1090	6	332	4	Pipe Burst
MC06	MC06-1130:MC06-1128	MC06-1130	MC06-1128	24	14	No Defect	CMOM
MC06	MC06-1140:MC06-1138	MC06-1140	MC06-1138	21	195	3	CMOM
MC06	MC06-1150:MC06-1140	MC06-1150	MC06-1140	21	175	3	CMOM
MC06	MC06-1160:MC06-1150	MC06-1160	MC06-1150	8	182	3	CMOM
MC06	MC06-1160A:MC06-1160	MC06-1160A	MC06-1160	8	82	3	CMOM
MC06	MC06-1170:MC06-1160A	MC06-1170	MC06-1160A	8	337	4	Pipe Burst
MC06	MC06-1180:MC06-1170	MC06-1180	MC06-1170	8	325	4	CIPP
MC06	MC06-1190:MC06-1180	MC06-1190	MC06-1180	8	302	2	CMOM
MC06	MC06-1200:MC06-1150	MC06-1200	MC06-1150	21	115	3	CMOM
MC06	MC06-1205:MC06-1200	MC06-1205	MC06-1200	21	71	3	CMOM
MC06	MC06-1212:MC06-1210	MC06-1212	MC06-1210	10	138	3	CMOM
MC06	MC06-1220:MC06-1216	MC06-1220	MC06-1216	8	447	3	CMOM
MC06	MC06-1230:MC06-1220	MC06-1230	MC06-1220	8	431	5	Open Cut
MC06	MC06-1240:MC06-1230	MC06-1240	MC06-1230	8	371	3	CMOM
MC06	MC06-1250:MC06-1240	MC06-1250	MC06-1240	8	480	5	Pipe Burst
MC06	MC06-1300:MC06-1860	MC06-1300	MC06-1860	15	160	3	CMOM
MC06	MC06-1310:MC06-1300	MC06-1310	MC06-1300	12	444	3	CMOM
MC06	MC06-1320:MC06-1310	MC06-1320	MC06-1310	12	237	3	CMOM
MC06	MC06-1330:MC06-1320	MC06-1330	MC06-1320	8	199	2	CMOM
MC06	MC06-1340:MC06-1320	MC06-1340	MC06-1320	8	201	2	CMOM
MC06	MC06-1350:MC06-1340	MC06-1350	MC06-1340	8	74	No Defect	CMOM
MC06	MC06-1351:MC06-1350	MC06-1351	MC06-1350	8	120	No Defect	CMOM
MC06	MC06-1370:MC06-1360	MC06-1370	MC06-1360	5	137	4	Pipe Burst
MC06	MC06-1380:MC06-1370	MC06-1380	MC06-1370	8	228	2	CMOM
MC06	MC06-1390:MC06-1370	MC06-1390	MC06-1370	8	327	2	CMOM
MC06	MC06-1410:MC06-1320	MC06-1410	MC06-1320	12	83	3	CMOM
MC06	MC06-1420:MC06-1410	MC06-1420	MC06-1410	12	265	3	CMOM
MC06	MC06-1430:MC06-1420	MC06-1430	MC06-1420	8	110	4	Point Repair
MC06	MC06-1440:MC06-1420	MC06-1440	MC06-1420	8	269	2	CMOM
MC06	MC06-1450:MC06-1440	MC06-1450	MC06-1440	8	102	2	CMOM
MC06	MC06-1460:MC06-1420	MC06-1460	MC06-1420	10	120	3	CMOM
MC06	MC06-1500:MC06-1490	MC06-1500	MC06-1490	8	185	4	Pipe Burst
MC06	MC06-1510A:MC06-1500	MC06-1510A	MC06-1500	8	85	3	CMOM
MC06	MC06-1520:MC06-1510	MC06-1520	MC06-1510	8	124	No Defect	CMOM
MC06	MC06-1560:MC06-1510	MC06-1560	MC06-1510	8	148	4	CIPP
MC06	MC06-1580:MC06-1570	MC06-1580	MC06-1570	6	150	4	Pipe Burst
MC06	MC06-1640:MC06-1460	MC06-1640	MC06-1460	10	166	3	CMOM
MC06	MC06-1650:MC06-1640	MC06-1650	MC06-1640	10	100	3	CMOM
MC06	MC06-1660:MC06-1650	MC06-1660	MC06-1650	10	299	3	CMOM
MC06	MC06-1670:MC06-1660	MC06-1670	MC06-1660	10	157	3	CMOM
MC06	MC06-1680:MC06-1670	MC06-1680	MC06-1670	10	105	2	CMOM
MC06	MC06-1710:MC06-1690	MC06-1710	MC06-1690	10	391	4	Pipe Burst
MC06	MC06-1715:MC06-1710	MC06-1715	MC06-1710	10	157	3	CMOM
MC06	MC06-1720:MC06-1715	MC06-1720	MC06-1715	10	217	3	CMOM
MC06	MC06-1730:MC06-1720	MC06-1730	MC06-1720	10	381	4	CIPP
MC06	MC06-1740:MC06-1730	MC06-1740	MC06-1730	10	302	5	Pipe Burst

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
MC06	MC06-1750:MC06-1740	MC06-1750	MC06-1740	10	325	4	Pipe Burst
MC06	MC06-1760:MC06-1750	MC06-1760	MC06-1750	10	324	3	CMOM
MC06	MC06-1770:MC06-1760	MC06-1770	MC06-1760	8	394	5	Pipe Burst
MC06	MC06-1780:MC06-1770	MC06-1780	MC06-1770	8	357	3	CMOM
MC06	MC06-1790:MC06-1780	MC06-1790	MC06-1780	6	388	3	CMOM
MC06	MC06-1800:MC06-1760	MC06-1800	MC06-1760	8	108	3	CMOM
MC06	MC06-1810:MC06-1800	MC06-1810	MC06-1800	8	397	3	CMOM
MC06	MC06-1820:MC06-1810	MC06-1820	MC06-1810	6	350	5	CIPP
MC06	MC06-1830:MC06-1820	MC06-1830	MC06-1820	6	350	5	Pipe Burst
MC06	MC06-1840:MC06-1810	MC06-1840	MC06-1810	8	353	3	CMOM
MC06	MC06-1850:MC06-1840	MC06-1850	MC06-1840	8	347	4	CIPP
MC06	MC06-1894:MC06-1893	MC06-1894	MC06-1893	8	159	2	CMOM
MC06	MC06-1895:MC06-1894	MC06-1895	MC06-1894	8	145	2	CMOM
MC06	MC06-1900:MC06-1890	MC06-1900	MC06-1890	8	148	3	CMOM
MC06	MC06-1910:MC06-1900	MC06-1910	MC06-1900	6	447	4	Pipe Burst
MC06	MC06-1920:MC06-1910	MC06-1920	MC06-1910	6	107	3	CMOM
MC06	MC06-1930:MC06-1910	MC06-1930	MC06-1910	8	471	2	CMOM
MC06	MC06-1940:MC06-1930	MC06-1940	MC06-1930	8	106	2	CMOM
MC06	MC06-2000:MC06-0260	MC06-2000	MC06-0260	10	71	2	CMOM
MC06	MC06-2010:MC06-2000	MC06-2010	MC06-2000	8	291	4	Pipe Burst
MC06	MC06-2020:MC06-2010	MC06-2020	MC06-2010	8	351	3	CMOM
MC06	MC06-2030:MC06-2020	MC06-2030	MC06-2020	8	335	5	CIPP
MC06	MC06-2040:MC06-2030	MC06-2040	MC06-2030	8	399	3	CMOM
MC06	MC06-2210:MC06-1895	MC06-2210	MC06-1895	8	67	No Defect	CMOM
MC07	MC07-0040:MC07-0030	MC07-0040	MC07-0030	10	18	No Defect	CMOM
MC07	MC07-0043:MC07-0040	MC07-0043	MC07-0040	10	87	3	CMOM
MC07	MC07-0050:MC07-0043	MC07-0050	MC07-0043	8	274	5	Pipe Burst
MC07	MC07-0060:MC07-0050	MC07-0060	MC07-0050	8	467	3	CMOM
MC07	MC07-0070:MC07-0060	MC07-0070	MC07-0060	8	467	3	CMOM
MC07	MC07-0080:MC07-0070	MC07-0080	MC07-0070	8	327	3	CMOM
MC07	MC07-0090:MC07-0080	MC07-0090	MC07-0080	8	151	3	CMOM
MC07	MC07-0100:MC07-0080	MC07-0100	MC07-0080	8	431	3	CMOM
MC07	MC07-0110:MC07-0100	MC07-0110	MC07-0100	6	420	5	Open Cut
MC07	MC07-0120:MC07-0040	MC07-0120	MC07-0040	10	335	3	CMOM
MC07	MC07-0130:MC07-0120	MC07-0130	MC07-0120	10	342	4	Pipe Burst
MC07	MC07-0140:MC07-0142	MC07-0140	MC07-0142	8	395	4	Pipe Burst
MC07	MC07-0142:MC07-2270	MC07-0142	MC07-2270	8	#N/A	3	CMOM
MC07	MC07-0150:MC07-0140	MC07-0150	MC07-0140	6	377	3	CMOM
MC07	MC07-0160:MC07-0130	MC07-0160	MC07-0130	8	186	3	CMOM
MC07	MC07-0170:MC07-0160	MC07-0170	MC07-0160	6	162	5	Pipe Burst
MC07	MC07-0190:MC07-0180	MC07-0190	MC07-0180	6	354	5	Pipe Burst
MC07	MC07-0200:MC07-0190	MC07-0200	MC07-0190	6	341	5	Open Cut
MC07	MC07-0210:MC07-0160	MC07-0210	MC07-0160	6	159	5	Pipe Burst
MC07	MC07-0220:MC07-0210	MC07-0220	MC07-0210	6	345	5	Pipe Burst
MC07	MC07-0230:MC07-0220	MC07-0230	MC07-0220	6	348	5	Pipe Burst
MC07	MC07-0250:MC07-0130	MC07-0250	MC07-0130	10	385	3	CMOM
MC07	MC07-0260:MC07-0250	MC07-0260	MC07-0250	10	257	4	Open Cut
MC07	MC07-0270:MC07-0260	MC07-0270	MC07-0260	8	362	5	Open Cut
MC07	MC07-0280:MC07-0270	MC07-0280	MC07-0270	6	213	4	Pipe Burst
MC07	MC07-0290:MC07-0270	MC07-0290	MC07-0270	8	128	3	CMOM
MC07	MC07-0300:MC07-0290	MC07-0300	MC07-0290	6	77	4	Pipe Burst
MC07	MC07-0310:MC07-0300	MC07-0310	MC07-0300	6	77	3	CMOM
MC07	MC07-0320:MC07-0310	MC07-0320	MC07-0310	6	212	3	CMOM
MC07	MC07-0330:MC07-0310	MC07-0330	MC07-0310	6	230	3	CMOM
MC07	MC07-0340:MC07-0300	MC07-0340	MC07-0300	6	345	5	Open Cut

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
MC07	MC07-0360:MC07-0350	MC07-0360	MC07-0350	6	87	4	Open Cut
MC07	MC07-0370:MC07-2300	MC07-0370	MC07-2300	8	404	5	CIPP
MC07	MC07-0380:MC07-0370	MC07-0380	MC07-0370	8	380	3	CMOM
MC07	MC07-0390:MC07-0260	MC07-0390	MC07-0260	10	432	5	Pipe Burst
MC07	MC07-0400:MC07-0390	MC07-0400	MC07-0390	8	381	5	CIPP
MC07	MC07-0410:MC07-0400	MC07-0410	MC07-0400	8	380	3	CMOM
MC07	MC07-0420:MC07-0390	MC07-0420	MC07-0390	8	431	5	Point Repair
MC07	MC07-0430:MC07-0420	MC07-0430	MC07-0420	6	194	5	Pipe Burst
MC07	MC07-0440:MC07-0420	MC07-0440	MC07-0420	8	407	3	CMOM
MC07	MC07-0450:MC07-0440	MC07-0450	MC07-0440	8	110	3	CMOM
MC07	MC07-0460:MC07-0450	MC07-0460	MC07-0450	8	251	4	Open Cut
MC07	MC07-0470:MC07-0460	MC07-0470	MC07-0460	6	71	5	Pipe Burst
MC07	MC07-0480:MC07-0470	MC07-0480	MC07-0470	6	82	5	Open Cut
MC07	MC07-0490:MC07-0480	MC07-0490	MC07-0480	6	138	2	CMOM
MC07	MC07-0500:MC07-0470	MC07-0500	MC07-0470	6	360	4	Open Cut
MC07	MC07-0510:MC07-0450	MC07-0510	MC07-0450	6	179	4	Pipe Burst
MC07	MC07-0520:MC07-0510	MC07-0520	MC07-0510	6	334	4	Open Cut
MC07	MC07-0530:MC07-0520	MC07-0530	MC07-0520	6	301	5	Pipe Burst
MC07	MC07-0680:MC07-0670	MC07-0680	MC07-0670	6	54	No Defect	CMOM
MC07	MC07-0690:MC07-0670	MC07-0690	MC07-0670	6	123	No Defect	CMOM
MC07	MC07-0700:MC07-0690	MC07-0700	MC07-0690	6	186	3	CMOM
MC07	MC07-0710:MC07-0700	MC07-0710	MC07-0700	6	115	2	CMOM
MC07	MC07-0720:MC07-0710	MC07-0720	MC07-0710	6	283	3	CMOM
MC07	MC07-0740:MC07-0670	MC07-0740	MC07-0670	6	36	No Defect	CMOM
MC07	MC07-0750:MC07-0740	MC07-0750	MC07-0740	6	196	2	CMOM
MC07	MC07-0760:MC07-0750	MC07-0760	MC07-0750	6	132	No Defect	CMOM
MC07	MC07-0770:MC07-0760	MC07-0770	MC07-0760	6	35	2	CMOM
MC07	MC07-0780:MC07-0770	MC07-0780	MC07-0770	8	175	5	Open Cut
MC07	MC07-0790:MC07-0780	MC07-0790	MC07-0780	8	79	4	CIPP
MC07	MC07-0800:MC07-0790	MC07-0800	MC07-0790	8	190	3	CMOM
MC07	MC07-0810:MC07-0800	MC07-0810	MC07-0800	8	189	2	CMOM
MC07	MC07-0820:MC07-0810	MC07-0820	MC07-0810	8	189	4	CIPP
MC07	MC07-0828:MC07-0420	MC07-0828	MC07-0420	8	425	4	CIPP
MC07	MC07-0830:MC07-0828	MC07-0830	MC07-0828	8	19	3	CMOM
MC07	MC07-0840:MC07-0830	MC07-0840	MC07-0830	6	181	5	Pipe Burst
MC07	MC07-0860:MC07-0830	MC07-0860	MC07-0830	8	302	3	CMOM
MC07	MC07-0870:MC07-0860	MC07-0870	MC07-0860	8	156	3	CMOM
MC07	MC07-0880:MC07-0870	MC07-0880	MC07-0870	6	251	2	CMOM
MC07	MC07-0890:MC07-0870	MC07-0890	MC07-0870	6	188	4	Pipe Burst
MC07	MC07-0900:MC07-0870	MC07-0900	MC07-0870	8	205	2	CMOM
MC07	MC07-0910:MC07-0900	MC07-0910	MC07-0900	8	228	3	CMOM
MC07	MC07-0912:MC07-0910	MC07-0912	MC07-0910	8	33	No Defect	CMOM
MC07	MC07-0920:MC07-0910	MC07-0920	MC07-0910	6	100	3	CMOM
MC07	MC07-0930:MC07-0920	MC07-0930	MC07-0920	6	218	5	Pipe Burst
MC07	MC07-0950:MC07-0945	MC07-0950	MC07-0945	8	139	3	CMOM
MC07	MC07-0960:MC07-0950	MC07-0960	MC07-0950	8	346	4	CIPP
MC07	MC07-0970:MC07-0950	MC07-0970	MC07-0950	6	312	5	Pipe Burst
MC07	MC07-0980:MC07-0970	MC07-0980	MC07-0970	6	244	5	Pipe Burst
MC07	MC07-0990:MC07-0970	MC07-0990	MC07-0970	6	339	5	Pipe Burst
MC07	MC07-1000:MC07-0950	MC07-1000	MC07-0950	6	250	3	CMOM
MC07	MC07-1010:MC07-1000	MC07-1010	MC07-1000	6	269	5	Point Repair
MC07	MC07-1020:MC07-1010	MC07-1020	MC07-1010	6	334	5	Open Cut
MC07	MC07-1030:MC07-1020	MC07-1030	MC07-1020	6	100	4	Pipe Burst
MC07	MC07-1040:MC07-1030	MC07-1040	MC07-1030	6	223	3	CMOM
MC07	MC07-1050:MC07-1050A	MC07-1050	MC07-1050A	8	49	3	CMOM

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
MC07	MC07-1050A:MC07-0912	MC07-1050A	MC07-0912	8	318	3	CMOM
MC07	MC07-1060:MC07-1050	MC07-1060	MC07-1050	8	120	3	CMOM
MC07	MC07-1070:MC07-1060	MC07-1070	MC07-1060	6	274	4	Pipe Burst
MC07	MC07-1080:MC07-1060	MC07-1080	MC07-1060	8	90	3	CMOM
MC07	MC07-1150:MC07-1140	MC07-1150	MC07-1140	8	93	2	CMOM
MC07	MC07-1160:MC07-1150	MC07-1160	MC07-1150	8	248	4	Pipe Burst
MC07	MC07-1170:MC07-1160	MC07-1170	MC07-1160	8	240	5	CIPP
MC07	MC07-1180:MC07-1170	MC07-1180	MC07-1170	8	129	5	Open Cut
MC07	MC07-1190:MC07-1180	MC07-1190	MC07-1180	8	385	5	Open Cut
MC07	MC07-1200:MC07-1190	MC07-1200	MC07-1190	8	183	No Defect	CMOM
MC07	MC07-1210:MC07-1170	MC07-1210	MC07-1170	8	243	4	Pipe Burst
MC07	MC07-1220:MC07-1210	MC07-1220	MC07-1210	8	160	2	CMOM
MC07	MC07-1230:MC07-1220	MC07-1230	MC07-1220	6	130	4	Pipe Burst
MC07	MC07-1240:MC07-1230	MC07-1240	MC07-1230	6	173	2	CMOM
MC07	MC07-1280:MC07-1270	MC07-1280	MC07-1270	8	192	4	Point Repair
MC07	MC07-1290:MC07-1280	MC07-1290	MC07-1280	8	101	3	CMOM
MC07	MC07-1300:MC07-1290	MC07-1300	MC07-1290	8	190	5	Pipe Burst
MC07	MC07-1310:MC07-1300	MC07-1310	MC07-1300	6	168	3	CMOM
MC07	MC07-1330:MC07-1320	MC07-1330	MC07-1320	6	211	5	Open Cut
MC07	MC07-1340:MC07-1330	MC07-1340	MC07-1330	6	231	5	Pipe Burst
MC07	MC07-1350:MC07-1300	MC07-1350	MC07-1300	8	87	4	Pipe Burst
MC07	MC07-1400:MC07-1390	MC07-1400	MC07-1390	8	82	5	Pipe Burst
MC07	MC07-1410:MC07-1400	MC07-1410	MC07-1400	8	374	5	Open Cut
MC07	MC07-1430:MC07-1420	MC07-1430	MC07-1420	6	279	5	Pipe Burst
MC07	MC07-1440:MC07-1290	MC07-1440	MC07-1290	6	213	5	Open Cut
MC07	MC07-1450:MC07-1440	MC07-1450	MC07-1440	6	108	5	Open Cut
MC07	MC07-1470:MC07-1460	MC07-1470	MC07-1460	6	267	5	Open Cut
MC07	MC07-1500:MC07-1490	MC07-1500	MC07-1490	6	152	2	CMOM
MC07	MC07-1510:MC07-1500	MC07-1510	MC07-1500	6	248	5	Pipe Burst
MC07	MC07-1520:MC07-1500	MC07-1520	MC07-1500	6	171	5	Open Cut
MC07	MC07-1530:MC07-1520	MC07-1530	MC07-1520	6	286	5	Open Cut
MC07	MC07-2230:MC07-0030	MC07-2230	MC07-0030	15	40	4	CIPP
MC07	MC07-2240:MC07-2230	MC07-2240	MC07-2230	8	50	No Defect	CMOM
MC07	MC07-2250:MC07-2240	MC07-2250	MC07-2240	8	159	No Defect	CMOM
MC07	MC07-2260:MC07-2250	MC07-2260	MC07-2250	8	342	3	CMOM
MC07	MC07-2270:MC07-2260	MC07-2270	MC07-2260	8	127	No Defect	CMOM
MC07	MC07-2280:MC07-2270	MC07-2280	MC07-2270	8	220	No Defect	CMOM
MC07	MC07-2290:MC07-2280	MC07-2290	MC07-2280	8	188	No Defect	CMOM
MC07	MC07-2300:MC07-0260	MC07-2300	MC07-0260	10	19	3	CMOM
MC07	MC07-2310:MC07-2300	MC07-2310	MC07-2300	8	277	No Defect	CMOM
MC08	MC08-0010:MC07-2230	MC08-0010	MC07-2230	12	461	No Defect	CMOM
MC08	MC08-0015:MC08-0010	MC08-0015	MC08-0010	12	365	2	CMOM
MC08	MC08-0030:MC08-0020	MC08-0030	MC08-0020	12	445	3	CMOM
MC08	MC08-0040:MC08-0030	MC08-0040	MC08-0030	12	95	3	CMOM
MC08	MC08-0050:MC08-0040	MC08-0050	MC08-0040	8	400	3	CMOM
MC08	MC08-0060:MC08-0050	MC08-0060	MC08-0050	8	357	3	CMOM
MC08	MC08-0070:MC08-0040	MC08-0070	MC08-0040	12	345	3	CMOM
MC08	MC08-0075:MC08-0070	MC08-0075	MC08-0070	12	421	4	CIPP
MC08	MC08-0078:MC08-0075	MC08-0078	MC08-0075	15	191	3	CMOM
MC08	MC08-0078A:MC08-0078	MC08-0078A	MC08-0078	15	11	No Defect	CMOM
MC08	MC08-0080:MC08-0075	MC08-0080	MC08-0075	12	21	3	CMOM
MC08	MC08-0085:MC08-0080	MC08-0085	MC08-0080	8	154	3	CMOM
MC08	MC08-0090:MC08-0085	MC08-0090	MC08-0085	8	287	4	CIPP
MC08	MC08-0100:MC08-0090	MC08-0100	MC08-0090	8	439	4	CIPP
MC08	MC08-0110:MC08-0100	MC08-0110	MC08-0100	8	440	5	Pipe Burst

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
MC08	MC08-0140:MC08-0110	MC08-0140	MC08-0110	8	356	3	CMOM
MC08	MC08-0150:MC08-0140	MC08-0150	MC08-0140	8	269	3	CMOM
MC08	MC08-0160:MC08-0150	MC08-0160	MC08-0150	8	271	3	CMOM
MC08	MC08-0170:MC08-0160	MC08-0170	MC08-0160	6	272	5	Pipe Burst
MC08	MC08-0180:MC08-0140	MC08-0180	MC08-0140	8	280	3	CMOM
MC08	MC08-0190:MC08-0180	MC08-0190	MC08-0180	6	280	3	CMOM
MC08	MC08-0195:MC08-0190	MC08-0195	MC08-0190	6	123	3	CMOM
MC08	MC08-0200:MC08-0110	MC08-0200	MC08-0110	8	250	3	CMOM
MC08	MC08-0210:MC08-0200	MC08-0210	MC08-0200	8	498	4	CIPP
MC08	MC08-0220:MC08-0210	MC08-0220	MC08-0210	6	435	3	CMOM
MC08	MC08-0230:MC08-0200	MC08-0230	MC08-0200	8	341	3	CMOM
MC08	MC08-0240:MC08-0230	MC08-0240	MC08-0230	8	185	2	CMOM
MC08	MC08-0250:MC08-0230	MC08-0250	MC08-0230	8	494	5	Pipe Burst
MC08	MC08-0260:MC08-0250	MC08-0260	MC08-0250	8	407	3	CMOM
MC08	MC08-0270:MC08-0078A	MC08-0270	MC08-0078A	15	109	2	CMOM
MC08	MC08-0280:MC08-0078A	MC08-0280	MC08-0078A	6	172	3	CMOM
MC08	MC08-0290:MC08-0280	MC08-0290	MC08-0280	6	323	5	Pipe Burst
MC08	MC08-0300:MC08-0290	MC08-0300	MC08-0290	6	352	3	CMOM
MC08	MC08-0310:MC08-0273	MC08-0310	MC08-0273	15	425	3	CMOM
MC08	MC08-0320:MC08-0310	MC08-0320	MC08-0310	15	457	1	CMOM
MC08	MC08-0330:MC08-0326	MC08-0330	MC08-0326	12	158	No Defect	CMOM
MC08	MC08-0337:MC08-0337A	MC08-0337	MC08-0337A	12	410	2	CMOM
MC08	MC08-0337A:MC08-0330	MC08-0337A	MC08-0330	12	25	2	CMOM
MC08	MC08-0340:MC08-0337	MC08-0340	MC08-0337	12	30	2	CMOM
MC08	MC08-0350:MC08-0340	MC08-0350	MC08-0340	8	451	5	Pipe Burst
MC08	MC08-0360:MC08-0350	MC08-0360	MC08-0350	6	251	3	CMOM
MC08	MC08-0370:MC08-0360	MC08-0370	MC08-0360	6	260	3	CMOM
MC08	MC08-0371:MC08-0370	MC08-0371	MC08-0370	6	68	2	CMOM
MC08	MC08-0380:MC08-0350	MC08-0380	MC08-0350	8	388	5	Pipe Burst
MC08	MC08-0390:MC08-0380	MC08-0390	MC08-0380	6	302	3	CMOM
MC08	MC08-0400:MC08-0390	MC08-0400	MC08-0390	6	297	3	CMOM
MC08	MC08-0410:MC08-0380	MC08-0410	MC08-0380	8	453	3	CMOM
MC08	MC08-0420:MC08-0410	MC08-0420	MC08-0410	8	477	3	CMOM
MC08	MC08-0430:MC08-0420	MC08-0430	MC08-0420	6	349	5	Open Cut
MC08	MC08-0440:MC08-0420	MC08-0440	MC08-0420	10	361	3	CMOM
MC08	MC08-0450:MC08-0440	MC08-0450	MC08-0440	6	412	5	Pipe Burst
MC08	MC08-0470:MC08-0440	MC08-0470	MC08-0440	8	358	4	Pipe Burst
MC08	MC08-0480:MC08-0470	MC08-0480	MC08-0470	6	395	5	Open Cut
MC08	MC08-0490:MC08-0470	MC08-0490	MC08-0470	6	372	3	CMOM
MC08	MC08-0500:MC08-0470	MC08-0500	MC08-0470	6	366	3	CMOM
MC08	MC08-0510:MC08-0500	MC08-0510	MC08-0500	6	367	5	Pipe Burst
MC08	MC08-0520:MC08-0500	MC08-0520	MC08-0500	8	473	3	CMOM
MC08	MC08-0530:MC08-0520	MC08-0530	MC08-0520	8	186	3	CMOM
MC08	MC08-0530A:MC08-0530	MC08-0530A	MC08-0530	6	47	No Defect	CMOM
MC08	MC08-0540:MC08-0530	MC08-0540	MC08-0530	6	314	5	Open Cut
MC08	MC08-0545:MC08-0500	MC08-0545	MC08-0500	6	248	4	Point Repair
MC08	MC08-0550:MC08-0545	MC08-0550	MC08-0545	6	264	3	CMOM
MC08	MC08-0560:MC08-0550	MC08-0560	MC08-0550	8	99	3	CMOM
MC08	MC08-0570:MC08-0560	MC08-0570	MC08-0560	6	661	5	Open Cut
MC08	MC08-0580:MC08-0570	MC08-0580	MC08-0570	6	162	3	CMOM
MC08	MC08-2010:MC08-2000	MC08-2010	MC08-2000	6	443	3	CMOM
MC08	MC08-2020:MC08-0530A	MC08-2020	MC08-0530A	6	112	No Defect	CMOM
MC08	MC08-2100:MC08-0560	MC08-2100	MC08-0560	8	311	2	CMOM
P009	P009-0021:P009-0021A	P009-0021	P009-0021A	12	41	2	CMOM
P009	P009-0030:P009-0021	P009-0030	P009-0021	12	443	3	CMOM

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
P009	P009-0040:P009-0030	P009-0040	P009-0030	12	329	4	Pipe Burst
P009	P009-0080:P009-0075	P009-0080	P009-0075	8	140	2	CMOM
P009	P009-0090:P009-0080	P009-0090	P009-0080	8	118	3	CMOM
P009	P009-0100:P009-0090	P009-0100	P009-0090	8	161	2	CMOM
P009	P009-0110:P009-0100	P009-0110	P009-0100	8	368	4	Pipe Burst
P009	P009-0115:P009-0110	P009-0115	P009-0110	8	255	2	CMOM
P009	P009-0120:P009-0115	P009-0120	P009-0115	8	279	2	CMOM
P009	P009-0180:P009-0170	P009-0180	P009-0170	6	139	5	Pipe Burst
P009	P009-0185:P009-0180	P009-0185	P009-0180	6	242	5	Pipe Burst
P009	P009-0190:P009-0180	P009-0190	P009-0180	6	149	5	Pipe Burst
P009	P009-0195:P009-0190	P009-0195	P009-0190	6	242	5	Open Cut
P009	P009-0220:P009-0210	P009-0220	P009-0210	6	166	5	Pipe Burst
P009	P009-0220A:P009-0220	P009-0220A	P009-0220	6	181	5	Open Cut
P009	P009-0230:P009-0220A	P009-0230	P009-0220A	6	76	5	Pipe Burst
P009	P009-0250:P009-0245	P009-0250	P009-0245	6	298	4	Open Cut
P009	P009-0260:P009-0250	P009-0260	P009-0250	6	421	4	Open Cut
P009	P009-0270:P009-0260	P009-0270	P009-0260	6	190	5	Open Cut
P009	P009-0280:P009-0270	P009-0280	P009-0270	6	119	No Defect	CMOM
P009	P009-0370:P009-0340	P009-0370	P009-0340	6	216	4	Pipe Burst
P009	P009-0380:P009-0370	P009-0380	P009-0370	6	103	No Defect	CMOM
P009	P009-0420:P009-0410	P009-0420	P009-0410	8	297	5	Pipe Burst
P009	P009-0430:P009-0420	P009-0430	P009-0420	8	297	3	CMOM
P009	P009-0480:P009-0470	P009-0480	P009-0470	6	189	5	Open Cut
P009	P009-0500:P009-0430	P009-0500	P009-0430	6	184	5	Point Repair
P009	P009-0650:P009-0640	P009-0650	P009-0640	8	162	3	CMOM
P009	P009-0650A:P009-0650	P009-0650A	P009-0650	6	148	5	Open Cut
P009	P009-0660:P009-0650A	P009-0660	P009-0650A	6	334	5	Point Repair
P009	P009-0670:P009-0650	P009-0670	P009-0650	8	166	4	CIPP
P009	P009-0680:P009-0670	P009-0680	P009-0670	8	105	2	CMOM
P009	P009-0690:P009-0680	P009-0690	P009-0680	8	364	2	CMOM
P009	P009-0700:P009-0690	P009-0700	P009-0690	8	188	3	CMOM
P009	P009-0710:P009-0640	P009-0710	P009-0640	8	170	1	CMOM
P009	P009-0720:P009-0710	P009-0720	P009-0710	8	351	1	CMOM
P009	P009-0730:P009-0720	P009-0730	P009-0720	8	156	5	Point Repair
P009	P009-0740:P009-0730	P009-0740	P009-0730	6	254	3	CMOM
P009	P009-0750:P009-0740	P009-0750	P009-0740	6	250	2	CMOM
P009	P009-0810:P009-0810A	P009-0810	P009-0810A	8	240	4	Pipe Burst
P009	P009-0810A:P009-0802	P009-0810A	P009-0802	8	123	4	Open Cut
P009	P009-0820:P009-0810	P009-0820	P009-0810	8	48	4	CIPP
P009	P009-0820A:P009-0820	P009-0820A	P009-0820	8	409	2	CMOM
P009	P009-0825:P009-0820A	P009-0825	P009-0820A	8	158	2	CMOM
P009	P009-0830:P009-0825	P009-0830	P009-0825	8	385	5	CIPP
P009	P009-0862:P009-0845	P009-0862	P009-0845	10	137	5	Pipe Burst
P009	P009-0870A:P009-0862	P009-0870A	P009-0862	10	381	No Defect	CMOM
P009	P009-1960:P009-1952	P009-1960	P009-1952	6	376	3	CMOM
P009	P009-2000:P009-1990	P009-2000	P009-1990	8	445	5	Open Cut
P009	P009-2005:P009-2000	P009-2005	P009-2000	8	145	2	CMOM
P009	P009-2045:P009-2042	P009-2045	P009-2042	8	259	3	CMOM
P009	P009-2050:P009-2045	P009-2050	P009-2045	6	218	5	Pipe Burst
P009	P009-2060:P009-2050	P009-2060	P009-2050	8	159	4	CIPP
P009	P009-2110:P009-2100	P009-2110	P009-2100	8	44	2	CMOM
P009	P009-2115:P009-2110	P009-2115	P009-2110	8	162	3	CMOM
P009	P009-2192:P009-2190	P009-2192	P009-2190	8	80	No Defect	CMOM
P009	P009-2200:P009-2192	P009-2200	P009-2192	8	281	No Defect	CMOM
P009	P009-2210:P009-2170	P009-2210	P009-2170	8	44	2	CMOM

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
P009	P009-2220:P009-2210	P009-2220	P009-2210	6	257	5	Open Cut
P009	P009-2230:P009-2220	P009-2230	P009-2220	6	207	5	Open Cut
P009	P009-2250:P009-2210	P009-2250	P009-2210	8	454	3	CMOM
P009	P009-2255:P009-2250	P009-2255	P009-2250	8	356	5	Open Cut
P009	P009-2260:P009-2250	P009-2260	P009-2250	8	265	5	Open Cut
P009	P009-2270:P009-2255	P009-2270	P009-2255	6	91	4	Pipe Burst
P009	P009-2272:P009-2270	P009-2272	P009-2270	6	60	4	Pipe Burst
P009	P009-2290:P009-2280	P009-2290	P009-2280	6	201	5	Open Cut
P009	P009-2360:P009-2340	P009-2360	P009-2340	6	350	4	Pipe Burst
P009	P009-2370:P009-2360	P009-2370	P009-2360	6	348	No Defect	CMOM
P009	P009-2440:P009-2430	P009-2440	P009-2430	6	347	4	Pipe Burst
P009	P009-2450:P009-2440	P009-2450	P009-2440	6	164	4	Pipe Burst
P009	P009-2460:P009-2450	P009-2460	P009-2450	6	247	3	CMOM
P009	P009-2470:P009-2460	P009-2470	P009-2460	6	127	No Defect	CMOM
P009	P009-2523:P009-2520	P009-2523	P009-2520	6	39	5	Pipe Burst
P009	P009-2526:P009-2523	P009-2526	P009-2523	6	166	5	Open Cut
P009	P009-2530:P009-2526	P009-2530	P009-2526	6	137	5	Pipe Burst
P009	P009-2540:P009-2530	P009-2540	P009-2530	6	365	5	Pipe Burst
P009	P009-2550:P009-2530	P009-2550	P009-2530	6	381	5	Open Cut
P009	P009-2580:P009-2570	P009-2580	P009-2570	6	128	2	CMOM
P009	P009-2590:P009-2580	P009-2590	P009-2580	6	397	5	Open Cut
P009	P009-2610:P009-2580	P009-2610	P009-2580	6	401	5	Open Cut
P009	P009-2620:P009-2610	P009-2620	P009-2610	6	352	5	Open Cut
P009	P009-2880A:P009-2880	P009-2880A	P009-2880	6	312	4	Point Repair
Z001	Z001-0010:MC06-1970	Z001-0010	MC06-1970	36	81	2	CMOM
Z001	Z001-0030:Z001-0020	Z001-0030	Z001-0020	12	311	2	CMOM
Z001	Z001-0040:Z001-0030	Z001-0040	Z001-0030	12	402	2	CMOM
Z001	Z001-0050:Z001-0040	Z001-0050	Z001-0040	12	428	2	CMOM
Z001	Z001-0050A:Z001-0050	Z001-0050A	Z001-0050	12	61	3	CMOM
Z001	Z001-0060:Z001-0050A	Z001-0060	Z001-0050A	12	109	2	CMOM
Z001	Z001-0080:Z001-0070	Z001-0080	Z001-0070	8	372	3	CMOM
Z001	Z001-0090:Z001-0080	Z001-0090	Z001-0080	8	58	3	CMOM
Z001	Z001-0100:Z001-0090	Z001-0100	Z001-0090	10	348	5	Open Cut
Z001	Z001-0110:Z001-0080	Z001-0110	Z001-0080	8	203	3	CMOM
Z001	Z001-0120:Z001-0060	Z001-0120	Z001-0060	12	38	2	CMOM
Z001	Z001-0130:Z001-0120	Z001-0130	Z001-0120	12	374	2	CMOM
Z001	Z001-0150:Z001-0130	Z001-0150	Z001-0130	12	402	No Defect	CMOM
Z001	Z001-0160:Z001-0150	Z001-0160	Z001-0150	12	389	2	CMOM
Z001	Z001-0170:Z001-0160	Z001-0170	Z001-0160	12	30	No Defect	CMOM
Z001	Z001-0180:Z001-0170	Z001-0180	Z001-0170	12	398	No Defect	CMOM
Z001	Z001-0190:Z001-0180	Z001-0190	Z001-0180	12	294	No Defect	CMOM
Z001	Z001-0210:Z001-0300	Z001-0210	Z001-0300	8	385	No Defect	CMOM
Z001	Z001-0210A:Z001-0210	Z001-0210A	Z001-0210	12	424	1	CMOM
Z001	Z001-0260:Z001-0250	Z001-0260	Z001-0250	10	199	3	CMOM
Z001	Z001-0270:Z001-0260	Z001-0270	Z001-0260	10	299	3	CMOM
Z001	Z001-0275:Z001-0270	Z001-0275	Z001-0270	10	64	3	CMOM
Z001	Z001-0280:Z001-0275	Z001-0280	Z001-0275	10	345	3	CMOM
Z001	Z001-0300:Z001-0280	Z001-0300	Z001-0280	10	500	3	CMOM
Z001	Z001-0310:Z001-0300	Z001-0310	Z001-0300	10	79	3	CMOM
Z001	Z001-0320:Z001-0310	Z001-0320	Z001-0310	10	491	5	CIPP
Z001	Z001-0330:Z001-0320	Z001-0330	Z001-0320	8	425	3	CMOM
Z001	Z001-0340:Z001-0330	Z001-0340	Z001-0330	8	497	2	CMOM
Z001	Z001-0350:Z001-0340	Z001-0350	Z001-0340	8	347	2	CMOM
Z001	Z001-0360:Z001-0350	Z001-0360	Z001-0350	8	82	3	CMOM
Z001	Z001-0370:Z001-0360	Z001-0370	Z001-0360	8	281	3	CMOM

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
Z001	Z001-0380:Z001-0370	Z001-0380	Z001-0370	8	149	3	CMOM
Z001	Z001-0470:Z001-0460	Z001-0470	Z001-0460	8	171	3	CMOM
Z001	Z001-0480:Z001-0470	Z001-0480	Z001-0470	8	187	2	CMOM
Z001	Z001-0483:Z001-0480	Z001-0483	Z001-0480	8	92	5	Pipe Burst
Z001	Z001-0500:Z001-0490	Z001-0500	Z001-0490	8	351	5	Pipe Burst
Z001	Z001-0510:Z001-0500	Z001-0510	Z001-0500	8	346	5	Pipe Burst
Z001	Z001-0520:Z001-0510	Z001-0520	Z001-0510	8	383	5	Pipe Burst
Z001	Z001-0540:Z001-0530	Z001-0540	Z001-0530	8	323	5	Open Cut
Z001	Z001-0550:Z001-0540	Z001-0550	Z001-0540	8	158	5	Pipe Burst
Z001	Z001-0580:Z001-0570	Z001-0580	Z001-0570	8	291	2	CMOM
Z001	Z001-0590:Z001-0580	Z001-0590	Z001-0580	8	534	3	CMOM
Z001	Z001-0600:Z001-0510	Z001-0600	Z001-0510	8	18	2	CMOM
Z001	Z001-0610:Z001-0600	Z001-0610	Z001-0600	8	410	5	Pipe Burst
Z001	Z001-0620:Z001-0610	Z001-0620	Z001-0610	8	367	4	CIPP
Z001	Z001-0630:Z001-0620	Z001-0630	Z001-0620	8	344	3	CMOM
Z001	Z001-0640:Z001-0630	Z001-0640	Z001-0630	8	436	3	CMOM
Z001	Z001-0650:Z001-0630	Z001-0650	Z001-0630	8	371	2	CMOM
Z001	Z001-0660:Z001-0650	Z001-0660	Z001-0650	8	371	3	CMOM
Z001	Z001-0680:Z001-0670	Z001-0680	Z001-0670	8	452	5	CIPP
Z001	Z001-0685:Z001-0680	Z001-0685	Z001-0680	8	363	2	CMOM
Z001	Z001-0690:Z001-0685	Z001-0690	Z001-0685	8	77	3	CMOM
Z001	Z001-0700:Z001-0680	Z001-0700	Z001-0680	8	411	4	Open Cut
Z001	Z001-0710:Z001-0700	Z001-0710	Z001-0700	8	419	2	CMOM
Z001	Z001-0720:Z001-0710	Z001-0720	Z001-0710	8	416	2	CMOM
Z001	Z001-0730:Z001-0730A	Z001-0730	Z001-0730A	8	139	3	CMOM
Z001	Z001-0730A:Z001-0720	Z001-0730A	Z001-0720	8	253	4	CIPP
Z001	Z001-0740:Z001-0730	Z001-0740	Z001-0730	6	371	3	CMOM
Z001	Z001-0750:Z001-0740	Z001-0750	Z001-0740	6	405	3	CMOM
Z001	Z001-0751:MC06-1970	Z001-0751	MC06-1970	36	268	2	CMOM
Z001	Z001-0752:Z001-0751	Z001-0752	Z001-0751	6	30	No Defect	CMOM
Z001	Z001-0754:Z001-0752	Z001-0754	Z001-0752	36	111	No Defect	CMOM
Z001	Z001-0756:Z001-0754	Z001-0756	Z001-0754	36	141	3	CMOM
Z001	Z001-0758:Z001-0756	Z001-0758	Z001-0756	36	84	No Defect	CMOM
Z001	Z001-0770-1:Z001-0760-1	Z001-0770-1	Z001-0760-1	24	130	No Defect	CMOM
Z001	Z001-0820:Z001-0810	Z001-0820	Z001-0810	15	394	2	CMOM
Z001	Z001-0830:Z001-0820	Z001-0830	Z001-0820	12	138	2	CMOM
Z001	Z001-0840:Z001-0830	Z001-0840	Z001-0830	8	205	5	Open Cut
Z001	Z001-0850:Z001-0840	Z001-0850	Z001-0840	8	314	3	CMOM
Z001	Z001-0860:Z001-0850	Z001-0860	Z001-0850	8	166	2	CMOM
Z001	Z001-0870:Z001-0830	Z001-0870	Z001-0830	12	188	3	CMOM
Z001	Z001-0880:Z001-0870	Z001-0880	Z001-0870	12	290	2	CMOM
Z001	Z001-0890:Z001-0880	Z001-0890	Z001-0880	12	256	3	CMOM
Z001	Z001-0910:Z001-0900	Z001-0910	Z001-0900	10	399	2	CMOM
Z001	Z001-0920:Z001-0910	Z001-0920	Z001-0910	10	406	2	CMOM
Z001	Z001-0930:Z001-0920	Z001-0930	Z001-0920	10	348	3	CMOM
Z001	Z001-0940:Z001-0930	Z001-0940	Z001-0930	10	354	3	CMOM
Z001	Z001-0950:Z001-0940	Z001-0950	Z001-0940	10	68	2	CMOM
Z001	Z001-0960:Z001-0950	Z001-0960	Z001-0950	8	98	3	CMOM
Z001	Z001-0980:Z001-0970	Z001-0980	Z001-0970	10	80	2	CMOM
Z001	Z001-0990:Z001-0980	Z001-0990	Z001-0980	10	219	No Defect	CMOM
Z001	Z001-1000:Z001-0990	Z001-1000	Z001-0990	8	200	2	CMOM
Z001	Z001-1012:Z001-1010	Z001-1012	Z001-1010	10	28	2	CMOM
Z001	Z001-1020:Z001-1012	Z001-1020	Z001-1012	10	383	No Defect	CMOM
Z001	Z001-1030:Z001-1020	Z001-1030	Z001-1020	10	330	4	Pipe Burst
Z001	Z001-1040:Z001-0900	Z001-1040	Z001-0900	10	159	2	CMOM

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
Z001	Z001-1050:Z001-1040	Z001-1050	Z001-1040	8	51	2	CMOM
Z001	Z001-1060:Z001-1050	Z001-1060	Z001-1050	8	165	5	Open Cut
Z001	Z001-1070:Z001-1060	Z001-1070	Z001-1060	8	124	No Defect	CMOM
Z001	Z001-1080:Z001-1070	Z001-1080	Z001-1070	8	193	2	CMOM
Z001	Z001-1090:Z001-1040	Z001-1090	Z001-1040	10	223	3	CMOM
Z001	Z001-1100:Z001-1090	Z001-1100	Z001-1090	10	393	5	Open Cut
Z001	Z001-1110:Z001-1100	Z001-1110	Z001-1100	10	209	3	CMOM
Z001	Z001-1120:Z001-1110	Z001-1120	Z001-1110	10	55	2	CMOM
Z001	Z001-1130:Z001-1120	Z001-1130	Z001-1120	10	98	2	CMOM
Z001	Z001-1140:Z001-1130	Z001-1140	Z001-1130	10	282	3	CMOM
Z001	Z001-1150:Z001-1140	Z001-1150	Z001-1140	8	300	2	CMOM
Z001	Z001-1160:Z001-1150	Z001-1160	Z001-1150	8	220	3	CMOM
Z001	Z001-1170:Z001-1160	Z001-1170	Z001-1160	8	374	4	CIPP
Z001	Z001-1180:Z001-1170	Z001-1180	Z001-1170	8	313	5	Pipe Burst
Z001	Z001-1190:Z001-1180	Z001-1190	Z001-1180	8	164	4	Pipe Burst
Z001	Z001-1200:Z001-1210	Z001-1200	Z001-1210	10	343	3	CMOM
Z001	Z001-1200A:Z001-1140	Z001-1200A	Z001-1140	10	331	2	CMOM
Z001	Z001-1220:Z001-1210	Z001-1220	Z001-1210	10	318	1	CMOM
Z001	Z001-1230:Z001-1220	Z001-1230	Z001-1220	8	400	2	CMOM
Z001	Z001-1240:Z001-1220	Z001-1240	Z001-1220	10	372	5	Pipe Burst
Z001	Z001-1250:Z001-1210	Z001-1250	Z001-1210	10	320	4	Point Repair
Z001	Z001-1260:Z001-1250	Z001-1260	Z001-1250	10	370	2	CMOM
Z001	Z001-1270:Z001-1260	Z001-1270	Z001-1260	10	205	2	CMOM
Z001	Z001-1280:Z001-1270	Z001-1280	Z001-1270	8	383	2	CMOM
Z001	Z001-1600:Z001-0950	Z001-1600	Z001-0950	8	70	No Defect	CMOM
Z001	Z001-1650:Z001-1640	Z001-1650	Z001-1640	10	375	No Defect	CMOM
Z001	Z001-1660:Z001-1650	Z001-1660	Z001-1650	10	223	No Defect	CMOM
Z001	Z001-1670:Z001-1660	Z001-1670	Z001-1660	10	400	No Defect	CMOM
Z001	Z001-1750:Z001-1100	Z001-1750	Z001-1100	8	64	No Defect	CMOM
Z001	Z001-1780:Z001-0190	Z001-1780	Z001-0190	12	314	2	CMOM
Z001	Z001-1790:Z001-1780	Z001-1790	Z001-1780	10	177	2	CMOM
Z001	Z001-1800:Z001-1790	Z001-1800	Z001-1790	10	20	No Defect	CMOM
Z001	Z001-1810:Z001-1800	Z001-1810	Z001-1800	10	13	3	CMOM
Z001	Z001-1820:Z001-1810	Z001-1820	Z001-1810	10	340	3	CMOM
Z001	Z001-1830:Z001-1820	Z001-1830	Z001-1820	10	395	3	CMOM
Z001	Z001-1840:Z001-1830	Z001-1840	Z001-1830	10	403	3	CMOM
Z001	Z001-1850:Z001-1840	Z001-1850	Z001-1840	10	251	5	Pipe Burst
Z001	Z001-1860:Z001-1850	Z001-1860	Z001-1850	10	253	3	CMOM
Z001	Z001-1870:Z001-1860	Z001-1870	Z001-1860	10	342	3	CMOM
Z001	Z001-1880:Z001-1870	Z001-1880	Z001-1870	10	228	3	CMOM
Z001	Z001-1890:Z001-1880	Z001-1890	Z001-1880	10	232	3	CMOM
Z001	Z001-1900:Z001-1890	Z001-1900	Z001-1890	10	403	5	CIPP
Z001	Z001-1910:Z001-1900	Z001-1910	Z001-1900	10	27	3	CMOM
Z001	Z001-1920:Z001-1910	Z001-1920	Z001-1910	10	400	4	Point Repair
Z001	Z001-1930:Z001-1920	Z001-1930	Z001-1920	10	392	5	Pipe Burst
Z001	Z001-1940:Z001-1930	Z001-1940	Z001-1930	8	408	5	Point Repair
Z001	Z001-1950:Z001-1940	Z001-1950	Z001-1940	8	371	2	CMOM
Z001	Z001-1960:Z001-1950	Z001-1960	Z001-1950	8	209	3	CMOM
Z001	Z001-1970:Z001-1960	Z001-1970	Z001-1960	8	130	2	CMOM
Z001	Z001-1980:Z001-1970	Z001-1980	Z001-1970	8	174	3	CMOM
Z001	Z001-1990:Z001-1980	Z001-1990	Z001-1980	8	192	No Defect	CMOM
Z001	Z001-2000:Z001-1990	Z001-2000	Z001-1990	6	212	3	CMOM
Z001	Z001-2010:Z001-1960	Z001-2010	Z001-1960	8	65	2	CMOM
Z001	Z001-2020:Z001-2010	Z001-2020	Z001-2010	8	344	4	CIPP
Z001	Z001-2030:Z001-2020	Z001-2030	Z001-2020	8	106	4	Pipe Burst

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
Z001	Z001-2040:Z001-2030	Z001-2040	Z001-2030	8	276	5	CIPP
Z001	Z001-2050:Z001-2040	Z001-2050	Z001-2040	8	233	3	CMOM
Z001	Z001-2060:Z001-2050	Z001-2060	Z001-2050	8	114	4	Pipe Burst
Z001	Z001-2070:Z001-2060	Z001-2070	Z001-2060	8	160	4	CIPP
Z001	Z001-2080:Z001-2070	Z001-2080	Z001-2070	8	168	5	Pipe Burst
Z001	Z001-2090:Z001-2080	Z001-2090	Z001-2080	8	114	4	Pipe Burst
Z001	Z001-2100:Z001-2090	Z001-2100	Z001-2090	8	190	5	Open Cut
Z001	Z001-2110:Z001-2030	Z001-2110	Z001-2030	8	75	4	CIPP
Z001	Z001-2120:Z001-2110	Z001-2120	Z001-2110	8	333	5	Pipe Burst
Z001	Z001-2130:Z001-2120	Z001-2130	Z001-2120	8	93	2	CMOM
Z001	Z001-2140:Z001-2130	Z001-2140	Z001-2130	8	180	3	CMOM
Z001	Z001-2150:Z001-2140	Z001-2150	Z001-2140	8	76	2	CMOM
Z001	Z001-2160:Z001-2140	Z001-2160	Z001-2140	8	132	4	CIPP
Z001	Z001-2170:Z001-2110	Z001-2170	Z001-2110	8	221	2	CMOM
Z001	Z001-2180:Z001-2170	Z001-2180	Z001-2170	8	145	3	CMOM
Z001	Z001-2190:Z001-2180	Z001-2190	Z001-2180	8	116	4	Pipe Burst
Z001	Z001-2200:Z001-2190	Z001-2200	Z001-2190	8	173	3	CMOM
Z001	Z001-2210:Z001-2200	Z001-2210	Z001-2200	8	194	5	Open Cut
Z001	Z001-2220:Z001-2210	Z001-2220	Z001-2210	8	153	4	CIPP
Z001	Z001-2230:Z001-2210	Z001-2230	Z001-2210	8	174	4	CIPP
Z001	Z001-2240:Z001-2200	Z001-2240	Z001-2200	8	257	3	CMOM
Z001	Z001-2250:Z001-2240	Z001-2250	Z001-2240	8	90	No Defect	CMOM
Z001	Z001-2260:Z001-2250	Z001-2260	Z001-2250	8	175	4	CIPP
Z001	Z001-2270:Z001-2260	Z001-2270	Z001-2260	8	169	2	CMOM
Z001	Z001-2280:Z001-2270	Z001-2280	Z001-2270	8	194	4	CIPP
Z001	Z001-2290:Z001-2280	Z001-2290	Z001-2280	8	198	5	Pipe Burst
Z001	Z001-2300:Z001-1800	Z001-2300	Z001-1800	10	169	2	CMOM
Z001	Z001-2310:Z001-2300	Z001-2310	Z001-2300	10	267	2	CMOM
Z001	Z001-2320:Z001-2310	Z001-2320	Z001-2310	10	165	3	CMOM
Z001	Z001-2330:Z001-2320	Z001-2330	Z001-2320	8	438	4	Pipe Burst
Z001	Z001-2340:Z001-2330	Z001-2340	Z001-2330	8	452	4	Pipe Burst
Z001	Z001-2350:Z001-2340	Z001-2350	Z001-2340	6	318	5	Pipe Burst
Z001	Z001-2360:Z001-2320	Z001-2360	Z001-2320	10	361	3	CMOM
Z001	Z001-2400:Z001-2370	Z001-2400	Z001-2370	8	352	4	Pipe Burst
Z001	Z001-2410:Z001-2400	Z001-2410	Z001-2400	8	452	3	CMOM
Z001	Z001-2420:Z001-2410	Z001-2420	Z001-2410	6	324	4	CIPP
Z001	Z001-2430:Z001-2360	Z001-2430	Z001-2360	10	196	2	CMOM
Z001	Z001-2440:Z001-2430	Z001-2440	Z001-2430	10	147	No Defect	CMOM
Z001	Z001-2450:Z001-2440	Z001-2450	Z001-2440	10	205	2	CMOM
Z001	Z001-2470:Z001-2460	Z001-2470	Z001-2460	8	302	3	CMOM
Z001	Z001-2480:Z001-2470	Z001-2480	Z001-2470	8	194	3	CMOM
Z001	Z001-2490:Z001-2480	Z001-2490	Z001-2480	8	423	5	Open Cut
Z001	Z001-2500:Z001-2490	Z001-2500	Z001-2490	8	106	3	CMOM
Z001	Z001-2510:Z001-2500	Z001-2510	Z001-2500	8	328	3	CMOM
Z001	Z001-2570:Z001-2450	Z001-2570	Z001-2450	10	174	2	CMOM
Z001	Z001-2580:Z001-2470	Z001-2580	Z001-2470	6	510	4	Open Cut
Z001	Z001-2590:Z001-2500	Z001-2590	Z001-2500	6	230	4	Open Cut
Z001	Z001-2600:Z001-2570	Z001-2600	Z001-2570	8	19	5	Point Repair
Z001	Z001-2650:Z001-2570	Z001-2650	Z001-2570	8	449	3	CMOM
Z001	Z001-2660:Z001-2650	Z001-2660	Z001-2650	8	449	3	CMOM
Z001	Z001-2670:Z001-2660	Z001-2670	Z001-2660	6	315	4	Pipe Burst
Z001	Z001-2680:Z001-2570	Z001-2680	Z001-2570	10	189	5	Open Cut
Z001	Z001-2690:Z001-2680	Z001-2690	Z001-2680	10	23	No Defect	CMOM
Z001	Z001-2700:Z001-2690	Z001-2700	Z001-2690	10	302	2	CMOM
Z001	Z001-2710:Z001-2700	Z001-2710	Z001-2700	10	54	2	CMOM

Sewer Line Rehabilitation Recommendations

Sub-Basin	Segment ID	US MH	DS MH	Diameter	Length (lf)	PACP Score	Recommended Rehabilitation Action
Z001	Z001-2730:Z001-2710	Z001-2730	Z001-2710	10	139	No Defect	CMOM
Z001	Z001-2740:Z001-2730	Z001-2740	Z001-2730	6	200	3	CMOM
Z001	Z001-2780:Z001-2750	Z001-2780	Z001-2750	10	147	3	CMOM
Z001	Z001-2790:Z001-2780	Z001-2790	Z001-2780	10	26	1	CMOM
Z001	Z001-2820:Z001-2790	Z001-2820	Z001-2790	10	48	2	CMOM
Z001	Z001-2860:Z001-2830	Z001-2860	Z001-2830	10	157	4	Point Repair
Z001	Z001-2870:Z001-2860	Z001-2870	Z001-2860	6	54	5	Pipe Burst
Z001	Z001-2880:Z001-2860	Z001-2880	Z001-2860	8	362	5	Open Cut
Z001	Z001-2920:Z001-2690	Z001-2920	Z001-2690	8	166	3	CMOM
Z001	Z001-2930:Z001-2920	Z001-2930	Z001-2920	8	471	5	CIPP
Z001	Z001-2940:Z001-2930	Z001-2940	Z001-2930	8	451	5	Point Repair
Z001	Z001-2950:Z001-2940	Z001-2950	Z001-2940	8	293	3	CMOM
Z001	Z001-2960:Z001-2920	Z001-2960	Z001-2920	8	356	4	CIPP
Z001	Z001-2970:Z001-2960	Z001-2970	Z001-2960	8	449	5	Open Cut
Z001	Z001-2980:Z001-2970	Z001-2980	Z001-2970	8	450	4	CIPP
Z001	Z001-2990:Z001-2980	Z001-2990	Z001-2980	6	346	4	Pipe Burst
Z001	Z001-3000:Z001-2990	Z001-3000	Z001-2990	6	52	3	CMOM
Z001	Z001-3010:Z001-3000	Z001-3010	Z001-3000	6	140	4	Pipe Burst
Z001	Z001-3020:Z001-2970	Z001-3020	Z001-2970	8	364	3	CMOM
Z001	Z001-3030:Z001-3020	Z001-3030	Z001-3020	8	367	4	CIPP
Z001	Z001-3040:Z001-3020	Z001-3040	Z001-3020	8	359	4	CIPP
Z001	Z001-3050:Z001-3040	Z001-3050	Z001-3040	8	362	3	CMOM
Z001	Z001-3070:Z001-3040	Z001-3070	Z001-3040	8	367	2	CMOM
Z001	Z001-3080:Z001-3070	Z001-3080	Z001-3070	6	62	4	Pipe Burst
Z001	Z001-3090:Z001-3080	Z001-3090	Z001-3080	6	287	4	Pipe Burst
Z001	Z001-3100:Z001-3090	Z001-3100	Z001-3090	6	329	2	CMOM
Z001	Z001-3110:Z001-2980	Z001-3110	Z001-2980	6	248	3	CMOM
Z001	Z001-3120:Z001-3110	Z001-3120	Z001-3110	6	237	5	Pipe Burst
Z001	Z001-3130:Z001-2710	Z001-3130	Z001-2710	6	28	3	CMOM
Z001	Z001-3140:Z001-2720	Z001-3140	Z001-2720	6	334	5	Pipe Burst
Z001	Z001-3150:Z001-3140	Z001-3150	Z001-3140	8	102	1	CMOM
Z001	Z001-3160:Z001-0210	Z001-3160	Z001-0210	8	187	No Defect	CMOM
Z001	Z001-3170:Z001-2000	Z001-3170	Z001-2000	8	103	4	Point Repair
Z001	Z001-3190:Z001-0685	Z001-3190	Z001-0685	6	51	No Defect	CMOM
Z001	Z001-3200:Z001-3190	Z001-3200	Z001-3190	6	193	2	CMOM

Attachment 4
FOG Generator Information

FOG Generators

FACILITY NAME	ADDRESS NUMBER	STREET	CITY	STATE	ZIP	PERMIT NUMBER	PERMIT APPROVAL DATE
DAIRY FREEZE DRIVE-IN	5400	MIDLAND BLVD	FORT SMITH	AR	72904	FOG00001	12/19/2017
SAKUU ASIAN BAKERY & DELI, INC.	4620	ROGERS AVE	FORT SMITH	AR	72903	FOG00002	12/19/2017
SIMPLY SWEETS FOR YOU, LLC	2816	OLD GREENWOOD RD	FORT SMITH	AR	72903	FOG00003	12/20/2017
WAFFLE HOUSE	9009	HWY 71 S	FORT SMITH	AR	72908	FOG00004	12/20/2017
OUTBACK STEAKHOUSE	6800	ROGERS AVE	FORT SMITH	AR	72903	FOG00005	12/21/2017
DEWEY'S CAFÉ	3201	ROGERS AVE	FORT SMITH	AR	72903	FOG00006	12/21/2017
BRAUM'S #244	4418	ROGERS AVE	FORT SMITH	AR	72903	FOG00007	12/21/2017
BRAUM'S #230	7701	ROGERS AVE	FORT SMITH	AR	72903	FOG00008	12/22/2017
BRAUM'S #229	1500	ZERO ST	FORT SMITH	AR	72901	FOG00009	12/29/2017
RIVER VALLEY BBQ	1318	S WALDRON RD	FORT SMITH	AR	72903	FOG00010	1/4/2018
FREDDY'S FROZEN CUSTARD & STEAKBURGERS	7719	ROGERS AVE	FORT SMITH	AR	72903	FOG00011	1/4/2018
HARDSCRABBLE COUNTRY CLUB	5211	CLIFF DR	FORT SMITH	AR	72903	FOG00012	1/5/2018
BROOKFIELD AT FIANNA OAKS	2300	FIANNA OAKS DR	FORT SMITH	AR	72908	FOG00013	1/5/2018
WALMART NEIGHBORHOOD MARKET #4579	8600	HWY 71 S	FORT SMITH	AR	72908	FOG00014	1/8/2018
WALMART SUPERCENTER #141	8301	ROGERS AVE	FORT SMITH	AR	72903	FOG00015	10/12/2018
HOGWILD FAMILY FUN CENTER	3000	S 70 ST	FORT SMITH	AR	72903	FOG00016	1/11/2018
BRICKTOWN BREWERY	318	GARRISON AVE	FORT SMITH	AR	72901	FOG00017	1/12/2018
WALMART SUPERCENTER #388	2100	N 62 ST	FORT SMITH	AR	72904	FOG00018	1/16/2018
FORT SMITH SENIOR ACTIVITY CENTER	2700	CAVANAUGH RD	FORT SMITH	AR	72908	FOG00019	1/16/2018
SUNNY DONUTS	2600	ZERO ST	FORT SMITH	AR	72901	FOG00020	1/17/2018
PARADISE CARE, INC.	4400	KELLEY HWY	FORT SMITH	AR	72904	FOG00021	1/17/2018
HARPS FOOD STORE #137	2507	MARKET TRACE	FORT SMITH	AR	72908	FOG00022	1/18/2018
SONIC DRIVE-IN	3100	ZERO ST	FORT SMITH	AR	72908	FOG00023	1/22/2018
CHINA JADE	2201	ZERO ST	FORT SMITH	AR	72901	FOG00024	1/23/2018
SONIC DRIVE IN	2210	MIDLAND BLVD	FORT SMITH	AR	72904	FOG00025	1/24/2018
HARPS FOOD STORE #174	3401	S 74 ST	FORT SMITH	AR	72903	FOG00026	1/29/2018
TARGET STORE T2284	4001	PHOENIX AVE	FORT SMITH	AR	72903	FOG00027	1/31/2018
TGI FRIDAY'S	6201	ROGERS AVE	FORT SMITH	AR	72903	FOG00028	1/31/2018
BURGER KING #6349	3311	MIDLAND BLVD	FORT SMITH	AR	72901	FOG00029	2/1/2018
BURGER KING #5146	1200	TOWSON AVE	FORT SMITH	AR	72901	FOG00030	2/1/2018
CALICO COUNTY RESTAURANT	2401	S 56 ST	FORT SMITH	AR	72903	FOG00031	2/2/2018
BURGER KING #2696	5323	ROGERS AVE	FORT SMITH	AR	72903	FOG00032	2/5/2018
BURGER KING #22748	8201	PHOENIX AVE	FORT SMITH	AR	72903	FOG00033	2/5/2018
CHILI'S GRILL & BAR	6720	ROGERS AVE	FORT SMITH	AR	72903	FOG00034	2/6/2018
BOWLING WORLD	6100	S 36 ST	FORT SMITH	AR	72908	FOG00035	2/7/2018
CHICK-FIL-A #1390	6810	ROGERS AVE	FORT SMITH	AR	72903	FOG00036	2/8/2018
PEACHTREE VILLAGE SOUTH	1500	FRESNO ST	FORT SMITH	AR	72901	FOG00037	2/9/2018
WALMART SUPERCENTER #125	2425	ZERO ST	FORT SMITH	AR	72901	FOG00038	2/12/2018
ZERO MART, INC.	4300	ZERO ST	FORT SMITH	AR	72916	FOG00039	2/12/2018
CV'S FAMILY FOODS	3408	JENNY LIND RD	FORT SMITH	AR	72901	FOG00040	2/13/2018
CV'S FAMILY FOODS	9401	HWY 253	FORT SMITH	AR	72908	FOG00041	2/13/2018

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SAM'S CLUB #8134	7700	ROGERS AVE	FORT SMITH	AR	72903	FOG00042	2/15/2018
WALMART NEIGHBORHOOD MARKET #2744	4900	ROGERS AVE	FORT SMITH	AR	72903	FOG00043	2/15/2018
SCHLOTZSKY'S	7010	ROGERS AVE	FORT SMITH	AR	72903	FOG00044	2/16/2018
FORT SMITH ELKS LODGE #341	5504	MASSARD RD	FORT SMITH	AR	72903	FOG00045	2/19/2018
GOLDEN LIVING	1000	FIANNA WAY	FORT SMITH	AR	72919	FOG00046	2/20/2018
DIAMOND HEAD 2	1901	MIDLAND BLVD	FORT SMITH	AR	72904	FOG00047	3/5/2018
THE OLIVE GARDEN ITALIAN RESTAURANT #1506	7515	ROGERS AVE	FORT SMITH	AR	72903	FOG00048	2/21/2018
APPLEBEE'S NEIGHBORHOOD GRILL & BAR	6818	ROGERS AVE	FORT SMITH	AR	72903	FOG00049	2/21/2018
BURGER KING #3745	1215	ZERO ST	FORT SMITH	AR	72901	FOG00050	2/22/2018
FIVE GUYS BURGERS & FRIES	7110	ROGERS AVE	FORT SMITH	AR	72903	FOG00051	2/22/2018
WENDY'S #37	8210	ROGERS AVE	FORT SMITH	AR	72903	FOG00052	2/27/2018
WENDY'S #34	1924	ZERO ST	FORT SMITH	AR	72901	FOG00053	2/28/2018
WENDY'S #35	1000	TOWSON AVE	FORT SMITH	AR	72902	FOG00054	2/28/2018
FIRST LUTHERAN SCHOOL	2407	MASSARD RD	FORT SMITH	AR	72903	FOG00055	3/1/2018
JIMMY JOHNS	8100	ROGERS AVE	FORT SMITH	AR	72903	FOG00056	3/2/2018
ARBY'S	6611	ROGERS AVE	FORT SMITH	AR	72903	FOG00057	3/6/2018
ED WALKER'S DRIVE IN	1500	TOWSON AVE	FORT SMITH	AR	72901	FOG00058	3/7/2018
TACO BUENO	5701	ROGERS AVE	FORT SMITH	AR	72903	FOG00059	3/8/2018
MISS ANNA'S ON TOWSON	5001	TOWSON AVE	FORT SMITH	AR	72901	FOG00060	3/8/2018
THE EGG & I	3801	PLANTERS RD	FORT SMITH	AR	72908	FOG00061	3/9/2018
SONIC DRIVE-IN	4315	BURROUGH RD	FORT SMITH	AR	72916	FOG00062	3/12/2018
JIMMY JOHNS	822	GARRISON AVE	FORT SMITH	AR	72901	FOG00063	3/12/2018
MCDONALD'S #16196	8311	ROGERS AVE	FORT SMITH	AR	72903	FOG00064	3/13/2018
MCDONALD'S #11594	2221	GRAND AVE	FORT SMITH	AR	72901	FOG00065	3/13/2018
MCDONALD'S #1330	4800	TOWSON AVE	FORT SMITH	AR	72901	FOG00066	3/14/2018
MCDONALD'S #36558	4900	OLD GREENWOOD RD	FORT SMITH	AR	72903	FOG00067	3/14/2018
LA HUERTA	3501	OLD GREENWOOD RD	FORT SMITH	AR	72903	FOG00068	4/3/2018
HOOTERS OF FORT SMITH	6401	ROGERS AVE	FORT SMITH	AR	72903	FOG00069	3/16/2018
WHOLE HOG CAFÉ-FORT SMITH	4501	BURROUGH RD	FORT SMITH	AR	72916	FOG00070	3/19/2018
SANDY'S BAKE SHOPPE	5441	S 24 ST	FORT SMITH	AR	72903	FOG00071	3/20/2018
TRUONG SON ASIAN CENTER	4000	N O ST	FORT SMITH	AR	72904	FOG00072	3/21/2018
R & R CURRY EXPRESS	1525	ROGERS AVE	FORT SMITH	AR	72901	FOG00073	3/26/2018
SWEET BOUTIQUE	7320	ROGERS AVE	FORT SMITH	AR	72903	FOG00074	4/19/2018
DOUBLE TREE	700	ROGERS AVE	FORT SMITH	AR	72901	FOG00075	3/27/2018
MCALISTER'S DELI	7110	ROGERS AVE	FORT SMITH	AR	72903	FOG00076	3/27/2018
STAR MART DELI	3411	N ALBERT PIKE AVE	FORT SMITH	AR	72904	FOG00077	3/28/2018
SONIC DRIVE IN	3718	TOWSON AVE	FORT SMITH	AR	72901	FOG00078	3/28/2018
FRIED RICE	3758	MIDLAND BLVD	FORT SMITH	AR	72904	FOG00079	3/29/2018
BURRITO BOWL, INC.	1701	ROGERS AVE	FORT SMITH	AR	72901	FOG00080	4/2/2018
METHODIST VILLAGE SENIOR LIVING	7425	EUPER LN	FORT SMITH	AR	72903	FOG00081	4/3/2018
BOB & ELLIE'S DRIVE IN	6500	HWY 271	FORT SMITH	AR	72908	FOG00082	4/4/2018
MCDONALD'S #18761	9200	HWY 71 S	FORT SMITH	AR	72908	FOG00083	4/5/2018

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VILLAGE INN RESTAURANT	7620	ROGERS AVE	FORT SMITH	AR	72903	FOG00084	4/5/2018
TEXAS ROADHOUSE	3111	S 74 ST	FORT SMITH	AR	72903	FOG00085	4/6/2018
MCDONALD'S #33471	5712	KELLEY HWY	FORT SMITH	AR	72904	FOG00086	4/9/2018
LOST BEACH	1810	ZERO ST	FORT SMITH	AR	72903	FOG00087	4/9/2018
SABORES MEXICAN CUISINE	4100	BROOKEN HL DR	FORT SMITH	AR	72908	FOG00088	4/10/2018
CASEY'S GENERAL STORE #3480	8800	JENNY LIND RD	FORT SMITH	AR	72908	FOG00089	4/30/2018
LOS ANGELES BAKERY	2915	MIDLAND BLVD	FORT SMITH	AR	72904	FOG00090	4/11/2018
FORT SMITH COFFEE CO.	1101	ROGERS AVE	FORT SMITH	AR	72901	FOG00091	4/12/2018
FURR'S FRESH BUFFET #312	5707	ROGERS AVE	FORT SMITH	AR	72903	FOG00092	4/13/2018
BROWNWOOD LIFE CARE CENTER	7500	WELLS LK RD	FORT SMITH	AR	72916	FOG00093	4/16/2018
CHEDDAR'S SCRATCH KITCHEN #2037	3907	PHOENIX AVE	FORT SMITH	AR	72903	FOG00094	4/16/2018
FIRST BAPTIST CHURCH	1400	GRAND AVE	FORT SMITH	AR	72901	FOG00095	4/17/2018
JOHN DECKER PIZZA PARLOUR OF FORT SMITH	8901	ROGERS AVE	FORT SMITH	AR	72903	FOG00096	4/17/2018
BUTTERFIELD PLACE	8420	PHOENIX AVE	FORT SMITH	AR	72903	FOG00097	4/18/2018
WESTERN SIZZLIN	5720	ROGERS AVE	FORT SMITH	AR	72903	FOG00098	4/20/2018
WESTERN SIZZLIN	5200	TOWSON AVE	FORT SMITH	AR	72903	FOG00099	4/23/2018
FRIED RICE #2	3802	TOWSON AVE	FORT SMITH	AR	72901	FOG00100	4/24/2018
ASIAN KITCHEN EXPRESS	3842	MIDLAND BLVD	FORT SMITH	AR	72904	FOG00101	4/25/2018
JOE'S PIZZA & PASTA	4102	ROGERS AVE	FORT SMITH	AR	72903	FOG00102	4/25/2018
FUJI STEAK HOUSE	3600	MASSARD RD	FORT SMITH	AR	72903	FOG00103	4/26/2018
10 BOX COST-PLUS #172	3100	GRAND AVE	FORT SMITH	AR	72904	FOG00104	4/27/2018
CASEY'S GENERAL STORE #3267	9102	ROGERS AVE	FORT SMITH	AR	72903	FOG00105	4/30/2018
CENTRAL MALL	5111	ROGERS AVE	FORT SMITH	AR	72903	FOG00106	5/1/2018
PUPUSERIA VIROLENA	1517	N 11 ST	FORT SMITH	AR	72902	FOG00107	5/1/2018
FIANNA HILLS NURSING & REHABILITATION	8400	S 28 ST	FORT SMITH	AR	72908	FOG00108	5/2/2018
EUNICE'S COUNTRY COOKIN'	3325	S 74 ST	FORT SMITH	AR	72903	FOG00109	5/3/2018
CHUCK E CHEESE	1200	S WALDRON RD	FORT SMITH	AR	72903	FOG00110	5/4/2018
LONGHORN STEAKHOUSE #5375	3805	PHOENIX AVE	FORT SMITH	AR	72903	FOG00111	5/7/2018
LEGACY HEALTH & REHAB	3310	N 50 ST	FORT SMITH	AR	72904	FOG00112	5/7/2018
STARBUCKS CORPORATION	6203	ROGERS AVE	FORT SMITH	AR	72903	FOG00113	5/8/2018
MARIA'S MEXICAN RESTAURANT	8640	ROGERS AVE	FORT SMITH	AR	72903	FOG00114	5/8/2018
TROPICAL SMOOTHIE CAFÉ	6901	ROGERS AVE	FORT SMITH	AR	72903	FOG00115	5/9/2018
ROLANDO'S	917	N A ST	FORT SMITH	AR	72901	FOG00116	5/10/2018
A SMART START ACADEMY	3101	N 32 ST	FORT SMITH	AR	72904	FOG00117	5/10/2018
DELICIAS MICHOACANAS	2304	ROGERS AVE	FORT SMITH	AR	72901	FOG00118	5/11/2018
RESTAURANTE SALVADONENA NORITA	2901	MIDLAND BLVD	FORT SMITH	AR	72904	FOG00119	5/14/2018
GEORGE'S RESTAURANT	2120	GRAND AVE	FORT SMITH	AR	72901	FOG00120	6/5/2018
ART'S BBQ & BURGERS	8203	ROGERS AVE	FORT SMITH	AR	72903	FOG00121	5/16/2018
SLIM CHICKENS 10018	7501	PHOENIX AVE	FORT SMITH	AR	72903	FOG00122	5/17/2018
CAVANAUGH PIZZA	3111	CAVANAUGH RD	FORT SMITH	AR	72908	FOG00123	5/17/2018
SONIC DRIVE-IN	4730	GRAND AVE	FORT SMITH	AR	72904	FOG00124	5/18/2018
SHOP N GO #2	5900	GRAND AVE	FORT SMITH	AR	72904	FOG00125	5/21/2018

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FORT SMITH HEALTH & REHAB	5301	WHEELER AVE	FORT SMITH	AR	72901	FOG00126	5/21/2018
DENNY'S #9212	5910	ROGERS AVE	FORT SMITH	AR	72903	FOG00127	5/22/2018
WILLIAMSBURG KITCHEN	4210	ROGERS AVE	FORT SMITH	AR	72903	FOG00128	5/23/2018
LA HUERTA GRILL	5605	ROGERS AVE	FORT SMITH	AR	72903	FOG00129	5/24/2018
ARBY'S	4915	TOWSON AVE	FORT SMITH	AR	72901	FOG00130	5/25/2018
GENO'S PIZZA	7906	ROGERS AVE	FORT SMITH	AR	72903	FOG00131	5/29/2018
TEMPLE LIVE, LLC	200	N 11 ST	FORT SMITH	AR	72901	FOG00132	5/29/2018
MIDLAND MARKET, INC.	3711	MIDLAND BLVD	FORT SMITH	AR	72904	FOG00133	5/30/2018
COMMUNITY RESCUE MISSION, INC.	310	N F ST	FORT SMITH	AR	72901	FOG00134	5/31/2018
CHAPEL RIDGE HEALTH & REHAB	4623	ROGERS AVE	FORT SMITH	AR	72903	FOG00135	5/31/2018
ARAMARK DINING SERVICES	5210	GRAND AVE	FORT SMITH	AR	72903	FOG00136	6/1/2018
NEUMEIER'S RIB ROOM	424	GARRISON AVE	FORT SMITH	AR	72901	FOG00137	6/4/2018
GREEN PAPAYA TWO, INC.	4412	GRAND AVE	FORT SMITH	AR	72904	FOG00138	6/4/2018
OUR REDEEMER LUTHERAN CHURCH	2100	CAVANAUGH RD	FORT SMITH	AR	72908	FOG00139	6/5/2018
KENTUCKY FRIED CHICKEN	4207	GRAND AVE	FORT SMITH	AR	72901	FOG00140	6/6/2018
ROOSTERS ON 50TH ST	2818	N 50 ST	FORT SMITH	AR	72904	FOG00141	6/6/2018
R. LANDRY'S	1000	GARRISON AVE	FORT SMITH	AR	72901	FOG00142	6/7/2018
JIM'S RAZORBACK PIZZA	3501	OLD GREENWOOD RD	FORT SMITH	AR	72903	FOG00143	6/7/2018
AL'S BAR-B-Q	3956	N O ST	FORT SMITH	AR	72904	FOG00144	6/8/2018
DOMINO'S	3701	PHOENIX AVE	FORT SMITH	AR	72903	FOG00145	6/11/2018
IHOP	7809	ROGERS AVE	FORT SMITH	AR	72903	FOG00146	6/11/2018
TACO BELL #344	9203	HWY 71 S	FORT SMITH	AR	72916	FOG00147	6/14/2018
RESIDENCE INN FORT SMITH	3005	S 74 ST	FORT SMITH	AR	72904	FOG00148	6/14/2018
SMILE BULL	9009	ROGERS AVE	FORT SMITH	AR	72903	FOG00149	6/15/2018
LA HUERTA GRILL	400	GARRISON AVE	FORT SMITH	AR	72901	FOG00150	6/18/2018
JERECUARO D' MORENO	507	N GREENWOOD AVE	FORT SMITH	AR	72901	FOG00151	6/18/2018
TACO BELL #511	915	N GREENWOOD AVE	FORT SMITH	AR	72901	FOG00152	6/19/2018
GREEN PAPAYA, INC.	6301	HWY 271	FORT SMITH	AR	72908	FOG00153	6/19/2018
TACO BELL #535	7910	ROGERS AVE	FORT SMITH	AR	72903	FOG00154	6/20/2018
BLISS CUPCAKE CAFÉ	7110	ROGERS AVE	FORT SMITH	AR	72903	FOG00155	6/20/2018
JOE'S GRILL & CANTINA	3400	S 74 ST	FORT SMITH	AR	72903	FOG00156	6/21/2018
TIENDA Y CARNICERIA LAS PALMAS	2226	MIDLAND BLVD	FORT SMITH	AR	72904	FOG00157	6/21/2018
JET-AWAY	3638	MIDLAND BLVD	FORT SMITH	AR	72904	FOG00158	6/22/2018
BUFFALO WILD WINGS	6550	ROGERS AVE	FORT SMITH	AR	72903	FOG00159	6/25/2018
FIANNA HILLS COUNTRY CLUB	1	ESSEX PL	FORT SMITH	AR	72908	FOG00160	6/25/2018
PANERA BREAD	2917	S 74 ST	FORT SMITH	AR	72903	FOG00161	6/26/2018
MIDLAND FAMILY BOWL	2600	N 32 ST	FORT SMITH	AR	72904	FOG00162	6/26/2018
LOS SUPER TACOS	2115	GRAND AVE	FORT SMITH	AR	72901	FOG00163	6/27/2018
LOS SUPER TACOS	1406	ZERO ST	FORT SMITH	AR	72901	FOG00164	6/27/2018
RED LOBSTER #6225	7401	ROGERS AVE	FORT SMITH	AR	72903	FOG00165	6/28/2018
PAPA JOHN'S PIZZA	5600	ROGERS AVE	FORT SMITH	AR	72903	FOG00166	6/28/2018
CICI'S PIZZA	8323	ROGERS AVE	FORT SMITH	AR	72903	FOG00167	7/2/2018

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MCDONALD'S #4173	5821	ROGERS AVE	FORT SMITH	AR	72903	FOG00168	7/2/2018
ASUKA SUSHI & HIBACHI	4720	TOWSON AVE	FORT SMITH	AR	72901	FOG00169	7/3/2018
21 WEST END	21	N 2 ST	FORT SMITH	AR	72901	FOG00170	7/5/2018
IMMACULATE CONCEPTION ELEMENTARY SCHOOL	223	S 14 ST	FORT SMITH	AR	72901	FOG00171	7/6/2018
GATEWAY RECOVERY CENTER	3900	ARMOUR AVE	FORT SMITH	AR	72904	FOG00172	7/9/2018
MIGUEL'S TAQUERIA	1719	ROGERS AVE	FORT SMITH	AR	72901	FOG00173	7/9/2018
JJ'S GRILL	5400	PHOENIX AVE	FORT SMITH	AR	72903	FOG00174	7/10/2018
BETHEL LUTHERAN CHURCH	5400	EUPER LN	FORT SMITH	AR	72903	FOG00175	7/10/2018
DOMINO'S	8500	PHOENIX AVE	FORT SMITH	AR	72903	FOG00176	7/11/2018
BASKIN ROBBINS	5509	PHOENIX AVE	FORT SMITH	AR	72903	FOG00177	10/8/2018
GENO'S PIZZA	8801	JENNY LIND RD	FORT SMITH	AR	72908	FOG00178	7/12/2018
GENO'S PIZZA	4901	TOWSON AVE	FORT SMITH	AR	72901	FOG00179	7/12/2018
DOE'S EAT PLACE	422	N 3 ST	FORT SMITH	AR	72901	FOG00180	7/27/2018
LITTLE CAESAR'S PIZZA	1000	N GREENWOOD AVE	FORT SMITH	AR	72901	FOG00181	7/16/2018
CHURCH'S CHICKEN	1318	HWY 71 S	FORT SMITH	AR	72901	FOG00182	7/16/2018
EUREKA PIZZA #11	2815	GRAND AVE	FORT SMITH	AR	72903	FOG00183	7/17/2018
EUREKA PIZZA #12	2900	ZERO ST	FORT SMITH	AR	72901	FOG00184	7/17/2018
PIC-N-TOTE #2	1923	CAVANAUGH RD	FORT SMITH	AR	72908	FOG00185	7/18/2018
LOS BARDALES RESTAURANT	323	N 10TH ST	FORT SMITH	AR	72901	FOG00186	7/18/2018
PIC-N-TOTE #1	2000	PHOENIX AVE	FORT SMITH	AR	72901	FOG00187	7/19/2018
HAVEN HEIGHTS BAPTIST CHURCH	7701	HWY 271	FORT SMITH	AR	72908	FOG00188	7/19/2018
PIC-N-TOTE #11	415	GARRISON AVE	FORT SMITH	AR	72901	FOG00189	7/20/2018
PIC-N-TOTE#4	8400	HWY 71 S	FORT SMITH	AR	72908	FOG00190	8/7/2018
PIC-N-TOTE #7	1116	GRAND AVE	FORT SMITH	AR	72901	FOG00191	8/8/2018
UAMS KIDS FIRST	6601	PHOENIX AVE	FORT SMITH	AR	72903	FOG00192	7/24/2018
PASTELERIA DON JOSE	2001	MIDLAND BLVD	FORT SMITH	AR	72904	FOG00193	8/7/2018
PIC-N-TOTE #8	6217	HWY 71 S	FORT SMITH	AR	72908	FOG00194	7/25/2018
LAS AMERICAS TOO	1806	ZERO ST	FORT SMITH	AR	72901	FOG00195	7/25/2018
GOLDEN CORRAL #703	1801	S WALDRON AVE	FORT SMITH	AR	72903	FOG00197	7/27/2018
ROAD RUNNER #464	5727	KELLEY HWY	FORT SMITH	AR	72904	FOG00198	7/30/2018
BENSON'S GRILL	2515	ROGERS AVE	FORT SMITH	AR	72901	FOG00199	7/30/2018
SAINT PAUL UNITED METHODIST CHURCH	4100	GRAND AVE	FORT SMITH	AR	72904	FOG00200	8/1/2018
SONIC DRIVE-IN	529	N GREENWOOD AVE	FORT SMITH	AR	72901	FOG00201	8/2/2018
FS CHILDREN'S EMERGENCY SHELTER	3015	S 14 ST	FORT SMITH	AR	72901	FOG00202	8/6/2018
CHERRYBERRY FORT SMITH	3865	PHOENIX AVE	FORT SMITH	AR	72903	FOG00203	8/6/2018
TACOS 4 LIFE	4501	PHOENIX AVE	FORT SMITH	AR	72903	FOG00204	8/9/2018
YELLOW UMBRELLA, LLC	1608	S GREENWOOD AVE	FORT SMITH	AR	72901	FOG00205	9/5/2018
ROAD RUNNER #465	6320	ROGERS AVE	FORT SMITH	AR	72901	FOG00206	8/20/2018
BAKERY MI PUEBLO	2912	GRAND AVE	FORT SMITH	AR	72901	FOG00207	8/24/2018
SONIC DRIVE-IN	3501	MASSARD RD	FORT SMITH	AR	72903	FOG00208	8/27/2018
JERRY NEEL'S BBQ	1823	PHOENIX AVE	FORT SMITH	AR	72901	FOG00209	8/28/2018
HEAD START CHILD & FAMILY SERVICES (CENTRAL KITCH	1834	N 8TH ST	FORT SMITH	AR	72901	FOG00210	8/30/2018

FOG Generators

WINGSTOP	8324	ROGERS AVE	FORT SMITH	AR	72903	FOG00211	9/4/2018
PAD THAI	7805	ROGERS AVE	FORT SMITH	AR	72903	FOG00212	9/6/2018
GRAND CENTRAL STATION	7521	ZERO ST	FORT SMITH	AR	72903	FOG00213	9/10/2018
TACO MAYO #27	5124	TOWSON AVE	FORT SMITH	AR	72901	FOG00214	9/17/2018
HONG KONG CHINESE RESTAURANT	500	N GREENWOOD AVE	FORT SMITH	AR	72901	FOG00215	9/17/2018
DOMINO'S	4421	GRAND AVE	FORT SMITH	AR	72904	FOG00216	9/18/2018
THE POPPED POPCORN COMPANY	917	GARRISON AVE	FORT SMITH	AR	72901	FOG00217	9/18/2018
HARDEES	2720	ROGERS AVE	FORT SMITH	AR	72903	FOG00218	9/21/2018
HARVEST MOON BAKERY	5441	S 24TH ST	FORT SMITH	AR	72901	FOG00219	9/29/2018
HARDEES	1820	PHOENIX AVE	FORT SMITH	AR	72901	FOG00220	9/25/2018
EL ZARAPE MEXICAN GRILL	8909	ROGERS AVE	FORT SMITH	AR	72903	FOG00221	9/27/2018
HARDEES	4123	GRAND AVE	FORT SMITH	AR	72904	FOG00222	10/3/2018
LAOS, THAI & SUSHI RESTAURANT	2919	TOWSON AVE	FORT SMITH	AR	72901	FOG00223	10/1/2018
THE SOUND ROOM	817	GARRISON AVE	FORT SMITH	AR	72901	FOG00224	10/4/2018
GUSANO'S PIZZA	5505	PHOENIX AVE	FORT SMITH	AR	72903	FOG00225	10/8/2018
UNCORK'D	5501	PHOENIX AVE	FORT SMITH	AR	72903	FOG00226	10/9/2018
DKONE EGGROLLS	9501	ROGERS AVE	FORT SMITH	AR	72903	FOG00227	10/17/2018
ZAPATA'S MEXICAN GRILL	7308	ROGERS AVE	FORT SMITH	AR	72903	FOG00228	10/19/2018
GUS'S BAR & GRILL	823	GARRISON AVE	FORT SMITH	AR	72901	FOG00229	11/5/2018
JUAN'S MEXICAN RESTAURANT	3121	TOWSON AVE	FORT SMITH	AR	72901	FOG00230	11/6/2018
CASEY'S GENERAL STORE #3750	12000	HWY 71 S	FORT SMITH	AR	72916	FOG00231	11/6/2018
BOOKS A MILLION	4145	PHOENIX AVE	FORT SMITH	AR	72903	FOG00232	11/27/2018
STARBUCKS COFFE CO. #29088	4601	PHOENIX AVE	FORT SMITH	AR	72903	FOG00233	11/8/2018
POPEYE'S	8150	ROGERS AVE	FORT SMITH	AR	72903	FOG00234	11/8/2018
BECKMAN SENIOR ACTIVITY CENTER	2100	N 31 ST	FORT SMITH	AR	72904	FOG00235	11/26/2018
HARDEES	7501	ROGERS AVE	FORT SMITH	AR	72903	FOG00236	11/13/2018
CREATIVE KITCHEN	309	GARRISON AVE	FORT SMITH	AR	72901	FOG00237	12/4/2018
SMITH DONUTS	7613	ROGERS AVE	FORT SMITH	AR	72903	FOG00238	11/27/2018
FORT SMITH MUSEUM OF HISTORY	320	ROGERS AVE	FORT SMITH	AR	72901	FOG00239	11/28/2018
PEKING PALACE	5819	ROGERS AVE	FORT SMITH	AR	72903	FOG00240	11/29/2018
SABORES MEXICAN CUISINE	4416	TOWSON AVE	FORT SMITH	AR	72901	FOG00241	11/26/2018
LA NORIA MEXICAN GRILL	3516	N O ST	FORT SMITH	AR	72904		
THE SANDBOX CHILD CARE CENTER	1812	S P ST	FORT SMITH	AR	72901		
THE BUTCHER BLOCK	8901	JENNY LIND RD	FORT SMITH	AR	72908		
THE ARTISTIC BEAN	615	GARRISON AVE	FORT SMITH	AR	72901		
SUNSHINE BIG D	2001	MIDLAND BLVD	FORT SMITH	AR	72904		
ST. LUKE LUTHERAN CHURCH	5401	FREE FERRY RD	FORT SMITH	AR	72903		
SOUTH SIDE BAPTIST CHURCH	2400	DODSON AVE	FORT SMITH	AR	72901		
SHORTY'S TAMALES	3301	STATE LINE RD	FORT SMITH	AR	72901		
SAKE SUSHI & MARTINI BAR	823	GARRISON AVE	FORT SMITH	AR	72901		
ROADRUNNER #465	6320	ROGERS AVE	FORT SMITH	AR	72903		
RINCON LATINO	1716	N 6 ST	FORT SMITH	AR	72904		

FOG Generators

QUALITY CHILD CARE	2015	SAVANNAH ST	FORT SMITH	AR	72901
PS EGGROLLS & STICKY RICE	3434	MIDLAND BLVD	FORT SMITH	AR	72904
PHO VIETNAM	2214	ROGERS AVE	FORT SMITH	AR	72901
PAPA'S PUB & PIZZERIA	508	GARRISON AVE	FORT SMITH	AR	72901
PAIZIS GYROS RESTAURANT	4900	ROGERS AVE	FORT SMITH	AR	72903
NINJA JAPANESE EXPRESS	5612	ROGERS AVE	FORT SMITH	AR	72903
MOKA JOE'S COFFEE	9207	HWY 71 S	FORT SMITH	AR	72916
MICHAEL'S MANSION	2900	ROGERS AVE	FORT SMITH	AR	72901
LITTLEFIELD EXPRESS #2	3401	CAVANAUGH RD	FORT SMITH	AR	72908
LARRY'S PIZZA	6400	HWY 71 S	FORT SMITH	AR	72908
KENTUCKY FRIED CHICKEN	1601	HWY 71 S	FORT SMITH	AR	72901
J-MART	3627	MIDLAND BLVD	FORT SMITH	AR	72904
IRISH MAID DONUTS	4600	TOWSON AVE	FORT SMITH	AR	72901
HOLIDAY INN EXPRESS	6813	PHOENIX AVE	FORT SMITH	AR	72903
HAMBURGER BARN CENTRAL	5111	ROGERS AVE	FORT SMITH	AR	72903
GREAT AMERICAN COOKIES	5111	ROGERS AVE	FORT SMITH	AR	72903
FORT SMITH CONVENTION CENTER	55	S 7 ST	FORT SMITH	AR	72901
FAMOUS CORN DOG	5111	ROGERS AVE	FORT SMITH	AR	72903
EL GRANDE CARNITAS & CATERING	1933	MIDLAND BLVD	FORT SMITH	AR	72904
DIPPIN DOTS	5111	ROGERS AVE	FORT SMITH	AR	72903
DIAZ BAKERY	3000	GRAND AVE	FORT SMITH	AR	72904
CONFECTIONATELY YOURS	5215	ROGERS AVE	FORT SMITH	AR	72903
CHINESE GOURMET EXPRESS	5111	ROGERS AVE	FORT SMITH	AR	72903
CHINA CITY RESTAURANT	5121	TOWSON AVE	FORT SMITH	AR	72901
CATFISH COVE	1615	PHOENIX AVE	FORT SMITH	AR	72901
CALVARY ASSEMBLY OF GOD	1700	JACKSON ST	FORT SMITH	AR	72901
BROOKDALE SENIOR LIVING	5501	DUNCAN RD	FORT SMITH	AR	72903
BEEF O BRADY'S	12200	HWY 71 S	FORT SMITH	AR	72916
BAYMONT INN & SUITES	2123	BURNHAM RD	FORT SMITH	AR	72903
AJ'S OYSTER HOUSE	115	N 10 ST	FORT SMITH	AR	72901
TACO BELL #510	4910	TOWSON AVE	FORT SMITH	AR	72901
ELITE LEARNING ACADEMY, LLC	2415	S 57 ST	FORT SMITH	AR	72903
TASSANEE'S THAI CUISINE	1611	DODSON AVE	FORT SMITH	AR	72901
COVINGTON COURT HEALTH & REHAB	4500	OLD GREENWOOD RD	FORT SMITH	AR	72903
SHIPLEY DONUT	9421	ROGERS AVE	FORT SMITH	AR	72903
ANNOOR GROCERY STORE	3915	N O ST	FORT SMITH	AR	72904
5TH STREET CAFÉ	500	GARRISON AVE	FORT SMITH	AR	72901
PIC-N-TOTE #3	3029	ZERO ST	FORT SMITH	AR	72901
PIC-N-TOTE #5	5000	MIDLAND BLVD	FORT SMITH	AR	72904
PIC-N-TOTE #6	6600	PHOENIX AVE	FORT SMITH	AR	72903
PHO HOANG	2111	GRAND AVE	FORT SMITH	AR	72901
ARKANSAS RETIRED MILITARY ASSOCIATION	144	N GREENWOOD AVE	FORT SMITH	AR	72901

FOG Generators

FAT PANTS SOUL FOOD	5103	TOWSON AVE	FORT SMITH	AR	72901
THAI CHICKEN BOWEL	2100	ROGERS AVE	FORT SMITH	AR	72901
PIZZA HUT #2608	8632	ROGERS AVE	FORT SMITH	AR	72903
FIREHOUSE SUBS	7805	ROGERS AVE	FORT SMITH	AR	72903
STONE HOUSE @CHAFFEE CROSSING	8801	WELLS LAKE RD	FORT SMITH	AR	72916
QUE CHULO ES PUEBLA	3305	GRAND AVE	FORT SMITH	AR	72904
DUNKIN DONUTS	7401	PHOENIX AVE	FORT SMITH	AR	72903
HOMWOOD SUITES	7300	PHOENIX AVE	FORT SMITH	AR	72903
RALPH'S PINK FLAMINGO BBQ	2801	OLD GREENWOOD RD	FORT SMITH	AR	72903
JEFF'S CLUB HOUSE	2801	OLD GREENWOOD RD	FORT SMITH	AR	72903
FSA LODGING	7601	PHOENIX AVE	FORT SMITH	AR	72903
ELEVATE TRAMPOLINE PARK	2920	S ZERO ST	FORT SMITH	AR	72901
POPEYE'S	2301	S ZERO ST	FORT SMITH	AR	72901
FIREHOUSE SUBS	2307	S ZERO ST	FORT SMITH	AR	72901
DONUT PALACE	4101	ROGERS AVE	FORT SMITH	AR	72903
ASIAN BUFFET	8345	ROGERS AVE	FORT SMITH	AR	72903
PAUL'S MEAT MARKET	2801	OLD GREENWOOD RD	FORT SMITH	AR	72903

List of Permitted FOG Haulers

HAULER NAME	PHYSICAL ADDRESS	CITY, STATE, ZIP	PERMIT NO	PERMIT DATE
BROOKS GREASE SERVICE, INC.	1320 RIVER ST	BENTON,AR,72015	FOGH0003	12/15/2017
DARLING INGREDIENTS, INC. DBA DARPRO SOLUTIONS	4611 THIBAULT RD	LITTLE ROCK,AR,72206	FOGH0005	3/27/2018
DRAIN MASTERS, INC.	106 W FOLSOM BLVD	POCOLA,OK,74902	FOGH0004	1/18/2018
LIQUID ENVIRONMENTAL SOLUTIONS	15100 ROCKBRIDGE RD	LITTLE ROCK,AR,72206	FOGH0005	3/27/2018
MOSES PLUMBING DBA JERRY'S DRAIN SERVICE	4756 KIBLER RD	VAN BUREN,AR,72956	FOGH0002	12/15/2017
LEAK NOT, INC. DBA WESTARK PLUMBING	3117 WACO ST	FORT SMITH,AR,72903	FOGH0001	12/15/2017
ADVANCED MICROBIAL SOLUTIONS	5738 S. 116TH W. AVE	SAND SPRINGS,OK,74063	FOGH0007	5/21/2018
PRO ROOTER	7900 BALL RD	FORT SMITH,AR,72908	FOGH0008	9/25/2018

FOG Control Device Violations Summary

Date	FOG Control Device	Compliance	Enforcement Action Taken	Corrective Action Response
7/2/2018	FOG1820001	Non-Compliant	Notice of Violation	Corrective Action Response Received
7/5/2018	FOG1820002	Non-Compliant	Notice of Violation	Corrective Action Response Received
7/9/2018	FOG1820003	Non-Compliant	Notice of Violation	Corrective Action Response Received
7/11/2018	FOG1820004	Non-Compliant	Notice of Violation	Corrective Action Response Received
7/16/2018	FOG1820005	Non-Compliant	Notice of Violation	Corrective Action Response Received
7/17/2018	FOG1820006	Non-Compliant	Notice of Violation	Corrective Action Response Received
7/17/2018	FOG1830001	Compliant	None	N/A
7/18/2018	FOG1820007	Non-Compliant	Notice of Violation	Corrective Action Response Received
7/19/2018	FOG1820008	Non-Compliant	Notice of Violation	Corrective Action Response Received
7/23/2018	FOG1820009	Non-Compliant	Notice of Violation	Corrective Action Response Received
7/23/2018	FOG1830002	Compliant	None	N/A
7/24/2018	FOG1820010	Compliant	None	N/A
7/24/2018	FOG1830003	Compliant	None	N/A
7/25/2018	FOG1820011	Non-Compliant	Notice of Violation	Corrective Action Response Received
7/25/2018	FOG1830004	Non-Compliant	Notice of Violation	Corrective Action Response Received
7/26/2018	FOG1820012	Compliant	None	N/A
8/10/2018	FOG1820013	Non-Compliant	Notice of Violation	Corrective Action Response Received
8/27/2018	FOG1820014	Non-Compliant	Notice of Violation	Corrective Action Response Received
8/27/2018	FOG1830005	Compliant	None	N/A
8/28/2018	FOG1820015	Non-Compliant	Notice of Violation	Corrective Action Response Received
8/28/2018	FOG1820016	Non-Compliant	Notice of Violation	Corrective Action Response Received
8/28/2018	FOG1830006	Compliant	None	N/A
8/29/2018	FOG1820017	Compliant	None	N/A
8/29/2018	FOG1830007	Non-Compliant	Notice of Violation	Corrective Action Response Received
8/30/2018	FOG1820018	Non-Compliant	Notice of Violation	Corrective Action Response Received
8/30/2018	FOG1830008	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/4/2018	FOG1820019	Compliant	None	N/A
9/6/2018	FOG1820020	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/7/2018	FOG1820021	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/7/2018	FOG1820022	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/10/2018	FOG1820023	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/10/2018	FOG1830009	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/11/2018	FOG1820024	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/11/2018	FOG1830011	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/11/2018	FOG1830010	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/12/2018	FOG1830012	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/13/2018	FOG1820025	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/13/2018	FOG1830013	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/13/2018	FOG1830014	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/14/2018	FOG1820026	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/14/2018	FOG1830015	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/17/2018	FOG1820027	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/17/2018	FOG1820028	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/18/2018	FOG1820029	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/18/2018	FOG1820030	Compliant	None	N/A
9/20/2018	FOG1820031	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/20/2018	FOG1820032	Compliant	None	N/A
9/21/2018	FOG1820033	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/21/2018	FOG1820034	Compliant	None	N/A
9/25/2018	FOG1820035	Compliant	None	N/A
9/25/2018	FOG1820036	Compliant	None	N/A
9/26/2018	FOG1830016	Compliant	None	N/A

FOG Control Device Violations Summary

Date	FOG Control Device	Compliance	Enforcement Action Taken	Corrective Action Response
9/27/2018	FOG1820037	Non-Compliant	Notice of Violation	Corrective Action Response Received
9/27/2018	FOG1820038	Compliant	None	N/A
9/27/2018	FOG1830017	Compliant	None	N/A
9/28/2018	FOG1820039	Compliant	None	N/A
9/28/2018	FOG1820040	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/1/2018	FOG1820041	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/1/2018	FOG1820042	Compliant	None	N/A
10/2/2018	FOG1820043	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/2/2018	FOG1820044	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/2/2018	FOG1830018	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/4/2018	FOG1820045	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/4/2018	FOG1820046	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/4/2018	FOG1830019	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/5/2018	FOG1820047	Compliant	None	N/A
10/9/2018	FOG1820048	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/12/2018	FOG1820049	Compliant	None	N/A
10/22/2018	FOG1820050	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/22/2018	FOG1830020	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/22/2018	FOG1830021	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/23/2018	FOG1820051	Compliant	None	N/A
10/23/2018	FOG1820052	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/23/2018	FOG1830022	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/24/2018	FOG1820053	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/24/2018	FOG1820054	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/24/2018	FOG1830023	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/25/2018	FOG1820055	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/25/2018	FOG1820056	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/25/2018	FOG1830024	Compliant	None	N/A
10/26/2018	FOG1820057	Compliant	None	N/A
10/26/2018	FOG1830025	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/29/2018	FOG1820058	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/29/2018	FOG1820059	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/30/2018	FOG1820060	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/30/2018	FOG1820061	Compliant	None	N/A
10/30/2018	FOG1830026	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/30/2018	FOG1830027	Non-Compliant	Notice of Violation	Corrective Action Response Received
10/31/2018	FOG1820062	Compliant	None	N/A
10/31/2018	FOG1820063	Compliant	None	N/A
10/31/2018	FOG1830028	Non-Compliant	Notice of Violation	Corrective Action Response Received
11/1/2018	FOG1820064	Non-Compliant	Notice of Violation	Corrective Action Response Received
11/1/2018	FOG1830029	Non-Compliant	Notice of Violation	Corrective Action Response Received
11/2/2018	FOG1820065	Compliant	None	N/A
11/2/2018	FOG1820066	Non-Compliant	Notice of Violation	Corrective Action Response Received
11/2/2018	FOG1830030	Non-Compliant	Notice of Violation	Corrective Action Response Received
11/6/2018	FOG1820067	Non-Compliant	Notice of Violation	Corrective Action Response Received
11/6/2018	FOG1820068	Non-Compliant	Notice of Violation	Corrective Action Response Received
11/8/2018	FOG1820069	Compliant	None	N/A
11/8/2018	FOG1820070	Compliant	None	N/A
11/9/2018	FOG1820071	Non-Compliant	Notice of Violation	Corrective Action Response Received
11/27/2018	FOG1820072	Non-Compliant	Notice of Violation	Corrective Action Response Received
11/29/2018	FOG1820073	Non-Compliant	Notice of Violation	Corrective Action Response Received
11/30/2018	FOG1820074	Non-Compliant	Notice of Violation	Corrective Action Response Received

FOG Control Device Violations Summary

Date	FOG Control Device	Compliance	Enforcement Action Taken	Corrective Action Response
12/3/2018	FOG1820075	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/3/2018	FOG1820076	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/4/2018	FOG1820077	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/4/2018	FOG1820078	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/5/2018	FOG1820079	Compliant	None	N/A
12/5/2018	FOG1820080	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/6/2018	FOG1820081	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/6/2018	FOG1820082	Compliant	None	N/A
12/10/2018	FOG1820083	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/10/2018	FOG1830031	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/11/2018	FOG1820084	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/11/2018	FOG1830032	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/12/2018	FOG1820085	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/12/2018	FOG1830033	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/13/2018	FOG1820086	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/13/2018	FOG1820087	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/14/2018	FOG1830034	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/17/2018	FOG1820088	Non-Compliant	Notice of Violation	Corrective Action Response Received
12/17/2018	FOG1820091	Compliant	None	N/A
12/18/2018	FOG1820089	Compliant	None	N/A
12/19/2018	FOG1820090	Compliant	None	N/A
12/20/2018	FOG1820092	Compliant	None	N/A

FOG Control Devices in Compliance 36
 FOG Control Devices in Non-Compliance 90

Attachment 5
Root Control Program

2018 Chemical Root Control

Pipe ID	Upstream MH2	Downstream MH	Address	Length	SSO Remediated	Treatment Date	Warranty Expiration	Notes
P007 2530-2520	P007-2530	P007-2520	211 N 40th	48	18-0072	9/27/2018	9/27/2020	
S001 0120-0110	S001-0120	S001-0110	933 S. 68th Ln.	317	18-0029, 18-0017	9/27/2018	9/27/2020	PSL overflows. Multiple overflows led to CCTV.
MC02 0620-1370	MC02-0620	MC02-1370	1215 S. O	207	18-0005	9/27/2018	9/27/2020	
P005 0710-0700	P005-0710	P005-0700	1408 N. 32nd	403	None	9/27/2018	9/27/2020	Proactive treatment. No SSO associated.
FL01 1225-1220	FL01-1225	FL01-1220	3419 Short Wilma	65	18-0113	9/27/2018	9/27/2020	
S009 0820-0810	S009-0820	S009-0810	3515 N 50th	306	18-0040	9/27/2018	9/27/2020	
P007 0557-0550	P007-0557	P007-0550	3830 Park Ave.	264	17-0358, 17-0359	9/27/2018	9/27/2020	
FL02 1380-1370	FL02-1380	FL02-1370	4504 North St.	398	16-0082	9/27/2018	9/27/2020	
PL01 0250-0240	PL01-0250	PL01-0240	5103 Elm St.	465	18-0120	9/27/2018	9/27/2020	
S002 0890-0880	S002-0890	S002-0880	5902 Chippewa Trl	246	18-0077, 17-0370	9/27/2018	9/27/2020	
Z005 0150-0140	Z005-0150	Z005-0140	9001 Kilitartan Dr.	316	17-0306	9/27/2018	9/27/2020	
M004 1020-1010	M004-1020	M004-1010	8020 Mark Ln.	391	17-0352	9/27/2018	9/27/2020	
W001 0623-0620	W001-0623	W001-0620	2518 Virginia	228	17-0340	9/27/2018	9/27/2020	
P008 1670-1650	P008-1670	P008-1650	3318 Kinkead	433	17-0364	9/27/2018	9/27/2020	Structrual problems to be repaired.
MC08 0480-0470	MC08-0480	MC08-0470	5324 S. 31	360	18-0036	9/27/2018	9/27/2020	
Z005 0550-0530	Z005-0550	Z005-0530	2500 Glen Flora	69	18-0046	9/27/2018	9/27/2020	
S006 0500-0490	S006-0500	S006-0490	1211 N. 52	366	18-0031	9/27/2018	9/27/2020	
MC07 1100-1090	MC07-1100	MC07-1090	2901 Memphis	143	17-0280	9/27/2018	9/27/2020	
Total				5025				

Attachment 6
2018 Sanitary Sewer Overflow Events

2018 Sanitary Sewer Overflow Events

SSO ID	Start Date	Start Time	End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Cleanup	SSO Impact	OEHC	OEEI	NEAH	EFK	Public Notice	Receiving Water
18-0005	01/04/2018	8:31 AM	01/04/2018	11:29 AM	1215 S O St	MC02-0620 to MC02-1370	MC02-0620	895	Manhole		Roots	Grease	Power Rod,Jet Clean	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River
18-0007 *	01/05/2018	10:48 AM	01/05/2018	1:40 PM	4215 Park Ave	P007-2030 to P007-2020	P007-2030	2,580	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0009	01/07/2018	7:48 PM	01/07/2018	9:00 PM	3404 N 47 St	S009-0920 to S009-0910		360	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0013	01/08/2018	3:30 PM	01/08/2018	4:30 PM	3608 Brooken Hill Dr	Z004-0590 to Z004-0580		600	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River
18-0015	01/09/2018	9:45 AM	01/09/2018	9:50 AM	2819 Kendall Ave	Z003-1400 to Z003-1390		5	Service Line		Other		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	Not Applicable
18-0016	01/10/2018	4:05 PM	01/10/2018	5:15 PM	3101 S 39 St	P009-1870 to P009-1850	P009-1870	350	Manhole		Grease	Debris	Power Rod,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0020	01/16/2018	10:10 AM	01/16/2018	12:50 PM	8118 Cypress Ave	Z006-1560 to Z006-1550		800	Service Line		Grease		Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0021	01/16/2018	5:21 PM	01/17/2018	9:05 AM	1600 Holly Cir	Z006-1530 to Z006-1470		4,720	Service Line		Roots	Grease	Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0023	01/18/2018	1:21 PM	01/18/2018	2:35 PM	3428 Armour St	S008-2240 to S008-2190		592	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0027	01/21/2018	5:27 PM	01/21/2018	7:40 PM	1425 N 56 Ter	S002-1610 to S002-1600	S002-1610	1,330	Manhole		Roots	Grease	Power Rod,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0031	01/22/2018	4:38 PM	01/22/2018	6:45 PM	1211 N 52 St	S006-0500 to S006-0490		127	Service Line		Roots		Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0033 *	01/23/2018	7:25 PM	01/23/2018	10:15 PM	1301 Short Ln	S002-1660 to S006-1650	S002-1660	1,700	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	Not Applicable
18-0034 *	01/29/2018	8:31 AM	01/29/2018	1:30 PM	3212 Briarcliff Ave	Z003-0940 to Z003-0930		1,495	Service Line		Line Break		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0035	01/29/2018	11:14 AM	01/29/2018	12:14 PM	3100 Armour Ct	S009-0720 to S009-0710	S009-0720	915	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0036 *	01/30/2018	4:20 PM	01/30/2018	8:00 PM	5324 S 31 St	MC08-0480 to MC08-0470		1,100	Service Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River
18-0037	01/31/2018	9:41 PM	02/01/2018	10:06 AM	7 Amberwood Ct	M007-1610 to M007-1590		3,725	Service Line		Grease	Roots	Power Rod,Jet Clean	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0040	02/07/2018	8:25 PM	02/07/2018	10:44 PM	3515 N 50 St	S009-0820 to S009-0810	S009-0820	2,800	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0042	02/08/2018	3:19 PM	02/08/2018	4:44 PM	5221 Johnson St	S005-0630 to S005-0620	S005-0630	688	Manhole		Roots	Grease	Jet Clean,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	Not Applicable
18-0043	02/09/2018	12:30 PM	02/09/2018	9:30 PM	802 S 24 St	P006-1710 to P006-1700		540	Service Line		Line Break		Power Rod,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	Not Applicable
18-0044	02/09/2018	1:11 PM	02/09/2018	3:25 PM	4221 Park Ave	P007-2030 to P007-2020	P007-2030	13,400	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0046	02/11/2018	1:08 PM	02/11/2018	4:15 PM	2500 Glen Flora Way	Z005-0550 to Z005-0530	Z005-0550	1,870	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0047	02/13/2018	9:32 AM	02/13/2018	10:25 AM	4809 S 18 Ter	MC06-0710 to MC06-0700	MC06-0710	106	Manhole		Grease	Debris	Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0048	02/14/2018	3:25 PM	02/14/2018	8:29 PM	4628 N 30 St	FL01-0880 to FL01-0840		1,530	Service Line		Line Break		Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0051	02/19/2018	10:14 AM	02/19/2018	10:50 AM	4609 S 25 St	MC07-0430 to MC07-0420		72	Service Line		Debris		Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0053	02/19/2018	12:02 PM	02/19/2018	2:55 PM	3006 Houston St	MC05-2700 to MC05-2690	MC05-2700	346	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0054	02/20/2018	9:14 AM	02/20/2018	2:45 PM	2116 S 71 St	RL01-1150 to RL01-1140		330	Service Line		Line Break		Repair,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	Not Applicable

2018 Sanitary Sewer Overflow Events

SSO ID	Start Date	Start Time	End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Cleanup	SSO Impact	OEHC	OEEI	NEAH	EFK	Public Notice	Receiving Water	
18-0055	02/21/2018	1:57 AM	02/21/2018	5:15 AM	5620 Grand Ave	S002-0660 to S002-0640		990	Service Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0056	02/21/2018	5:46 AM	02/21/2018	8:37 AM	5600 Rogers Ave	S004-1140 to S004-1130	S004-1140	4,275	Manhole		Rainfall			Scheduled Cleanup,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	City of Fort Smith to Arkansas River
18-0057	02/21/2018	9:06 AM	02/21/2018	9:59 AM	Kelley Hwy	P004-2170 to P004-1015	P004-2170	540	Manhole		Grease		Power Jet,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0060	02/23/2018	9:58 PM	02/23/2018	11:15 PM	4100 Miller Ln	P007-1090 to P007-1080		385	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0061	02/24/2018	12:19 PM	02/25/2018	11:19 PM	Zero St	Z001-0760 to Z001-0758	Z001-0760	210,000	Manhole		Rainfall		None Indicated,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0064	02/24/2018	4:30 PM	02/24/2018	5:29 PM	5915 Apache Trl	S002-1150 to S002-1130		300	Service Line		Roots		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0065	02/24/2018	6:59 PM	02/25/2018	8:00 AM	Zero St	Z001-0758 to Z001-0756	Z001-0758	39,000	Manhole		Rainfall		None Indicated,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0066	02/24/2018	7:05 PM	02/25/2018	8:05 AM	Zero St	Z001-0756 to Z001-0754	Z001-0756	58,500	Manhole		Rainfall		None Indicated,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0068	02/27/2018	3:23 PM	02/27/2018	3:55 PM	3108 Fincastle Dr	Z004-1280 to Z004-1010		64	Service Line		Roots	Grease	Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0069	03/01/2018	9:19 AM	03/01/2018	10:05 AM	6901 S 9 St	CS01-0830 to CS01-0820		138	Service Line		Grease	Debris	Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0071	03/02/2018	10:52 AM	03/02/2018	12:45 PM	200 Cornell Ave	Z006-0230 to Z006-0220	Z006-0230	1,130	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0072	03/02/2018	4:47 PM	03/02/2018	5:50 PM	211 N 40 St	P007-2530 to P007-2520	P007-2530	315	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0073	03/02/2018	5:17 PM	03/02/2018	6:20 PM	706 N 18 St	P010-1290 to P010-1280		189	Service Line		Grease		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0074	03/03/2018	12:10 PM	03/03/2018	1:20 PM	2520 S 22 St	P006-1315 to P006-1310		70	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0077	03/05/2018	4:54 PM	03/05/2018	6:14 PM	5902 Chippewa Trl	S002-0890 to S002-0880		81	Service Line		Debris		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0078	03/06/2018	8:04 AM	03/06/2018	8:55 AM	3508 Canongate Way	Z008-4900 to Z008-4870	Z008-4900	255	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0079	03/07/2018	8:46 AM	03/07/2018	10:50 PM	3117 Royal Scots Way	Z004-1110 to Z004-1100	Z004-1110	1,240	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0081	03/09/2018	11:08 AM	03/09/2018	12:40 PM	4420 Windsor Dr	S008-0420 to S008-0410		460	Service Line		Grease	Debris	Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0085	03/14/2018	9:57 AM	03/14/2018	10:27 AM	3415 Birnie Ave	S008-2060 to S008-2050		150	Service Line		Grease		Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0088 *	03/15/2018	10:58 AM	03/15/2018	11:50 AM	9724 Thistle Ct	Z004-1300 to Z004-1290		208	Service Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0089	03/16/2018	2:40 PM	03/16/2018	3:30 PM	3101 N 26 St	P001-1640 to P001-1630		250	Service Line		Roots	Debris	Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0090	03/16/2018	9:13 PM	03/16/2018	11:29 PM	4100 Grand Ave	P007-1660 to P007-1650		3,425	Service Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Basement Backup	Yes	No	Yes	No	No	No	Not Applicable
18-0093	03/21/2018	9:31 AM	03/21/2018	1:55 PM	2505 S L St	P006-2150 to P006-2130		264	Service Line		Line Break	Other	Repair,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0096	03/21/2018	11:38 AM	03/21/2018	11:52 AM	Yorkshire Dr	S009-0086 to S009-0070	S009-0086	14	Manhole		Other		Refer to Engineer,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0097 *	03/23/2018	6:35 PM	03/24/2018	3:30 AM	2723 Tulsa St	MC08-2000 to MC08-0340		535	Service Line		Other		Repair,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0099 *	03/27/2018	10:15 AM	03/27/2018	3:00 PM	3310 N 50 St	S009-1010 to S009-1000		285	Service Line		Line Break		Repair,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0100	03/27/2018	1:55 PM	03/28/2018	2:02 PM	3310 N 50 St	S009-1010 to S009-1000		7,235	Main Line		Rainfall	Line Break	Repair,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Upper Little Vache Grasse Creek
18-0101 *	03/28/2018	4:28 PM	03/28/2018	9:30 PM	1801 Wheeler Ave	MC03-0140 to MC03-0130	MC03-0140	302	Manhole		Debris	Line Break	Jet Clean,	No Cleanup Performed,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	No	Not Applicable

2018 Sanitary Sewer Overflow Events

SSO ID	Start Date	Start Time	End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Cleanup	SSO Impact	OEHC	OEEI	NEAH	EFK	Public Notice	Receiving Water
18-0103	03/30/2018	4:23 PM	03/30/2018	6:55 PM	6003 Chippewa Trl	S002-0860 to S002-0850	S002-0860	1,520	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	Not Applicable
18-0105	04/06/2018	3:59 PM	04/06/2018	4:40 PM	10612 Meandering Way	HP01-0290 to HP01-0280	HP01-0290	615	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0108	04/11/2018	8:00 AM	04/11/2018	2:29 PM	4900 S 32 St	Z001-2610 to Z001-2600		1,950	Service Line		Grease		Power Jet,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	Not Applicable
18-0112	04/18/2018	4:14 PM	04/18/2018	4:50 PM	3111 S 74 St	M005-0480 to M005-0460	M005-0480	540	Manhole		Grease	Debris	Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0113	04/18/2018	6:46 PM	04/18/2018	8:10 PM	3419 Short Wilma St	FL01-1225 to FL01-1220		84	Service Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0115 *	04/23/2018	11:04 AM	04/23/2018	1:30 PM	1618 Lexington Ave	MC02-0846 to MC02-0843		1,022	Service Line		Roots	Grease	Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0117 *	04/23/2018	7:34 PM	04/23/2018	10:10 PM	2408 Houston St	MC05-2240 to MC05-2210	MC05-2240	780	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0119	04/24/2018	12:10 PM	04/24/2018	3:10 PM	2408 Houston St	MC05-2240 to MC05-2210	MC05-2240	900	Manhole		Roots		Power Rod,Jet Clean	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0120	04/24/2018	1:40 PM	04/24/2018	2:45 PM	5103 Elm St	PL01-0250 to PL01-0240		325	Service Line		Grease	Debris	Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	Not Applicable
18-0121	04/24/2018	1:40 PM	04/24/2018	2:45 PM	5109 Elm St	PL01-0250 to PL01-0240		130	Service Line		Grease	Debris	Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0122	04/24/2018	3:33 PM	04/24/2018	4:10 PM	2121 Towson Ave	MC02-0680 to MC02-0675	MC02-0680	185	Manhole		Debris		Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0127	04/30/2018	10:46 AM	04/30/2018	12:59 PM	6501 Rye Hill Rd E	LF01-002A to LF01-002B		670	Other - Air Relief Vault-Force Main Service Line		Equipment Failure		Repair,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	Not Applicable
18-0131	05/02/2018	8:15 AM	05/02/2018	9:00 AM	1614 Lexington Ave	MC02-0846 to MC02-0843		135	Service Line		Roots	Debris	Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0133	05/03/2018	1:26 PM	05/03/2018	3:35 PM	416 S 5 St	P011-0915 to P011-0910		1,290	Service Line		Grease		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	Not Applicable
18-0134	05/03/2018	5:44 PM	05/03/2018	9:58 PM	4600 Arlington Ave	FL02-1000 to FL02-0990		254	Service Line		Grease		Jet Clean,	Immediate Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0136	05/04/2018	9:06 AM	05/04/2018	3:20 PM	1200 Autumn Oaks Ln	S003-3690 to S003-0965	S003-3690	374	Manhole		Debris		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0138	05/07/2018	4:04 PM	05/07/2018	4:44 PM	5209 Plum St	PL01-0350 to PL01-0340		205	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0140	05/09/2018	2:19 PM	05/09/2018	2:45 PM	3015 Alabama Ave	P008-0770 to p008-0760		52	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0142 *	05/13/2018	2:25 PM	05/13/2018	5:35 PM	6 Old Greenwood Ln	MC06-0590 to MC06-0580	MC06-0590	570	Manhole		Roots	Grease	Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0143 *	05/14/2018	3:51 PM	05/14/2018	4:40 PM	2925 Marion Ct	Z004-1500 to Z004-1490	Z004-1500	245	Manhole		Roots	Grease	Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0146	05/24/2018	10:14 AM	05/24/2018	10:55 AM	205 Harvard Ave	Z006-0130 to Z006-0120		123	Service Line		Roots		Power Jet,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0147	05/24/2018	11:08 AM	05/24/2018	1:44 PM	3522 S 35 St	P009-2230 to P009-2220		157	Service Line		Line Break		Power Jet,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0148	05/24/2018	3:50 PM	05/24/2018	4:30 PM	2925 Marion Ct	Z004-1500 to Z004-1490	Z004-1500	200	Manhole		Roots	Grease	Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0159	06/24/2018	7:10 PM	06/25/2018	7:35 AM	2100 Boys Club Ln	Z001-0770 to Z001-0760	Z001-0770	44,700	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River
18-0160	06/24/2018	7:30 PM	06/25/2018	8:00 AM	3200 N M St	P005-3030 to P005-3020	P005-3030	112,500	Manhole		Rainfall		None Indicated,	Scheduled Cleanup,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0161	06/25/2018	8:33 AM	06/25/2018	2:17 PM	7415 Hwy 271	CS01-1600 to CS01-1590		345	Service Line		Roots		Power Rod,Jet Clean	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0165	07/03/2018	8:34 AM	07/03/2018	12:45 PM	3015 Alabama Ave	P008-0770 to P008-0760		247,605	Service Line		Line Break		Repair,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0168 *	07/07/2018	3:55 PM	07/07/2018	8:27 PM	2624 Glen Flora Way	Z005-0400 to Z005-0370		272	Main Line		Line Break		Jet Clean,Repair	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River

2018 Sanitary Sewer Overflow Events

SSO ID	Start Date	Start Time	End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Cleanup	SSO Impact	OEHC	OEEI	NEAH	EFK	Public Notice	Receiving Water	
18-0169	07/09/2018	8:34 AM	07/09/2018	9:59 AM	8624 Harvard Dr	Z006-1340 to Z006-1330	Z006-1340	860	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0173	07/13/2018	11:43 PM	07/14/2018	1:00 AM	2201 Pryor Ave	P001-0180 to P001-0170		77	Service Line		Grease		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0175	07/14/2018	7:35 PM	07/15/2018	6:45 AM	2023 S Y St	MC05-1730 to MC05-1716		670	Service Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0176	07/14/2018	7:35 PM	07/15/2018	6:45 AM	2019 S Y St	MC05-1730 to MC05-1716		670	Service Line		Roots		Jet Clean,	Scheduled Cleanup,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0177	07/20/2018	6:40 PM	07/21/2018	4:40 AM	8501 Phoenix Ave	M004-0520 to M004-0510	M004-0520	3,000	Manhole		Line Break		Jet Clean,Repair	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Massard Creek
18-0178	07/23/2018	3:46 PM	07/23/2018	4:44 PM	3708 Morris Dr	S007-0740 to S007-0730		59	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0180	07/27/2018	8:44 AM	07/27/2018	9:00 AM	8606 Meadow Oaks Ln	SK01-1190 to SK01-1180	SK01-1190	16	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0184	08/02/2018	10:52 AM	08/02/2018	4:30 PM	5507 Summit Ct	S003-0530 to S003-0520		338	Other - Contractor caused; unconfirmed if main or service		Line Break		Repair,	No Cleanup Performed,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0185 *	08/02/2018	4:31 PM	08/02/2018	5:29 PM	9505 East Pointe Dr	SK01-1280 to SK01-2090	SK01-1280	290	Manhole		Debris		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Massard Creek
18-0186	08/06/2018	3:27 PM	08/06/2018	5:40 PM	2624 Glen Flora Way	Z005-0400 to Z005-0370		133	Main Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0187	08/06/2018	9:51 AM	08/06/2018	3:30 PM	415 S 5 St	P011-0980 to P011-0930		339	Service Line		Grease		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0188	08/07/2018	10:29 AM	08/07/2018	11:20 AM	2100 N 31 St	S008-1350 to S008-1320		51	Other - Private Sewer Main		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0190	08/07/2018	9:25 AM	08/07/2018	12:30 PM	2624 Glen Flora Way	Z005-0400 to Z005-0370		925	Main Line		Line Break		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0191	08/08/2018	10:28 AM	08/08/2018	10:29 AM	9309 Enid St	M001-1380 to M001-1370		1	Service Line		Other		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0193	08/08/2018	1:40 PM	08/08/2018	3:14 PM	1113 N 52 St	S006-0490 to S006-0480		95	Service Line		Roots		Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0195 *	08/10/2018	8:31 AM	08/10/2018	2:29 PM	4011 Midland Blvd	FL01-0830 to FL01-0820		359	Service Line		Line Break		Power Rod,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0196	08/10/2018	2:13 PM	08/10/2018	3:35 PM	2511 Dallas St	MC05-2080 to MC05-2070	MC05-2080	246	Manhole		Roots		Power Rod,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0200	08/14/2018	9:26 AM	08/14/2018	9:55 AM	5100 Wirsing Ave	S005-0580 to S005-0570		29	Service Line		Roots		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0201 *	08/14/2018	12:59 PM	08/14/2018	2:00 PM	1800 Tulsa St	MC06-0770 to MC06-0760		122	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0204	08/15/2018	11:21 AM	08/15/2018	10:20 PM	1000 S 21 St	P006-0230 to P006-0190	P006-0230	16,475	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0205	08/15/2018	11:58 AM	08/15/2018	4:25 PM	420 N 20 St	P005-1920 to P005-1860	P005-1920	13,350	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0206	08/15/2018	12:35 PM	08/15/2018	3:36 PM	4512 N O St	S007-1130 to S007-1120	S007-1130	9,050	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0207	08/15/2018	2:15 PM	08/15/2018	7:05 PM	8900 Meandering Way	M002-0230 to M002-0220	M002-0230	58,000	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0208	08/15/2018	11:11 AM	08/15/2018	3:40 PM	4638 Victoria Dr	S008-0080 to S008-0070	S008-0080	26,900	Manhole		Rainfall		None Indicated,	Scheduled Cleanup,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	City of Fort Smith to Arkansas River
18-0209	08/15/2018	12:33 PM	08/15/2018	1:20 PM	4916 High St	S009-0784 to S009-0712		47	Service Line		Rainfall		None Indicated,	Scheduled Cleanup,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0210	08/15/2018	9:50 AM	08/15/2018	9:50 PM	S 56 St	S004-1140 to S004-1130	S004-1140	36,000	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	City of Fort Smith to Arkansas River
18-0211	08/15/2018	12:59 PM	08/15/2018	9:59 PM	2900 Brooken Hill Dr	Z005-0450 to Z005-0230	Z005-0450	10,820	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River

2018 Sanitary Sewer Overflow Events

SSO ID	Start Date	Start Time	End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Cleanup	SSO Impact	OEHC	OEEI	NEAH	EFK	Public Notice	Receiving Water
18-0212	08/15/2018	9:28 AM	08/15/2018	3:40 PM	1415 N 32 St	P005-3020 to P005-3010	P005-3020	37,200	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0213	08/15/2018	12:04 PM	08/15/2018	3:05 PM	722 N 20 St	P005-1750 to P005-1630	P005-1750	18,100	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0214	08/15/2018	11:35 AM	08/15/2018	3:12 PM	1111 N 16 St	P005-0910 to P005-0900	P005-0910	5,425	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	Not Applicable
18-0215	08/15/2018	12:51 PM	08/15/2018	2:21 PM	Riverfront Dr	FL01-2030 to FL01-2020	FL01-2030	90	Manhole		Rainfall		None Indicated,	No Cleanup Performed,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0217	08/15/2018	9:30 AM	08/15/2018	10:40 PM	1415 N 32 St	P005-3030 to P005-3020	P005-3030	79,000	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0218	08/15/2018	9:00 AM	08/15/2018	12:14 PM	9500 East Pointe Dr	SK01-2080 to SK01-1260	SK01-2080	39,000	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0219	08/15/2018	10:46 AM	08/16/2018	9:14 AM	5800 Boys Club Ln	Z001-0770 to Z001-0760	Z001-0770	134,900	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River
18-0220	08/15/2018	10:43 AM	08/16/2018	9:14 AM	5800 Boys Club Ln	Z001-0460 to Z001-0770	Z001-0460	135,200	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River
18-0221	08/15/2018	1:15 PM	08/15/2018	4:30 PM	Armour St	S009-0712 to S009-0710	S009-0712	1,950	Manhole		Rainfall		None Indicated,	Scheduled Cleanup,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0222	08/15/2018	12:13 PM	08/15/2018	2:40 PM	N 34 St	P007-0065 to P007-0060	P007-0065	3,675	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0223	08/15/2018	12:13 PM	08/15/2018	2:40 PM	N 34 St	P007-0060 to P007-0050	P007-0050	14,700	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0224	08/15/2018	12:13 PM	08/15/2018	2:40 PM	N 34 St	P007-0050 to P007-0013	P007-0050	29,400	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0225	08/15/2018	8:00 AM	08/15/2018	7:11 PM	3016 N Short L St	P005-0690 to P005-0680		16,800	Service Line		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0226	08/15/2018	8:00 AM	08/15/2018	7:11 PM	3016 N Short L St	P005-0690 to P005-0680	P005-0690	151,200	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	Not Applicable
18-0227	08/15/2018	4:32 PM	08/15/2018	6:50 PM	5504 Geren Rd	M003-2550 to M003-2540	M003-2550	690	Manhole		Grease		None Indicated,	No Cleanup Performed,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Massard Creek
18-0228	08/16/2018	7:30 AM	08/16/2018	9:14 AM	5800 Boys Club Ln	Z001-0754 to Z001-0752	Z001-0754	5,250	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River
18-0229	08/15/2018	11:15 AM	08/15/2018	11:53 AM	2901 S 98 Cir	RB01-0010 to RB01-0001	RB01-0010	3,800	Manhole		Rainfall		None Indicated,	Scheduled Cleanup,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0230	08/15/2018	12:35 PM	08/15/2018	10:30 PM	N 21 St	P005-0300 to P005-0250	P005-0300	163,625	Manhole		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0233	08/16/2018	12:13 PM	08/16/2018	2:05 PM	3916 Fresno St	P009-2610 to P009-2580		560	Service Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0234	08/15/2018	11:17 AM	08/15/2018	11:45 AM	2901 S 98 Cir	N/A	RB01-0001	1,350	Lift Station		Rainfall		None Indicated,	Scheduled Cleanup,	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0235	08/17/2018	1:12 PM	08/17/2018	1:30 PM	3007 Beverly Dr	P008-2290 to P008-2280		18	Service Line		Rainfall		None Indicated,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	Not Applicable
18-0241	08/28/2018	12:17 PM	08/28/2018	3:00 PM	4118 Fresno St	P009-2590 to P009-2580		815	Service Line		Line Break		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0243	08/28/2018	1:25 PM	08/28/2018	3:25 PM	1815 S 16 St	MC02-0910 to MC02-0905	MC02-0910	6,000	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River
18-0244	09/02/2018	2:42 PM	09/02/2018	3:40 PM	5919 Carthage St	M007-0650 to M007-0640		58	Main Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0246 *	09/06/2018	5:31 PM	09/06/2018	8:10 PM	2904 S Q St	P009-0260 to P009-0250		795	Service Line		Line Break		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0248 *	09/11/2018	12:04 PM	09/11/2018	2:07 PM	511 N 12 St	P010-0560 to P010-0520		123	Service Line		Line Break		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0249	09/12/2018	9:18 AM	09/12/2018	10:40 AM	7200 S Q St	RL01-0810 to RL01-0800		410	Service Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	Not Applicable
18-0250 *	09/13/2018	8:36 AM	09/13/2018	2:00 PM	8800 Copper Oaks Ln	CC01-0001 to M004-0490		324	Main Line		Line Break		Repair,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River

2018 Sanitary Sewer Overflow Events

SSO ID	Start Date	Start Time	End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Cleanup	SSO Impact	OEHC	OEEI	NEAH	EFK	Public Notice	Receiving Water	
18-0251	09/13/2018	2:52 PM	09/13/2018	4:15 PM	3306 S 98 St	RB01-0650 to RB01-0640		83	Service Line		Line Break		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0257 *	09/20/2018	9:40 AM	09/20/2018	6:28 PM	611 Martin Dr	CS01-0210 to CS01-0200		5,280	Main Line		Line Break		None Indicated,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0261	09/25/2018	8:38 AM	09/25/2018	8:40 AM	3321 S 74 St	M005-1500 to M005-0445		2	Service Line		Other		Jet Clean,	No Cleanup Performed,Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0263	09/25/2018	9:22 AM	09/25/2018	9:45 AM	520 N 47 St	S006-0940 to S006-0935	S006-0940	345	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	City of Fort Smith to Arkansas River
18-0264	09/25/2018	9:35 AM	09/25/2018	9:45 AM	530 N 47 St	S006-0940 to S006-0935		50	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	City of Fort Smith to Arkansas River
18-0266	09/27/2018	9:28 AM	09/27/2018	9:41 AM	3000 S O St	P009-0195 to P009-0190		13	Service Line		Roots	Line Break	Jet Clean,Repair	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0267	09/28/2018	2:58 PM	09/28/2018	4:59 PM	7101 Hwy 271	CS01-1540 to CS01-1530	CS01-1540	605	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0268	09/28/2018	2:21 PM	09/28/2018	11:02 PM	1 Essex Pl	Z005-0790 to Z005-0780		1,042	Main Line		Roots	Line Break	Repair,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0269	09/30/2018	12:04 PM	09/30/2018	5:00 PM	2101 Ramsgate Way	Z008-0470 to Z008-0350	Z008-0470	4,440	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0270	10/01/2018	8:44 AM	10/01/2018	10:44 AM	9908 Wellington Way	Z007-0540 to Z007-0530	Z007-0540	1,210	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0273 *	10/03/2018	10:30 AM	10/03/2018	12:05 PM	S R St	MC01-0080 to MC01-0070		4,750	Main Line		Roots		Repair,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0276	10/04/2018	10:07 AM	10/04/2018	12:40 PM	3805 Midland Blvd	FL02-1100 to FL02-1090		765	Main Line		Line Break		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	City of Fort Smith to Arkansas River
18-0277	10/05/2018	10:04 AM	10/05/2018	10:05 AM	5200 S 32 St	M002-1400 to M002-1390	M002-1400	1	Manhole		Construction		None Indicated,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0278 *	10/05/2018	8:27 AM	10/05/2018	12:59 PM	3314 S 39 St	P009-2420 to P009-2410		273	Main Line		Line Break		Repair,	Scheduled Cleanup,No Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0280 *	10/07/2018	8:00 AM	10/07/2018	11:40 AM	5617 Plum St	PL01-0050 to PL01-0040	PL01-0050	5,500	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	City of Fort Smith to Arkansas River
18-0282	10/08/2018	3:47 PM	10/08/2018	4:35 PM	3115 N 26 St	P001-1650 to P001-1640		144	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0284 *	10/12/2018	3:14 PM	10/12/2018	3:20 PM	1419 Towson Ave	MC02-0260 to MC02-0250		25	Service Line		Line Break		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0285 *	10/12/2018	12:42 PM	10/12/2018	3:59 PM	3900 S 33 St	MC07-1520 to MC07-1500		198	Service Line		Roots	Line Break	Jet Clean,	Scheduled Cleanup,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0287	10/15/2018	9:51 AM	10/15/2018	10:30 AM	3415 Birnie Ave	S008-2050 to S008-2030		117	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0288	10/15/2018	2:36 PM	10/15/2018	3:14 PM	4619 S Q St	S003-1660 to S003-1650		39	Service Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0293	10/17/2018	10:30 AM	10/17/2018	10:40 AM	4217 Yorkshire Dr	S009-0070 to S009-0050	S009-0070	10	Manhole		Other		Repair,	No Cleanup Performed,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	City of Fort Smith to Arkansas River
18-0296	10/19/2018	2:50 PM	10/20/2018	10:10 AM	12920 Brittany Dr	FC02-0860 to FC02-0850	FC02-0860	58,500	Manhole		Rainfall		None Required,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0298	10/20/2018	3:51 PM	10/20/2018	5:20 PM	4908 Arlington Ave	FL02-1050 to FL02-1030		445	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	City of Fort Smith to Arkansas River
18-0299	10/20/2018	8:23 PM	10/20/2018	9:14 PM	2301 N 34 St	S008-1256 to S008-1254	S008-1256	520	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0301 *	10/21/2018	7:29 AM	10/21/2018	2:50 PM	1400 N 39 St	P007-1504 to P007-1500	P007-1504	2,205	Manhole		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0302	10/23/2018	10:15 AM	10/23/2018	11:29 AM	3101 S 100 St	RB01-0130 to RB01-0100		75	Service Line		Roots		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0304	10/26/2018	7:39 PM	10/26/2018	9:14 PM	1299 S Waldron Rd	S003-0795 to S003-0790	S003-0795	480	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0308	10/31/2018	1:36 PM	11/01/2018	6:22 PM	12920 Brittany Dr	FC02-0860 to FC02-0850	FC02-0850	517,800	Manhole		Rainfall		None Indicated,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Upper Little Vache Grasse Creek

2018 Sanitary Sewer Overflow Events

SSO ID	Start Date	Start Time	End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Cleanup	SSO Impact	OEHC	OEEI	NEAH	EFK	Public Notice	Receiving Water	
18-0310	11/01/2018	10:34 AM	11/01/2018	11:55 AM	9801 Jenny Lind Rd	Z005-0720 to Z005-0710		405	Service Line		Line Break		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0311 *	11/01/2018	4:38 PM	11/02/2018	2:00 AM	1103 N 46 St	S006-0610 to S006-0600		562	Service Line		Line Break		Jet Clean,Repair	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0312	11/01/2018	5:15 PM	11/02/2018	2:00 AM	1102 N 45 St	S006-0610 to S006-0600		525	Service Line		Line Break		Jet Clean,Repair	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0313 *	11/05/2018	7:48 AM	11/05/2018	12:20 PM	100 Georgetown Ln	Z006-0930 to Z006-0920	Z006-0930	5,440	Manhole		Line Break		Jet Clean,Repair	Scheduled Cleanup,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0314	11/05/2018	2:45 PM	11/05/2018	6:10 PM	2814 Reeder St	P008-2370 to P008-2366		205	Service Line		Roots		Jet Clean,	No Cleanup Performed,Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0315	11/06/2018	8:20 AM	11/06/2018	8:31 AM	2814 Reeder St	P008-2370 to P008-2366		11	Service Line		Debris		Jet Clean,	No Cleanup Performed,Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0316	11/06/2018	1:26 PM	11/06/2018	2:11 PM	101 Cindy Cir	CS01-0290 to CS01-0280		45	Service Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0319	11/11/2018	9:36 AM	11/11/2018	11:05 AM	8640 Rogers Ave	M004-0540 to M004-0530	M004-0540	712	Manhole		Grease	Debris	Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0320	11/12/2018	7:05 PM	11/12/2018	9:55 PM	9424 Belhaven View	Z005-1070 to Z005-1050	Z005-1070	1,700	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0321 *	11/14/2018	8:55 AM	11/14/2018	10:30 AM	1800 N M St	P005-0860 to P005-0850		95	Service Line		Line Break		Jet Clean,Repair	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0322	11/15/2018	4:58 PM	11/15/2018	6:30 PM	3301 Fresno St	MC05-3710 to MC05-3690		460	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0323	11/16/2018	8:19 AM	11/16/2018	10:30 AM	2100 N 31 St	S008-1350 to S008-1320		131	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	City of Fort Smith to Arkansas River
18-0324	11/16/2018	8:15 AM	11/16/2018	9:14 AM	3020 Enid St	MC05-3660 to MC05-3650	MC05-3660	600	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	Mill Creek to Poteau River
18-0325	11/16/2018	9:20 AM	11/16/2018	9:22 AM	3000 Enid St	MC05-3650 to MC05-3645	MC05-3650	2	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0327 *	11/19/2018	10:07 AM	11/19/2018	6:14 PM	5022 S 33 St	Z001-2960 to Z001-2920		2,440	Service Line		Line Break		Repair,	No Cleanup Performed,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0328	11/19/2018	1:25 PM	11/19/2018	2:15 PM	3700 Cliff Dr	M006-1230 to M006-1220		100	Service Line		Debris		Removed Debris,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0332	11/21/2018	10:07 AM	11/21/2018	10:17 AM	3900 S 33 St	MC07-1520 to MC07-1500		10	Service Line		Debris		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0336	11/29/2018	9:24 AM	11/29/2018	9:30 AM	2610 N 41 St	S009-1320 to S009-1310		12	Service Line		Other		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0337	11/29/2018	9:24 AM	11/29/2018	9:30 AM	2614 N 41 St	S009-1320 to S009-1310		12	Service Line		Other		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	No	Not Applicable
18-0338	11/29/2018	4:57 PM	11/29/2018	6:10 PM	3616 Park Ave	P008-1810 to P008-1800		365	Main Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0341 *	12/03/2018	1:40 PM	12/04/2018	9:35 AM	6301 Grand Ave	S002-2010 to S002-0750		5,975	Service Line		Debris		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0342	12/04/2018	3:45 PM	12/04/2018	5:55 PM	1401 N 50 St	S007-1330 to S007-1300		130	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0344	12/05/2018	10:16 AM	12/05/2018	11:15 AM	6308 Boston St	M007-0420 to M007-0410		295	Service Line		Roots		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	No	Not Applicable
18-0346	12/07/2018	8:40 AM	12/07/2018	11:15 AM	2815 Pendell Ln	P009-0260 to P009-0250		155	Service Line		Roots		None Indicated,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	Yes	No	Not Applicable
18-0347	12/08/2018	3:55 PM	12/08/2018	5:50 PM	2400 Jackson St	MC05-0950 to MC05-0940		115	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	No	Not Applicable
18-0349	12/08/2018	9:47 PM	12/09/2018	11:45 AM	3214 N O St	P005-0650 to P005-0630		838	Service Line		Debris		Jet Clean,	Immediate Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	No	Not Applicable
18-0351	12/11/2018	12:50 PM	12/11/2018	1:44 PM	611 N T St	P003-1280 to P003-1270		55	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	No	Not Applicable
18-0355	12/13/2018	11:00 AM	12/13/2018	3:30 PM	5200 Kelley Hwy	S005-0510 to S005-0500	S005-0510	27,000	Manhole		Rainfall		None Required,	Immediate Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	No	City of Fort Smith to Arkansas River

2018 Sanitary Sewer Overflow Events

SSO ID	Start Date	Start Time	End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Cleanup	SSO Impact	OEHC	OEEI	NEAH	EFK	Public Notice	Receiving Water
18-0356	12/13/2018	1:30 PM	12/16/2018	10:15 AM	12920 Brittany Dr	FC02-0860 to FC02-0850	FC02-0860	206,250	Manhole		Rainfall		None Indicated,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Upper Little Vache Grasse Creek
18-0357	12/15/2018	9:51 AM	12/15/2018	11:00 AM	3916 Fresno St	P009-2610 to P009-2580		345	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0358	12/15/2018	10:59 AM	12/16/2018	9:59 AM	6015 Boys Club Ln	Z001-0460 to Z001-0770	Z001-0460	137,900	Manhole		Rainfall	Other	None Required,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River
18-0359	12/15/2018	10:59 AM	12/16/2018	9:59 AM	6015 Boys Club Ln	Z001-0770 to Z001-0760	Z001-0770	68,950	Manhole		Rainfall	Other	None Required,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River
18-0360	12/15/2018	10:59 AM	12/16/2018	9:59 AM	6015 Boys Club Ln	Z001-0758 to Z001-0756	Z001-0758	68,950	Manhole		Rainfall	Other	None Required,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Mill Creek to Poteau River
18-0361	12/16/2018	6:51 PM	12/16/2018	11:10 PM	4702 N M St	S007-1520 to S007-1510		516	Service Line		Line Break		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	No	Not Applicable
18-0363	12/17/2018	2:17 PM	12/17/2018	2:50 PM	3108 S 80 St	M004-1035 to M004-1030	M004-1035	330	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Public Land (Ground)	No	No	Yes	No	Yes	Not Applicable
18-0365	12/19/2018	5:16 PM	12/19/2018	7:10 PM	2123 N 57 Ln	S005-1060 to S005-1050		114	Service Line		Debris		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	Not Applicable
18-0366	12/20/2018	11:23 AM	12/20/2018	12:50 PM	909 Belmont St	CS01-1070 to CS01-1050	CS01-1070	870	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	Yes	Mill Creek to Poteau River
18-0369	12/25/2018	12:10 PM	12/25/2018	1:15 PM	2116 S 70 St	RL01-1280 to RL01-1260	RL01-1280	65	Manhole		Grease		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	Not Applicable
18-0370	12/26/2018	12:39 PM	12/26/2018	1:15 PM	9424 Belhaven View	Z005-1070 to Z005-1050	Z005-1070	360	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	Not Applicable
18-0371	12/26/2018	12:59 PM	12/26/2018	2:40 PM	8311 Cypress Ave	Z006-1480 to Z006-1470		101	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	Not Applicable
18-0374	12/26/2018	9:18 PM	12/26/2018	11:29 PM	2101 S 70 St	RL01-1260 to RL01-1250		132	Service Line		Grease		Jet Clean,	No Cleanup Performed,No Disinfection Performed	Basement Backup	No	No	Yes	No	No	Not Applicable
18-0375	12/27/2018	1:23 AM	12/27/2018	3:20 AM	3204 S 58 St	M007-1670 to M007-1660		117	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	Not Applicable
18-0376	12/27/2018	8:13 AM	12/27/2018	5:29 PM	1801 Old Greenwood Rd	P009-0200 to P009-0165	P009-0200	13,925	Manhole		Rainfall		None Required,	Scheduled Cleanup,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	Yes	City of Fort Smith to Arkansas River
18-0377	12/27/2018	6:12 AM	12/27/2018	8:20 PM	9716 Thistle Ct	Z004-1290 to Z004-1280		848	Service Line		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	Not Applicable
18-0378	12/27/2018	9:10 AM	12/28/2018	2:40 PM	12920 Brittany Dr	FC02-0860 to FC02-0850	FC02-0860	88,500	Manhole		Rainfall		None Required,	Scheduled Cleanup,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	Upper Little Vache Grasse Creek
18-0379	12/27/2018	8:27 AM	12/27/2018	7:30 PM	1916 S W St	P006-1130 to P006-1120		3,315	Service Line		Rainfall		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	Not Applicable
18-0380	12/27/2018	9:31 AM	12/27/2018	7:20 PM	2211 S N St	P006-0510 to P006-0500		590	Service Line		Rainfall		None Required,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	Not Applicable
18-0381	12/27/2018	7:45 AM	12/27/2018	9:59 AM	S 56 St	S004-1140 to S004-1130	S004-1140	1,350	Manhole		Rainfall		None Required,	Scheduled Cleanup,No Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	No	City of Fort Smith to Arkansas River
18-0382	12/27/2018	8:00 AM	12/27/2018	8:53 PM	9908 Wellington Way	Z007-0530 to Z007-0490	Z007-0530	7,730	Manhole		Grease		Jet Clean,	Scheduled Cleanup,No Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	Not Applicable
18-0384	12/28/2018	11:46 AM	12/28/2018	3:20 PM	0 N 53 St	S005-0410 to S005-0400	S005-0410	5,350	Manhole		Grease		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Receiving Water (Riv, Str)	No	No	Yes	No	Yes	City of Fort Smith to Arkansas River
18-0385	12/28/2018	12:30 PM	12/28/2018	2:00 PM	3415 Birnie Ave	S008-2060 to S008-2050		90	Service Line		Debris		Jet Clean,	Scheduled Cleanup,Disinfection Performed	Private PPTY (Ground)	No	No	Yes	No	Yes	Not Applicable
Total								216													

* Indicates SSO that was remediated through City crew repair work

Attachment 7
2016, 2017 and 2018 Reoccurring Sanitary Sewer Overflow
Events and Activities

2016 - 2018 Recurring Sanitary Sewer Overflows Report

SSO ID	Start		End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Action 2	SSO Impact	OEHC	OEEI	NEAH	EFK	Receiving Water
	Start Date	Time																		
CS01-0290 to CS01-0280																				
17-0028	01/25/2017	1:55 PM	01/25/2017	2:40 PM	101 Cindy Cir	CS01-0290 to CS01-0280		225	Cleanout		Grease		Power Jet	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0089	03/08/2017	11:03 AM	03/08/2017	12:10 PM	101 Cindy Cir	CS01-0290 to CS01-0280		496	Cleanout		Grease		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
17-0332	11/06/2017	11:06 AM	11/07/2017	12:14 PM	101 Cindy Cir	CS01-0290 to CS01-0280		2,367	Service Line		Grease		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0316	11/06/2018	1:26 PM	11/06/2018	2:11 PM	101 Cindy Cir	CS01-0290 to CS01-0280		45	Service Line		Roots		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
FC02-0860																				
18-0296	10/19/2018	2:50 PM	10/20/2018	10:10 AM	12920 Brittany Dr	FC02-0860 to FC02-0850	FC02-0860	58,500	Manhole		Rainfall		None Required	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0356	12/13/2018	1:30 PM	12/16/2018	10:15 AM	12920 Brittany Dr	FC02-0860 to FC02-0850	FC02-0860	206,250	Manhole		Rainfall		None Indicated	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Upper Little Vache Grasse Creek
18-0378	12/27/2018	9:10 AM	12/28/2018	2:40 PM	12920 Brittany Dr	FC02-0860 to FC02-0850	FC02-0860	88,500	Manhole		Rainfall		None Required	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Upper Little Vache Grasse Creek
FL01-2381 to FL01-2380 **																				
17-0161	05/02/2017	8:11 AM	05/02/2017	10:05 AM	3109 Willow St	FL01-2381 to FL01-2380		114	Cleanout		Roots		None Indicated	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0218	06/26/2017	8:49 AM	06/26/2017	9:50 AM	3109 Willow St	FL01-2381 to FL01-2380		100	Cleanout		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0255	08/09/2017	8:20 AM	08/09/2017	8:50 AM	3109 Willow St	FL01-2381 to FL01-2380		30	Service Line		Grease		Power Jet	Immediate Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0301	10/09/2017	1:36 PM	10/09/2017	3:59 PM	3109 Willow St	FL01-2381 to FL01-2380		144	Service Line		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0303	10/10/2017	9:50 AM	10/10/2017	10:40 AM	3109 Willow St	FL01-2381 to FL01-2380		50	Service Line		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
FL02-0640 to FL02-0630																				
16-0274	09/01/2016	8:25 AM	09/01/2016	9:20 AM	4601 Arlington Ave	FL02-0640 to FL02-0630		275	Cleanout		Grease		Power Rod	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
16-0336	11/27/2016	4:15 PM	11/28/2016	1:53 AM	4703 Arlington Ave	FL02-0640 to FL02-0630		6,380	Cleanout		Line Break		Power Rod	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
16-0337	11/27/2016	6:26 PM	11/28/2016	1:53 AM	4611 Arlington Ave	FL02-0640 to FL02-0630		4,470	Cleanout		Line Break		Power Jet	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
HP01-0050																				
16-0188	04/28/2016	5:29 PM	04/28/2016	8:20 PM	10800 Hunters Point Rd	HP01-0050 to HP01-0020	HP01-0050	1,690	Manhole		Roots		Power Jet	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0267	08/18/2017	5:53 PM	08/18/2017	8:29 PM	10800 Hunters Point Rd	HP01-0050 to HP01-0020	HP01-0050	1,570	Manhole		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
M001-0700 *																				
16-0006	01/09/2016	10:55 AM	01/09/2016	12:59 PM	9600 Apple Gate Dr	M001-0700 to M001-0680	M001-0700	625	Manhole		Grease		Power Jet	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
16-0313	11/06/2016	10:47 AM	11/06/2016	12:28 PM	9600 Apple Gate Dr	M001-0700 to M001-0680	M001-0700	600	Manhole		Roots	Grease	Power Rod	Disinfected & Deodorized	Public Land (Ground)	No	No	Yes	No	Not Applicable
17-0018	01/16/2017	2:00 PM	01/16/2017	6:00 PM	9600 Apple Gate Dr	M001-0700 to M001-0680	M001-0700	2,400	Manhole		Roots		Power Rod	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Massard Creek
M004-1035																				
16-0064	02/16/2016	11:20 AM	02/16/2016	12:10 PM	3108 S 80 St	M004-1035 to M004-1030	M004-1035	50	Manhole		Grease		Power Rod	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Massard Creek
18-0363	12/17/2018	2:17 PM	12/17/2018	2:50 PM	3108 S 80 St	M004-1035 to M004-1030	M004-1035	330	Manhole		Grease		Jet Clean	Scheduled Cleanup	Public Land (Ground)	No	No	Yes	No	Not Applicable

2016 - 2018 Recurring Sanitary Sewer Overflows Report

SSO ID	Start		End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Action 2	SSO Impact	OEHC	OEEI	NEAH	EFK	Receiving Water
	Start Date	Time																		
M004-1060																				
16-0220	06/14/2016	10:24 AM	06/14/2016	10:50 AM	8204 Adam Dr	M004-1060 to M004-1050	M004-1060	260	Manhole		Roots		Power Rod	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Massard Creek
17-0250	08/04/2017	7:18 PM	08/04/2017	8:15 PM	8204 Adam Dr	M004-1060 to M004-1050	M004-1060	1,140	Manhole		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
M007-1670 to M007-1660																				
17-0071	02/26/2017	1:43 PM	02/26/2017	3:29 PM	3204 S 58 St	M007-1670 to M007-1660		174	Cleanout		Grease		Power Jet	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0375	12/27/2018	1:23 AM	12/27/2018	3:20 AM	3204 S 58 St	M007-1670 to M007-1660		117	Service Line		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
MC02-0910																				
17-0079	03/05/2017	1:20 PM	03/05/2017	3:00 PM	1811 S 16 St	MC02-0910 to MC02-0905	MC02-0910	2,000	Manhole		Grease		Power Jet	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0300	10/09/2017	9:14 AM	10/09/2017	3:30 PM	1815 S 16 St	MC02-0910 to MC02-0905	MC02-0910	11,250	Manhole		Grease	Debris	Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0243	08/28/2018	1:25 PM	08/28/2018	3:25 PM	1815 S 16 St	MC02-0910 to MC02-0905	MC02-0910	6,000	Manhole		Grease		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
MC05-2170 **																				
17-0148	04/24/2017	9:00 AM	04/24/2017	10:40 AM	2405 Gary St	MC05-2170 to MC05-4960	MC05-2170	500	Manhole		Roots		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0150	04/26/2017	8:39 AM	04/26/2017	9:30 PM	2405 Gary St	MC05-2170 to MC05-4960	MC05-2170	173,475	Manhole		Debris		Power Rod	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
MC05-2240 *																				
18-0117	04/23/2018	7:34 PM	04/23/2018	10:10 PM	2408 Houston St	MC05-2240 to MC05-2210	MC05-2240	780	Manhole		Roots		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0119	04/24/2018	12:10 PM	04/24/2018	3:10 PM	2408 Houston St	MC05-2240 to MC05-2210	MC05-2240	900	Manhole		Roots		Power Rod	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
MC05-2580																				
16-0248	07/26/2016	6:30 PM	07/26/2016	8:10 PM	2700 Houston St	MC05-2580 to MC05-2570	MC05-2580	200	Manhole		Grease		Power Jet	Disinfected & Deodorized	Public Land (Ground)	No	No	Yes	No	Not Applicable
16-0267	08/22/2016	4:15 PM	08/22/2016	8:10 PM	2700 Houston St	MC05-2580 to MC05-2570	MC05-2580	2,350	Manhole		Line Break		Power Rod	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
MC05-3120 to MC05-3110																				
16-0098	03/05/2016	7:50 AM	03/05/2016	9:45 AM	3701 S 32 Cir	MC05-3120 to MC05-3110		575	Cleanout		Debris		Power Jet	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0237	07/18/2017	4:19 PM	07/18/2017	6:40 PM	3701 S 32 St	MC05-3120 to MC05-3110		423	Service Line		Debris		Power Jet	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
MC05-3180 to MC05-3160 **																				
17-0082	03/07/2017	8:55 AM	03/07/2017	9:55 AM	3132 Ionia St	MC05-3180 to MC05-3160		180	Cleanout		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0086	03/08/2017	8:13 AM	03/08/2017	8:45 AM	3132 Ionia St	MC05-3180 to MC05-3160		160	Cleanout		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
MC05-3340																				
16-0069	02/18/2016	9:36 AM	02/18/2016	9:50 AM	2600 Dallas Cir	MC05-3340 to MC05-3330	MC05-3340	28	Manhole		Grease		Power Rod	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
17-0220	06/27/2017	7:53 AM	06/27/2017	9:38 AM	2600 Dallas Cir	MC05-3340 to MC05-3330	MC05-3340	105	Manhole		Grease		Power Rod	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable

2016 - 2018 Recurring Sanitary Sewer Overflows Report

SSO ID	Start		End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Action 2	SSO Impact	OEHC	OEEI	NEAH	EFK	Receiving Water
	Start Date	Time																		
MC06-2100																				
16-0028	01/21/2016	7:40 PM	01/21/2016	8:41 PM	4112 S 16 St	MC06-2100 to MC06-2090	MC06-2100	300	Manhole		Grease		Power Jet	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
16-0262	08/16/2016	8:43 PM	08/16/2016	9:59 PM	4112 S 16 St	MC06-2100 to MC06-2090	MC06-2100	78	Manhole		Grease		Power Jet	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
17-0046	02/07/2017	12:30 PM	02/07/2017	1:44 PM	4112 S 16 St	MC06-2100 to MC06-2090	MC06-2100	375	Manhole		Grease		Power Jet	Scheduled Cleanup	Public Land (Ground)	No	No	Yes	No	Not Applicable
MC07-0200 to MC07-0190																				
16-0100	03/05/2016	9:30 PM	03/05/2016	10:44 PM	4400 S 21 St	MC07-0200 to MC07-0190		375	Cleanout		Grease		Power Jet	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0126	04/07/2017	8:46 AM	04/07/2017	10:40 AM	4400 S 21 St	MC07-0200 to MC07-0190		570	Cleanout		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
MC07-0890 to MC07-0870 **																				
17-0034	01/31/2017	8:02 AM	01/31/2017	9:05 AM	4616 S 27 St	MC07-0890 to MC07-0870		315	Cleanout		Roots		Power Jet	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0072	02/27/2017	11:31 AM	02/27/2017	1:25 PM	4616 S 27 St	MC07-0890 to MC07-0870		570	Cleanout		Roots		Power Jet	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0109	03/23/2017	8:19 AM	03/23/2017	9:50 AM	4616 S 27 St	MC07-0890 to MC07-0870		91	Cleanout		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
MC07-1520 to MC07-1500 *																				
18-0285	10/12/2018	12:42 PM	10/12/2018	3:59 PM	3900 S 33 St	MC07-1520 to MC07-1500		198	Service Line		Roots	Line Break	Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0332	11/21/2018	10:07 AM	11/21/2018	10:17 AM	3900 S 33 St	MC07-1520 to MC07-1500		10	Service Line		Debris		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
MC07-1590 **																				
16-0249	07/26/2016	2:43 PM	07/26/2016	6:20 PM	3100 Jackson St	MC07-1590 to MC07-1580	MC07-1590	5,000	Manhole		Roots	Grease	Power Rod	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
17-0083	03/07/2017	8:53 AM	03/07/2017	11:45 AM	3018 Jackson St	MC07-1590 to MC07-1580	MC07-1590	860	Manhole		Roots		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0239	07/22/2017	5:04 PM	07/22/2017	10:30 PM	3115 Cliff Dr	MC07-1590 to MC07-1580	MC07-1590	3,260	Manhole		Roots		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0242	07/25/2017	7:30 AM	07/25/2017	10:30 AM	3100 Jackson St	MC07-1590 to MC07-1580	MC07-1590	900	Manhole		Debris		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
P006-1315																				
16-0204	05/15/2016	6:45 PM	05/15/2016	8:29 PM	2520 S 22 St	P006-1315 to P006-1310	P006-1315	525	Manhole		Grease		Power Jet	Disinfected & Deodorized	Public Land (Ground)	No	No	Yes	No	Not Applicable
17-0100	03/16/2017	4:28 PM	03/16/2017	6:40 PM	2520 S 22 St	P006-1315 to P006-1310	P006-1315	264	Manhole		Debris		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
P007-1090 to P007-1080																				
17-0196	05/27/2017	1:09 AM	05/27/2017	2:15 AM	4100 Miller Ln	P007-1090 to P007-1080		132	Service Line		Grease		Jet Clean	No Cleanup Performed	Basement Backup	No	No	Yes	No	Not Applicable
18-0060	02/23/2018	9:58 PM	02/23/2018	11:15 PM	4100 Miller Ln	P007-1090 to P007-1080		385	Service Line		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
P008-0450 to P008-0440																				
16-0099	03/05/2016	5:50 PM	03/05/2016	6:30 PM	1208 N Greenwood Ave	P008-0450 to P008-0440		200	Building		Roots		Power Jet	No Cleanup Performed	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
16-0102	03/06/2016	11:48 AM	03/06/2016	12:47 PM	1208 N Greenwood Ave	P008-0450 to P008-0440		300	Building		Debris		Power Jet	No Cleanup Performed	Private PPTY (Ground)	No	No	Yes	No	Not Applicable

2016 - 2018 Recurring Sanitary Sewer Overflows Report

SSO ID	Start		End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Action 2	SSO Impact	OEHC	OEEI	NEAH	EFK	Receiving Water
	Start Date	Time																		
P008-0770 to P008-0760																				
18-0140	05/09/2018	2:19 PM	05/09/2018	2:45 PM	3015 Alabama Ave	P008-0770 to p008-0760		52	Service Line		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0165	07/03/2018	8:34 AM	07/03/2018	12:45 PM	3015 Alabama Ave	P008-0770 to p008-0760		247,605	Service Line		Line Break		Repair	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
P008-2370 to P008-2366																				
18-0314	11/05/2018	2:45 PM	11/05/2018	6:10 PM	2814 Reeder St	P008-2370 to P008-2366		205	Service Line		Roots		Jet Clean	No Cleanup Performed	Basement Backup	No	No	Yes	No	Not Applicable
18-0315	11/06/2018	8:20 AM	11/06/2018	8:31 AM	2814 Reeder St	P008-2370 to P008-2366		11	Service Line		Debris		Jet Clean	No Cleanup Performed	Basement Backup	No	No	Yes	No	Not Applicable
P009-2290																				
16-0073	02/19/2016	8:00 AM	02/19/2016	8:45 AM	3409 Houston St	P009-2290 to P009-2280	P009-2290	225	Manhole		Grease		Power Jet	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
16-0264	08/17/2016	5:31 PM	08/17/2016	7:03 PM	3409 Houston St	P009-2290 to P009-2280	P009-2290	93	Manhole		Grease		Power Jet	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
P009-2610 to P009-2580																				
18-0233	08/16/2018	12:13 PM	08/16/2018	2:05 PM	3916 Fresno St	P009-2610 to P009-2580		560	Service Line		Roots		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0357	12/15/2018	9:51 AM	12/15/2018	11:00 AM	3916 Fresno St	P009-2610 to P009-2580		345	Service Line		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
P009-2901 to P009-2900																				
16-0183	04/25/2016	1:20 PM	04/26/2016	11:00 AM	1718 S 29 St	P009-2901 to P009-2900		6,500	Main Line		Line Break		Power Jet	Disinfected & Deodorized	Public Land (Ground)	No	No	Yes	No	Not Applicable
16-0198	05/06/2016	2:07 PM	05/06/2016	6:21 PM	1718 S 29 St	P009-2901 to P009-2900		1,535	Main Line		Roots	Line Break	Power Jet	Disinfected & Deodorized	Public Land (Ground)	No	No	Yes	No	Not Applicable
RL01-0670																				
16-0111	03/08/2016	6:50 PM	03/09/2016	6:22 PM	1601 S 74 St	RL01-0680 to RL01-0670	RL01-0670	35,225	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
16-0122	03/10/2016	1:44 PM	03/11/2016	9:30 AM	1601 S 74 St	RL01-0680 to RL01-0670	RL01-0670	118,500	Manhole		Rainfall		None Indicated	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
16-0179	04/21/2016	2:00 PM	04/21/2016	2:10 PM	1601 S 74 St	RL01-0680 to RL01-0670	RL01-0670	10	Manhole		Contractor		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
RL01-1570																				
17-0234	07/10/2017	10:15 AM	07/10/2017	11:29 AM	7301 S U St	RL01-1570 to RL01-1560	RL01-1570	1,500	Manhole		Grease		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
17-0236	07/17/2017	9:24 AM	07/17/2017	10:21 AM	7301 S U St	RL01-1570 to RL01-1560	RL01-1570	57	Manhole		Line Break		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
RL01-1700																				
17-0022	01/21/2017	1:27 PM	01/21/2017	4:25 PM	7500 Dover Pl	RL01-1700 to RL01-1670	RL01-1700	2,200	Manhole		Roots	Grease	Power Rod	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
17-0137	04/19/2017	3:16 PM	04/19/2017	5:29 PM	7500 Dover Pl	RL01-1700 to RL01-1670	RL01-1700	1,340	Manhole		Roots		Power Rod	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
S002-0860																				
16-0177	04/18/2016	1:14 PM	04/18/2016	1:50 PM	6003 Chippewa Trl	S002-0860 to S002-0850	S002-0860	184	Manhole		Roots		Power Rod	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
18-0103	03/30/2018	4:23 PM	03/30/2018	6:55 PM	6003 Chippewa Trl	S002-0860 to S002-0850	S002-0860	1,520	Manhole		Roots		Jet Clean	Scheduled Cleanup	Public Land (Ground)	No	No	Yes	No	Not Applicable

2016 - 2018 Recurring Sanitary Sewer Overflows Report

SSO ID	Start		End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Action 2	SSO Impact	OEHC	OEEI	NEAH	EFK	Receiving Water
	Start Date	Time																		
S002-0890 to S002-0880																				
17-0370	12/21/2017	2:17 PM	12/21/2017	4:05 PM	5902 Chippewa Trl	S002-0890 to S002-0880		107	Service Line		Roots		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0077	03/05/2018	4:54 PM	03/05/2018	6:14 PM	5902 Chippewa Trl	S002-0890 to S002-0880		81	Service Line		Debris		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
S003-0795																				
17-0141	04/22/2017	4:19 PM	04/22/2017	5:50 PM	1200 S Waldron Rd	S003-0795 to S003-0790	S003-0795	900	Manhole		Debris		Power Rod	Immediate Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0304	10/26/2018	7:39 PM	10/26/2018	9:14 PM	1299 S Waldron Rd	S003-0795 to S003-0790	S003-0795	480	Manhole		Grease		Jet Clean	Scheduled Cleanup	Public Land (Ground)	No	No	Yes	No	Not Applicable
S003-3690																				
16-0269	08/24/2016	2:29 PM	08/24/2016	3:45 PM	1104 Autumn Oaks Ln	S003-3690 to S003-0965	S003-3690	350	Manhole		Roots	Grease	Power Rod	Disinfected & Deodorized	Public Land (Ground)	No	No	Yes	No	Not Applicable
18-0136	05/04/2018	9:06 AM	05/04/2018	3:20 PM	1200 Autumn Oaks Ln	S003-3690 to S003-0965	S003-3690	374	Manhole		Debris		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
S005-1060 to S005-1050																				
16-0285	09/27/2016	6:05 PM	09/27/2016	7:10 PM	2123 N 57 Ln	S005-1060 to S005-1050		65	Cleanout		Grease		Power Jet	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0365	12/19/2018	5:16 PM	12/19/2018	7:10 PM	2123 N 57 Ln	S005-1060 to S005-1050		114	Service Line		Debris		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
S007-0590																				
16-0040	01/30/2016	8:30 AM	01/30/2016	10:21 AM	1931 Churchill Rd	S007-0590 to S007-0570	S007-0590	555	Manhole		Roots	Grease	Power Rod	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
16-0060	02/15/2016	11:29 AM	02/15/2016	12:32 PM	1931 Churchill Rd	S007-0590 to S007-0570	S007-0590	620	Manhole		Grease	Roots	Power Rod	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	No	Yes	City of Fort Smith to Arkansas River
S008-2040 to S008-2030																				
16-0293	10/14/2016	12:35 PM	10/14/2016	12:40 PM	3210 Wirsing Ave	S008-2040 to S008-2030		25	Cleanout		Roots		Power Rod	Disinfected & Deodorized	Public Land (Ground)	No	No	Yes	No	Not Applicable
16-0316	11/09/2016	11:50 AM	11/10/2016	9:59 AM	3210 Wirsing Ave	S008-2040 to S008-2030		6,650	Cleanout		Line Break		Power Jet	Disinfected & Deodorized	Public Land (Ground)	No	No	Yes	No	Not Applicable
S008-2060 to S008-2050																				
18-0085	03/14/2018	9:57 AM	03/14/2018	10:27 AM	3415 Birnie Ave	S008-2060 to S008-2050		150	Service Line		Grease		Power Rod	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0385	12/28/2018	12:30 PM	12/28/2018	2:00 PM	3415 Birnie Ave	S008-2060 to S008-2050		90	Service Line		Debris		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
W001-0380 to W001-0375 **																				
17-0184	05/20/2017	10:15 AM	05/20/2017	10:25 AM	1905 Rocky Ct	W001-0380 to W001-0375		1	Service Line		Roots		Jet Clean	No Cleanup Performed	Basement Backup	No	No	Yes	No	Not Applicable
17-0229	07/08/2017	5:15 AM	07/08/2017	8:00 AM	1905 Rocky Ct	W001-0380 to W001-0375		825	Service Line		Roots	Rainfall	Jet Clean	No Cleanup Performed	Basement Backup	Yes	No	Yes	No	Not Applicable
Z001-0460																				
16-0119	03/10/2016	12:10 PM	03/11/2016	11:45 PM	5800 Boys Club Ln	Z001-0460 to Z001-0770	Z001-0460	353,750	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0220	08/15/2018	10:43 AM	08/16/2018	9:14 AM	5800 Boys Club Ln	Z001-0460 to Z001-0770	Z001-0460	135,200	Manhole		Rainfall			No Cleanup Performed	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0358	12/15/2018	10:59 AM	12/16/2018	9:59 AM	6015 Boys Club Ln	Z001-0460 to Z001-0770	Z001-0460	137,900	Manhole		Rainfall	Other	None Required	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River

2016 - 2018 Recurring Sanitary Sewer Overflows Report

SSO ID	Start		End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Action 2	SSO Impact	OEHC	OEEI	NEAH	EFK	Receiving Water
	Start Date	Time																		
Z001-0754																				
16-0121	03/10/2016	12:10 PM	03/11/2016	11:45 AM	5800 Boys Club Ln	Z001-0754 to Z001-0752	Z001-0754	389,125	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0228	08/16/2018	7:30 AM	08/16/2018	9:14 AM	5800 Boys Club Ln	Z001-0754 to Z001-0752	Z001-0754	5,250	Manhole		Rainfall			No Cleanup Performed	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
Z001-0758																				
18-0065	02/24/2018	6:59 PM	02/25/2018	8:00 AM	Zero St	Z001-0758 to Z001-0756	Z001-0758	39,000	Manhole		Rainfall			Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0360	12/15/2018	10:59 AM	12/16/2018	9:59 AM	6015 Boys Club Ln	Z001-0758 to Z001-0756	Z001-0758	68,950	Manhole		Rainfall	Other	None Required	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
Z001-0760																				
16-0120	03/10/2016	12:10 PM	03/11/2016	9:00 AM	5800 Boys Club Ln	Z001-0760 to Z001-0758	Z001-0760	187,500	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0061	02/24/2018	12:19 PM	02/25/2018	11:19 PM	Zero St	Z001-0760 to Z001-0758	Z001-0760	210,000	Manhole		Rainfall			Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
Z001-0770																				
16-0118	03/10/2016	12:10 PM	03/11/2016	11:45 AM	5800 Boys Club Ln	Z001-0770 to Z001-0760	Z001-0770	389,125	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0159	06/24/2018	7:10 PM	06/25/2018	7:35 AM	2100 Boys Club Ln	Z001-0770 to Z001-0760	Z001-0770	44,700	Manhole		Rainfall			No Cleanup Performed	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0219	08/15/2018	10:46 AM	08/16/2018	9:14 AM	5800 Boys Club Ln	Z001-0770 to Z001-0760	Z001-0770	134,900	Manhole		Rainfall			No Cleanup Performed	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0359	12/15/2018	10:59 AM	12/16/2018	9:59 AM	6015 Boys Club Ln	Z001-0770 to Z001-0760	Z001-0770	68,950	Manhole		Rainfall	Other	None Required	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
Z002-0190																				
17-0094	03/13/2017	4:36 PM	03/13/2017	6:05 PM	7407 Holly Ave	Z002-0190 to Z002-0180	Z002-0190	890	Manhole		Roots		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0130	04/11/2017	11:58 AM	04/11/2017	1:55 PM	7404 Holly Ave	Z002-0190 to Z002-0180	Z002-0190	1,170	Manhole		Roots		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
Z003-0790 to Z003-0760																				
17-0045	02/06/2017	8:14 PM	02/06/2017	9:14 PM	3400 Iola Ave	Z003-0790 to Z003-0760		305	Cleanout		Grease		Power Jet	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0075	03/02/2017	11:29 AM	03/02/2017	12:14 PM	3400 Iola Ave	Z003-0790 to Z003-0760		230	Cleanout		Grease		Power Jet	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
Z003-1400 to Z003-1390																				
16-0046	02/02/2016	9:14 AM	02/02/2016	10:44 AM	2825 Kendall Ave	Z003-1400 to Z003-1390		270	Building		Roots	Grease	Power Rod	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
16-0168	04/14/2016	12:30 PM	04/14/2016	12:50 PM	2825 Kendall Ave	Z003-1400 to Z003-1390		40	Building		Roots		Power Rod	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
Z004-0590 to Z004-0580																				
17-0277	08/31/2017	1:08 PM	08/31/2017	2:35 PM	3608 Brooken Hill Dr	Z004-0590 to Z004-0580		435	Service Line		Debris		Jet Clean	Immediate Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0013	01/08/2018	3:30 PM	01/08/2018	4:30 PM	3608 Brooken Hill Dr	Z004-0590 to Z004-0580		600	Service Line		Grease		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
Z004-1280 to Z004-1010 *																				
17-0185	05/20/2017	9:57 AM	05/20/2017	11:29 AM	3108 Fincastle Dr	Z004-1280 to Z004-1010		465	Cleanout		Roots		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0068	02/27/2018	3:23 PM	02/27/2018	3:55 PM	3108 Fincastle Dr	Z004-1280 to Z004-1010		64	Service Line		Roots	Grease	Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River

2016 - 2018 Recurring Sanitary Sewer Overflows Report

SSO ID	Start		End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Action 2	SSO Impact	OEHC	OEEI	NEAH	EFK	Receiving Water
	Start Date	Time																		
Z004-1290 to Z004-1280																				
17-0031	01/26/2017	3:51 PM	01/26/2017	5:10 PM	9716 Thistle Ct	Z004-1290 to Z004-1280	Z004-1300	1,185	Manhole	Cleanout	Roots		Jet Clean	Scheduled Cleanup	Public Land (Ground)	No	No	Yes	No	Not Applicable
18-0377	12/27/2018	6:12 AM	12/27/2018	8:20 PM	9716 Thistle Ct	Z004-1290 to Z004-1280		848	Service Line		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
Z004-1500 *																				
18-0143	05/14/2018	3:51 PM	05/14/2018	4:40 PM	2925 Marion Ct	Z004-1500 to Z004-1490	Z004-1500	245	Manhole		Roots	Grease	Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0148	05/24/2018	3:50 PM	05/24/2018	4:30 PM	2925 Marion Ct	Z004-1500 to Z004-1490	Z004-1500	200	Manhole		Roots	Grease	Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
Z005-0400 to Z005-0370 *																				
18-0168	07/07/2018	3:55 PM	07/07/2018	8:27 PM	2624 Glen Flora Way	Z005-0400 to Z005-0370		272	Main Line		Line Break		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0186	08/06/2018	3:27 PM	08/06/2018	5:40 PM	2624 Glen Flora Way	Z005-0400 to Z005-0370		133	Main Line		Roots		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0190	08/07/2018	9:25 AM	08/07/2018	12:30 PM	2624 Glen Flora Way	Z005-0400 to Z005-0370		925	Main Line		Line Break		Jet Clean	No Cleanup Performed	Public Land (Ground)	No	No	Yes	No	Not Applicable
Z005-1070																				
18-0320	11/12/2018	7:05 PM	11/12/2018	9:55 PM	9424 Belhaven View	Z005-1070 to Z005-1050	Z005-1070	1,700	Manhole		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0370	12/26/2018	12:39 PM	12/26/2018	1:15 PM	9424 Belhaven View	Z005-1070 to Z005-1050	Z005-1070	360	Manhole		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
Z006-0930 *																				
16-0297	10/19/2016	8:29 AM	10/19/2016	10:20 AM	100 Georgetown Ln	Z006-0930 to Z006-0920	Z006-0930	505	Manhole		Grease		Power Jet	Disinfected & Deodorized	Public Land (Ground)	No	No	Yes	No	Not Applicable
18-0313	11/05/2018	7:48 AM	11/05/2018	12:20 PM	100 Georgetown Ln	Z006-0930 to Z006-0920	Z006-0930	5,440	Manhole		Line Break		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
Z006-1210 to Z006-1200																				
16-0004	01/04/2016	12:41 PM	01/04/2016	4:30 PM	8311 Hermitage Dr	Z006-1210 to Z006-1200		687	Cleanout		Roots	Grease	Power Rod	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
17-0200	05/30/2017	4:54 PM	05/30/2017	9:14 PM	8311 Hermitage Dr	Z006-1210 to Z006-1200		261	Cleanout		Grease		None Indicated	Immediate Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
Z007-0200																				
16-0218	06/07/2016	2:20 PM	06/07/2016	3:14 PM	2100 Brooken Hill Dr	Z007-0200 to Z007-0190	Z007-0200	1,100	Manhole		Grease		Power Rod	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
17-0335	11/09/2017	2:16 PM	11/09/2017	2:29 PM	2100 Brooken Hill Dr	Z007-0200 to Z007-0190	Z007-0200	140	Manhole		Grease		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
Z007-0530																				
17-0199	05/30/2017	4:35 PM	05/30/2017	6:16 PM	9908 Wellington Way	Z007-0530 to Z007-0490	Z007-0530	3,535	Manhole		Grease	Roots	Power Rod	Immediate Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0382	12/27/2018	8:00 AM	12/27/2018	8:53 PM	9908 Wellington Way	Z007-0530 to Z007-0490	Z007-0530	7,730	Manhole		Grease		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
CS01-1540																				
17-0360	12/14/2017	8:50 AM	12/14/2017	10:44 AM	7101 Hwy 271	CS01-1550 to CS01-1540	CS01-1540	1,380	Manhole		Grease		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
18-0267	09/28/2018	2:58 PM	09/28/2018	4:59 PM	7101 Hwy 271	CS01-1540 to CS01-1530	CS01-1540	605	Manhole		Grease		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River

2016 - 2018 Recurring Sanitary Sewer Overflows Report

SSO ID	Start		End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Action 2	SSO Impact	OEHC	OEEI	NEAH	EFK	Receiving Water
	Start Date	Time																		
M002-0230																				
16-0000	01/02/2016	1:10 PM	01/02/2016	1:10 PM	8900 Meandering Way	M002-0310 to M002-0230	M002-0230	1	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Massard Creek
16-0048	02/02/2016	2:25 PM	02/02/2016	3:10 PM	4313 S 89 St	M002-0240 to M002-0230	M002-0230	225	Manhole		Roots	Grease	Power Jet	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Massard Creek
18-0207	08/15/2018	2:15 PM	08/15/2018	7:05 PM	8900 Meandering Way	M002-0230 to M002-0220	M002-0230	58,000	Manhole		Rainfall			No Cleanup Performed	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
MC06-0480																				
16-0237	07/04/2016	4:30 PM	07/04/2016	5:40 PM	4224 S 17 St	MC06-0480 to MC06-0420	MC06-0480	350	Manhole		Grease		Power Jet	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
16-0254	08/11/2016	5:59 PM	08/11/2016	9:00 PM	4224 S 17 St	MC06-0490 to MC06-0480	MC06-0480	4,525	Manhole		Grease	Debris	Power Jet	Disinfected & Deodorized	Public Land (Ground)	No	No	Yes	No	Not Applicable
P005-3030																				
16-0112	03/08/2016	7:09 PM	03/09/2016	8:55 AM	3200 N M St	P005-3030 to P005-3020	P005-3030	41,300	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
16-0116	03/10/2016	10:18 AM	03/11/2016	8:14 AM	3200 N M St	P005-3030 to P005-3020	P005-3030	32,975	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
16-0175	04/18/2016	9:59 AM	04/18/2016	3:30 PM	3200 N M St	P005-3030 to P005-3020	P005-3030	1,955	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
16-0235	07/04/2016	7:00 AM	07/04/2016	9:14 AM	3200 N M St		P005-3030	1,350	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
18-0160	06/24/2018	7:30 PM	06/25/2018	8:00 AM	3200 N M St	P005-3030 to P005-3020	P005-3030	112,500	Manhole		Rainfall			Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
18-0217	08/15/2018	9:30 AM	08/15/2018	10:40 PM	1415 N 32 St	P005-3030 to P005-3020	P005-3030	79,000	Manhole		Rainfall			No Cleanup Performed	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
P007-0050																				
18-0223	08/15/2018	12:13 PM	08/15/2018	2:40 PM	N 34 St	P007-0060 to P007-0050	P007-0050	14,700	Manhole		Rainfall			No Cleanup Performed	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
18-0224	08/15/2018	12:13 PM	08/15/2018	2:40 PM	N 34 St	P007-0050 to P007-0013	P007-0050	29,400	Manhole		Rainfall			No Cleanup Performed	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
P007-2030 *																				
18-0007	01/05/2018	10:48 AM	01/05/2018	1:40 PM	4215 Park Ave	P007-2030 to P007-2020	P007-2030	2,580	Manhole		Roots		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
18-0044	02/09/2018	1:11 PM	02/09/2018	3:25 PM	4221 Park Ave	P007-2030 to P007-2020	P007-2030	13,400	Manhole		Roots		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
S003-3690																				
16-0269	08/24/2016	2:29 PM	08/24/2016	3:45 PM	1104 Autumn Oaks Ln	S003-3690 to S003-0965	S003-3690	350	Manhole		Roots	Grease	Power Rod	Disinfected & Deodorized	Public Land (Ground)	No	No	Yes	No	Not Applicable
18-0136	05/04/2018	9:06 AM	05/04/2018	3:20 PM	1200 Autumn Oaks Ln	S003-3690 to S003-0965	S003-3690	374	Manhole		Debris		Jet Clean	Scheduled Cleanup	Private PPTY (Ground)	No	No	Yes	No	Not Applicable

2016 - 2018 Recurring Sanitary Sewer Overflows Report

SSO ID	Start		End Date	End Time	Address	Pipe Description	Structure ID	Gallons Spilled	Source 1	Source 2	Cause 1	Cause 2	Initial Action	Initial Action 2	SSO Impact	OEHC	OEEI	NEAH	EFK	Receiving Water
	Start Date	Time																		
S004-1140																				
16-0106	03/08/2016	3:10 PM	03/08/2016	7:10 PM	S 56 St	S004-1140 to S004-1130	S004-1140	3,600	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
16-0190	04/30/2016	12:46 AM	04/30/2016	6:46 AM	S 56 St		S004-1140	40,700	Manhole		Rainfall		None Required	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
18-0056	02/21/2018	5:46 AM	02/21/2018	8:37 AM	5600 Rogers Ave	S004-1140 to S004-1130	S004-1140	4,275	Manhole		Rainfall			Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
18-0210	08/15/2018	9:50 AM	08/15/2018	9:50 PM	S 56 St	S004-1140 to S004-1130	S004-1140	36,000	Manhole		Rainfall			No Cleanup Performed	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
18-0381	12/27/2018	7:45 AM	12/27/2018	9:59 AM	S 56 St	S004-1140 to S004-1130	S004-1140	1,350	Manhole		Rainfall		None Required	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	City of Fort Smith to Arkansas River
Z002-0290																				
16-0229	06/23/2016	12:47 PM	06/23/2016	1:25 PM	7500 Cypress Ave	Z002-0290 to Z002-0280	Z002-0290	740	Manhole		Roots		Power Rod	Disinfected & Deodorized	Private PPTY (Ground)	No	No	Yes	No	Not Applicable
17-0024	01/23/2017	3:59 PM	01/23/2017	8:32 PM	7412 Cypress Ave	Z002-0280 to Z002-0270	Z002-0290	1,365	Manhole	Cleanout	Grease		Jet Clean	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
Z004-1300 **																				
17-0030	01/26/2017	12:29 PM	01/26/2017	2:29 PM	9724 Thistle Ct	Z004-1300 to Z004-1290	Z004-1300	2,975	Manhole	Building	Roots		Power Jet	Scheduled Cleanup	Public Land (Ground)	No	No	Yes	No	Not Applicable
17-0031	01/26/2017	3:51 PM	01/26/2017	5:10 PM	9716 Thistle Ct	Z004-1290 to Z004-1280	Z004-1300	1,185	Manhole	Cleanout	Roots		Jet Clean	Scheduled Cleanup	Public Land (Ground)	No	No	Yes	No	Not Applicable
Z005-0760																				
16-0192	05/02/2016	3:00 PM	05/02/2016	5:40 PM	9300 Jenny Lind Rd	Z005-0500 to Z005-0490	Z005-0760	1,600	Manhole		Debris		Power Jet	Disinfected & Deodorized	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River
17-0058	02/15/2017	7:30 AM	02/15/2017	9:19 AM	9300 Jenny Lind Rd	Z005-0760 to Z005-0500	Z005-0760	2,725	Manhole		Roots		Power Rod	Scheduled Cleanup	Receiving Water (Riv, Str)	No	No	Yes	No	Mill Creek to Poteau River

* Indicates SSO that was remediated through City crew repair work in 2018

** Indicates SSO that was remediated through City crew repair work in 2017

Sewer Replacements/Repairs Performed In-House 2018

Work Order	SSO #1	SSO #2	Type	Line Segment
15-005218	15-0218		Spot Repair	MC07-0230_MC07-0220
15-006686	15-0305		Spot Reair	PO11-2690_PO11-2680
16-000787	16-0035		Spot repair	S002-0890_S002-0880
16-002799	16-0128		Service Repair	PO11-2680_PO11-2670
16-006030	16-0213		Service Repair	S002-1480_S002-1470
16-010417			MH-MH	P007-2570_P007-2560
17-001426	18-0088		MH-MH	Z004-1310_Z004-1300
17-001588	16-0250	18-0147	MH-MH	P009-2230_P009-2220
17-005203	17-0185	18-0068	Spot Repair	Z004-1280_Z004-1010
17-009481			MH-MH	CS01-0820_CS01-0810
17-009481	17-0285		MH-MH	CS01-0820_CS01-0810
17-010974	17-0310		Spot repair	S008-1370_S008-1350
17-011343			MH-MH	FL02-0613_FL02-0610
17-011454	17-0324		Spot repair	S005-1190_S005-0260
17-011979			MH-MH	Z005-0720_Z005-0710
17-012352			MH-MH	P007-2560_P007-2550
17-012472	17-0350	17-0350	Spot repair	P009-1830_P009-1820
17-012619			MH-MH	S002-1720_S002-1700
17-012830			MH-MH	P008-1465_P008-1460
17-012977			MH-MH	P005-3100_P005-3090
18-000177	18-0007		Spot repair	P007-2030_P007-2020
18-000826	18-0033		Spot Repair	S002-1660_S002-1650
18-000867			MH-MH	S002-1700_S002-1690
18-000951	18-0034		Service Repair	Z003-0940_Z003-0930
18-001037	18-0036		Service Repair	MC08-0480_MC08-0470
18-003670	18-0097		Service Repair	MC08-2000_MC08-0340
18-003826	18-0101		MH-MH	MC03-0110_MC03-0090
18-004078	18-0099		Spot Repair	S009-1010_S009-1000
18-004187	18-0099	18-0100	Service Repair	S009-1010_S009-1000
18-006105	18-0117	18-0119	Spot Repair	MC05-2240_MC05-2210
18-007298	18-0142		Spot Repair	MC06-0590_MC06-0580
18-008633	18-0115	18-0131	Service Repair	MC02-0846_MC02-0843
18-011168	18-0185		MH-MH	SK01-1280_SK01-2090
18-011360	18-0168	18-0186, 18-0190	Spot Repair	Z005-0400_Z005-0370
18-012149	16-0313	17-0018	MH-MH	M001-0700_M001-0680
18-013666	18-0195		Service Repair	FL01-0830_FL01-0820
18-013823	18-0201		Spot Repair	MC06-0770_MC06-0760
18-015073	18-0246		Spot Repair	P009-0260_P009-0250
18-015302	18-0248		Service Repair	P010-0560_P010-0520
18-015462	18-0250		Spot Repair	CC01-0001_M004-0490
18-015497	18-0257		Spot Repair	CS01-0210_CS01-0200
18-016270	18-0285		Service Repair	MC07-1520_MC07-1500
18-016360	18-0273		Spot Repair	MC01-0080_MC01-0070
18-016473	18-0278		Spot Repair	P009-2420_P009-2410
18-016516	18-0280		MH-MH	PL01-0050_PL01-0040
18-016668	18-0284		Service Repair	MC02-0260_MC02-0250
18-016989	18-0301		Spot Repair	P007-1504_P007-1500
18-017115			MH-MH	PL01-0080_SP01-0010
18-017349	18-0311	18-0312	Spot Repair	S006-0610_S006-0600
18-017430	18-0313		Spot Repair	Z006-0930_Z006-0920

Sewer Replacements/Repairs Performed In-House 2018

Work Order	SSO #1	SSO #2	Type	Line Segment
18-017723	18-0321		Spot Repair	P005-0860_P005-0850
18-017923	18-0327		Service Repair	Z001-2960_Z001-2920
18-018123	18-0285	18-0332	Re-route sevice	MC07-1520_MC07-1500
18-018367	18-0341		Spot repair	S002-2020_S002-2010
18-018974	18-0143	18-0148	Spot Repair	Z004-1500_Z004-1490

Attachment 8
2016, 2017, and 2018 Reoccurring PSLR Events

2016 - 2018 Reoccurring Private Service Line Release Events Report

By Address

SSO ID	Start Date	Start	End Date	End	Address	Pipe Description	Structure ID	Gallons	Sou	Cause 1	Initial Action
1001 S 19 St											
18-0019	01/12/2018	9:50 AM			1001 S 19 St	P006-0210 to P006-0200			Service Line		Power Rod
18-0130	05/01/2018	7:38 PM	05/01/2018		1001 S 19 St	P006-0210 to P006-0200			Service Line		Jet Clean
1216 N D St											
16-0165	04/09/2016	5:37 PM	04/09/2016	5:37 PM	1216 N D St				Cleanout	Unknown	None Indicated
16-0273	08/29/2016	11:09 PM	08/29/2016	12:00 PM	1216 N D St	P010-0670 to P010-0660			Cleanout	Unknown	Power Rod
1457 N 36 St											
16-0328	11/19/2016	5:39 PM	11/19/2016	5:39 PM	1457 N 36 St	P007-0170 to P007-0160			Cleanout	Unknown	None Indicated
17-0015	01/13/2017	1:26 PM	01/13/2017	1:26 PM	1457 N 36 St	P007-0170 to P007-0160			Cleanout	Unknown	Power Rod
1500 Boston St											
18-0239	08/22/2018	3:32 PM			1500 Boston St	MC05-0230 to MC05-0220			Service Line		
18-0242	08/28/2018	2:19 PM			1500 Boston St	MC05-0230 to MC05-0220			Service Line		
1615 S 12 St											
17-0177	05/16/2017	3:08 PM			1615 S 12 St	MC02-0846 to MC02-0843			Cleanout		Power Rod
18-0107	04/09/2018	2:44 PM			1615 S 12 St	MC02-0846 to MC02-0843			Service Line		Power Rod
1809 Jacobs Ave											
16-0144	03/22/2016	3:24 PM	03/22/2016	3:59 PM	1809 Jacobs Ave	Z001-0700 to Z001-0680			Manhole	Unknown	Power Rod
17-0053	02/11/2017	1:04 PM	02/11/2017		1809 Jacobs Ave				Cleanout	Unknown	None Indicated
1914 S N St											
16-0247	07/25/2016	12:47 PM	07/25/2016	12:50 PM	1914 S N St	P006-0570 to P006-0560		0	Cleanout	Unknown	Power Jet
17-0197	05/29/2017	11:21 AM			1914 S N St	P006-0570 to P006-0560			Cleanout	Unknown	Jet Clean
2001 N 13 St											
18-0010	01/08/2018	10:52 AM			2001 N 13 St	P004-0210 to P004-0200			Service Line		Jet Clean
18-0309	11/01/2018	8:15 AM			2001 N 13 St	P004-0210 to P004-0200			Service Line		Jet Clean
2311 Fairview Dr											
16-0349	12/06/2016	12:14 PM	12/06/2016	12:14 PM	2311 Fairview Dr	MC05-0820 to MC05-0810			Cleanout	Unknown	Power Jet
17-0020	01/18/2017	6:12 PM	01/18/2017	6:25 PM	2311 Fairview Dr	MC05-0820 to MC05-0810			Cleanout	Unknown	Power Rod
17-0163	05/02/2017	3:50 PM			2311 Fairview Dr	MC05-0820 to MC05-0810			Service Line		Power Rod

SSO ID	Start Date	Start	End Date	End	Address	Pipe Description	Structure ID	Gallons	Sou	Cause 1	Initial Action
2505 S L St											
18-0086	03/14/2018	9:59 AM			2505 S L St	P006-2150 to P006-2130			Service Line		
18-0091	03/17/2018	5:31 PM			2505 S L St	P006-2150 to P006-2130			Service Line		Jet Clean
2721 Utica St											
16-0152	03/30/2016	11:58 AM	03/30/2016	12:00 PM	2721 Utica St	MC08-0337 to MC08-0332			Cleanout	Unknown	Power Jet
18-0116	04/23/2018	3:12 PM	04/23/2018	4:15 PM	2721 Utica St	MC08-0337 to MC08-0332			Service Line		Power Rod
2815 Pendell Ln											
18-0003	01/03/2018	8:07 AM			2815 Pendell Ln	P009-0260 to P009-0250			Service Line		Power Rod
18-0339	11/30/2018	1:54 PM			2815 Pendell Ln	P009-0260 to P009-0250			Service Line		None Indicated
2817 Memphis St											
18-0045	02/09/2018	3:25 PM			2817 Memphis St	MC07-0540 to MC07-0530			Service Line		Power Rod
18-0348	12/08/2018	9:02 PM			2817 Memphis St	MC07-0540 to MC07-0530			Service Line		Jet Clean
2906 Houston St											
17-0038	02/02/2017	2:00 PM	02/02/2017	2:15 PM	2906 Houston St	MC05-2675 to MC05-2670		0	Cleanout	Unknown	Power Jet
17-0098	03/16/2017	8:00 AM	03/16/2017		2906 Houston St	MC05-2675 to MC05-2670			Service Line	Unknown	None Indicated
3024 Spradling Ave											
17-0308	10/14/2017	8:57 AM			3024 Spradling Ave	W001-1220 to W001-1210			Service Line		Jet Clean
17-0312	10/18/2017	7:39 AM	10/18/2017	8:50 AM	3024 Spradling Ave	W001-1220 to W001-1210			Service Line		Power Rod
323 S 14 St											
16-0266	08/19/2016	2:52 PM	08/19/2016	3:35 PM	323 S 14 St	P011-2240 to P011-2230			Cleanout	Unknown	Power Rod
18-0118	04/24/2018	11:54 AM			323 S 14 St	P011-2240 to P011-2230			Service Line		Jet Clean
3301 Zero St											
16-0243	07/11/2016	9:08 AM	07/11/2016	9:24 AM	3301 Zero St	MC08-0580 to MC08-0570		0	Cleanout	Unknown	None Required
17-0096	03/15/2017	10:36 AM	03/15/2017		3301 Zero St	MC08-0580 to MC08-0570			Service Line	Unknown	Jet Clean
3306 N 54 St											
18-0343	12/04/2018	7:02 PM			3306 N 54 St	SP01-0220 to SP01-0215			Service Line		Jet Clean
18-0364	12/17/2018	4:31 PM			3306 N 54 St	SP01-0220 to SP01-0215			Service Line		
3600 Marshall Dr											
17-0286	09/18/2017	11:29 AM			3600 Marshall Dr	S008-0750 to S008-0740			Service Line		Jet Clean
17-0293	09/28/2017	9:34 AM			3600 Marshall Dr	S008-0750 to S008-0740			Service Line		Jet Clean
3723 Wirsing Ave											
16-0373	12/29/2016	2:23 PM	12/29/2016	2:23 PM	3723 Wirsing Ave	S008-2150 to S008-2140			Cleanout	Unknown	Jet Clean
18-0025	01/19/2018	11:37 AM			3723 Wirsing Ave	S008-2150 to S008-2140			Service Line		Power Rod

SSO ID	Start Date	Start	End Date	End	Address	Pipe Description	Structure ID	Gallons	Sou	Cause 1	Initial Action
4017 MacArthur Dr											
17-0032	01/29/2017	2:08 PM	01/29/2017		4017 MacArthur Dr	S007-0810 to S007-0800			Cleanout	Unknown	Jet Clean
17-0033	01/30/2017	2:10 PM	01/30/2017	2:10 PM	4017 MacArthur Dr			0	Cleanout	Unknown	None Indicated
17-0041	02/04/2017	3:00 PM	02/04/2017	4:15 PM	4017 MacArthur Dr	S007-0810 to S007-0800		90	Cleanout	Unknown	Power Jet
429 N 40 St											
17-0361	12/15/2017	4:36 PM			429 N 40 St	P007-1810 to P007-1800			Service Line		Power Rod
18-0080	03/07/2018	3:17 PM			429 N 40 St	P007-1810 to P007-1800			Service Line		Jet Clean
4422 S 29 St											
16-0024	01/20/2016	10:54 AM	01/20/2016	10:54 AM	4422 S 29 St	MC07-1060 to MC07-1050			Cleanout	Unknown	Power Rod
16-0045	02/01/2016	1:05 PM	02/01/2016	1:08 PM	4422 S 29 St	MC07-1060 to MC07-1050		1	Cleanout	Line Break	
4709 N 36 St											
17-0252	08/07/2017	10:40 AM			4709 N 36 St	FL01-0480 to FL01-0470			Service Line		None Indicated
17-0369	12/21/2017	2:40 PM			4709 N 36 St	FL01-0480 to FL01-0470			Service Line		Power Rod
18-0032	01/23/2018	1:27 PM			4709 N 36 St	FL01-0480 to FL01-0470			Service Line	Other	None Required
4712 Wirsing Ave											
16-0138	03/18/2016	8:40 AM	03/18/2016	8:40 AM	4712 Wirsing Ave	S009-0240 to S009-0230			Cleanout	Unknown	Power Rod
16-0332	11/23/2016	7:48 PM	11/23/2016	7:48 PM	4712 Wirsing Ave	S009-0240 to S009-0230			Cleanout	Unknown	Power Rod
17-0009	01/08/2017	11:01 AM	01/08/2017	11:01 AM	4712 Wirsing Ave	S009-0240 to S009-0230			Cleanout	Unknown	None Indicated
18-0008	01/05/2018	11:55 AM			4712 Wirsing Ave	S009-0240 to S009-0230			Service Line		Jet Clean
4902 S 32 St											
16-0275	09/05/2016	2:45 PM	09/05/2016	2:45 PM	4902 S 32 St	Z001-3140 to Z001-3130			Cleanout	Unknown	Power Rod
17-0073	02/27/2017	3:59 PM	02/27/2017		4902 S 32 St	Z001-3140 to Z001-3130			Cleanout	Unknown	Jet Clean
5215 Rogers Ave											
17-0101	03/17/2017	10:07 AM	03/17/2017		5215 Rogers Ave	S004-0080 to S004-0030			Cleanout		None Indicated
17-0166	05/05/2017	8:10 AM			5215 Rogers Ave	S004-0080 to S004-0030			Cleanout		None Indicated
5505 Cross Ln											
16-0312	11/03/2016	11:29 AM	11/03/2016	11:29 AM	5505 Cross Ln	S002-1510 to S002-1500			Cleanout	Debris	Jet Clean
16-0370	12/23/2016	12:14 PM	12/23/2016	12:14 PM	5505 Cross Ln	S002-1510 to S002-1500		0	Cleanout	Unknown	Power Jet
6310 Ellsworth Rd											
16-0018	01/16/2016	12:27 PM	01/16/2016	12:30 PM	6310 Ellsworth Rd	S001-0740 to S001-0730			Cleanout	Unknown	Power Rod
18-0123	04/24/2018	2:25 PM			6310 Ellsworth Rd	S001-0740 to S001-0730			Service Line		Jet Clean

SSO ID	Start Date	Start	End Date	End	Address	Pipe Description	Structure ID	Gallons	Sou	Cause 1	Initial Action
711 N E St											
18-0139	05/07/2018	4:36 PM			711 N E St	P002-2060 to P002-2040			Service Line		Jet Clean
18-0145	05/22/2018	11:38 AM			711 N E St	P002-2060 to P002-2040			Service Line		Power Rod
801 Dodson Ave											
16-0187	04/28/2016	12:36 PM	04/28/2016	12:30 PM	801 Dodson Ave	MC01-0950 to MC01-0940			Cleanout	Unknown	Power Rod
17-0313	10/18/2017	12:53 PM	10/18/2017	12:00 PM	801 Dodson Ave	MC01-0950 to MC01-0940			Service Line		Power Rod
8201 Hwy 271											
17-0085	03/07/2017	5:59 AM	03/07/2017		8201 Hwy 271	Z006-1860 to Z006-1830			Cleanout	Unknown	None Indicated
17-0125	04/07/2017	7:44 AM			8201 Hwy 271	Z006-1860 to Z006-1830			Cleanout		Jet Clean
17-0174	05/15/2017	6:17 PM			8201 Hwy 271	Z006-1840 to Z006-1835			Service Line		Jet Clean
18-0156	06/14/2018	2:41 AM			8201 Hwy 271	Z006-1840 to Z006-1835			Service Line		Jet Clean
18-0157	06/18/2018	9:59 AM			8201 Hwy 271	Z006-1840 to Z006-1835			Service Line		Jet Clean
8311 Hermitage Dr											
16-0270	08/25/2016	4:45 AM	08/25/2016	4:47 PM	8311 Hermitage Dr	Z006-1210 to Z006-1200			Cleanout	Unknown	Power Rod
17-0194	05/22/2017	1:52 PM	05/22/2017	2:10 PM	8311 Hermitage Dr	Z006-1210 to Z006-1200			Cleanout		Jet Clean
9026 S 28 St											
16-0322	11/16/2016	2:29 PM	11/16/2016	2:29 PM	9026 S 28 St	Z005-1250 to Z005-0120			Cleanout	Unknown	Jet Clean
16-0331	11/21/2016	1:05 PM	11/21/2016	1:05 PM	9026 S 28 St	Z005-1250 to Z005-0120		0	Cleanout	Unknown	Power Jet
16-0352	12/07/2016	4:39 PM	12/07/2016	4:39 PM	9026 S 28 St		Z005-0120		Cleanout	Debris	None Indicated
16-0352	12/07/2016	4:39 PM	12/07/2016	4:39 PM	9026 S 28 St		Z005-1250		Cleanout	Debris	None Indicated
907 Hillside Dr											
17-0204	06/02/2017	8:28 AM			907 Hillside Dr	CS01-0820 to CS01-0810			Cleanout		Power Rod
17-0238	07/21/2017	6:26 PM			907 Hillside Dr	CS01-0820 to CS01-0810			Service Line		Power Rod
17-0253	08/08/2017	7:09 AM			907 Hillside Dr	CS01-0820 to CS01-0810			Service Line		Jet Clean
17-0285	09/13/2017	12:23 PM	09/13/2017	1:05 PM	907 Hillside Dr	CS01-0820 to CS01-0810			Service Line		Jet Clean
933 S 68 Ln											
18-0017	01/12/2018	8:19 AM			933 S 68 Ln	S001-0110 to S001-0090			Service Line		Power Rod
18-0029	01/22/2018	12:59 PM			933 S 68 Ln	S001-0110 to S001-0090			Service Line		Jet Clean

Attachment 9
Standard Operating Procedures

Attachment 6: Standard Operating Procedures

Category	SOP Code	SOP Title	Proposed Schedule* (Months)	Consent Decree Paragraph	Status	Signature Date
Gravity Sewers & Manholes	Gravity Sewer and Manhole Cleaning and Maintenance			53a		
	0100-001-SWR	Assessing Blockage Conditions	72		Complete	4/26/2017
	0100-002-SWR	Using a Rod Truck to Clear a Blockage	48		Complete	4/26/2017
	0100-003-SWR	Using a Wash or Jet Truck to Clear a Blockage	48		Complete	4/6/2017
	0100-004-SWR	Normal Cleaning	48		Complete	4/26/2017
	0100-005-SWR	Determining the Results	72		Complete	6/6/2018
	0100-006-SWR	Work Site Cleanup	48		Complete	4/6/2017
	0100-007-SWR	Disposal of Removed Materials	48		Complete	4/6/2017
	0100-008-SWR	SL Rat Operation	Request		Complete	7/5/2017
	0100-009-SWR	Trimble Geo 7X GPS Unit	NA		Complete	7/5/2017
	Gravity Sewer CCTV and Other Inspections			53b		
	0200-001-SWR	Setting up for Camera Insertion	48		Complete refer to 0200-002-SWR	4/26/2017
	0200-002-SWR	CCTV of Main Lines under 12 inches	24		Complete	4/26/2017
	0200-003-SWR	CCTV of Main Lines 12 inches or Greater	24		Complete refer to 0200-002-SWR	4/26/2017
	0200-004-SWR	Pipeline Assessment & Condition Coding, Records, and Reports	24		Complete	4/6/2017
	0200-005-SWR	Logging Inspection Observations	48		Complete refer to 0200-002-SWR	4/26/2017
	0200-006-SWR	Encountering Obstructions and Freeing the Camera	48		Complete refer to 0200-002-SWR	4/26/2017
	0200-007-SWR	Removal, Cleaning and Storage of the Camera and Cable	48		Complete refer to 0200-002-SWR	4/26/2017
	0200-008-SWR	Documenting the Work	48		Complete refer to 0200-002-SWR	4/26/2017
	0200-009-SWR	Inspecting City Cleanouts	72		Complete	4/6/2017
	0200-010-SWR	Inspecting Owner Cleanouts	72		Complete refer to 0200-009-SWR	4/26/2017
	0200-011-SWR	Inspecting a Main Line for Line Stoppage	72		Complete refer to 0100-001-SWR	4/26/2017
	0200-012-SWR	Tracing Service Lines	72		Complete	6/6/2018
	0200-013-SWR	Dye Testing	48		Complete	4/26/2017
	0200-014-SWR	Smoke Testing	48		Complete	4/26/2017
	0200-015-SWR	Inspection of Flow Measurement Devices	72		Complete	6/6/2018
	Manhole Inspection			53c		
	0300-001-SWR	Manhole Cover Removal and Replacement	48		Complete refer to 0300-002-SWR	4/6/2017
	0300-002-SWR	Manhole Inspection Procedures and Forms	48		Complete	4/6/2017
	0300-003-SWR	Manhole Assessment & Condition Coding	48		Complete	6/6/2018
	Gravity Sewer and Manhole Construction, Renewal, Rehabilitation, and Repair			53d		
	0400-001-SWR	Manhole (MH) Repair - Point Repair	24		Complete	4/26/2017
	0400-002-SWR	Using Rim Inserts to Raise Elevation of MH Frame/Rim	72		Complete	6/6/2018
	0400-003-SWR	Patching MH Barrels and Cones Using Cement	72		Complete	6/6/2018
	0400-004-SWR	Patching MH Barrels and Cones Using Hand Troweled Grout	72		Complete refer to 004-003-SWR	6/6/2018
	0400-005-SWR	Documenting Site Conditions, Pre-installation	48		Complete	6/6/2018
	0400-006-SWR	Main Line Excavation	24		Complete	4/6/2017
	0400-007-SWR	Installation of Pneumatic Plugs	24		Complete	6/6/2018
	0400-008-SWR	Main Line Point Repair Under 12 inches	24		Complete	6/6/2018
	0400-009-SWR	Main Line Point Repair 12 inches or Greater	24		Complete refer to 0400-008-SWR	6/6/2018
	0400-010-SWR	Making a Tap into the Main Line	24		Complete	4/6/2017
0400-011-SWR	Connecting the Line and Testing the Connection	24		Complete	6/6/2018	

Category	SOP Code	SOP Title	Proposed Schedule* (Months)	Consent Decree Paragraph	Status	Signature Date
	0400-012-SWR	Backfilling, Tamping and Covering Work	48		Complete	6/6/2018
Pump Stations & Force Mains	Pump Station Inspection and Maintenance			53e		
	0500-001-SPS	Routine Inspection and Testing of Station Facilities (Daily Activities)	24		Complete	4/5/2017
	0500-002-SPS	Routine Inspection and Testing of Station Facilities (Weekly Activities)	24		Complete	4/5/2017
	0500-003-SPS	Routine Inspection and Testing of Station Facilities (Monthly Activities)	24		Complete refer to 0500-001-SPS	4/5/2017
	0500-004-SPS	Routine Inspection and Testing of Station Facilities (Quarterly Activities)	24		Complete refer to 0500-001-SPS	4/5/2017
	0500-005-SPS	Routine Inspection and Testing of Station Facilities (Annual Activities)	24		Complete refer to 0500-001-SPS	4/5/2017
	0500-006-SPS	Alarm System Functional Testing	48		In Progress	NA
	0500-007-SPS	Alternate Power System Inspection	48		In Progress	NA
	Pump Station Operational Procedures			53f		
	0600-001-SPS	Pump Removal and Installation	48		Complete	4/2/2017
	0600-002-SPS	Wetwell Cleaning Procedure	48		Complete	4/5/2017
	0600-003-SPS	Troubleshooting Pumping Problems	48		Complete	4/5/2017
	0600-004-SPS	Adjustment/Calibration of Pump Controls	48		Complete refer to 0500-001-SWR	4/5/2017
	0600-005-SPS	Odor Control Measures	72		In Progress	NA
	0600-006-SPS	Flow Splitting Device Operation	48		In Progress	NA
	Force Main and Ancillary Component Inspection and Maintenance			53g		
	0700-001-SPS	Force Main Locate	48		In Progress	NA
	0700-002-SPS	Evaluation of Force Mains for Inspection	48		In Progress	NA
	0700-003-SPS	Inspection, Cleaning, and Replacement of Force Main Ancillary Equipment**	48		In Progress	NA
	0700-004-SPS	Annual Review of Discharge Head to Determine Cleaning Needs	72		In Progress	NA
Equalization (EQ) Storage Facility	Ancillary Component (EQ Basin) Inspection***			53h		
	0800-001-SEF	Monitoring for Solids and Cleaning Procedure	72		In Progress	NA
	0800-002-SEF	Routine Inspection	48		In Progress refer to 0800-001-SEF	NA
OERP Program	Overflow Emergency Response Program Major Tasks			53i		
	0900-001-SWR	SSO Operations - Notification Procedure	24		Complete	4/6/2017
	0900-002-SWR	SSO Operations - First Response Procedure	24		Complete	4/26/2017
	0900-003-SWR	SSO Operations - Bypass Pumping Operation	24		Complete	4/6/2017
	0900-004-SWR	SSO Operations - Treatment of Overflow	24		Complete	4/6/2017
	0900-005-SWR	Sewer Blockage or Surcharging	24		Complete	4/26/2017
	0900-006-SWR	Response to Sewer Backup into Building	24		Complete	4/6/2017
	0900-007-SWR	Sewer Main Break/Collapse	24		Complete	4/6/2017
	0900-008-SWR	Wastewater Pump Station Alarms—General Response Actions	24		Complete	6/13/2018
	0900-009-SWR	Secondary Power Failure During Power Outage	24		Complete	6/13/2018
	0900-010-SWR	Sewage Force-Main Break (residential neighborhood and cross country easement non-residential area)	24		Complete	4/6/2017
Safety	Safety					
	1000-001-GEN	Work Zone Traffic Control	24		Complete	11/6/2017
	1000-002-GEN	Confined Space Entry	24		Complete	11/6/2017
	1000-003-GEN	Trenching and Shoring	24		Complete	11/6/2017



STANDARD OPERATING PROCEDURE
CATEGORY
SOP CODE: 0100-005-SWR
SOP TITLE: Determining the Results

Revision Number:
Revision Date:
6-1-18
Page 1 of 2

1.0 Objective

The purpose of cleaning and maintaining the sanitary sewer system is to prevent blockages that occur in the main sewer line that can result in backups into homes, businesses and other customer facilities that are connected to the wastewater collection system and to prevent sanitary sewer overflows which can be harmful to both the public and the environment.

2.0 Background:

Preventive maintenance protects the investment of the sanitary sewer collection system infrastructure. Higher frequency cleaning of gravity sewers should be scheduled in areas with a history of overflows, stoppages, FOG, root issues and odor control problems. A good cleaning, inspection and assessment program is an integral part of understanding how the City's wastewater collection system operates. It is essential for keeping the sanitary sewer in good repair by minimizing stoppages, I&I, and other potential deficiencies that can result in poor performance and potential SSOs.

3.0 Safety Procedure

It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism. Employees are required to follow the City of Fort Smith Safety Practices and Procedures at all times.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Infections and Infectious Diseases
- Lacerations, Contusions, Trip and Fall
- Poisonous or Toxic Gases
- Traffic Mishaps
- Noise

5.0 Associated Procedures: Not Applicable

6.0 Responsibilities

Personnel Performing the Job - All Sewer Program employees are responsible for following this SOP.

Managers - The Sewer System Manager and the Communications & Training along with Supervisors in the respective programs, are responsible for ensuring training is conducted with the most recent version of this SOP.

7.0 Required Equipment

- Proper Asset(s) to perform assigned tasks.
- Associated PPE to perform this task.

8.0 Restrictions or Limitations: Not Applicable

9.0 Procedures

1. Review all field data which may include pictures, video, SL Rat readings.
2. Review upstream and downstream data.
3. Review past work orders for the asset location to see in a history of issues exists.
4. Determine if the line needs to be televised for updated information.
5. With the available data, determine if the line need additional cleaning, root control, rehab or replacement.
6. Create a work order based on the determination.

10.0 References: Not Applicable

11.0 Review and Updating

Signatures: Jimmie Johnson
Deputy Director of Systems

Jerry Walters
Director of Utilities

Date:

6/6/18



STANDARD OPERATING PROCEDURE
CATEGORY
SOP CODE: 0200-012-SWR
SOP TITLE: Tracing Service Lines

Revision Number:
Revision Date:
5-31-18
Page 1 of 3

1.0 Objective

The purpose of cleaning and maintaining the sanitary sewer system is to prevent blockages that could occur. This document outlines the steps necessary to locate a sewer service line.

2.0 Background:

The primary result of a poorly operating or failed lateral allowing I & I is hydrological overloading (surcharging) of the sanitary sewer collection system during rain events contributing to sanitary sewer overflows. Additionally, the lack of their integrity promotes ex-filtration causing standing sewage on private and public property, discharges of sewage to the storm drains, public health, general nuisance and wellbeing problems.

3.0 Safety Procedure

It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism. Employees are required to follow the City of Fort Smith Safety Practices and Procedures at all times.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Infections and Infectious Diseases
- Lacerations, Contusions, Trip and Fall
- Poisonous or Toxic Gases
- Traffic Mishaps
- Noise

5.0 Associated Procedures: SOP# 0100-001-SWR (Assessing Blockages)

6.0 Responsibilities

Managers - The Sewer System Manager and the Communications & Training along with Supervisors in the respective programs, are responsible for ensuring training is conducted with the most recent version of this SOP.

Personnel Performing the Job - All Sewer Program employees are responsible for following this SOP.

7.0 Required Equipment

- Proper Asset(s) to perform assigned tasks.
- Associated PPE to perform this task.

8.0 Restrictions or Limitation: Not Applicable

9.0 Procedures

- 1) Pull up to the address needing inspection, park and secure the vehicle. Place traffic cones around vehicle.
- 2) Upon approaching the clean out, look for sink holes and other defects that could lead to infiltration.
- 3) Inspect the clean out for: Missing caps, broken riser, or any other condition that could cause I & I or debris to enter the system.
- 4) Insert locator rod into cleanout and extend it the desired length of locating.
- 5) Connect the locator transmitter box to the grounding rod with the black wire, and to the locator rod with the red wire.
- 6) Power on locating wand and transmitter and make sure they are set at the same frequencies.
- 7) Use the screen on the locating wand to determine the direction and depth of the service line being located.
- 8) Mark the services position with green paint/ flags.
- 9) Using a plot map and probe, probe beneath the soil to locate the service line. Use caution as the line may be of clay and fragile.
- 10) As line goes deeper, the use of a sharp shooter to dig up at 4 foot intervals may be necessary to continue location of the line.

10.0 References: Not Applicable

11.0 Review and Updating

Signatures: Jimmie Johnson 
Deputy Director of Systems

Jerry Walters 
Director of Utilities

Date: 



STANDARD OPERATING PROCEDURE
CATEGORY
SOP CODE: 0200-015-SWR
SOP TITLE: Inspection of Flow Measuring
Devices

Revision Number:
Revision Date:
5-31-18
Page 1 of 2

1.0 Objective

The purpose of cleaning and maintaining the sanitary sewer system is to prevent blockages that could occur. This document outlines the inspection of flow monitoring equipment that is a vital function of the collection system.

2.0 Background:

The primary result of a poorly operating or failed lateral allowing I & I is hydrological overloading (surcharging) of the sanitary sewer collection system during rain events contributing to sanitary sewer overflows. Additionally, the lack of their integrity promotes ex-filtration causing standing sewage on private and public property, discharges of sewage to the storm drains, public health, general nuisance and wellbeing problems.

3.0 Safety Procedure

It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism. Employees are required to follow the City of Fort Smith Safety Practices and Procedures at all times.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Infections and Infectious Diseases
- Lacerations, Contusions, Trip and Fall
- Poisonous or Toxic Gases
- Traffic Mishaps
- Noise

5.0 Associated Procedures: SOP# 0100-001-SWR (Assessing Blockages)

6.0 Responsibilities

Managers - The Sewer System Manager and the Communications & Training along with Supervisors in the respective programs, are responsible for ensuring training is conducted with the most recent version of this SOP.

Personnel Performing the Job - All Sewer Program employees are responsible for following this SOP.

7.0 Required Equipment

- Proper Asset(s) to perform assigned tasks.
- Associated PPE to perform this task.

8.0 Restrictions or Limitation: Not Applicable

9.0 Procedures

- 1) Locate the flow measuring device.
- 2) If in manhole, remove the cover and inspect cables leading to the measuring device. Check for any wearing, nicks or cuts.
- 3) Inspect the measuring device. Check that no accumulated debris is present or hung up on the device.
- 4) Wipe off device with rag or brush.
- 5) Check that the device is mounted securely.
- 6) Check for any corrosion.
- 7) Check calibration data. If over a year, create a work order for calibration.

10.0 References: Not Applicable

11.0 Review and Updating

Signatures: Jimmie Johnson

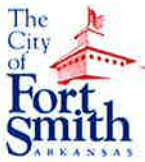
Deputy Director of Systems

Jerry Walters

Director of Utilities

Date:

6/6/18



STANDARD OPERATING PROCEDURE
CATEGORY
SOP CODE: 0300-003-SWR
SOP TITLE: Manhole Assessment & Condition
Coding

Revision Number:
Revision Date:
6-1-18
Page 1 of 4

1.0 Objective

Given the age of our sewer systems, many communities and utilities are turning their attention to assessing the condition of their manholes and associated infrastructure. A Condition Assessment is an investment in these valuable community assets. It's also an investment in managing risk. Knowing the structural condition of your assets will allow you to avoid emergencies, prioritize repair and replacement projects, and plan for the future.

2.0 Background

Condition Assessment is an ongoing process. To assess the condition of a sewer system, data and information are gathered through observation, direct inspection, investigation, and indirect monitoring and reporting. An analysis of the data and information helps determine structural and operational issues, and performance of the system. Condition assessment also includes failure analysis to determine the causes of infrastructure failures and to develop ways to prevent future breakdowns. Condition assessment enhances the ability of utilities to make technically sound judgments regarding asset management.

3.0 Safety Procedure

Safety is directly related to your level of professionalism which in turn is directly related to knowledge and ultimately certification. It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Falling Objects
- Infections and Infectious Diseases
- Lacerations and Contusions
- Falls
- Explosions
- Confined Space Entry Procedures and Permit Requirements

- Poisonous or Toxic Gases
- Strains or Ruptures
- Traffic Mishaps
- Bites (insects, bugs, rodents, snakes)
- Excavations and Trench Shoring
- Drowning
- Fire
- Electrical Shock or Arc Flash
- Noise

Employees are required to follow the City of Fort Smith Safety Practices and Procedures.

5.0 Associated Procedures

SOP 0200-002 SWR CCTV Operation

6.0 Responsibilities

Personnel Performing the Job – Employees are required to be NASSCO certified to perform MACP Assessments. They are also required to maintain the assessment equipment to department standards. All Utility System Collection employees are responsible for following these procedures.

Supervisors – Supervisors are responsible for ensuring the accuracy of the field coding. Daily work flows should be examined and stored in the GraniteNet database.

Managers – The Sewer System Manager and the Communications & Training along with Supervisors in the respective programs, are responsible for ensuring training is conducted with the most recent version of this SOP.

7.0 Required Equipment

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Gloves
- Manhole Puller/Pick
- Hearing Protection
- Long Sleeve Shirts
- Long Pants
- Containment Equipment

- CCTV Truck

8.0 Restrictions or Limitations


9.0 Procedures


1. Pull up to manhole requiring inspection. Place traffic cones around parked vehicle.
2. MACP inspections may be performed by manhole entry or the use of the manhole camera. Every inspection must be a level 2 inspection which includes completion of the Manhole Header Section, Manhole Component Observation Section, and the Manhole Component Defect Section using valid PACP and MACP defect codes. Refer to NASSCO PACP Guidelines.
3. All field data is to be recorded using GraniteNet software and turned over to supervision for review and storage.
4. Upon completion replace the manhole cover and collect traffic devices.


10.0 References

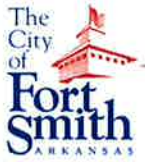
NASSCO Pipeline Assessment Certification Program - Version 7.0.2

11.0 Review and Updating

Signatures: Jimmie Johnson 
Deputy Director of Systems

Jerry Walters 
Director of Utilities

Date: 



STANDARD OPERATING PROCEDURE
CATEGORY
SOP CODE: 0400-002-SWR
SOP TITLE: Using Rim Inserts to Raise
Elevation of MH Frame/Rim

Revision Number:
Revision Date:
6-1-18
Page 1 of 4

1.0 Objective

This maintenance activity is performed to raise manholes to grade once discovered to be buried or covered with concrete or asphalt.

2.0 Background

Properly designed, operated, and maintained sanitary sewer systems are meant to collect and transport all of the sewage that flows into them to a publicly owned treatment works (POTW). However, inflow and infiltration can tax a collection system which may lead to occasional unintentional discharges of raw sewage from municipal sanitary sewers. These types of discharges are called sanitary sewer overflows (SSOs). SSOs have a variety of causes, including but not limited to severe weather, improper system operation and maintenance, and vandalism. The untreated sewage from these overflows can contaminate our waters, causing serious water quality problems. It can also back up into homes, causing property damage and threatening public health.

3.0 Safety Procedure

Safety is directly related to your level of professionalism which in turn is directly related to knowledge and ultimately certification. It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Falling Objects
- Infections and Infectious Diseases
- Lacerations and Contusions
- Falls
- Explosions
- Confined Space Entry Procedures and Permit Requirements
- Poisonous or Toxic Gases
- Strains or Ruptures
- Traffic Mishaps

- Bites (insects, bugs, rodents, snakes)
- Excavations and Trench Shoring
- Drowning
- Fire
- Electrical Shock or Arc Flash
- Noise

Employees are required to follow the City of Fort Smith Safety Practices and Procedures.

5.0 Associated Procedures

6.0 Responsibilities

Personnel Performing the Job – All Utility System Collection employees are responsible for following these procedures.

Supervisors – Supervisors are responsible for ensuring that adjustment rings are being used properly. On manholes that require adjustment beyond 24” in height, the supervisor must determine the most efficient way to raise the manhole to proper grade.

Managers – The Sewer System Manager and the Communications & Training along with Supervisors in the respective programs, are responsible for ensuring training is conducted with the most recent version of this SOP.

7.0 Required Equipment

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Gloves
- Manhole Puller/Pick
- Hearing Protection
- Long Pants
- Containment Equipment

8.0 Restrictions or Limitations

9.0 Procedures

- 1.0 Analyze the job site. If possible, have all necessary materials on hand. The Supervisor or person in charge of the work site will visually inspect site and insure that documentation is made to record pre-existing conditions. Documentation should consist of written field notes and photographs with the location, date, and name of the person documenting the site. Larger jobs may require use of a video camera to document pre-existing conditions.
- 2.0 Make a One Call Request and secure a Cut Permit if necessary.
- 3.0 Set up traffic control following the Traffic Control Program.
- 4.0 If necessary to break or cut asphalt or concrete:
 - A.) The person in charge will make decision to cut rather than break the street; however, cutting is the preferred construction method. Crew should wear safety glasses and hearing protection during breaker operation as well as (APR) respirator and full face shield when using an abrasive saw.
 - B.) Cut asphalt/concrete with an asphalt spade with jackhammer, quickie saw or hoe ram. Excavation should not proceed until utilities are located and clearance given. However, during emergencies after all site preparations are made and erosion controls are in place, with supervisory approval, hand excavation using extreme caution may begin immediately. After underground utility lines are located excavation with heavy construction equipment may begin.
- 5.0 For adjustments to manholes that exceed the 2-foot allowable ring adjustment, the following should be done: Contact supervisor and describe the situation.
- 6.0 Manhole steel adjustment rings may be used if less than 24" is needed. Each adjustment ring should have a gasket, ribbon, or ramneck used at every joint to prevent I&I. Continue to properly place adjustment rings to the desired height.
- 7.0 Once the above referenced tasks have been completed, follow standard operating procedures by removing spoil, insuring that all contaminated spoils are handled in an appropriate manner and hauled to an approved site for proper disposal. Clean up work site and remove erosion controls if possible. Always insure that work site is properly cleaned before removing any erosion controls.
- 8.0 Remove traffic control devices.
- 9.0 Before leaving the site ensure proper clean-up and disinfection of all contaminated uniforms and tools to ensure health and safety of personnel. Place door hanger with information regarding work done, supervisor's name, and telephone number for any questions customer may have. If work is done after hours, write your name and telephone number in the appropriate space on the door hanger as the person responsible for the work done. Also, place the name and telephone number of the supervisor so the customer can contact them if they have urgent needs or questions regarding the work done.

10.0 If there are any changes in the location of the line, the type of material used, or a new connection to the manhole; send marked up as-builts or profiles to Engineering staff.

10.0 References

11.0 Review and Updating

Signatures: Jimmie Johnson
Deputy Director of Systems



Jerry Walters
Director of Utilities



Date:





STANDARD OPERATING PROCEDURE
CATEGORY
SOP CODE: 0400-003-SWR
SOP TITLE: Patching MH Barrels

Revision Number:
Revision Date:
6-1-18
Page 1 of 4

1.0 Objective

This maintenance activity is performed to repair manholes which have been damaged. The intent of this section is the elimination of infiltration/inflow into manholes that are otherwise structurally sound, using various products and methods.

2.0 Background

Properly designed, operated, and maintained sanitary sewer systems are meant to collect and transport all of the sewage that flows into them to a publicly owned treatment works (POTW). However, inflow and infiltration can tax a collection system which may lead to occasional unintentional discharges of raw sewage from municipal sanitary sewers. These types of discharges are called sanitary sewer overflows (SSOs). SSOs have a variety of causes, including but not limited to severe weather, improper system operation and maintenance, and vandalism. The untreated sewage from these overflows can contaminate our waters, causing serious water quality problems. It can also back up into homes, causing property damage and threatening public health.

3.0 Safety Procedure

Safety is directly related to your level of professionalism which in turn is directly related to knowledge and ultimately certification. It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Falling Objects
- Infections and Infectious Diseases
- Lacerations and Contusions
- Falls
- Explosions
- Confined Space Entry Procedures and Permit Requirements
- Poisonous or Toxic Gases
- Strains or Ruptures
- Traffic Mishaps

- Bites (insects, bugs, rodents, snakes)
- Excavations and Trench Shoring
- Drowning
- Fire
- Electrical Shock or Arc Flash
- Noise

Employees are required to follow the City of Fort Smith Safety Practices and Procedures.

5.0 Associated Procedures

6.0 Responsibilities

Personnel Performing the Job - All Utility System Collection employees are responsible for following these procedures.

Managers - The Sewer System Manager and the Communications & Training along with Supervisors in the respective programs, are responsible for ensuring training is conducted with the most recent version of this SOP.

7.0 Required Equipment

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Gloves
- Manhole Puller/Pick
- Hearing Protection
- Long Pants
- Containment Equipment

8.0 Restrictions or Limitations

9.0 Procedures

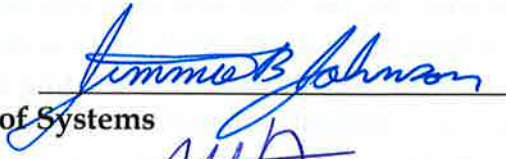
1. Park vehicle and trailer safely at location, installing traffic control devices as needed.
2. Manhole barrel repairs will require a confined space permit and should not be performed without a supervisor having knowledge of the event.

3. At each point of leakage within the manhole structure a hole shall be carefully drilled from within the manhole and shall extend through the entire manhole wall. In cases where there are multiple leaks around the circumference of the manhole, fewer holes may be drilled, providing all leakage is stopped from these holes. Grout ports or sealant injection devices shall be placed in these previously drilled holes in such a way as to provide a watertight seal between the holes and the injection device. A hose, or hoses, shall be attached to the injection device from an injection pump. Chemical sealing materials as specified shall then be pumped through the hose until material refusal is recorded on the pressure gage mounted on the pumping unit or a predetermined quantity of sealant has been injected. Care shall be taken during the pumping operation to insure that excessive pressures do not develop and cause damage to the manhole structure. Upon completion of the injection, the ports shall be removed and the remaining holes filled with mortar and troweled flush with the surface of the manhole walls or other surfaces. The mortar used shall be a nonshrink patching mortar.
4. Before leaving the site ensure proper clean-up and disinfection of all contaminated uniforms and tools to ensure health and safety of personnel. Place door hanger with information regarding work done, supervisor's name, and telephone number for any questions customer may have. If work is done after hours, write your name and telephone number in the appropriate space on the door hanger as the person responsible for the work done. Also, place the name and telephone number of the supervisor so the customer can contact them if they have urgent needs or questions regarding the work done.
5. Remove traffic control devices.

10.0 References

11.0 Review and Updating

Signatures: Jimmie Johnson _____
Deputy Director of Systems



Jerry Walters _____
Director of Utilities



Date: _____

6/6/18



STANDARD OPERATING PROCEDURE
CATEGORY
SOP CODE: 0400-005-SWR
SOP TITLE: Documenting Site Conditions, Pre-Installation

Revision Number:
Revision Date:
6-1-18
Page 1 of 4

1.0 Objective

This maintenance activity is performed to protect the aesthetics of the local neighborhood where construction is to be done. It also serves to protect the city against damage claims following beginning of construction.

2.0 Background

Properly designed, operated, and maintained sanitary sewer systems are meant to collect and transport all of the sewage that flows into them to a publicly owned treatment works (POTW). Occasionally the system will require repairs to be performed in tight easements, backyards, alleyways, streets, or driveways connecting to or directly adjacent to residents properties.

3.0 Safety Procedure

Safety is directly related to your level of professionalism which in turn is directly related to knowledge and ultimately certification. It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Falling Objects
- Infections and Infectious Diseases
- Lacerations and Contusions
- Falls
- Explosions
- Confined Space Entry Procedures and Permit Requirements
- Poisonous or Toxic Gases
- Strains or Ruptures
- Traffic Mishaps
- Bites (insects, bugs, rodents, snakes)
- Excavations and Trench Shoring
- Drowning

- Fire
- Electrical Shock or Arc Flash
- Noise

Employees are required to follow the City of Fort Smith Safety Practices and Procedures.

5.0 Associated Procedures

6.0 Responsibilities

Personnel Performing the Job - All Utility System Collection employees are responsible for following these procedures.

Managers - The Sewer System Manager and the Communications & Training along with Supervisors in the respective programs, are responsible for ensuring training is conducted with the most recent version of this SOP.

7.0 Required Equipment

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Gloves
- Manhole Puller/Pick
- Hearing Protection
- Long Pants
- Containment Equipment

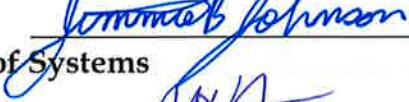
8.0 Restrictions or Limitations


9.0 Procedures


- 1.0 Analyze the job site. If possible, have all necessary materials on hand. The Supervisor or lead person in charge of the work site will visually inspect site and insure that documentation is made to record pre-existing conditions.
- 2.0 Documentation should consist of written field notes and photographs with the location, date, and name of the person documenting the site. Larger jobs may require use of a video camera to document pre-existing conditions.
- 3.0 Site inspection should determine the best equipment to be used throughout the entire construction phase.
- 4.0 Make a One Call Request and secure a Cut Permit if necessary. Set up traffic control following the Traffic Control Program.
- 5.0 Before any work begins, it is mandatory for each crew member in the work zone to properly wear and maintain all assigned personal safety equipment required for safe job performance. This procedure will be strictly enforced on all jobs at all times.

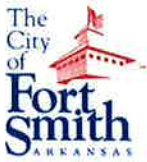
10.0 References

11.0 Review and Updating

Signatures: Jimmie Johnson  _____
Deputy Director of Systems

Jerry Walters  _____
Director of Utilities

Date:  _____



STANDARD OPERATING PROCEDURE
CATEGORY
SOP CODE: 0400-007-SWR
SOP TITLE: Installation of Pneumatic Plugs

Revision Number:
Revision Date:
Page 1 of 3

1.0 Objective

This maintenance activity is performed to contain water flow for repair or replace of manholes, isolating flows for CCTV work, jet cleaning, smoke testing, and segment bypassing for line repair.

2.0 Background

Properly designed, operated, and maintained sanitary sewer systems are meant to collect and transport all of the sewage that flows into them to a publicly owned treatment works (POTW). However, inflow and infiltration can tax a collection system which may lead to occasional unintentional discharges of raw sewage from municipal sanitary sewers. These types of discharges are called sanitary sewer overflows (SSOs). SSOs have a variety of causes, including but not limited to severe weather, improper system operation and maintenance, and vandalism. The untreated sewage from these overflows can contaminate our waters, causing serious water quality problems. It can also back up into homes, causing property damage and threatening public health.

3.0 Safety Procedure

Safety is directly related to your level of professionalism which in turn is directly related to knowledge and ultimately certification. It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Falling Objects
- Infections and Infectious Diseases
- Lacerations and Contusions
- Falls
- Explosions
- Confined Space Entry Procedures and Permit Requirements
- Poisonous or Toxic Gases
- Strains or Ruptures
- Traffic Mishaps

- Bites (insects, bugs, rodents, snakes)
- Excavations and Trench Shoring
- Drowning
- Fire
- Electrical Shock or Arc Flash
- Noise

5.0 Associated Procedures

- Bypass Pumping

6.0 Responsibilities

Operating personnel – It is the responsibility of all personnel using a pneumatic plug to have knowledge of the dangers involved. Plugs should not be used without proper training and familiarity of this SOP. Plugs are to be kept in a secure location and clean when not in use.

Supervisors – Supervisors are responsible for the proper use and developmental training on pneumatic plugs. Routine inspections of the equipment are required.

Managers – The Sewer System Manager and the Communications & Training Manager along with the Supervisors in the respective programs are responsible for ensuring training is conducted with the most recent version of this SOP.

Personnel Performing the Job – All Utility System Collection employees are responsible for following these procedures.

7.0 Required Equipment

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Gloves
- Manhole Puller/Pick
- Hearing Protection
- Long Pants
- Containment Equipment

8.0 Restrictions or Limitations

9.0 Procedures

- 1) Determine the size of the pipeline to be isolated. Plugs have minimum and maximum pipe size requirements. These should be printed on the plug.
- 2) Before use, clean the plug if needed and inspect for surface tears, cuts or any other damage. Check the pneumatic plug for any damages, such as cuts, blisters between rubber layers, worn out parts, damaged connections, etc.
- 3) Use accurate air pressure gauges. The pneumatic plugs may only be connected and operated through a single fitting inflation controller or a comparable controller with a pressure relief valve, both require the use of an attached pressure gauge. Always carefully check plug inflation hoses, control and safety devices, and replace them, if required.
- 4) The pipeline being isolated should be properly cleaned, all sharp particles removed in order to prevent poor sealing as well as possible damages of pneumatic plugs.
- 5) Insert plug into the pipe to be isolated.
- 6) Inflate the plug to the manufacture's recommended pressure, the correct inflation pressure should be clearly marked on each product. During work with plugs accurately measure and monitor the inflation pressure values.
- 7) Keep clear of the potential blast zone around the manhole while the plug is under pressure. Use the threaded poles that are designed for the installation of the plug during the inflation process.
- 8) Pneumatic plugs are designed for temporary pipeline blocking which is why it is required to check the pressure on regular intervals.
- 9) When work is complete, deflate the plug, clean and return to storage. Pneumatic plugs can be cleaned with a solution of water and detergent. After cleaning, dry the plug.

10.0 References

- Chern pneumatic plug safety guide

11.0 Review and Updating

5-30-18

Signatures



Jerry Walters
Director of Utilities



Jimmie Johnson
Deputy Director of Operations

Date: 6/6/18



STANDARD OPERATING PROCEDURE
CATEGORY
SOP CODE: 0400-008-SWR
SOP TITLE: Main Line Point Repair

Revision Number:
Revision Date:
Page 1 of 4

1.0 Objective

This Maintenance activity is performed to install, relay or repair a wastewater collection piping whose integrity has been compromised due to cracks, breaks, collapses due to soil movement, impact, root intrusion, contact with other structures, temperatures, corrosion due to hydrogen sulfide, improper laying or repair, and combinations of any of the above. The term "point repair" shall refer to construction required to correct a severe problem at a specified location in a sewer line which cannot be corrected

2.0 Background

Properly designed, operated, and maintained sanitary sewer systems are meant to collect and transport all of the sewage that flows into them to a publicly owned treatment works (POTW). However, inflow and infiltration can tax a collection system which may lead to occasional unintentional discharges of raw sewage from municipal sanitary sewers occur. These types of discharges are called sanitary sewer overflows (SSOs). SSOs have a variety of causes, including but not limited to severe weather, improper system operation and maintenance, and vandalism. The untreated sewage from these overflows can contaminate our waters, causing serious water quality problems. It can also back up into homes, causing property damage and threatening public health.

3.0 Safety Procedure

Safety is directly related to your level of professionalism which in turn is directly related to knowledge and ultimately certification. It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Falling Objects
- Infections and Infectious Diseases
- Lacerations and Contusions
- Falls
- Explosions

- Confined Space Entry Procedures and Permit Requirements
- Poisonous or Toxic Gases
- Strains or Ruptures
- Traffic Mishaps
- Bites (insects, bugs, rodents, snakes)
- Excavations and Trench Shoring
- Drowning
- Fire
- Electrical Shock or Arc Flash
- Noise

Employees are required to follow the City of Fort Smith Safety Practices and Procedures.

5.0 Associated Procedures

6.0 Responsibilities

Personnel Performing the Job - All Utility System Collection employees are responsible for following these procedures unless given specific directives from supervision.

Supervisors - Supervisors are responsible for the safety and training of the employees who are conducting the point repair. On hazardous excavations, a supervisor must be present.

Managers - The Sewer System Manager and the Communications & Training along with Supervisors in the respective programs, are responsible for ensuring training is conducted with the most recent version of this SOP.

7.0 Required Equipment

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Gloves
- Manhole Puller/Pick
- Hearing Protection
- Long Sleeve Shirts
- Long Pants
- Containment Equipment

- CCTV Truck

8.0 Restrictions or Limitations


9.0 Procedures


- 1.0 Locate all existing underground utilities before beginning excavation for main line and service connection repairs from the manhole of reference.
- 2.0 Where a point repair is to be made underneath existing pavement or concrete, the surface to be excavated shall be saw cut in straight lines.
- 3.0 Where point repair is to be made in an easement, any fences or other interferences shall be removed. The City is responsible for replacement of such interferences in the same or better condition than found.
- 4.0 Exercise reasonable care during the initial excavation of the defective pipe so as not to disturb existing pipe that is still acceptable. After the defective pipe has been exposed, as much additional pipe shall be uncovered as is necessary to allow space for workmen and the installation of the new pipe. The defective pipe shall be saw cut out in such a way that the ends are straight and smooth and free of chips or cracks so that a smooth plain-end spigot exists at both ends to receive replacement section. The defective pipe shall be removed from the trench and the former bedding material of that pipe excavated to 6 inches below the pipe grade. The bottom of the trench shall then be filled with 6 inches of 1/2 to 3/4-inch crushed stone. Refer to specs 705.
- 5.0 Before personnel enter the trench, carefully prepare the bottom and sides of the trench and install any necessary shoring or bracing and sheeting required.
- 6.0 On sewer lines where more than 6 feet of existing line is replaced with new pipe, a mason's line or wire shall be tightly stretched above ground level, parallel to and directly above the axis of the pipe to be installed. This line to be supported at intervals not exceeding 50 feet on sewers being laid on a 2 percent or more grade and not exceeding 25 feet on grades less than 2 percent. The exact line and grade for each section of pipe shall be determined by measuring down this line to the invert of the pipe in place. Each replacement pipe section shall be accurately placed to the exact same line and grade as the existing sewer line.
- 7.0 Sewer lines where more than 12 feet of existing line is replaced with new pipe, shall meet the specification requirements of specifications 705.
- 8.0 Lasers may be used after the type and procedures are approved. When lasers are used, reference points for both line and grade will be set at each manhole. Where grades are 0.6 percent or less, the elevation of the beam shall be checked each 50 feet by using an offset point or Engineer's level.
- 9.0 While pipe laying is in progress, do not allow water to run in the trench sufficient to cause a washing of the bedding or backfill material into the line. Do not open up at any time more trench than available pumping facilities are able to dewater.


- 10.0 Trench bottoms found to be unsuitable for foundations after pipe laying operations have started shall be corrected and brought to exact line and grade as required.
- 11.0 Carefully inspect each piece of pipe and special fitting before it is placed, and no defective pipe shall be laid in the trench. Pipe laying shall proceed upgrade, starting at the lower end of the grade and with the bells upgrade. When pipe laying is not in progress, the ends of the pipe shall be kept tightly closed with an approved temporary plug.
- 12.0 Bell holes shall be of sufficient size to allow ample room for properly making the pipe joints. Bell holes shall be cut out not more than two joints ahead of the pipe laying. The bottom of the trench between bell holes shall be carefully graded so that each pipe barrel will rest on a solid foundation for its entire length. Each pipe joint shall be laid to form a close concentric joint with adjoining pipe and so as to avoid sudden off-sets or inequalities in the flow line.
- 13.0 Wherever dissimilar pipe materials are joined, the replacement pipe shall be cut to a length one inch less than the overall length of the section being replaced. The pipe shall then be placed in the trench and the compression couplings installed. After installation, the work shall be checked to ensure that the replacement pipe is vertically and horizontally aligned with the existing pipe and that the compression couplings are tight and evenly fitted.
- 14.0 If the point repair work occurs in an area of construction adjacent to or that is part of a service line connection, the existing service line(s) shall be connected to the new line, using new tees, wyes, and other fittings, as required. Service lines shall be replaced from the tap to the property line, with a cleanout installed at the property line.

10.0 References

11.0 Review and Updating

Signatures: Jimmie Johnson 
Deputy Director of Systems

Jerry Walters 
Director of Utilities

Date: 



STANDARD OPERATING PROCEDURE
CATEGORY
SOP CODE: 0400-011-SWR
SOP TITLE: Connecting the line and testing the connection

Revision Number:
Revision Date:
6-5-18
Page 1 of 3

1.0 Objective

The purpose of this document is to outline the basic requirements of performing an excavation and installing or replacing a service connection to the sewer main, and any follow up testing if required.

2.0 Background: Not Applicable

3.0 Safety Procedure

It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism. Employees are required to follow the City of Fort Smith Safety Practices and Procedures at all times.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Infections and Infectious Diseases
- Lacerations, Contusions, Trip and Fall
- Poisonous or Toxic Gases
- Traffic Mishaps
- Noise

5.0 Associated Procedures: Not Applicable

6.0 Responsibilities

Personnel Performing the Job - All Sewer Program employees are responsible for following this SOP.

Supervisors - Supervisors are responsible for the safety and training of the employees who are conducting the point repair. On hazardous excavations, a supervisor must be present.

Managers - The Sewer System Manager and the Communications & Training along with Supervisors in the respective programs, are responsible for ensuring training is conducted with the most recent version of this SOP.

7.0 Required Equipment

- Proper Asset(s) to perform assigned tasks.
- Associated PPE to perform this task.

8.0 Restrictions or Limitations: Not Applicable


9.0 Procedures


- 1.0 Check excavation site for required underground utility locate markings.
- 2.0 Take pictures of locate markings and any structure that may get damaged or moved during the excavation.
- 3.0 If the locate markings are not legible or are not there, contact utility dispatch.
- 4.0 Locate the service to be repaired using locating rods and locator.
- 5.0 Locate plumber's marker for new taps.
- 6.0 Before starting excavation check main line depth and alignment using the connecting manholes.
- 7.0 Lead person will communicate a plan of action to all members of their crew.
- 8.0 Shovels and probing rod should be used to help find all marked utilities within the excavation site while excavating.
- 9.0 Pipe repairs will be made using SDR 40 pipe and approved connection methods.
- 10.0 New taps and replacements will be made from property line to the main line, installing clean out tee at the property line.
- 11.0 Taps shall not be made in deteriorated or defective sewer mains that are prone to further collapse. In instances where the pipe material is in good condition, a tapping saddle may be used and adhered to the pipe material properly. PVC connections will require epoxy as a sealant. In instances where the main line pipe material is in poor condition, a main line point repair must be performed.
- 12.0 On vertical connections, a 4" PVC coupler is to be placed directly atop the donut to prevent the service pipe from being forced through the saddle.
- 13.0 Pipe will be bedded in wash rock and excavation backfilled with SB2 and/or topped with dirt/sod or seed.
- 14.0 If testing is required, dye or smoke testing are approved methods of testing. Follow SOPs for dye and smoke testing.
- 15.0 Return all devices and tools to service vehicle.

10.0 References:

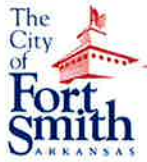
SOP 0200-013 Dye Testing
SOP 0200-014 Smoke Testing
SOP 0400-008 Main line point repair

11.0 Review and Updating

Signatures: Jimmie Johnson 
Deputy Director of Systems

Jerry Walters 
Director of Utilities

Date: 6/6/18



STANDARD OPERATING PROCEDURE
CATEGORY
SOP CODE: 0400-012-SWR
SOP TITLE: Backfill, Tamping and Covering Work

Revision Number:
Revision Date:
6-1-18
Page 1 of 4

1.0 Objective

This Maintenance activity is performed post installation or repair of a wastewater collection piping whose integrity has been compromised due to cracks, breaks, collapses due to soil movement, impact, root intrusion, contact with other structures, temperatures, corrosion due to hydrogen sulfide, improper laying or repair, and combinations of any of the above.

2.0 Background

Properly designed, operated, and maintained sanitary sewer systems are meant to collect and transport all of the sewage that flows into them to a publicly owned treatment works (POTW). However, inflow and infiltration can tax a collection system which may lead to occasional unintentional discharges of raw sewage from municipal sanitary sewers occur. These types of discharges are called sanitary sewer overflows (SSOs). SSOs have a variety of causes, including but not limited to severe weather, improper system operation and maintenance, and vandalism. The untreated sewage from these overflows can contaminate our waters, causing serious water quality problems. It can also back up into homes, causing property damage and threatening public health.

3.0 Safety Procedure

Safety is directly related to your level of professionalism which in turn is directly related to knowledge and ultimately certification. It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Falling Objects
- Infections and Infectious Diseases
- Lacerations and Contusions
- Falls
- Explosions

- Confined Space Entry Procedures and Permit Requirements
- Poisonous or Toxic Gases
- Strains or Ruptures
- Traffic Mishaps
- Bites (insects, bugs, rodents, snakes)
- Excavations and Trench Shoring
- Drowning
- Fire
- Electrical Shock or Arc Flash
- Noise

Employees are required to follow the City of Fort Smith Safety Practices and Procedures.

5.0 Associated Procedures

6.0 Responsibilities

Personnel Performing the Job - All Utility System Collection employees are responsible for following these procedures.

Managers - The Sewer System Manager and the Communications & Training along with Supervisors in the respective programs, are responsible for ensuring training is conducted with the most recent version of this SOP.

7.0 Required Equipment

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Gloves
- Manhole Puller/Pick
- Hearing Protection
- Long Sleeve Shirts
- Long Pants
- Containment Equipment

8.0 Restrictions or Limitations

9.0 Procedures

1.0 Trench Backfill

- A.) Use excavated material backfill unless otherwise specified or directed.
- B.) Use suitable backfill for all trenches within 5 feet of buildings and beneath walks, parking areas, paved streets or existing exposed utilities.

2.0 Initial Backfill

- A.) Place after pipe has been bedded and checked for alignment, grade and internal obstructions.
- B.) Carry out in an orderly fashion after authorization to cover pipe has been given.
- C.) Allow no more than 300 feet of trench to be open at one time.
- D.) Do not backfill until concrete or mortar has sufficiently cured.
- E.) Record location of connections and appurtenances before backfilling.
- F.) Place by hand and hand tamp to not less than 12 inches above top of pipe, in approximately 4-inch layers.
- G.) Backfill simultaneously on both sides of pipe to prevent displacement.
- H.) Place cushion of 4 feet above pipe envelope before using heavy compacting equipment.

3.0 Subsequent Backfill

- A.) Place backfill into trench at an angle so that impact on installed pipe is minimized.
- B.) Compaction of all backfill material shall be performed in a manner that shall not crack, crush, and/or cause the installed pipe to be moved from the established grade and/or alignment.
- C.) Area under pavement and walks or within buildings shall be mechanically compacted to the top of the subgrade in 6-inch lifts to a minimum of 95 percent Standard Proctor Density.
- D.) Areas not subject to vehicular traffic shall be backfilled and compacted in layers not more than 12 inches in depth.
- E.) Compaction method at discretion of Contractor with following exceptions:
 - i. If in City's opinion compaction method presents potential damage to pipe, it will not be allowed.
 - ii. Compaction of any backfill material by flooding or jetting will require prior written authorization of the City.
- F.) Mound excavated materials no greater than 6 inches in open areas only.
- G.) Fill upper portion of trench with topsoil as specified hereinbefore.
- H.) No trench shall be open overnight.

4.0 Controlled Density Fill

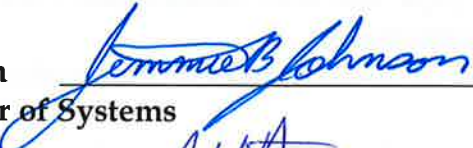
- A.) Use where shown on plans.
- B.) Provide suitable forms to limit volume of controlled density fill material.
- C.) Protect exposed utility lines during placement.
- D.) Place material in accordance with suppliers' written recommendations unless directed otherwise by the City.


5.0 Excess Material


A.) Dispose of waste excess excavated material as directed by City.

10.0 References

11.0 Review and Updating

Signatures: Jimmie Johnson  _____
Deputy Director of Systems

Jerry Walters  _____
Director of Utilities

Date:  _____

STANDARD OPERATING PROCEDURE**CATEGORY****SOP CODE: 0900-008-SWR****SOP TITLE: Wastewater Pump Station Alarms – General Response Action****Revision Number: 0****Revision Date:****2018/06/13****Page 1 of 5**

1.0 Objective

The purpose of the Wastewater Pump Station Alarms- General Response Action is to prevent sanitary sewer overflows (SSOs) that could result from pumping station failures.

2.0 Background

Properly designed, operated, and maintained sanitary sewer systems are meant to collect and transport all of the sewage that flows into them to a publicly owned treatment works (POTW). However, occasional unintentional discharges of raw sewage from municipal sanitary sewers occur. These types of discharges are called sanitary sewer overflows (SSOs). SSOs have a variety of causes, including but not limited to severe weather, improper system operation and maintenance, and vandalism. The untreated sewage from these overflows can contaminate our waters, causing serious water quality problems. It can also back up into homes, causing property damage and threatening public health.

3.0 Safety Procedure

Safety is directly related to your level of professionalism which in turn is directly related to knowledge and ultimately certification. It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Falling Objects
- Infections and Infectious Diseases
- Lacerations and Contusions
- Falls
- Explosions
- Confined Space Entry Procedures and Permit Requirements
- Poisonous or Toxic Gases

- Strains or Ruptures
- Traffic Mishaps
- Bites (insects, bugs, rodents, snakes)
- Excavations and Trench Shoring
- Drowning
- Fire
- Weather Related Hazards
- Electrical Shock or Arc Flash
- Noise

Employees are required to follow the City of Fort Smith Safety Practices and Procedures.

5.0 Associated Procedures

- 0500-001-SWR SSO Operations First Response Procedure
- 0900-009-SWR Secondary Power Failure During Power Outage

6.0 Responsibilities

Managers - The Utility Facility Manager is responsible for the proper operation and maintenance of the City's pumping facilities and for ensuring that employees are properly informed of and trained on how to follow the procedures. Managers and supervisors are responsible for ensuring training is conducted with the most recent version of this SOP.

Personnel Performing the Job - All Utility System Collection employees are responsible for following these procedure.

7.0 Required Equipment

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Gloves
- Manhole Puller/Pick
- Hearing Protection
- Long Pants

8.0 Restrictions or Limitations

None

9.0 Procedures

EMERGENCY PROCEDURES:

- Send an individual to the station indicating an alarm within ten minutes of a priority alarm. Respondents should have familiarity with the layout, operation, and maintenance of that particular station. If serious trouble is found, call for additional assistance and keep an individual at the station until further instructions are received.
- Always check with the power company when an alarm goes on to see if there is a power outage in the area. There are times when a power failure has occurred at a pump station, which has not been reported to the power company promptly. The pole number nearest the station should be reported.
- Personnel called in to investigate pump station alarms shall respond to the station even if the alarm has cleared prior to their arrival. All alarm conditions are to be checked and logged. Use the following guidelines and follow confined space entry procedures and lock-out/tag-out where applicable:

Wetwell/Drywell Type Stations

1. Take your time entering the drywell; never enter a flooded drywell.
2. Note any unusual odors - i.e. burning electrical equipment or paint.
3. Listen and note any unusual noises.
4. Lightly touch pump motors and pump bearing housing. Note any which seem unusually hot.
5. Observe every piece of equipment in the station. Note anything which looks out of place.
6. Based on the available information, trouble-shoot the failure. By process of elimination, the failure will be isolated. Check level controls, check pump operation using manual position, and check pump output by pressing on check valve counterweight as defined in the trouble-shooting guide. Once problem is isolated, engage mechanical or electrical disciplines for repairs.
7. Emergency personnel should be absolutely certain that the cause of the pump station alarm or failure has been properly identified and corrected prior to leaving the station.
8. Reset any/all alarm feature indicator lights.

Submersible Type Stations

1. Take your time entering station; never enter a flooded station
2. Note any unusual odors - i.e. burning electrical equipment or paint.
3. Listen and note if pump(s) are running and any unusual noises.

4. Observe every piece of equipment in the station (pay specific attention to the level control system). Note anything which looks out of place.
 5. Based on the available information, trouble-shoot the failure. By process of elimination, the failure will be isolated. Check level controls, check pump operation using manual position, check pump output by observing the check valve counterweight as defined in the trouble shooting guide. Once problem is isolated, engage mechanical or electrical disciplines for repairs
 6. Emergency personnel should be absolutely certain that the cause of the pump station alarm or failure has been properly identified and corrected prior to leaving the station.
 7. Reset any/all alarm feature indicator lights.
- Various types of level sensors may be present in the pump station, including bubbler systems, float switches, transducers, or rod-type probes. Similarly various types of controls may be present for pump cycling including pneumatic systems, simple relays and/or computerized processors. The responding crew should be fully capable and trained in the proper function of each of these systems present within the municipality. Trouble shooting these controls is specific to the unit. Consequently, the O&M manual for the level sensor system and pump controls should be consulted during a failure.
 - Pumps may be checked easily for operation by checking the arm of the check-valve in the discharge line of an operating pump. If it feels "spongy" (or soft) when downward pressure is applied with the palm of the hand, the pump is pumping. If a breaker is off and the pump motor is hot to the touch, DO NOT attempt to reset and start. If a pump motor is simply warm, one attempt to restart can be made. Turning the selector switch to manual will normally start a pump, and the check valve arm should move upwards. If the pump has lost prime or is plugged, the check valve will not open.
 - When repairs are completed and pump station is operational, notify system control group of completion. Before leaving station, make certain that the buildings and fencing security measures are in place.

10.0 References

None

11.0 Review and Updating

Signatures: Lance McAvoy 
Deputy Director of Operations

Jerry Walters 
Director of Utilities

STANDARD OPERATING PROCEDURE**CATEGORY****SOP CODE: 0900-009-SWR****SOP TITLE: Secondary Power Failure During Power Outage****Revision Number: 0****Revision Date:****2018/06/13****Page 1 of 4**

1.0 Objective

All City of Fort Smith sewer pump stations have secondary power, either from on-site generators, or from a dual feed arrangement. The following procedures are for failure of the secondary power source during loss of the primary electric source.

2.0 Background

Properly designed, operated, and maintained sanitary sewer systems are meant to collect and transport all of the sewage that flows into them to a publicly owned treatment works (POTW). However, occasional unintentional discharges of raw sewage from municipal sanitary sewers occur. These types of discharges are called sanitary sewer overflows (SSOs). SSOs have a variety of causes, including but not limited to severe weather, improper system operation and maintenance, and vandalism. The untreated sewage from these overflows can contaminate our waters, causing serious water quality problems. It can also back up into homes, causing property damage and threatening public health.

3.0 Safety Procedure

Safety is directly related to your level of professionalism which in turn is directly related to knowledge and ultimately certification. It is imperative that employees conduct all day-to-day activities safely through a combination of awareness and professionalism.

4.0 Potential Hazards

Multiple hazards exist in the performance of the employee's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Falls
- Explosions
- Bites (insects, bugs, rodents, snakes)
- Fire
- Electrical Shock or Arc Flash

Employees are required to follow the City of Fort Smith Safety Practices and Procedures.

5.0 Associated Procedures

- 0500-007-SPS Alternate Power System Inspection

6.0 Responsibilities

Managers – The Utility Facility Manager is responsible for the proper operation and maintenance of the City’s pumping facilities and for ensuring that employees are properly informed of and trained on how to follow the procedures. Managers and supervisors are responsible for ensuring training is conducted with the most recent version of this SOP.

Personnel Performing the Job – All Utility Operations division maintenance employees are responsible for following these procedure.

7.0 Required Equipment

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Glove
- Long Sleeve Shirts
- Long Pants

8.0 Restrictions or Limitations

None

9.0 Procedures

Back-up Generator Available

1. If the secondary power source fails, a portable generator is needed to power the pump station. Mobilize generator to site and hook up to power system.
2. Verify the fuel level in the tank and provide extra fuel can for extended runs.
3. Operate the pump station in manual and pump the station down as much as possible.
4. If the generator is of sufficient power to power the entire station, operate the station in automatic. If not, run only as needed in manual.
5. Monitor the level in the pump station wet well; dispatch vacuum truck for manual removal of sewage as needed to maintain wet well level.

Back-up Generator Unavailable

1. Dispatch vacuum truck to pump station to begin manual removal of raw sewage.
2. Contact System Control to notify electric utility provider.

10.0 References

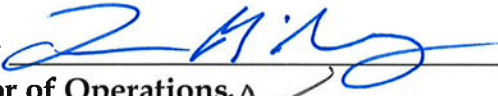

Wastewater Pump Station Listing

Station Number	Station Name	Generator Manufacturer	kW	Serial Number	Voltage/Phase	ATS Manufacturer	Capacity (Amps)	Serial Number
1	P Street	Dual Electrical Feed						
2	Mill Creek	Cummins	1000	D140669181	480/3	Square D	1600	34414253-008
3	Massard	Dual Electrical Feed						
4	Sunnymede	Dual Electrical Feed						
5	Walnut	Cummins	350	M13A037948	480/3	ASCO	600	872156WE
6	Riverfront	Cummins	250	M13A037547	480/3	ASCO	400	872157WE
8	Riverlyn	Dual Electrical Feed						
9	S. I & 4th	Cummins	35	L124035093	240/3	ASCO	250	872158-002WE
10	Plum	Baldor	100	P1202290002	480/3	ASCO	200	836795RE
13	Zero & Jenny Lind	Kohler	600	SGM3289XC	480/3	Thomson	1200	W085300
14	Hunters Point	Cummins	35	L120435079	240/3	ASCO	250	872158-007WE
17	Edgewater	Cummins	35	L120435082	240/3	ASCO	250	912280WE
18	Ball Road	Cummins	250	M13A037958	480/3	ASCO	250	872159-003WE
19	Candlestick	Cummins	250	M13A037956	480/3	ASCO	250	872159-003WE
20	Fort Smith Park	Cummins	35	L124035080	240/3	ASCO	250	872158-004WE
21	Riverbend	Cummins	35	L124035084	240/1	ASCO	250	873719-001WE
22	Riley Farms	Cummins	150	L110252376	480/3	ASCO	250	872159-001WE
23	104th Street	CUMMINS	35	L120435083	240/1	ASCO	250	912280WE
24	Canterbury	Cummins	35	L120435081	240/3	ASCO	250	872158-003WE
25	Lakeview Point	Cummins	35	L120435078	240/3	ASCO	250	872158-001WE
26	Southfield	Cummins	250	M13A037955	480/3	ASCO	250	872159-004WE
27	North Pointe	Cummins	20	G140714124	240/1	ASCO	100	997293RE

Emergency Generator Suppliers

1. Riggs Caterpillar
6601 S. Zero St.
Fort Smith, AR
(479) 646-4755
2. Hug & Hall
331 Agnes Dr.
Springdale, AR
(479) 361-9357

11.0 Review and Updating

Signatures: Lance McAvoy 
Deputy Director of Operations
Jerry Walters 
Director of Utilities

Attachment 10
Private Line Defect Remedial Program Plan Information

Fort Smith Utility Department
Private Service Line Defect Remediation Program
Annual Report for 2018
January 25, 2019

Tables 1 and 2 include the following information regarding the Private Service Line Defect Remediation Program as required in Section V, Article 7 Paragraph 94, k of the Consent Decree:

- Tabulation, including the property address, of the locations where Private Service Line defects were identified through CSSA activities or otherwise became known to City in the Annual Report Year. (Table 1)
- Tabulation of the locations, including the property address, where Private Service Line defect remediation was completed in the Calendar Year. (Table 2)
- Tabulation, by property address, of the locations where Private Service Line defects were identified in prior Years, but where defect remediation has not yet been completed. (Table 3)

All defects in Tables 1, 2, and 3 were initially identified by smoke testing. PSL defects were then rated using a ratio of repair costs (\$3,000 for line repairs and \$300 for cleanouts) divided by the estimated I&I gallons per day. The estimated I&I was based on: an assigned factor smoke for test intensity (light, medium or heavy); contributing surrounding drainage area at the defect location; factoring for elevation (for cleanout only) above or below grade of the contributing area, and; an application of the Rational Method.

The results for Table 1 (using the cost divided by I&I formula) identified a total of 388 private service line defects listed in Table 1 with a rating of between 0.0 and 0.5. The total includes 356 defective cleanouts and 32 defective service laterals. These will be subject to property owner notification and follow up repair activities in 2019.

Table 1 Fort Smith Utility Department Private Service Line Defects Identified through SSA in 2018		
Basin	Address	Defect Source
S007	1011 N 49th St	Cleanout
S006	1015 N 46th St	Cleanout
S006	1015 N 46th St	Cleanout
S006	1105 N 48th St	Cleanout
S006	1106 N 44th St	Cleanout
S006	1107 N 48th St	Cleanout
S006	1200 N 50th St	Cleanout
P004	1203 N R St	Cleanout
P003	1215 N 8th St	Cleanout
S007	1220 N 47th St	Cleanout
S007	1301 N 48th St	Cleanout
P008	1307 N 33rd St	Cleanout
S007	1310 N 47th St	Cleanout

Table 1
Fort Smith Utility Department
Private Service Line Defects Identified through SSA in 2018

Basin	Address	Defect Source
S006	1315 N 52nd St	Cleanout
P003	1315 N 9th St	Cleanout
S006	1400 N 50th St	Cleanout
P003	1411 N 7th St	Cleanout
P003	1411 N 7th St	Cleanout
P005	1420 May Ave	Cleanout
P005	1421 N Greenwood Ave	Cleanout
P005	1424 Belle Ave	Cleanout
S007	1453 N 50th St	Cleanout
P005	1514 N 21st St	Cleanout
P003	1516 N 11th St	Cleanout
S007	1611 N 45th Ter	Cleanout
S006	1615 N 52nd St	Cleanout
P003	1714 N 8th St	Cleanout
P003	1727 N 12th St	Cleanout
P004	1806 N 13th St	Cleanout
P004	1806 N 13th St	Cleanout
P004	1809 N 14th St	Cleanout
P004	1809 N 14th St	Cleanout
P005	1809 N N St	Cleanout
P003	1810 N 6th St	Cleanout
P005	1813 N N St	Cleanout
P003	1815 N 9th St	Cleanout
P004	1816 N 30th St	Cleanout
P003	1819 N 8th St	Cleanout
P004	1821 N 14th St	Cleanout
P005	1823 N M St	Cleanout
P004	1824 N 30th St	Cleanout
P004	1828 N 13th St	Cleanout
P004	1835 N 14th St	Cleanout
P004	1901 N May Ave	Cleanout
S007	1903 N 46th Ter	Cleanout
P003	1905 N 7th St	Cleanout
P003	1906 N 6th St	Cleanout
S007	1907 N 44th Ter	Cleanout
P003	1910 N 7th St	Cleanout
P005	1910 N N St	Cleanout
S007	1912 N 35th St	Cleanout
S007	1913 N 44th Ter	Cleanout
P004	1919 N 31st St	Cleanout

Table 1
Fort Smith Utility Department
Private Service Line Defects Identified through SSA in 2018

Basin	Address	Defect Source
P003	1923 N 6th St	Cleanout
P003	1925 N 6th St	Cleanout
P004	2000 N 13th St	Cleanout
P003	2001 N 9th St	Cleanout
P003	2011 N 12th St	Cleanout
P004	2015 N 30th St	Cleanout
P004	2015 N 30th St	Cleanout
P004	2016 N 12th St	Cleanout
P004	2018 N 13th St	Cleanout
P003	2020 Midland Blvd	Cleanout
P004	2032 N 13th St	Cleanout
P004	2034 N 14th St	Cleanout
P004	2110 N 30th St	Cleanout
P004	2116 N 12th St	Cleanout
P004	2133 N 29th St	Cleanout
P003	2205 N 7th St	Cleanout
P004	2216 N 30th St	Cleanout
P004	2304 N 29th St	Cleanout
P004	2319 N 30th St	Cleanout
P004	2320 N 29th St	Cleanout
P004	2400 N 29th St	Cleanout
P003	2415 N 27th St	Cleanout
P008	2719 N I St	Cleanout
P004	2815 N R St	Cleanout
P008	3002 N L St	Cleanout
P008	3009 N I St	Cleanout
P008	3217 Grand Ave	Cleanout
P004	3217 N S St	Cleanout
P008	3323 Stanard Ave	Cleanout
P008	3500 Kinkead Ave	Cleanout
S007	3600 N O St	Cleanout
S007	3601 Morris Dr	Cleanout
P008	3609 Barry Ave	Cleanout
S007	3609 Morris Dr	Cleanout
S007	3719 Victory Cir	Cleanout
S007	3728 Morris Dr	Cleanout
S007	3800 Morris Dr	Cleanout
S007	3801 Chaffee Dr	Cleanout
S007	3801 MacArthur Dr	Cleanout
S007	3804 Morris Dr	Cleanout

**Table 1
Fort Smith Utility Department
Private Service Line Defects Identified through SSA in 2018**

Basin	Address	Defect Source
S007	3906 Chaffee Dr	Cleanout
S007	3921 MacArthur Dr	Cleanout
S007	3924 Morris Dr	Cleanout
S007	4002 Morris Dr	Cleanout
S007	4005 Chaffee Dr	Cleanout
S007	4015 Chaffee Dr	Cleanout
S007	4120 Morris Dr	Cleanout
S007	4208 Urbana Dr	Cleanout
S006	4217 Tilles Ave	Cleanout
S006	4300 Kinkead Ave	Cleanout
S007	4309 Teakwood Dr	Cleanout
S007	4400 N M St	Cleanout
S007	4500 N M St	Cleanout
S007	4500 Urbana Dr	Cleanout
S007	4520 N O St	Cleanout
S007	4521 N N St	Cleanout
S007	4611 N M St	Cleanout
S006	4615 Kinkead Ave	Cleanout
S006	4615 Kinkead Ave	Cleanout
S007	4713 Mill Pond Ct	Cleanout
P008	515 N 34th St	Cleanout
S006	521 N 46th St	Cleanout
S006	5315 N O St	Cleanout
S006	5315 N O St	Cleanout
S006	619 N 46th St	Cleanout
S006	620 N 44th St	Cleanout
P003	709 N N St	Cleanout
P008	711 N 36th St	Cleanout
S006	712 N 45th St	Cleanout
S006	716 N 48th St	Cleanout
P008	723 N 36th St	Cleanout
P008	800 N 35th St	Cleanout
S006	800 N 44th St	Cleanout
S006	800 N 47th St	Cleanout
P008	801 N 34th St	Cleanout
S006	801 N 49th St	Cleanout
S006	809 N 45th St	Cleanout
P008	900 N 34th St	Cleanout
S006	905 N 44th St	Cleanout
P008	908 N 34th St	Cleanout

Table 1
Fort Smith Utility Department
Private Service Line Defects Identified through SSA in 2018

Basin	Address	Defect Source
P008	914 N 34th St	Cleanout
Z001	HWY 271 S	Cleanout
Z001	1300 Brazil Ave	Cleanout
Z001	1300 Brazil Ave	Cleanout
Z001	1313 Brazil Ave	Cleanout
Z001	1323 Brazil Ave	Cleanout
Z001	1400 Jacobs Ave	Cleanout
P009	1401 Old Greenwood Rd	Cleanout
MC06	1601 S Jackson St	Cleanout
MC06	1706 Raleigh St	Cleanout
MC06	1801 Waco St	Cleanout
Z001	1808 Jacobs Ave	Cleanout
MC07	1823 Phoenix Ave	Cleanout
MC07	1823 Phoenix Ave	Cleanout
Z001	1910 S Zero St	Cleanout
MC06	1914 Waco St	Cleanout
MC07	2 Raleigh Cir	Cleanout
MC07	2001 Phoenix Ave	Cleanout
MC07	2022 Phoenix Ave	Cleanout
MC07	2109 Phoenix Ave	Cleanout
P009	2112 Valley Ln	Cleanout
P009	2200 Garner Ln	Cleanout
MC08	2301 S Savannah St	Cleanout
MC08	2308 S Savannah St	Cleanout
Z001	2319 Ingersoll Cir	Cleanout
MC07	2401 S Savannah St	Cleanout
Z001	2411 S Vicksburg St	Cleanout
Z001	2413 S Vicksburg St	Cleanout
Z001	2413 S Vicksburg St	Cleanout
MC07	2422 Phoenix Ave	Cleanout
P009	2500 S 28th St	Cleanout
MC08	2500 S Tulsa St	Cleanout
P009	2517 S Greenwood Ave	Cleanout
MC07	2519 Phoenix Ave	Cleanout
Z001	2713 S Utica St	Cleanout
P009	2805 Wharton Cir	Cleanout
Z001	2920 S Zero St	Cleanout
Z001	2920 S Zero St	Cleanout
MC08	3001 S Zero St	Cleanout
P009	3026 S 32nd St	Cleanout

**Table 1
Fort Smith Utility Department
Private Service Line Defects Identified through SSA in 2018**

Basin	Address	Defect Source
Z001	3106 Kennedy Ct	Cleanout
P009	3219 Old Greenwood Rd	Cleanout
P009	3220 S 42nd St	Cleanout
Z001	3223 S Quincy St	Cleanout
P009	3224 S 40th St	Cleanout
P009	3415 S Gary St	Cleanout
P009	3416 Old Greenwood Rd	Cleanout
P009	3500 S 35th St	Cleanout
P009	3501 S Boston St	Cleanout
P009	3515 S Boston St	Cleanout
P009	3530 S 34th St	Cleanout
Z001	3609 Phoenix Ave	Cleanout
Z001	3609 Phoenix Ave	Cleanout
FL02	3618 Blair Ave	Cleanout
P009	3720 S Boston St	Cleanout
P009	3721 S Carthage St	Cleanout
FL02	3740 Midland Blvd	Cleanout
FL02	3758 Midland Blvd	Cleanout
FL02	3816 N 43rd St	Cleanout
FL02	3816 N 43rd St	Cleanout
FL02	3816 N 43rd St	Cleanout
FL02	3816 N 43rd St	Cleanout
FL02	3816 N 43rd St	Cleanout
FL02	3821 Mary St	Cleanout
FL02	3900 Mary St	Cleanout
FL02	3905 Mary St	Cleanout
P009	4020 Dallas St	Cleanout
FL02	4108 N 6th St	Cleanout
FL02	4108 N 6th St	Cleanout
FL02	4126 N 6th St	Cleanout
MC06	4205 S 16th St	Cleanout
MC06	4205 S 16th St	Cleanout
FL02	4212 Spradling Ave	Cleanout
FL02	4307 N 6th St	Cleanout
MC07	4417 S 27th St	Cleanout
MC07	4427 S 24th St	Cleanout
FL02	4500 Berkley Ave	Cleanout
FL02	4500 Newlon Rd	Cleanout
FL02	4500 Newlon Rd	Cleanout
FL02	4500 Newlon Rd	Cleanout

Table 1
Fort Smith Utility Department
Private Service Line Defects Identified through SSA in 2018

Basin	Address	Defect Source
FL02	4500 Newlon Rd	Cleanout
FL02	4509 Howell Ave	Cleanout
FL02	4512 Clarendon Ave	Cleanout
MC07	4515 S 25th St	Cleanout
MC06	4515 Towson Ave	Cleanout
MC06	4515 Towson Ave	Cleanout
FL02	4516 Berkley Ave	Cleanout
FL02	4516 Berkley Ave	Cleanout
FL02	4520 Spradling Ave	Cleanout
FL02	4600 Newlon Rd	Cleanout
FL02	4600 Plum St	Cleanout
MC06	4610 S 16th St	Cleanout
MC06	4610 S 16th St	Cleanout
FL02	4611 Arlington Ave	Cleanout
FL02	4611 Berkley Ave	Cleanout
FL02	4615 Spradling Ave	Cleanout
MC08	4715 S 29th St	Cleanout
MC08	4820 S 28th St	Cleanout
MC07	4906 S 22nd St	Cleanout
MC06	4914 S 18th Terr	Cleanout
MC08	5006 S 28th St	Cleanout
MC06	5007 S Savannah Dr	Cleanout
Z001	5013 S 31st St	Cleanout
MC08	5014 S 28th St	Cleanout
MC08	5026 S 22nd St	Cleanout
MC06	5101 Towson Ave	Cleanout
Z001	5106 S 30th St	Cleanout
MC08	5107 S 24th St	Cleanout
FL02	5112 Henderson St	Cleanout
MC06	5117 Jenny Lind Rd	Cleanout
MC06	5117 Jenny Lind Rd	Cleanout
FL02	5200 Plum St	Cleanout
MC06	5218 S 17th Terr	Cleanout
Z001	5222 S 31st St	Cleanout
Z001	5222 S 31st St	Cleanout
MC08	5422 S 30th St	Cleanout
MC08	5501 S 28th St	Cleanout
MC06	5520 Wheeler Ave	Cleanout
Z001	5800 HWY 71 S	Cleanout
Z001	5800 HWY 71 S	Cleanout

Table 1
Fort Smith Utility Department
Private Service Line Defects Identified through SSA in 2018

Basin	Address	Defect Source
Z001	6006 HWY 71 S	Cleanout
Z001	6006 HWY 71 S	Cleanout
Z001	6006 HWY 71 S	Cleanout
Z001	6006 HWY 71 S	Cleanout
Z001	6112 S 31st St	Cleanout
Z001	6201 S 29th St	Cleanout
MC06	621 S Xavier St	Cleanout
Z001	S 29th St	Cleanout
MC06	1418 Phoenix Ave	Cleanout
Z001	1601 Brazil Ave	Cleanout
MC06	1613 Raleigh St	Cleanout
MC06	1615 Phoenix Ave	Cleanout
MC06	1711 Quincy St	Cleanout
P009	1718 S 29th St	Cleanout
MC06	1721 S Vicksburg St	Cleanout
MC06	1807 Waco St	Cleanout
MC07	1820 Phoenix Ave	Cleanout
MC07	1823 Phoenix Ave	Cleanout
MC06	1823 Waco St	Cleanout
MC06	1900 S Vicksburg St	Cleanout
Z001	1910 S Zero St	Cleanout
MC06	1910 Utica Pl	Cleanout
MC06	1916 Utica Pl	Cleanout
MC06	1916 Utica Pl	Cleanout
MC06	1917 S Utica St	Cleanout
P009	2000 Valley Ln	Cleanout
P009	2101 Valley Ln	Cleanout
P009	2105 Valley Ln	Cleanout
Z001	2312 Ingersoll Cir	Cleanout
P009	2315 S 28th St	Cleanout
MC08	2401 S Savannah St	Cleanout
MC07	2510 Raleigh St	Cleanout
MC07	2519 Phoenix Ave	Cleanout
Z001	2801 McKinley Ave	Cleanout
P009	2815 S Q St	Cleanout
MC07	2818 S Osage St	Cleanout
P009	2823 S 33rd St	Cleanout
MC07	2908 S Osage St	Cleanout
MC07	2917 S Cliff Dr	Cleanout
P009	2920 S Carthage St	Cleanout

Table 1
Fort Smith Utility Department
Private Service Line Defects Identified through SSA in 2018

Basin	Address	Defect Source
MC08	2923 S Zero St	Cleanout
MC07	3020 S Osage St	Cleanout
MC07	3023 S Memphis St	Cleanout
Z001	3100 Phoenix Ave	Cleanout
Z001	3112 Phoenix Ave	Cleanout
Z001	3120 Phoenix Ave	Cleanout
Z001	3208 Phoenix Ave	Cleanout
Z001	3217 S Quincy St	Cleanout
P009	3220 Old Greenwood Rd	Cleanout
P009	3223 S 39th St	Cleanout
P009	3301 S 41st St	Cleanout
P009	3304 S M St	Cleanout
P009	3305 Leigh's Hollow Ln	Cleanout
P009	3308 Leigh's Hollow Ln	Cleanout
P009	3313 S 41st St	Cleanout
P009	3415 S Gary St	Cleanout
P009	3500 Lucy Ln	Cleanout
P009	3510 Old Greenwood Rd	Cleanout
P009	3511 S 34th St	Cleanout
P009	3621 S Carthage St	Cleanout
P009	3701 Dallas St	Cleanout
FL02	3919 Mary St	Cleanout
P009	4002 S Fresno St	Cleanout
FL02	4230 Spradling Ave	Cleanout
FL02	4301 Newlon Rd	Cleanout
FL02	4400 Midland Blvd	Cleanout
MC06	4400 S 16th St	Cleanout
MC07	4406 S 22nd St	Cleanout
MC07	4409 S 25th St	Cleanout
MC06	4501 S 16th St	Cleanout
FL02	4507 North St	Cleanout
FL02	4512 Spradling Ave	Cleanout
FL02	4516 Spradling Ave	Cleanout
FL02	4517 Virginia Ave	Cleanout
MC07	4609 S 26th St	Cleanout
FL02	4611 Berkley Ave	Cleanout
FL02	4709 Clarendon Ave	Cleanout
FL02	4716 Arlington Ave	Cleanout
MC07	4804 S 22nd St	Cleanout

Table 1
Fort Smith Utility Department
Private Service Line Defects Identified through SSA in 2018

Basin	Address	Defect Source
MC06	4811 S 18th Terr	Cleanout
MC06	4819 S 18th Terr	Cleanout
MC08	4820 S 28th St	Cleanout
Z001	4917 S 32nd St	Cleanout
FL02	5000 Speer St	Cleanout
Z001	5001 S 29th St	Cleanout
Z001	5002 S 30th St	Cleanout
MC06	5007 S Savannah Dr	Cleanout
Z001	5015 S 35th St	Cleanout
MC06	502 S Xavier St	Cleanout
MC06	5022 S 17th Terr	Cleanout
Z001	5101 S 28th St	Cleanout
Z001	5106 S 30th St	Cleanout
Z001	5116 S 30th St	Cleanout
Z001	5123 S 33rd St	Cleanout
MC06	5423 Wheeler Ave	Cleanout
MC06	5520 Wheeler Ave	Cleanout
MC06	5708 Towson Ave	Cleanout
MC06	5724 HWY 271 S	Cleanout
Z001	5901 S 29th St	Cleanout
Z001	5912 S 36th St	Cleanout
Z001	5921 Ferguson St	Cleanout
Z001	6000 S 36th St	Cleanout
MC07	7 Raleigh Cir	Cleanout
Z001	2411 S Vicksburg St	Service Lateral
MC08	2500 2502 S Savannah St	Service Lateral
MC08	2506 S Savannah St	Service Lateral
Z001	2724 Utica St	Service Lateral
MC08	2727 S Waco St	Service Lateral
MC07	2814 S Osage St	Service Lateral
Z001	3000 S Savannah St	Service Lateral
P009	3013 S 34th St	Service Lateral
FL02	3608 Blair Ave	Service Lateral
FL02	4015 North St	Service Lateral
MC06	4515 S 16th St	Service Lateral
FL02	4712 Plum St	Service Lateral
MC08	5026 S 22nd St	Service Lateral
Z001	5116 S 32nd St	Service Lateral
MC06	5309 Jenny Lind Rd	Service Lateral
Z001	6006 HWY 71 S	Service Lateral

Table 1
Fort Smith Utility Department
Private Service Line Defects Identified through SSA in 2018

Basin	Address	Defect Source
P003	1121 N N St	Service Lateral
P003	1301 N 9th St	Service Lateral
P005	1432 May Ave	Service Lateral
P005	1432 May Ave	Service Lateral
P005	1436 N 29th St	Service Lateral
P003	1515 N 11th St	Service Lateral
P003	1810 N 8th St	Service Lateral
P004	1812 N 12th St	Service Lateral
P003	1812 Short 7th St	Service Lateral
P004	2015 N 30th St	Service Lateral
P004	2020 N 29th St	Service Lateral
P005	2101 N M St	Service Lateral
P004	2132 N 13th St	Service Lateral
P003	2200 N 9th St	Service Lateral
P004	2807 N R St	Service Lateral
P008	618 N 35th St	Service Lateral

Table 2 includes tabulation of the locations, including the property address, where Private Service Line defect remediation was completed in the Calendar Year. The total number of remediated defects includes 88 cleanouts and 27 service laterals.

Table 2
Fort Smith Utility Department
Private Service Line Defects Remediated in 2018

Basin	Address	Defect Source
FL01	10 Northwood Dr	Cleanout
P007	1109 36th	Cleanout
P007	1111 44th	Cleanout
P007	120 Presley	Cleanout
P007	1207 Tancred	Cleanout
P007	1305 39th	Cleanout
P007	1306 39th	Cleanout
P007	1309 41st	Cleanout
P007	1312 38th	Cleanout
P007	1417 37th	Cleanout
P007	1422 36th	Cleanout
P007	1435 44th	Cleanout
P007	1438 40th	Cleanout

Table 2
Fort Smith Utility Department
Private Service Line Defects Remediated in 2018

Basin	Address	Defect Source
P007	1456 40th	Cleanout
FL01	15 Sylvan Hills	Cleanout
P007	1506 37th	Cleanout
P007	1522 34th	Cleanout
S008	1914 N 34th St	Cleanout
S008	2017 N 34th St	Cleanout
S008	2112 N 47th Terrace	Cleanout
S009	2400 Yorkshire Dr	Cleanout
S009	2400 Yorkshire Dr	Cleanout
S008	2415 N Albert Pike Ave	Cleanout
S008	2515 N 39th St	Cleanout
S008	2517 N 38th St	Cleanout
S008	2600 N 38th St	Cleanout
P007	315 44th	Cleanout
FL01	3310 Irving St	Cleanout
FL01	3313 Neis St	Cleanout
FL01	3316 Oak Grove St	Cleanout
FL01	3316 Oak Grove St	Cleanout
S008	3404 Kelley Hwy	Cleanout
FL01	3419 Northview Dr	Cleanout
FL01	3429 Carrizo St	Cleanout
S008	3429 Warner St	Cleanout
FL01	3433 Carrizo St	Cleanout
FL01	3505 Harris Ave	Cleanout
S008	3509 Ridgeway Dr	Cleanout
FL01	3516 Fischer Ave	Cleanout
S008	3521 Pryor Ave	Cleanout
FL01	3603 Newlon Rd	Cleanout
P007	3616 Kinkead	Cleanout
P007	3645 Presley	Cleanout
P007	3705 Hon	Cleanout
P007	3819 Free Ferry	Cleanout
S009	3909 Wirsing Ave	Cleanout
S009	3909 Wirsing Ave	Cleanout
S008	3939 Ridgeway Dr	Cleanout
S008	4000 Marshall Dr	Cleanout
S008	4004 Marshall Dr	Cleanout
FL01	4018 Newlon Rd	Cleanout
S009	4106 Wirsing Ave	Cleanout
P007	4108 Hardie	Cleanout

Table 2
Fort Smith Utility Department
Private Service Line Defects Remediated in 2018

Basin	Address	Defect Source
P007	4112 Stanard	Cleanout
P007	4126 Stanard	Cleanout
S003	4200 S Q St	Cleanout
S003	4200 S Q St	Cleanout
FL01	4311 N 32nd St	Cleanout
P007	4312 Presley	Cleanout
S009	4417 Wirsing Avenue	Cleanout
FL01	4421 N 31st St	Cleanout
S009	4526 Young Street	Cleanout
S009	4604 Johnson St	Cleanout
S009	4605 Johnson St	Cleanout
S009	4608 Johnson St	Cleanout
S009	4608 Johnson St	Cleanout
S009	4615 Johnson St	Cleanout
S009	4624 Armour Street	Cleanout
FL01	4710 N 37th St	Cleanout
S009	4712 Wirsing Avenue	Cleanout
S009	4712 Wirsing Avenue	Cleanout
FL01	4729 Irene St	Cleanout
S003	4916 Free Ferry Rd	Cleanout
FL01	5 Northwood Dr	Cleanout
FL01	5020 Staples St	Cleanout
S009	5100 Spradling Ave	Cleanout
P007	512 38th	Cleanout
S004	5375 Cliff Dr	Cleanout
S004	5375 Cliff Dr	Cleanout
S004	5375 Cliff Dr	Cleanout
S004	5375 Cliff Dr	Cleanout
S004	5505 Yantis St	Cleanout
S003	5602 Elm St	Cleanout
FL01	5607 Irene St	Cleanout
S003	5621 Free Ferry Rd	Cleanout
P007	714 39th	Cleanout
P007	801 39th	Cleanout
P007	Unk 42nd	Cleanout
P007	1220 41st ST	Service Lateral
P007	1301 38th	Service Lateral
S003	1301 Burnham Rd	Service Lateral
P007	1406 39th	Service Lateral
P007	1406 39th	Service Lateral

**Table 2
Fort Smith Utility Department
Private Service Line Defects Remediated in 2018**

Basin	Address	Defect Source
P007	1406 39th	Service Lateral
P007	1411 38th	Service Lateral
P007	1522 37th	Service Lateral
S004	1800 Burnham	Service Lateral
S008	2515 N 39th St	Service Lateral
S004	2700 S 56th St	Service Lateral
S008	3225 N Albert Pike Ave	Service Lateral
S008	3225 N Albert Pike Ave	Service Lateral
FL01	3431 Fischer Avenue	Service Lateral
FL01	3512 Price Cir	Service Lateral
S008	3618 Bradley Dr	Service Lateral
FL01	3632 Fischer Ave	Service Lateral
FL01	3632 Fischer Ave	Service Lateral
FL01	3807 N 6 th Street, A	Service Lateral
FL01	4000 N 6 th Street	Service Lateral
FL01	4000 N 6 th Street	Service Lateral
FL01	4000 N 6 th Street	Service Lateral
FL01	4125 N 32nd St	Service Lateral
FL01	4125 N 32nd St	Service Lateral
FL01	4213 N 31 st Street	Service Lateral
FL01	4213 N 31 st Street	Service Lateral
P007	619 41st	Service Lateral

Table 3 includes tabulation, by property address, of the locations where Private Service Line defects were identified in prior Years, but where defect remediation has not yet been completed. The total number of defects not remediated include 142 cleanouts and 129 service laterals. Two defects previously identified were determined to be public cleanouts, and 22 were determined not to be a significant source for I&I. There are 228 pending a response to owner notification, 9 pending remediation, and 10 transferred to SEP.

**Table 3
Fort Smith Utility Department
Private Service Line Identified in Prior Years – Not Remediated in 2018**

Basin	Address	Defect Source
FL01	1 Northwood Dr	Cleanout
P007	1001 37th	Cleanout
P007	1005 46th	Cleanout
P007	1105 44th	Cleanout
P007	1112 37th	Cleanout

**Table 3
Fort Smith Utility Department
Private Service Line Identified in Prior Years – Not Remediated in 2018**

Basin	Address	Defect Source
P007	1122 39th	Cleanout
P007	1124 J	Cleanout
P007	1128 38th	Cleanout
S003	117 N 53rd St	Cleanout
S003	117 N 53rd St	Cleanout
P007	1209 38th	Cleanout
P007	1210 40th	Cleanout
P007	1220 35th	Cleanout
P007	1223 36th	Cleanout
S003	126 S 46th St	Cleanout
S003	126 S 46th St	Cleanout
P007	1304 38th	Cleanout
P007	1309 41st	Cleanout
P007	1309 Albert Pike	Cleanout
P007	1319 38th	Cleanout
S003	1331 Chestnut Way	Cleanout
S003	1331 Chestnut Way	Cleanout
S003	1331 Chestnut Way	Cleanout
S003	1331 S 46th St	Cleanout
S003	1331 S 46th St	Cleanout
S003	1331 S 46th St	Cleanout
P007	1400 39th	Cleanout
S003	1408 Burnham Ct	Cleanout
P007	1418 36th	Cleanout
P007	1424 38th	Cleanout
P007	1427 35th	Cleanout
P007	1427 40th	Cleanout
P007	1449 38th	Cleanout
P007	1501 37th	Cleanout
P007	1505 34th	Cleanout
P007	1515 34th	Cleanout
P007	1517 36th	Cleanout
S004	1719 Burnham	Cleanout
S004	1801 Burnham	Cleanout
S004	1803 Burnham	Cleanout
S003	2014 S Albert Pike Ave	Cleanout
S008	2200 N 47th Terrace	Cleanout
P007	221 44th	Cleanout
S009	2333 N 47th Terrace	Cleanout
S008	2400 N 33rd St	Cleanout

**Table 3
Fort Smith Utility Department
Private Service Line Identified in Prior Years – Not Remediated in 2018**

Basin	Address	Defect Source
S004	2601 56th	Cleanout
S008	2609 N 37th St	Cleanout
S009	2610 N 41st St	Cleanout
S008	269 Division	Cleanout
S008	270 Division	Cleanout
S008	271 Futral Dr	Cleanout
FL01	2805 Walnut St	Cleanout
S008	2914 Midland Blvd	Cleanout
FL01	2920 Walnut St	Cleanout
S008	3020 Blair Ave	Cleanout
S008	3024 Blair Ave	Cleanout
P007	311 41st	Cleanout
S009	3115 N Albert Pike Ave	Cleanout
P007	316 41st	Cleanout
S009	3201 N 42nd St	Cleanout
S008	3215 Wirsing Ave	Cleanout
P007	330 41st	Cleanout
FL01	3311 Emrich St	Cleanout
FL01	3318 Oak grove St	Cleanout
S009	3322 N 52nd St	Cleanout
S009	3405 N 48th St	Cleanout
S008	3419 Johnson St	Cleanout
S008	3428 Armour St	Cleanout
FL01	3505 Boone Ave	Cleanout
FL01	3522 Harris Ave	Cleanout
FL01	3528 Fischer Ave	Cleanout
FL01	3535 Clayton Ct	Cleanout
P007	3601 Kinhead	Cleanout
S008	3601 Marshall Dr	Cleanout
S008	3603 Johnson St	Cleanout
FL01	3607 N 6th St	Cleanout
S008	3614 Roosevelt Rd	Cleanout
P007	3625 Presley	Cleanout
P007	3629 Presley	Cleanout
FL01	3710 Reed Ln	Cleanout
S009	3813 Birnie Ave	Cleanout
S009	3822 Wirsing Ave	Cleanout
S008	3901 Dean Dr	Cleanout
S009	3911 Birnie	Cleanout
S008	3915 Dean Dr	Cleanout

**Table 3
Fort Smith Utility Department
Private Service Line Identified in Prior Years – Not Remediated in 2018**

Basin	Address	Defect Source
S008	3922 Ridgeway Dr	Cleanout
S008	3923 1/2 Johnson St	Cleanout
S009	4019 Armour St	Cleanout
S009	4019 Wirsing Ave	Cleanout
P007	4020 40th	Cleanout
P007	4100 Grand Ave	Cleanout
S008	4102 Dean Dr	Cleanout
P007	4111 Kinkead	Cleanout
S009	4201 Brockman Ave	Cleanout
S009	4206 High St	Cleanout
S009	4212 Armour Street	Cleanout
S009	4215 Johnson Street	Cleanout
S009	4217 N Albert Pike Ave	Cleanout
S009	4220 Johnson Street	Cleanout
FL01	4300 Mussett Rd	Cleanout
P007	4300 Park	Cleanout
S009	4310 Virginia Ave	Cleanout
S009	4319 Johnson Street	Cleanout
S009	4415 Johnson Street	Cleanout
S008	4418 Windsor Dr	Cleanout
S009	4501 Yorkshire Dr	Cleanout
S009	4503 N 45th St	Cleanout
S009	4504 Johnson Street	Cleanout
S009	4508 High St	Cleanout
S008	4518 Windsor Dr	Cleanout
FL01	4531 Irene St	Cleanout
FL01	4610 N 32nd St	Cleanout
S009	4612 Yorkshire Dr	Cleanout
S009	4612 Yorkshire Dr	Cleanout
FL01	4623 Oak St	Cleanout
S008	4631 N 46th Cir	Cleanout
FL01	4703 N 33rd St	Cleanout
S009	4723 Wirsing Avenue	Cleanout
S003	4809 Chestnut Way	Cleanout
S009	4820 Spradling Ave	Cleanout
S009	4822 High St	Cleanout
FL01	5024 Staples St	Cleanout
P007	509 41st	Cleanout
P007	519 38th	Cleanout
P007	520 36th	Cleanout

**Table 3
Fort Smith Utility Department
Private Service Line Identified in Prior Years – Not Remediated in 2018**

Basin	Address	Defect Source
S003	5204 Free Ferry Rd	Cleanout
S003	5310 Summit St	Cleanout
S004	5310 Yantis St	Cleanout
P007	534 40th	Cleanout
S004	5414 S Y St	Cleanout
S004	5426 Euper	Cleanout
S003	5507 Summit Ct	Cleanout
S004	5610 S Y St	Cleanout
S003	5611 Duncan Rd	Cleanout
S009	5704 N 50th St	Cleanout
S004	5801 Rogers Ave	Cleanout
S004	5821 Cliff Dr	Cleanout
S003	6218 Free Ferry Rd	Cleanout
P007	814 41st	Cleanout
P007	901 Albert Pike	Cleanout
S008	Division St	Cleanout
FL01	N 32nd St	Cleanout
P007	1005 40th	Service Lateral
P007	1007 37th	Service Lateral
P007	1009 38th	Service Lateral
P007	1009 38th	Service Lateral
P007	1015 37th	Service Lateral
P007	1024 36th	Service Lateral
P007	1105 44th	Service Lateral
P007	1112 40th	Service Lateral
P007	1115 36th	Service Lateral
P007	1115 38th	Service Lateral
P007	1115 44th	Service Lateral
P007	1120 Albert Pike	Service Lateral
P007	1123 37th	Service Lateral
P007	1207 41st	Service Lateral
P007	1208 37th	Service Lateral
P007	1221 39th	Service Lateral
P007	1221 39th	Service Lateral
P007	1311 40th	Service Lateral
P007	1316 37th	Service Lateral
P007	1318 39th	Service Lateral
P007	1318 39th	Service Lateral
P007	1320 37th	Service Lateral
P007	1405 40th	Service Lateral

**Table 3
Fort Smith Utility Department
Private Service Line Identified in Prior Years – Not Remediated in 2018**

Basin	Address	Defect Source
P007	1411 40th	Service Lateral
P007	1426 40th	Service Lateral
P007	1430 40th	Service Lateral
P007	1437 36th	Service Lateral
P007	1444 36th	Service Lateral
P007	1445 37th	Service Lateral
P007	1515 33th	Service Lateral
P007	200 41st	Service Lateral
S008	2409 N 33rd St	Service Lateral
S004	2414 S 58th St	Service Lateral
S008	2508 N 39th St	Service Lateral
S004	2511 S 57th St	Service Lateral
S004	2511 S 57th St	Service Lateral
S008	273 Futral Dr	Service Lateral
S009	2810 N Albert Pike Ave	Service Lateral
FL01	2918 Emrich St	Service Lateral
FL01	2919 Emrich St	Service Lateral
FL01	2919 Emrich St	Service Lateral
FL01	3006 Emrich Street	Service Lateral
FL01	3006 Emrich Street	Service Lateral
S008	3015 Blair Ave	Service Lateral
S008	3015 Blair Ave	Service Lateral
S003	302 N 56th St	Service Lateral
S009	3206 N 43rd St	Service Lateral
S009	3308 N 49th St	Service Lateral
S009	3314 N 49th St	Service Lateral
S009	3314 N 49th St	Service Lateral
S009	3330 N 48th St	Service Lateral
S009	3330 Virginia Ave	Service Lateral
S009	3405 N 48th St	Service Lateral
P007	3414 O St	Service Lateral
FL01	3424 Spradling Ave	Service Lateral
S008	3600 Bradley Dr	Service Lateral
FL01	3602 Reed Ln, Ste A	Service Lateral
FL01	3619 N 6th St	Service Lateral
P007	3629 Presley	Service Lateral
P007	3637 Presley	Service Lateral
S008	3701 Marshall Dr	Service Lateral
S008	3709 Bradley Dr	Service Lateral
S009	3711 Birnie	Service Lateral

**Table 3
Fort Smith Utility Department
Private Service Line Identified in Prior Years – Not Remediated in 2018**

Basin	Address	Defect Source
S009	3711 Birnie	Service Lateral
S009	3711 Birnie Ave	Service Lateral
S008	3712 Marshall Dr	Service Lateral
FL01	3715 Mussett Rd	Service Lateral
FL01	3715 Mussett Rd	Service Lateral
S008	3802 Ridgeway Dr	Service Lateral
FL01	3804 Mussett Road	Service Lateral
FL01	3804 Mussett Road	Service Lateral
S008	3806 Ridgeway Dr	Service Lateral
S009	3815 Birnie	Service Lateral
P007	3900 Grand Ave	Service Lateral
FL01	3909 Mussett Rd	Service Lateral
S008	3918 Bradley Dr	Service Lateral
S008	3931 Ridgeway Dr	Service Lateral
S008	3935 Ridgeway Dr	Service Lateral
S009	4005 Brockman Ave	Service Lateral
S009	4005 Brockman Ave	Service Lateral
S009	4021 Armour St	Service Lateral
S008	4021 Ridgeway Dr	Service Lateral
S009	4022 Wirsing Ave	Service Lateral
S008	4100 Kelley Hwy	Service Lateral
S008	4115 Dean Dr	Service Lateral
S008	4125 Dean Dr	Service Lateral
S008	4125 Dean Dr	Service Lateral
S008	4125 Dean Dr	Service Lateral
FL01	4205 N 31st Street	Service Lateral
FL01	4205 N 31st Street	Service Lateral
FL01	4209 N 31st Street	Service Lateral
FL01	4209 N 31st Street	Service Lateral
FL01	4209 N 31st Street	Service Lateral
FL01	4209 N 31st Street	Service Lateral
S009	4212 Armour Street	Service Lateral
S009	4224 Virginia Ave	Service Lateral
S009	4312 Armour St	Service Lateral
FL01	4320 N 31st Street	Service Lateral
FL01	4320 N 31st Street	Service Lateral
S009	4415 Armour St	Service Lateral
S009	4415 Johnson Street	Service Lateral
S009	4516 Wirsing Ave	Service Lateral
S009	4524 N 46th St	Service Lateral

Table 3
Fort Smith Utility Department
Private Service Line Identified in Prior Years – Not Remediated in 2018

Basin	Address	Defect Source
S009	4701 Wirsing Ave	Service Lateral
S009	4718 Johnson St	Service Lateral
S009	4723 Wirsing Avenue	Service Lateral
S009	4723 Wirsing Avenue	Service Lateral
S009	4900 Spradling Ave	Service Lateral
S009	4910 Armour St	Service Lateral
P007	516 39th	Service Lateral
P007	519 36th	Service Lateral
S003	5304 Summit St	Service Lateral
P007	531 39th	Service Lateral
S003	5414 Free Ferry Rd	Service Lateral
S004	5414 Y St S	Service Lateral
S004	5414 Y St S	Service Lateral
S004	5801 Rogers Ave	Service Lateral
S004	5801 Rogers Ave	Service Lateral
S004	5801 Rogers Ave	Service Lateral
S004	5911 Elsworth	Service Lateral
S004	6001 Rogers Ave	Service Lateral
P007	614 36th	Service Lateral
P007	619 39th	Service Lateral
P007	709 39th	Service Lateral
P007	710 36th	Service Lateral
P007	710 36th	Service Lateral
P007	710 36th	Service Lateral
P007	800 41st	Service Lateral
P007	814 41st	Service Lateral

Public education for the Private Service Line Program will continue in 2019 through public events, flyers, handouts, our webpage, and social media.

Attachment 11
Comprehensive Training Program Information

Purpose

The purpose of the Training Report is to provide a comprehensive overview of training goals and accomplishments for the year 2018. By reviewing the year's training, we can identify strong areas to maintain as well as weak points to address, adapt, and overcome.

Summary

In the year 2018 we provided or facilitated training in both safety and career related topics, accumulating over 3000 instances of training, totaling over 5000 man-hours worth of training.

Confined Space and Excavation/Competent Person training was provided to a large part of the Utility Department crews. This training identifies many of the risks involved with their day-to-day work and provides education on mitigating those risks. Over 70 employees were provided this training both experienced and new.

The Utility Department hosted a Workplace Safety Seminar for the year 2018. The seminar included the following safety topics:

1. Blood borne Pathogens – Overview of the importance of wearing protective equipment and treating fluids as contaminated.
2. Violence in the Workplace – Overview on identifying potential violent threats in the workplace and how best to mitigate the danger.
3. OSHA vs. AOSH – Overview of key distinctions between OSHA and AOSH.
4. Hazards of Wild Animals in Rural Areas – Overview on identifying dangerous animals in rural areas and how to mitigate danger and risk.
5. Railroad Crossing Safety – Overview on staying safe when operating around railroad tracks.

The seminar also featured vendor booths that allowed for employees to make contact with various vendors and identify potential assets in increasing performance and safety.

Training Development

Throughout the year, new approaches were researched and developed to address training concerns as listed by the CMOM Requirements. Existing training was extensively reviewed and adjusted to meet the needs of current on-the-job requirements and safety policies and procedures.

The safety and training employees attended a train-the-trainer course for powered industrial trucks. This allowed for an effective Forklift Safety and Certification training to be developed and established internally. This alleviates the need to either wait until there is enough people needing the training to justify the cost of an instructor, or to provide costly training to only a few employees.

Safety Orientation has been further modularized, dividing topics into encompassing clusters to assist in overall flow and retention of the information. By properly grouping topics, new employees are able to understand and retain the information being presented easier and have more time for questions and review.

A general overview of sanitary sewer overflows (SSO) was developed to help establish basic responsibilities of Utility Department employees when an SSO is discovered. By educating employees on what an SSO is and the importance in reporting an SSO in a timely manner, employees can assist the department with meeting Consent Decree requirements.

An Employee Development Program (EDP) was developed to better assist with onboarding of new employees. It will provide a standardized framework for employee positions and the training required to help them become competent at their job.

Online Training

As training continues to develop and expand, the need for online training became apparent. After spending several months in developing a training room with accessible computers and procedures for online training, BLR's online training was launched for the Utility Department. Since launching we have addressed four topics utilizing BLR's online modules.

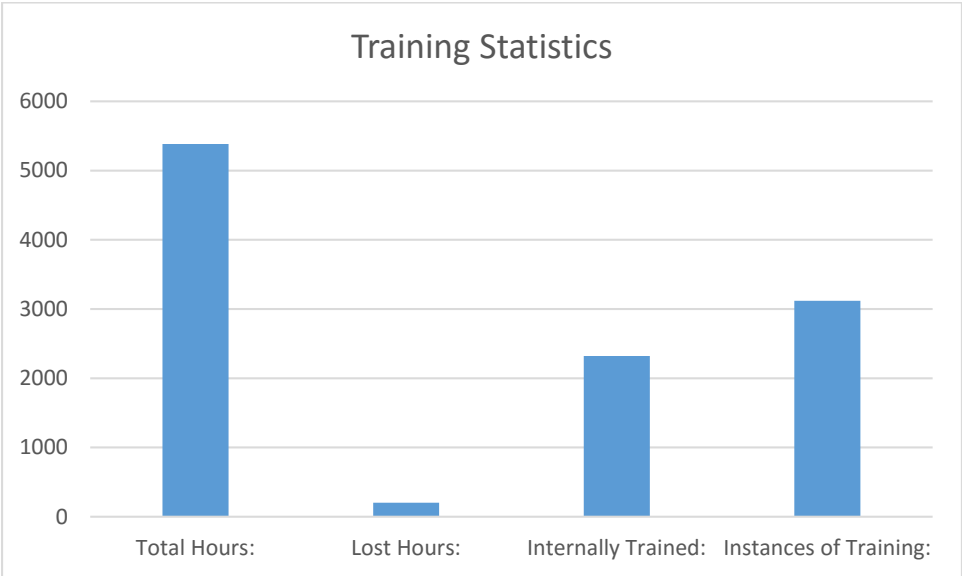
1. Respiratory Protection – Addresses the importance of maintaining and utilizing respiratory equipment when necessary.
2. Fire Extinguisher Training – Provides an overview of the different types of fire extinguishers and when to use them.
3. Working in Hot Conditions – Identifies the dangers of working in hot conditions and how to better mitigate the risk of injury.
4. Personal Protective Equipment – An overview of various personal protective equipment and how to decide which equipment will be suitable for the work being done.

Despite issues with employees' being able to login to the computers, in the short time since launch, BLR has handled over 40 hours of training and over 80 instances of training. Through the year 2019 we will continue to expand the online training and utilize it whenever appropriate.

Conclusion

In the year 2018 we conducted more instances of training and opened a new platform to provide the training. We were able to continue to establish a culture of education and safety through training and a positive approach to staying safe. By keeping training current and consistent, we can keep employee awareness and education high.

Hours Trained vs. Hours Lost



CMOM Training Chart

CMOM Training Chart		Technical and Skill Training Topics													
Employee Category	WCTS Configuration, Facilities, & Overview	Consent Decree Program Overview including CMOM Implications & Requirements	Sewer Overflow Response	Sewer Cleaning	FOG Inspection	WCTS Inspection	WCTS Repair, Replacement, & Rehabilitation Techniques	Pump Station Inspection	Pump Station O&M/Repair	Excavation Safety	Work Zone Safety (Including Traffic Control)	Information Management, Data Collection, Reporting & Recordkeeping	Safety, Confined Space Entry	Safety, Lockout/Tagout	Safety, General Orientation
Sewer Cleaning	43	20	60	24	9	14	26	14	14	174	106	3	62	4	331
SSO Response	47	23	62	24	9	14	29	14	14	179	108	6	65	5	357
Sewer Pump Station	86	24	60	24	9	14	26	14	14	188	114	3	87	7	486
FOG Inspection		1	4		3					3	1	19	1		18
WCTS Inspection	5	17	53	21	7	11	33	11	11	147	84	29	51		241
Sewer System Repair and Construction	47	22	63	24	9	14	36	14	14	187	109	29	70	5	357
Private Service Line	4	3	5				6			8	3	29	5		36
Information Management System	67	33	90	24	11	14	54	14	14	206	124	109	84	8	560

Green - Technical and Skill Training required for the Employee Category

Attachment 12
Supplemental Environmental Project (SEP)

Fort Smith Utility Department
Supplemental Environmental Project (SEP) – Private Service Line
Replacement Program Annual Report for 2018
January 25, 2019

Table 1 includes the following information regarding the Supplemental Environmental Project (SEP) – Private Service Line Replacement Program as required in Section D, Subparagraph 3 of Appendix F ("Reporting Schedule") of the Consent Decree:

- Deposit of funds to the Escrow account by the City;
- Disbursement of funds from the Escrow account by the Escrow Agent and to whom disbursements are made to pay plumbers/contractors, or eligible property owners or to the City for services completed;
- The current balance of funds held in the Escrow account; and,
- List of locations (addresses) of residential property owners where services have been performed under the SEP program.

Table 1 Fort Smith Utility Department Supplemental Environmental Project (SEP) Escrow Journal Private Service Line Defect Remediation Program January 1, 2018 through December 31, 2018					
Date	Description	Owner/Location	Deposit	Disbursement	Balance
1/1/2018	Beginning Market Value				\$204,856.33
1/10/18	To: May Avenue Plumbing	1507 S. Dallas		\$(2,100.00)	
3/7/18	To: Blaylock Plumbing	3804 Mussett Road		\$(915.00)	
3/7/18	To: May Avenue Plumbing	1504 Belle Avenue		\$(1,503.00)	
3/7/18	To: Mr. Rooter Plumbing	1202 S. 10th Street		\$(1,827.00)	
3/14/18	To: Mr. Rooter Plumbing	4905 Arlington Avenue		\$(1,752.00)	
4/11/18	To: May Avenue Plumbing	715 North 14th Street		\$(1,599.00)	
5/16/18	To: May Avenue Plumbing	4220 Johnson Street		\$(1,074.00)	
6/6/18	To: May Avenue Plumbing	1521 North 38th Street		\$(2,174.00)	
7/11/18	To: May Avenue Plumbing	3100 North 46th Street		\$(1,299.00)	
7/18/18	To: May Avenue Plumbing	5424 Park Avenue		\$(5,231.00)	
7/25/18	To: May Avenue Plumbing	1109 North 9th Street		\$(1,749.00)	
8/8/18	To: May Avenue Plumbing	2034 North 14th Street		\$(1,599.00)	
8/8/18	To: May Avenue Plumbing	1441 May Avenue		\$(1,899.00)	
8/8/18	To: May Avenue Plumbing	4400 Wynnewood Dr		\$(1,599.00)	
8/15/18	To: May Avenue Plumbing	3901 Dean Drive		\$(1,224.00)	
8/22/18	To: Westark Plumbing	7912 Colony Lane		\$(1,449.00)	

Table 1
Fort Smith Utility Department
Supplemental Environmental Project (SEP) Escrow Journal
Private Service Line Defect Remediation Program
January 1, 2018 through December 31, 2018

Date	Description	Owner/Location	Deposit	Disbursement	Balance
8/29/18	To: Mr. Rooter Plumbing	1413 N. 39th Street		\$(1,194.00)	
9/5/18	To: Westark Plumbing	1211 North 38th Street		\$(1,524.00)	
9/19/18	To: May Avenue Plumbing	220 Lecta Avenue		\$(2,822.00)	
9/26/18	To: Westark Plumbing	1722 North 9th Street		\$(2,043.00)	
9/6/18	To: May Avenue Plumbing	330 North 41st Street		\$(1,848.00)	
9/19/18	To: City of Fort Smith Utility Department*	330 North 41st Street		\$(1,930.00)	
9/26/18	To: May Avenue Plumbing	5423 Virginia Ave		\$(2,348.00)	
10/15/18	To: City of Fort Smith Utility Department*	5423 Virginia Ave		\$(760.00)	
12/5/18	To: May Avenue Plumbing	4614 Victoria Drive		\$(1,299.00)	
12/5/18	To: May Avenue Plumbing	2106 Garner		\$(1,224.00)	
12/19/18	To: Westark Plumbing	1311 N 40th St		\$(2,283.00)	
12/31/18	Total Disbursements			\$(48,268.00)	
12/31/18	Net Gain Income Interest and Dividends, Accrued Income, and Unrealized Appreciation				\$2,652.35
12/31/18	Ending Market Value				\$159,240.68

* New sewer tap required in order to remediate the homeowner's private service line.

A SEP Notification was sent to customers through City billing cycles in December 2018 to provide I&I summary and project requirements. The notification and additional information about the SEP is posted to the Utility Department webpage.

Public education for the SEP will continue in 2019 with additional notices sent through the customer billing, press releases, our web page, and social media.