

2019
Annual Report on Compliance
City of Bangor, Maine

Pursuant to the requirements of
United States and State of Maine v. City of Bangor Consent Decree
Civil Action No. 1:15-cv-00350-NT

January 31, 2020



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Certification Statement

City of Bangor, Maine

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 submitted 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.

By: 
Cathy Conlow
City Manager

Date: 1-30-20

2019 Annual Report on Compliance

I. Introduction

The City of Bangor (the “City” or “Bangor”) is pleased to submit this Annual Report on Compliance, pursuant to the requirements of the *United States and State of Maine v. City of Bangor Consent Decree*, Civil Action No. 1:15-cv-00350-NT, entered on November 13, 2015 (the “Consent Decree”), for the reporting period beginning on January 1, 2019, and ending on December 31, 2019.

II. Status of Compliance

A. Submittals Required by the Consent Decree during the Reporting Period

<u>Date Submitted</u>	<u>Deliverable</u>
January 29, 2019	Annual Report on Compliance for calendar year 2018
February 28, 2019	copy of Annual CSO Report to DEP for calendar year 2018
June 11, 2019	Mid-year Report
June 26, 2019	GIS Deliverable (per Par. 9.a of the Consent Decree)
September 13, 2019	copy of MS4 Permit Year 6 Report, 2013-2018 Permit Cycle to DEP (per Par. 10 of the Consent Decree)
Various	ADS Flow Monitoring Reports (per Par. 22 of the Consent Decree)

B. Identification of any Non-Compliance

There were no incidences of non-compliance with the requirements of the Consent Decree identified for the 2019 reporting period.

III. Compliance Activities

A. Measures Taken to Reduce CSO and SSO Volumes

1. Capital Improvement Projects (CIP)

Dow Main Abandonment

The project consisted of abandoning 12 manholes and 4,350 linear feet of sewer main with associated services in the Dow subsection. The two active services in the area were rerouted to other mains. Work began the second week of March and ended April 26, 2019. Assuming groundwater infiltration of 15,000 GPD per mile for the pipe and 20 GPD for the manholes, the project removed approximately 12,540 GPD of seasonal groundwater infiltration.

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Dow Trunk Abandonment

The abandonment of the Dow Trunk line was part of the Odlin Road Pump Station project. In the spring of 2019, this line was abandoned. By removing 19 manholes and 6,690 linear feet of 18" clay pipe, the City has removed as much as 1.5 MG of RDII per storm, based on previously reported flow monitoring. This project was completed with a Clean Water SRF loan.

Railroad Street Regulator

The Railroad Street regulator structure was bid in the winter of 2019 with construction starting in March 2019. This project is anticipated to be complete in June 2020. The Railroad Street regulator structure was designed to improve hydraulics at the regulator and upsize the dry weather connection from 30" and 21" to 42". This project also replaced several sections of the Davis Brook stone outfall sewer with box culvert to reduce inflow/infiltration and overall structure integrity of the pipe sections. Preliminary data collected after the new regulator was functional show an approximately 75% reduction in overflow events at Davis Brook outfall. This project was completed with a Clean Water SRF loan.

Davis Brook Storage Tank

The Davis Brook Storage Tank (DBST) was the first CSO project identified in the LTCP. Design plans are complete, and project bids were opened in December 2019. The contract is in negotiations. The DBST will have a 3.8 MG storage capacity and will expand the overall CSO storage capacity at the site from 1.2 MG (with the current Davis Brook Storage Conduit) to 5.0 MG. The DBST is anticipated to be completed in fall of 2021. This project will be funded by a Clean Water SRF loan.

Main Street Separation

This project in the Barkersville subsection was completed in advance of a scheduled Maine DOT road project. The City of Bangor and the Bangor Water District completed necessary upgrade work prior to the Maine DOT work. The City's work consisted of sewer replacement and storm drain separation. Approximately 1100 linear feet of brick sewer were replaced with PVC. Four new separated catch basins, 42 feet of storm drain and 780 feet of separated underdrain were installed. Construction was completed in November 2019.

Parker Street

This project consists of replacing 900 feet of sewer pipe and six manholes in the Davis Brook subsection. The project will replace a failing brick line running through back yards and redirect flow to new line in the street. Some segments of existing VC pipe will also be

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replaced. This project, which will reduce inflow and infiltration (I/I) and improve sewer accessibility in the subsection, has been awarded. Construction will start in spring 2020.

Wing Park

This project will re-route a sewer main with four 90° angles running through private property that has experienced sanitary sewer overflows (SSOs) in past years. The new line will be constructed in the City right-of-way in the Carr Brook subsection. Adjacent failing sewer segments will also be replaced. The project is the final design stage. Test borings are complete. The project is expected to go out to bid in spring 2020 for construction starting in the summer of 2020.

Griffin-Bolling

This project in the Airport subsection consists of repairs to pipes and manholes recommended in the LTCP as a result of the Phase II SSES. The project has been awarded, and construction is expected to start in February of 2020.

First Street

This project consists of constructing new sewer mains on First Street to replace a brick sewer constructed in 1871 at one end and a private sewer constructed about the same time at the other end. All buildings will be reconnected to the new lines. This project is in the Davis Brook subsection and is at the 50% design stage. This project is expected to go out to bid in the spring of 2020.

May Street Separation

The City was approached by an engineer working with a private property owner to rebuild a retaining wall. They needed to connect a wall drain and parking lot drainage system to the City's system at the corner of May and Pleasant Streets. May Street had a combined sewer that was originally installed in 1888 and was in poor condition. The City installed 136.5 feet of new 8 inch PVC sewer main and 2 sewer manholes to replace the existing brick sewer on May Street. The City also installed 425 feet of storm drain and 4 new catch basins to replace and extend the existing separated drainage system, reducing flow to the combined sewer on May Street.

SCADA Needs Assessment and Upgrades

The City contracted with Wright Pierce for a SCADA needs assessment and implementation plan for upgrades. The needs assessment was completed on July 6, 2018. Based on the plan's recommendations, the City has begun Phase I of the SCADA upgrade project, critical components have been replaced at the WWTP, and control upgrades at Kenduskeag Pump Station are under construction to be completed by June 2020. Phase II of the SCADA upgrade project is funded and planning is underway.

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2. Weir and Regulator Adjustments

The Railroad Street regulator was replaced in 2019, along with upsized connections, as described in Section III.A.1 of this report. The replacement allows more flow from the subsection to reach the existing tank. Since the new regulator became functional, there have been no recorded overflows at the regulator structure.

3. Other

- Continued clearing cross-country sewer easement areas. Cleared cross-country easements have been maintained.
- Performed visual inspections of the cross-country sewer easements in March, June/July, October/November 2019.
- Installed 24 new manholes in the collection system to increase accessibility of mains in Meadowbrook, Barkersville, Davis Brook, Dow, Kenduskeag East, Woodlawn and Arctic Brook subsections.

4. Annual CSO Progress Report

The City of Bangor monitors flow at each of its CSO outfalls, either through the Supervisory Control and Data Acquisition (SCADA) system, a contract with ADS Environmental Services for electronic flow meters, or visual means. These data were used to prepare the Annual CSO Progress Report for 2018, which was submitted to Maine DEP on February 28, 2019. This report was copied to EPA.

Pursuant to the requirements of the City's Maine Pollutant Discharge Elimination (MEPDES) permit ME0100781, as revised, dated August 8, 2016, the City will submit the Annual CSO Progress Report for 2019 to Maine DEP by March 1, 2020. A copy of the report will also be submitted to EPA.

B. Illicit Connections

1. List of Illicit Connections

There were no illicit connections discovered in 2019.

2. GIS Map of Each Illicit Connection

There were no illicit connections discovered in 2019.

C. Collection System Assessments and Maintenance

Based on the most current GIS data available, the length of the inspectable portion of the City's sewer collection system is approximately 710,380 linear feet, or 134.5 miles. The length of the remaining components of the sewer collection system, including interceptors,

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force mains, siphons, and leads, is approximately 75,860 linear feet, or approximately 14.4 miles. Generally, interceptors, force mains, siphons, and leads are not able to be inspected using CCTV or flushed under normal operating circumstances using standard industry practices. There are approximately 3,324 manholes in the collection system, including the 24 new ones added this year.

1. CCTV Assessments

The City and/or its subcontractors completed 123,982 linear feet of CCTV inspections within the publicly owned sewer collection system. This amount includes repeat CCTV inspections. The total length of system pipe investigated is 90,103 linear feet, or about 13% of the inspectable portion of the sewer collection system. Refer to [Appendix A](#) (CCTV Inspection Log) for a complete listing of CCTV inspections completed during the reporting period.

2. Manhole Assessments

The City and/or its subcontractors completed manhole inspections on 395 publicly owned sewer collection system manholes in 2019, which is about 11% of the total number of public manholes in the system. This number does not include repeat inspections. Refer to [Appendix B](#) (Manhole Inspection Log) for a complete listing of inspections completed during the reporting period.

3. Repairs, Replacements, or Upgrades Identified by CCTV

Refer to [Appendix C](#) (CCTV Repair, Replacement, and Upgrade Log) for a listing of repairs, replacements, or upgrades that were identified during CCTV investigations, as well as a schedule for implementation for those repairs, replacements, or upgrades that were not completed during the reporting period.

4. Cleaning

The City and/or its subcontractors cleaned 168,147 linear feet of pipe within the publicly owned sewer collection system in 2019, including repeat cleanings. The total length of pipe cleaned excluding repeat cleanings is 83,302 linear feet, or about 12% of the inspectable portion of the sewer collection system. Refer to [Appendix D](#) (Cleaning Log), for a complete listing of cleaning completed during the reporting period. This includes cleaning done in advance of CCTV work and performed as part of routine maintenance activities. Note that lines are not always cleaned in advance of CCTV work, as sometimes it is beneficial to perform a CCTV investigation on a pipe without prior cleaning.

D. Maintenance Improvement Plan (MIP)

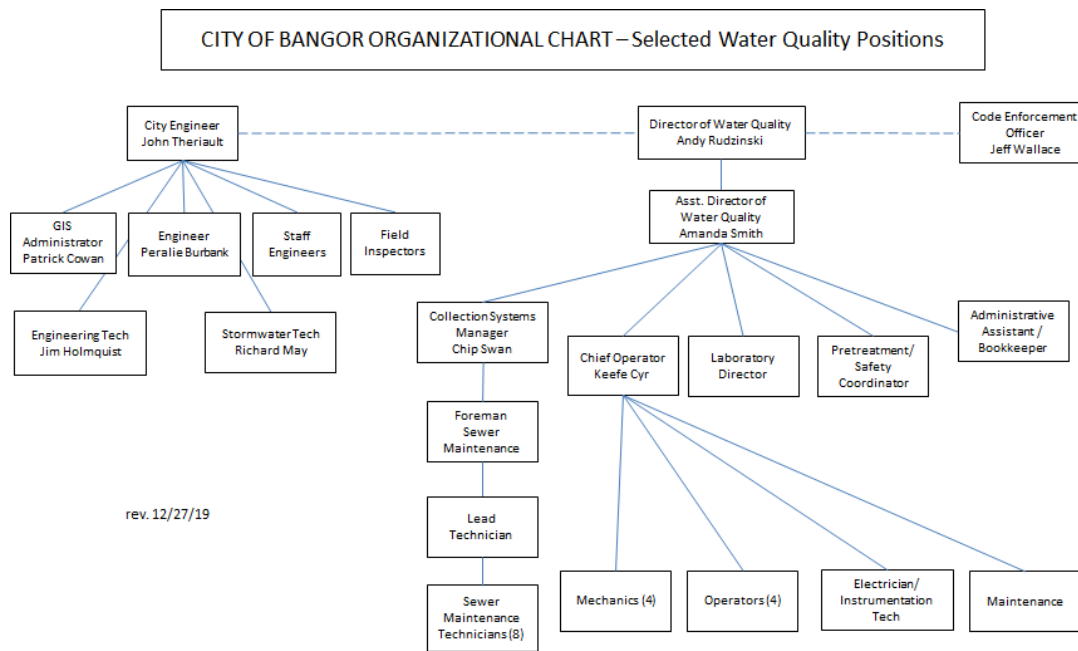
The City revises and updates the MIP on a yearly basis. The following substantive changes were made in 2019.

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1. Plan Updates

a) *Organizational Structure, Information Management, Contacts*

The following is the current organization chart showing key positions.



b) *Changes to System Maps*

The collection system mapping is updated continuously throughout the year as part of the City's ongoing GIS infrastructure mapping program. The GIS dataset containing sewer, stormwater, and other relevant features is provided to EPA annually on July 1 pursuant to Par. 9.a. of the Consent Decree.

c) *Incorporation of Cleaning, Inspection, and Assessment Programs*

The City has a goal to clean, inspect, and assess 10% of its sewer collection system per year. The lists of pipe that were inspected and cleaned during the reporting period are included in [Appendix A](#) (CCTV Inspection Log) and [Appendix D](#) (Cleaning Log), respectively. The list of manholes that were inspected during the reporting period is included as [Appendix B](#) (Manhole Inspection Log).

d) *Changes to Sewer Use Ordinance or Fats, Oils, and Grease Program*

There were no changes to the ordinance. The City continues to review CCTV footage and grease trap maintenance logs prior to renewal of victualer licenses. If necessary, the City captures additional CCTV inspections to determine if extra grease trap maintenance is required.

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2. Performance Metrics

a) SSOs

SSO events that occurred during the reporting period are summarized in the table below. For a detailed listing of SSO events that occurred during the reporting period, refer to [Appendix E](#) (SSO Event Log).

Total number of SSOs	5
Estimated total volume of SSOs (gallons)	11,010
Number of dry weather SSOs	0
Number of wet weather SSOs	3
Number of SSOs where weather was either unknown or irrelevant to type of incident	2
Number of SSOs caused primarily by pipe blockage (debris, grease)	1
Number of SSOs caused primarily by pipe failure	0

b) Routine Cleaning and CCTV Assessment

For the total amount of collections system pipe that was inspected by CCTV and cleaned during the reporting period, refer to [Appendix A](#) (CCTV Inspection Log) and [Appendix D](#) (Cleaning Log), respectively.

c) Pump Station Work Orders

There were 51 pump station work orders completed during the reporting period. Kenduskeag pump station is checked seven days per week. The other pump stations are visited a minimum of twice per week. During these checks, housekeeping, minor repairs, and adjustments are made that are not reflected on work orders.

d) Fats, Oils, and Grease (FOG)

During the 2019 reporting period, the City permitted the installation of two grease traps, one new and one replacement, which have been installed and inspected. No facilities are known to be operating without a license or grease trap. Several facilities were required to increase the frequency of cleanings, and one was required to clean the private line entering the collection system. No formal enforcement actions were taken against facilities.

IV. Sanitary Sewer Overflows (SSOs)

A. Chronological List of SSOs

There were five SSOs, including Private Property Backups, that occurred during the reporting period. Refer to [Appendix E](#) (SSO Event Log) for a complete listing of SSOs that occurred within the reporting period, as well as details regarding each incident.

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B. GIS Map of Each SSO

Location maps of SSOs that occurred within the reporting period are included as Appendix E (Location Map of Sanitary Sewer Overflows).

V. Sanitary System Evaluation Survey (SSES) Update

The City continued manhole evaluations and pipe inspection in the Barkersville, Carr Brook, and Davis Brook. The following manholes with infiltration were noted.

Manhole	Estimated I/I (GPD)
BV252	20
BV331	20
BV350	20
BV587	20
CB450	200
DB004	20
DB025	20
DB105	20
DB107	20
DB380	20
DB802	20
DB966	20

Based on review of the inspection data, no known or suspected exfiltration into the storm drain system or surface waters was identified.

VI. CSO Long-Term Control Plan (LTCP) Update

The City has removed at least 409,600 GPD of infiltration and inflow from the system since 2015.

Year	No. of Projects	I/I removed (GPD)
2016	1	5,600
2017	3	5,800
2018	1	4,200
2019	3	*394,000
TOTAL	8	409,600

*Based on flow monitoring completed by CH2MHill, it was predicted that abandoning the Dow trunk line would remove 1.5 MG of RDII from system with each storm. Flow metering

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at the Barkersville tank and the WWTP appear to support this number. For the above table, an estimate of 375,000 gallons was used for the amount of groundwater removed.

VII. Compliance Activities Planned for Following Reporting Period

The following activities, in no particular order, are planned for the next reporting period in order to achieve compliance with the requirements of the Consent Decree and reduce CSO and SSO volumes:

- Locate and redirect illicit connections as part of Municipal Separate Storm Sewer System (MS4) permit compliance activities.
- Continue work under the City's sewer spot repair contract to prioritize and repair trouble spots and other defects in the collection system.
- Clean, perform CCTV inspections, and identify upgrades, repairs, or replacements needed in the collection system, covering a minimum of 10% of the collection system per year. Areas of focus for the next reporting period include the Meadowbrook, Penjajawoc and Hildreth-Perry subsections.
- Continue collection system maintenance activities such as easement clearing and easement inspections.
- Submit the Annual CSO Progress Report to DEP and EPA, due on or before March 1, 2020.
- Submit the Annual Report for MS4 PY7 to DEP and EPA, due on or before September 15, 2020.
- Begin construction on the second holding tank in the Davis Brook subsection.
- Complete design and begin construction of various sewer improvement projects.

Note that certain of the above-described tasks planned for the next reporting period may be subject to adjustment due to changing priorities (including, among other things, the need to prioritize emergency repairs) and to take advantage of opportunities that may arise to align capital projects with other utility or roadway resurfacing work.

Appendices

- A. CCTV Inspection Log**
- B. Manhole Inspection Log**
- C. CCTV Repair, Replacement, and Upgrade Log**
- D. Cleaning Log**
- E. SSO Event Log**
- F. Location Map of Sanitary Sewer Overflows**

Appendix A

CCTV Inspection Log

APPENDIX A: CCTV INSPECTION LOG

City of Bangor, Maine
Calendar Year 2019

Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
AB001	ARCTIC BROOK	3/18/2019	35.8	NO	
AB072	ARCTIC BROOK	12/16/2019	46.2	NO	
AB150	ARCTIC BROOK	12/18/2019	238.8	NO	
AB231	ARCTIC BROOK	12/16/2019	109.3	NO	
AB232	ARCTIC BROOK	12/16/2019	302.5	NO	
AB233	ARCTIC BROOK	12/13/2019	90.6	NO	
AB234	ARCTIC BROOK	12/13/2019	199.6	NO	
AB235	ARCTIC BROOK	12/13/2019	5.0	NO	
AB236	ARCTIC BROOK	12/13/2019	4.3	NO	
AB236	ARCTIC BROOK	12/13/2019	5.5	NO	
AB351	ARCTIC BROOK	12/18/2019	224.8	NO	
AB353	ARCTIC BROOK	12/17/2019	199.8	NO	
AB354	ARCTIC BROOK	12/17/2019	85.5	NO	
AB354	ARCTIC BROOK	12/23/2019	125.4	YES	resurvey after flushing
AB356	ARCTIC BROOK	1/23/2019	4.3	YES	reversal
AB360	ARCTIC BROOK	12/17/2019	104.8	NO	
AB370	ARCTIC BROOK	12/17/2019	300.7	NO	
AB371	ARCTIC BROOK	1/23/2019	101.0	NO	
AB380	ARCTIC BROOK	12/17/2019	360.1	NO	
AB422	ARCTIC BROOK	12/16/2019	65.3	YES	resurvey due to cable failure
AB435	ARCTIC BROOK	9/23/2019	94.0	YES	post rehabilitation survey
AB436	ARCTIC BROOK	9/23/2019	204.3	YES	post rehabilitation survey
AB440	ARCTIC BROOK	11/25/2019	40.7	NO	
AB441	ARCTIC BROOK	11/25/2019	2.2	NO	
AB450	ARCTIC BROOK	12/16/2019	124.0	NO	
AB471	ARCTIC BROOK	12/16/2019	3.5	NO	
AB471	ARCTIC BROOK	12/16/2019	133.8	NO	
AB472	ARCTIC BROOK	11/25/2019	44.2	NO	
AB501	ARCTIC BROOK	3/25/2019	159.6	NO	
AB502	ARCTIC BROOK	2/11/2019	329.3	YES	maintenance related
AB502	ARCTIC BROOK	3/25/2019	22.7	YES	reversal, maintenance related
AB503	ARCTIC BROOK	2/11/2019	111.4	YES	maintenance related
AB504	ARCTIC BROOK	2/11/2019	352.2	YES	maintenance related
AB505	ARCTIC BROOK	2/11/2019	437.0	YES	maintenance related
AB506	ARCTIC BROOK	2/1/2019	164.0	YES	pre-rehabilitation survey
AB506	ARCTIC BROOK	2/1/2019	152.5	YES	reversal
AB507	ARCTIC BROOK	2/1/2019	146.6	NO	
AB507	ARCTIC BROOK	12/30/2019	227.0	NO	
AB509	ARCTIC BROOK	12/18/2019	135.1	NO	
AB509	ARCTIC BROOK	12/18/2019	76.1	NO	reversal
AB509	ARCTIC BROOK	12/26/2019	397.6	YES	resurvey after flushing
AB750	ARCTIC BROOK	12/5/2019	203.6	NO	
AB751	ARCTIC BROOK	12/5/2019	275.0	NO	
AB752	ARCTIC BROOK	12/5/2019	326.2	NO	

APPENDIX A: CCTV INSPECTION LOG

City of Bangor, Maine
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Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
AB760	ARCTIC BROOK	12/5/2019	342.2	NO	
AP233	AIRPORT	7/18/2019	291.8	YES	maintenance related
AP285	AIRPORT	7/9/2019	186.8	YES	maintenance related
AP302	AIRPORT	6/10/2019	293.5	NO	
AP312	AIRPORT	1/14/2019	1.4	YES	reversal
AP312	AIRPORT	1/14/2019	68.5	YES	resurvey after flushing
AP312	AIRPORT	1/16/2019	73.3	YES	post rehabilitation survey
AP312	AIRPORT	1/17/2019	159.1	YES	reversal, post rehabilitation survey
AP351	AIRPORT	9/11/2019	159.1	YES	maintenance related
AP353	AIRPORT	6/13/2019	255.8	YES	capital improvement
AP355	AIRPORT	6/17/2019	335.5	YES	capital improvement
AP415	AIRPORT	6/19/2019	156.6	YES	post rehabilitation survey
AP416	AIRPORT	7/15/2019	148.8	NO	
AP481	AIRPORT	6/6/2019	285.7	YES	post rehabilitation survey
AP508	AIRPORT	8/1/2019	197.5	NO	
AP701	AIRPORT	7/19/2019	142.8	YES	post rehabilitation survey
AP702	AIRPORT	7/19/2019	27.1	YES	post rehabilitation survey
AP703	AIRPORT	7/19/2019	74.6	NO	
AP723	AIRPORT	6/11/2019	174.1	YES	post rehabilitation survey
AP735	AIRPORT	7/19/2019	162.5	NO	
AS003	AUTUMN STREET	11/20/2019	127.3	NO	
BS001	BLANCHARD STREET	3/18/2019	44.7	YES	maintenance related
BS002	BLANCHARD STREET	3/18/2019	11.9	YES	maintenance related
BS003	BLANCHARD STREET	3/18/2019	234.2	YES	maintenance related
BS004	BLANCHARD STREET	3/18/2019	360.6	YES	maintenance related
BS017	BLANCHARD STREET	2/20/2019	259.5	YES	maintenance related
BS900	BLANCHARD STREET	3/25/2019	224.3	NO	
BS901	BLANCHARD STREET	3/25/2019	220.3	NO	
BS902	BLANCHARD STREET	3/25/2019	98.6	NO	
BS903	BLANCHARD STREET	3/25/2019	96.3	NO	
BU450	BURLEIGH	12/4/2019	270.3	NO	
BU451	BURLEIGH	12/4/2019	179.1	NO	
BU452	BURLEIGH	12/4/2019	241.1	NO	
BU453	BURLEIGH	12/4/2019	124.1	NO	
BU454	BURLEIGH	12/4/2019	167.6	NO	
BU455	BURLEIGH	12/4/2019	199.1	NO	
BU460	BURLEIGH	12/4/2019	390.8	NO	
BU461	BURLEIGH	12/5/2019	292.3	NO	
BU462	BURLEIGH	12/4/2019	265.3	NO	
BU511	BURLEIGH	8/16/2019	277.8	NO	
BV028A	BARKERSVILLE	5/9/2019	433.0	NO	
BV034	BARKERSVILLE	4/9/2019	25.3	YES	infiltration/inflow study
BV034	BARKERSVILLE	4/9/2019	73.3	YES	reversal, infiltration/inflow study
BV055	BARKERSVILLE	12/2/2019	711.5	NO	
BV060	BARKERSVILLE	1/23/2019	307.8	NO	

APPENDIX A: CCTV INSPECTION LOG

City of Bangor, Maine
Calendar Year 2019

Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
BV060	BARKERSVILLE	11/26/2019	267.6	YES	pre-acceptance
BV061	BARKERSVILLE	1/23/2019	516.2	YES	maintenance related
BV061	BARKERSVILLE	1/23/2019	47.4	YES	reversal
BV062	BARKERSVILLE	1/23/2019	60.4	NO	
BV062	BARKERSVILLE	1/25/2019	169.4	YES	reversal
BV063	BARKERSVILLE	1/25/2019	317.5	YES	resurvey after cleaning
BV064	BARKERSVILLE	1/22/2019	405.4	NO	
BV090	BARKERSVILLE	11/26/2019	38.5	NO	
BV091	BARKERSVILLE	11/26/2019	211.3	NO	pre-acceptance
BV091	BARKERSVILLE	12/11/2019	204.3	YES	resurvey after cleaning
BV092	BARKERSVILLE	11/26/2019	257.5	NO	
BV093	BARKERSVILLE	11/26/2019	37.7	NO	
BV094	BARKERSVILLE	11/26/2019	278.3	NO	
BV094	BARKERSVILLE	11/26/2019	7.0	YES	reversal
BV094	BARKERSVILLE	12/11/2019	286.7	YES	resurvey after cleaning
BV095	BARKERSVILLE	12/2/2019	46.5	NO	
BV096	BARKERSVILLE	12/11/2019	268.0	NO	
BV107	BARKERSVILLE	6/11/2019	178.1	YES	capital improvement
BV109	BARKERSVILLE	6/11/2019	57.7	YES	capital improvement
BV110	BARKERSVILLE	6/11/2019	0.6	YES	capital improvement
BV115	BARKERSVILLE	12/2/2019	73.9	NO	
BV119	BARKERSVILLE	12/2/2019	62.5	NO	
BV120	BARKERSVILLE	4/30/2019	306.8	YES	post rehabilitation survey
BV130	BARKERSVILLE	5/31/2019	145.1	NO	
BV140	BARKERSVILLE	2/7/2019	81.7	YES	pre-rehabilitation survey
BV140	BARKERSVILLE	2/14/2019	228.6	YES	reversal
BV141	BARKERSVILLE	2/7/2019	228.4	YES	pre-rehabilitation survey
BV142	BARKERSVILLE	2/7/2019	49.4	NO	
BV150	BARKERSVILLE	2/8/2019	57.9	NO	
BV203	BARKERSVILLE	12/13/2019	398.7	NO	
BV218	BARKERSVILLE	6/19/2019	203.1	YES	post rehabilitation survey
BV250	BARKERSVILLE	5/31/2019	14.8	NO	
BV251	BARKERSVILLE	5/31/2019	113.0	NO	
BV300	BARKERSVILLE	2/11/2019	4.8	YES	pre-rehabilitation survey
BV300	BARKERSVILLE	4/30/2019	289.3	YES	post rehabilitation survey
BV301	BARKERSVILLE	2/6/2019	152.7	NO	
BV301	BARKERSVILLE	2/7/2019	7.9	YES	reversal
BV301	BARKERSVILLE	4/30/2019	224.6	YES	post rehabilitation survey
BV320	BARKERSVILLE	4/2/2019	69.4	YES	infiltration/inflow study
BV333	BARKERSVILLE	4/11/2019	118.4	YES	infiltration/inflow study
BV340	BARKERSVILLE	4/11/2019	184.6	YES	infiltration/inflow study
BV430	BARKERSVILLE	5/9/2019	90.8	NO	
BV430	BARKERSVILLE	5/10/2019	128.6	YES	infiltration/inflow study
BV440	BARKERSVILLE	4/1/2019	195.8	NO	
BV440	BARKERSVILLE	4/2/2019	226.1	YES	infiltration/inflow study

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BV450	BARKERSVILLE	2/19/2019	553.0	YES	maintenance related
BV453	BARKERSVILLE	2/28/2019	209.8	YES	maintenance related
BV468	BARKERSVILLE	5/10/2019	26.8	NO	
BV490	BARKERSVILLE	5/13/2019	177.6	NO	
BV500	BARKERSVILLE	5/14/2019	348.1	NO	
BV506	BARKERSVILLE	5/16/2019	431.0	YES	infiltration/inflow study
BV507	BARKERSVILLE	5/16/2019	34.5	NO	
BV511	BARKERSVILLE	6/11/2019	222.3	YES	post rehabilitation survey
BV520	BARKERSVILLE	5/30/2019	41.9	NO	
BV520A	BARKERSVILLE	4/2/2019	60.5	YES	infiltration/inflow study
BV520A	BARKERSVILLE	5/13/2019	314.7	YES	resurvey after cleaning
BV521	BARKERSVILLE	5/13/2019	8.6	YES	infiltration/inflow study
BV521	BARKERSVILLE	5/13/2019	147.1	YES	reversal
BV530	BARKERSVILLE	5/13/2019	3.7	NO	
BV535	BARKERSVILLE	4/2/2019	361.7	NO	
BV540	BARKERSVILLE	4/11/2019	349.2	NO	
BV541	BARKERSVILLE	4/2/2019	296.2	NO	
BV541	BARKERSVILLE	8/1/2019	397.6	YES	post rehabilitation survey
BV551	BARKERSVILLE	5/14/2019	305.0	NO	
BV553	BARKERSVILLE	5/14/2019	130.3	NO	
BV560	BARKERSVILLE	5/16/2019	34.0	NO	
BV561	BARKERSVILLE	4/9/2019	200.5	NO	
BV561	BARKERSVILLE	5/16/2019	115.5	NO	
BV562	BARKERSVILLE	5/9/2019	54.0	NO	
BV565	BARKERSVILLE	5/10/2019	256.7	NO	
BV566	BARKERSVILLE	5/10/2019	212.8	NO	
BV577	BARKERSVILLE	5/9/2019	257.0	NO	
BV577	BARKERSVILLE	5/9/2019	378.8	NO	
BV590	BARKERSVILLE	5/9/2019	15.8	NO	
BV591	BARKERSVILLE	5/30/2019	14.1	NO	
BV595	BARKERSVILLE	5/14/2019	15.8	NO	
BV601	BARKERSVILLE	5/31/2019	2.2	NO	
BV616	BARKERSVILLE	4/10/2019	248.8	YES	infiltration/inflow study
BV617	BARKERSVILLE	4/10/2019	295.0	YES	infiltration/inflow study
BV619	BARKERSVILLE	4/1/2019	318.6	YES	infiltration/inflow study
BV626	BARKERSVILLE	4/1/2019	324.0	NO	
BV640	BARKERSVILLE	5/9/2019	8.6	NO	
BV650	BARKERSVILLE	4/2/2019	127.9	NO	
BV655	BARKERSVILLE	4/2/2019	19.3	NO	
BV661	BARKERSVILLE	5/31/2019	12.8	NO	
BV701	BARKERSVILLE	5/30/2019	36.7	NO	
BV703	BARKERSVILLE	3/12/2019	2.0	YES	resurvey to check condition
BV703	BARKERSVILLE	3/14/2019	94.0	YES	resurvey reversal to check condition
BV704	BARKERSVILLE	7/18/2019	369.5	YES	maintenance related
BV705	BARKERSVILLE	12/17/2019	198.1	NO	

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BV705	BARKERSVILLE	12/17/2019	469.2	YES	resurvey due to cable failure
BV726	BARKERSVILLE	10/11/2019	94.9	YES	pre-rehabilitation survey
BV730	BARKERSVILLE	2/11/2019	69.7	YES	pre-rehabilitation survey
BV730	BARKERSVILLE	2/26/2019	119.1	YES	pre-rehabilitation survey
BV740	BARKERSVILLE	2/11/2019	212.5	YES	pre-rehabilitation survey
BV740	BARKERSVILLE	5/30/2019	134.1	NO	
BV741	BARKERSVILLE	2/8/2019	152.5	NO	
BV741	BARKERSVILLE	2/11/2019	79.8	YES	reversal
BV742	BARKERSVILLE	2/11/2019	60.9	YES	pre-rehabilitation survey
BV742	BARKERSVILLE	5/30/2019	60.7	NO	
BV760	BARKERSVILLE	5/9/2019	281.2	NO	
BV760	BARKERSVILLE	5/9/2019	4.0	NO	
BV761	BARKERSVILLE	5/10/2019	26.7	NO	
BV761	BARKERSVILLE	5/13/2019	29.0	YES	infiltration/inflow study
BV763	BARKERSVILLE	5/9/2019	43.4	NO	
BV801	BARKERSVILLE	5/10/2019	216.1	NO	
BV810	BARKERSVILLE	4/5/2019	134.3	NO	
BV811	BARKERSVILLE	4/4/2019	348.8	NO	
BV815	BARKERSVILLE	4/4/2019	329.2	NO	
BV815	BARKERSVILLE	4/16/2019	429.6	YES	post rehabilitation survey
BV830	BARKERSVILLE	5/31/2019	64.0	NO	
BV835	BARKERSVILLE	4/4/2019	205.0	NO	
CB211	CARR BROOK	2/14/2019	181.4	YES	maintenance related
CB211	CARR BROOK	4/16/2019	186.3	YES	post rehabilitation survey
CB212	CARR BROOK	2/14/2019	2.6	YES	reversal
CB350	CARR BROOK	6/24/2019	1.2	NO	
CB450	CARR BROOK	2/12/2019	55.7	YES	maintenance related
CB451	CARR BROOK	2/12/2019	361.7	YES	maintenance related
CB452	CARR BROOK	2/12/2019	56.3	YES	maintenance related
CM720	CEMETERY	11/19/2019	177.0	NO	
CM730	CEMETERY	11/18/2019	250.8	NO	
CM731	CEMETERY	11/18/2019	241.6	NO	
CM740	CEMETERY	11/18/2019	34.5	NO	
CM741	CEMETERY	11/18/2019	376.2	NO	
CM860	CEMETERY	11/18/2019	269.1	NO	
CS001	CENTRAL STREET	1/15/2019	27.1	NO	
CS002	CENTRAL STREET	1/15/2019	22.8	NO	
CS003	CENTRAL STREET	1/15/2019	148.6	NO	
CS003A	CENTRAL STREET	1/15/2019	71.7	NO	
CS004	CENTRAL STREET	1/15/2019	74.0	NO	
CS004A	CENTRAL STREET	1/28/2019	3.6	NO	
CS005	CENTRAL STREET	1/28/2019	60.7	NO	
CS006	CENTRAL STREET	1/10/2019	3.1	NO	
CS100	CENTRAL STREET	1/15/2019	83.0	NO	
DB007	DAVIS BROOK	5/2/2019	298.0	NO	

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DB008	DAVIS BROOK	5/2/2019	127.1	NO	
DB008A	DAVIS BROOK	5/24/2019	28.1	YES	infiltration/inflow study
DB017	DAVIS BROOK	5/8/2019	328.7	NO	
DB018	DAVIS BROOK	5/24/2019	21.7	NO	
DB019	DAVIS BROOK	5/1/2019	396.2	NO	
DB020	DAVIS BROOK	5/1/2019	247.3	NO	
DB021	DAVIS BROOK	5/24/2019	40.5	NO	
DB022	DAVIS BROOK	4/24/2019	96.8	NO	
DB023	DAVIS BROOK	4/24/2019	128.0	NO	
DB025	DAVIS BROOK	3/7/2019	341.4	NO	
DB026	DAVIS BROOK	5/3/2019	136.6	NO	
DB026	DAVIS BROOK	5/7/2019	67.0	NO	
DB100	DAVIS BROOK	5/28/2019	9.8	NO	
DB101	DAVIS BROOK	5/28/2019	33.0	NO	
DB101A	DAVIS BROOK	5/1/2019	252.1	NO	
DB101B	DAVIS BROOK	5/1/2019	252.3	NO	
DB101C	DAVIS BROOK	5/1/2019	189.1	NO	
DB102	DAVIS BROOK	5/1/2019	20.1	NO	
DB102	DAVIS BROOK	5/1/2019	486.8	NO	
DB103	DAVIS BROOK	5/1/2019	27.5	NO	
DB110	DAVIS BROOK	4/30/2019	56.0	NO	
DB115	DAVIS BROOK	5/2/2019	36.7	NO	
DB120	DAVIS BROOK	5/6/2019	36.0	NO	
DB125	DAVIS BROOK	4/30/2019	57.7	NO	
DB126	DAVIS BROOK	4/29/2019	54.0	NO	
DB126	DAVIS BROOK	4/30/2019	161.1	NO	
DB126A	DAVIS BROOK	4/29/2019	12.0	NO	
DB127	DAVIS BROOK	4/29/2019	6.0	NO	
DB127	DAVIS BROOK	4/30/2019	22.5	YES	infiltration/inflow study
DB140	DAVIS BROOK	4/30/2019	57.7	NO	
DB141	DAVIS BROOK	4/29/2019	98.4	NO	
DB203	DAVIS BROOK	4/24/2019	219.3	NO	
DB204	DAVIS BROOK	4/23/2019	365.7	NO	
DB205	DAVIS BROOK	5/3/2019	249.1	NO	
DB206	DAVIS BROOK	2/28/2019	198.5	NO	
DB207	DAVIS BROOK	2/27/2019	246.0	NO	
DB207A	DAVIS BROOK	2/27/2019	82.3	NO	
DB208	DAVIS BROOK	4/23/2019	118.5	NO	
DB209	DAVIS BROOK	4/23/2019	170.8	NO	
DB235	DAVIS BROOK	4/23/2019	243.3	NO	
DB236	DAVIS BROOK	5/24/2019	18.6	NO	
DB240	DAVIS BROOK	5/24/2019	14.8	NO	
DB240A	DAVIS BROOK	4/25/2019	276.2	NO	
DB246	DAVIS BROOK	4/24/2019	0.0	NO	
DB250	DAVIS BROOK	4/24/2019	104.1	NO	

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Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
DB260	DAVIS BROOK	5/3/2019	32.2	NO	
DB260A	DAVIS BROOK	5/2/2019	344.2	NO	
DB265	DAVIS BROOK	5/24/2019	42.0	NO	
DB265A	DAVIS BROOK	5/3/2019	100.0	NO	
DB265A	DAVIS BROOK	5/3/2019	175.8	NO	
DB266	DAVIS BROOK	4/25/2019	215.1	NO	
DB266	DAVIS BROOK	5/3/2019	260.2	YES	infiltration/inflow study
DB267	DAVIS BROOK	4/25/2019	6.9	NO	
DB300	DAVIS BROOK	4/22/2019	107.9	NO	
DB300	DAVIS BROOK	4/22/2019	96.4	NO	
DB301	DAVIS BROOK	4/22/2019	88.0	NO	
DB302	DAVIS BROOK	5/29/2019	2.9	NO	
DB305	DAVIS BROOK	10/16/2019	106.0	YES	SSES
DB305A	DAVIS BROOK	10/16/2019	180.1	YES	SSES
DB305A	DAVIS BROOK	10/16/2019	5.0	YES	reversal, SSES
DB330	DAVIS BROOK	4/22/2019	5.1	NO	
DB331	DAVIS BROOK	4/22/2019	38.5	NO	
DB331	DAVIS BROOK	5/24/2019	52.4	YES	infiltration/inflow study
DB332	DAVIS BROOK	4/22/2019	51.5	NO	
DB333	DAVIS BROOK	4/22/2019	191.6	NO	
DB350	DAVIS BROOK	5/1/2019	14.1	NO	
DB350	DAVIS BROOK	5/7/2019	26.7	NO	
DB361	DAVIS BROOK	4/24/2019	155.8	NO	
DB362	DAVIS BROOK	4/24/2019	10.3	NO	
DB380	DAVIS BROOK	2/11/2019	14.3	YES	pre-rehabilitation survey
DB380	DAVIS BROOK	2/25/2019	126.4	YES	resurvey after cleaning
DB381	DAVIS BROOK	2/8/2019	222.6	NO	
DB382	DAVIS BROOK	2/8/2019	19.3	NO	
DB400	DAVIS BROOK	4/23/2019	182.6	NO	
DB400	DAVIS BROOK	5/24/2019	138.0	YES	infiltration/inflow study
DB401	DAVIS BROOK	4/23/2019	81.5	NO	
DB408	DAVIS BROOK	5/28/2019	0.4	NO	
DB430	DAVIS BROOK	12/12/2019	34.0	YES	resurvey looking for missing service
DB430A	DAVIS BROOK	12/12/2019	170.6	YES	resurvey to inspect new service
DB431	DAVIS BROOK	5/7/2019	195.0	NO	
DB435	DAVIS BROOK	5/7/2019	49.5	NO	
DB440A	DAVIS BROOK	12/12/2019	89.4	YES	resurvey looking for missing service
DB501	DAVIS BROOK	9/9/2019	548.5	YES	maintenance related
DB502	DAVIS BROOK	5/28/2019	22.8	NO	
DB503	DAVIS BROOK	4/19/2019	142.5	NO	
DB504	DAVIS BROOK	5/6/2019	61.2	NO	
DB509	DAVIS BROOK	4/22/2019	165.6	NO	
DB509	DAVIS BROOK	4/22/2019	190.3	NO	
DB511	DAVIS BROOK	2/6/2019	247.6	NO	
DB512	DAVIS BROOK	2/8/2019	97.5	NO	

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Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
DB526	DAVIS BROOK	5/28/2019	158.8	YES	infiltration/inflow study
DB526	DAVIS BROOK	5/28/2019	87.4	YES	reversal, infiltration/inflow study
DB527	DAVIS BROOK	5/7/2019	1.2	NO	
DB529	DAVIS BROOK	4/23/2019	7.0	NO	
DB542	DAVIS BROOK	4/18/2019	375.3	NO	
DB543	DAVIS BROOK	4/18/2019	45.5	NO	
DB543	DAVIS BROOK	4/18/2019	288.0	NO	
DB552	DAVIS BROOK	4/9/2019	325.2	YES	pre-rehabilitation survey
DB552	DAVIS BROOK	4/12/2019	324.5	YES	post rehabilitation survey
DB553	DAVIS BROOK	4/19/2019	225.8	NO	
DB553	DAVIS BROOK	4/22/2019	246.6	NO	
DB570	DAVIS BROOK	4/22/2019	201.1	NO	
DB585	DAVIS BROOK	2/6/2019	107.3	NO	
DB585	DAVIS BROOK	2/7/2019	261.9	YES	pre-rehabilitation survey
DB590	DAVIS BROOK	5/29/2019	22.2	NO	
DB596	DAVIS BROOK	2/6/2019	29.1	YES	pre-rehabilitation survey
DB610	DAVIS BROOK	5/29/2019	17.8	NO	
DB620	DAVIS BROOK	5/7/2019	1.0	YES	infiltration/inflow study
DB620	DAVIS BROOK	5/7/2019	56.0	YES	reversal, infiltration/inflow study
DB621	DAVIS BROOK	5/7/2019	0.5	YES	infiltration/inflow study
DB625	DAVIS BROOK	4/24/2019	120.5	NO	
DB701	DAVIS BROOK	6/10/2019	35.5	YES	capital improvement
DB703	DAVIS BROOK	2/20/2019	274.5	NO	
DB703	DAVIS BROOK	2/22/2019	60.5	YES	reversal
DB704	DAVIS BROOK	2/20/2019	298.4	NO	
DB704	DAVIS BROOK	2/22/2019	396.0	YES	maintenance related
DB704	DAVIS BROOK	4/10/2019	594.0	YES	resurvey, capital improvement
DB704	DAVIS BROOK	5/7/2019	118.0	NO	
DB705	DAVIS BROOK	5/2/2019	114.0	NO	
DB705	DAVIS BROOK	5/3/2019	233.5	NO	
DB720	DAVIS BROOK	4/25/2019	224.8	NO	
DB720	DAVIS BROOK	4/29/2019	132.3	NO	
DB730	DAVIS BROOK	6/10/2019	352.0	YES	capital improvement
DB750	DAVIS BROOK	2/22/2019	176.9	YES	maintenance related
DB751	DAVIS BROOK	4/19/2019	61.5	NO	
DB800	DAVIS BROOK	4/24/2019	118.3	NO	
DB801	DAVIS BROOK	4/23/2019	68.8	NO	
DB801	DAVIS BROOK	4/24/2019	294.2	YES	infiltration/inflow study
DB802	DAVIS BROOK	5/29/2019	18.7	NO	
DB803	DAVIS BROOK	7/15/2019	379.0	NO	
DB810	DAVIS BROOK	5/29/2019	13.5	NO	
DB825	DAVIS BROOK	4/19/2019	320.0	NO	
DB826	DAVIS BROOK	4/19/2019	38.4	NO	
DB901	DAVIS BROOK	5/2/2019	141.6	NO	
DB901	DAVIS BROOK	5/2/2019	112.9	NO	

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DB915	DAVIS BROOK	5/2/2019	299.7	NO	
DB916	DAVIS BROOK	4/18/2019	50.0	NO	
DB917	DAVIS BROOK	4/18/2019	27.5	NO	
DB951	DAVIS BROOK	3/22/2019	20.6	NO	
DB951	DAVIS BROOK	4/18/2019	453.5	NO	
DB951	DAVIS BROOK	4/18/2019	93.5	YES	reversal
DB952	DAVIS BROOK	5/28/2019	0.2	NO	
DB962	DAVIS BROOK	10/7/2019	33.4	YES	maintenance related
DB962	DAVIS BROOK	10/21/2019	29.5	YES	post rehabilitation survey
DW100	DOW	6/25/2019	11.8	YES	maintenance related
DW100A	DOW	6/25/2019	151.1	NO	
DW102	DOW	6/24/2019	409.7	YES	maintenance related
DW214	DOW	6/6/2019	285.1	NO	
DW252B	DOW	12/20/2019	77.0	NO	
DW253	DOW	12/20/2019	99.0	NO	
DW261	DOW	12/20/2019	287.7	NO	
DW262	DOW	12/20/2019	395.7	NO	
DW284	DOW	9/25/2019	174.8	NO	
DW285	DOW	9/5/2019	166.1	NO	
DW286	DOW	9/5/2019	164.8	NO	
DW287	DOW	9/5/2019	118.6	NO	
DW290	DOW	9/5/2019	66.5	NO	
DW292	DOW	9/25/2019	231.6	NO	
EK001	KENDUSKEAG EAST	8/21/2019	0.8	NO	
EK002	KENDUSKEAG EAST	8/21/2019	83.0	NO	
ES100	EVERETT STREET	4/19/2019	1.6	NO	
FK001	FRANKLIN STREET	1/28/2019	4.5	NO	
FK002	FRANKLIN STREET	1/4/2019	57.9	NO	
FK006	FRANKLIN STREET	1/7/2019	9.5	NO	
FK007	FRANKLIN STREET	1/7/2019	162.8	NO	
FK013	FRANKLIN STREET	1/2/2019	103.1	NO	
FK100	FRANKLIN STREET	1/7/2019	33.4	NO	
FK101	FRANKLIN STREET	1/7/2019	121.3	NO	
FK102	FRANKLIN STREET	1/7/2019	17.5	NO	
FK304	FRANKLIN STREET	1/2/2019	186.7	NO	
FK305	FRANKLIN STREET	1/2/2019	211.9	NO	
FK406	FRANKLIN STREET	1/28/2019	276.5	NO	
FK409	FRANKLIN STREET	6/19/2019	49.4	NO	
FK450	FRANKLIN STREET	1/14/2019	126.8	NO	
FK450	FRANKLIN STREET	3/14/2019	124.9	YES	maintenance related
FK450A	FRANKLIN STREET	1/14/2019	122.4	NO	
FK450A	FRANKLIN STREET	2/20/2019	120.2	YES	maintenance related
FK900	FRANKLIN STREET	1/8/2019	2.9	NO	
FK900	FRANKLIN STREET	1/9/2019	62.3	YES	resurvey after cleaning
FK901	FRANKLIN STREET	1/9/2019	38.5	NO	

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FK902	FRANKLIN STREET	1/9/2019	166.0	NO	
FK903	FRANKLIN STREET	1/9/2019	0.8	NO	
FK903	FRANKLIN STREET	1/29/2019	34.8	YES	resurvey, needed smaller equipment
FK904	FRANKLIN STREET	1/8/2019	30.5	NO	
FK904	FRANKLIN STREET	1/10/2019	43.1	YES	reversal
FS050	FOURTEENTH STREET	11/20/2019	274.7	NO	
FS060	FOURTEENTH STREET	11/22/2019	24.7	NO	
FS104	FOURTEENTH STREET	11/20/2019	259.5	NO	
FS105	FOURTEENTH STREET	11/20/2019	16.8	NO	
FS106	FOURTEENTH STREET	11/19/2019	178.5	NO	
FS106	FOURTEENTH STREET	11/20/2019	1.7	NO	
FS107	FOURTEENTH STREET	11/19/2019	78.4	NO	
FS150	FOURTEENTH STREET	11/19/2019	369.7	NO	
FS151	FOURTEENTH STREET	11/19/2019	531.9	NO	
FS500	FOURTEENTH STREET	1/31/2019	211.6	NO	
FS601	FOURTEENTH STREET	1/17/2019	50.5	NO	
FS602	FOURTEENTH STREET	1/17/2019	244.3	NO	
HK500	HANCOCK	3/14/2019	121.9	YES	maintenance related
HK501	HANCOCK	3/14/2019	85.4	YES	maintenance related
HK502	HANCOCK	3/13/2019	218.8	YES	maintenance related
HK503	HANCOCK	3/14/2019	215.8	YES	maintenance related
HK600	HANCOCK	3/13/2019	200.9	YES	maintenance related
HK601	HANCOCK	3/13/2019	296.0	YES	maintenance related
HK602	HANCOCK	3/13/2019	43.6	YES	maintenance related
HK625	HANCOCK	3/14/2019	296.4	YES	maintenance related
HK626	HANCOCK	1/23/2019	191.2	YES	maintenance related
HK626	HANCOCK	1/23/2019	78.7	YES	reversal
HK650	HANCOCK	3/14/2019	179.4	YES	maintenance related
HK701	HANCOCK	3/13/2019	86.1	YES	maintenance related
HP030	HILDRETH-PERRY	5/17/2019	313.2	NO	
HP222	HILDRETH-PERRY	1/11/2019	238.6	NO	
HP223	HILDRETH-PERRY	1/11/2019	356.5	NO	
HP225	HILDRETH-PERRY	1/11/2019	3.2	YES	reversal
HP225	HILDRETH-PERRY	1/11/2019	324.8	NO	
HP226	HILDRETH-PERRY	1/14/2019	60.6	NO	reversal
HP226	HILDRETH-PERRY	1/14/2019	158.3	NO	
HP226	HILDRETH-PERRY	1/18/2019	517.1	YES	resurvey after cleaning
HP226	HILDRETH-PERRY	6/6/2019	160.6	YES	maintenance related
HP227	HILDRETH-PERRY	6/24/2019	525.2	YES	maintenance related
HP300	HILDRETH-PERRY	3/19/2019	104.5	NO	
HP400	HILDRETH-PERRY	6/25/2019	269.5	NO	
HP404	HILDRETH-PERRY	4/25/2019	70.6	NO	
HP430	HILDRETH-PERRY	6/26/2019	140.0	NO	
HP451	HILDRETH-PERRY	12/12/2019	322.3	NO	
HP452	HILDRETH-PERRY	12/12/2019	65.9	NO	

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Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
HP490	HILDRETH-PERRY	2/15/2019	169.2	YES	maintenance related
HP491	HILDRETH-PERRY	2/15/2019	307.4	NO	
HP494	HILDRETH-PERRY	2/26/2019	44.5	NO	
HP495	HILDRETH-PERRY	2/26/2019	249.5	NO	
HP496	HILDRETH-PERRY	2/26/2019	35.5	NO	
HP553	HILDRETH-PERRY	3/8/2019	274.3	NO	
HP554	HILDRETH-PERRY	3/8/2019	40.9	NO	
HP554	HILDRETH-PERRY	3/18/2019	330.8	NO	reversal
HP554	HILDRETH-PERRY	3/29/2019	397.0	YES	resurvey after cleaning
HP555	HILDRETH-PERRY	3/22/2019	301.6	NO	
HP555A	HILDRETH-PERRY	3/19/2019	98.9	NO	
HP556	HILDRETH-PERRY	3/8/2019	27.5	NO	
HP556	HILDRETH-PERRY	3/19/2019	193.3	YES	resurvey after cleaning
HP557	HILDRETH-PERRY	3/8/2019	371.8	NO	
HP557	HILDRETH-PERRY	3/14/2019	369.9	YES	resurvey after cleaning
HP558	HILDRETH-PERRY	3/15/2019	355.6	YES	resurvey looking for grease
HP559	HILDRETH-PERRY	3/15/2019	348.1	YES	resurvey looking for grease
HP700	HILDRETH-PERRY	1/14/2019	394.9	NO	
HP700	HILDRETH-PERRY	1/16/2019	404.0	YES	resurvey looking for service lines
HP700	HILDRETH-PERRY	7/16/2019	404.3	NO	maintenance related
HP800	HILDRETH-PERRY	1/11/2019	68.5	NO	
HP800	HILDRETH-PERRY	1/17/2019	238.0	YES	resurvey after cleaning
HP800A	HILDRETH-PERRY	1/17/2019	405.6	NO	
HP801	HILDRETH-PERRY	1/11/2019	262.5	NO	
HP801	HILDRETH-PERRY	1/15/2019	266.3	YES	resurvey to correct camera error
HP802	HILDRETH-PERRY	1/10/2019	132.8	NO	
HP802	HILDRETH-PERRY	1/10/2019	162.6	NO	reversal
HP802	HILDRETH-PERRY	1/16/2019	462.3	YES	resurvey after cleaning
HP802	HILDRETH-PERRY	1/17/2019	240.3	YES	reversal, resurvey after cleaning
HP802	HILDRETH-PERRY	1/18/2019	209.6	YES	maintenance related
HP803	HILDRETH-PERRY	1/10/2019	162.6	NO	
HP850	HILDRETH-PERRY	1/11/2019	108.0	NO	
HP850	HILDRETH-PERRY	1/17/2019	288.2	YES	resurvey after cleaning
HP851	HILDRETH-PERRY	1/11/2019	244.3	NO	
HP851	HILDRETH-PERRY	1/15/2019	249.3	YES	resurvey after cleaning
KE198	KENDUSKEAG EAST	1/22/2019	10.9	NO	
KE199	KENDUSKEAG EAST	1/22/2019	108.0	NO	
KE200	KENDUSKEAG EAST	1/22/2019	16.3	NO	
KE201	KENDUSKEAG EAST	1/29/2019	200.8	YES	post rehabilitation survey
KE202	KENDUSKEAG EAST	1/29/2019	67.9	YES	post rehabilitation survey
KE203	KENDUSKEAG EAST	1/28/2019	47.2	YES	post rehabilitation survey
KE204	KENDUSKEAG EAST	1/28/2019	223.5	NO	
KE205	KENDUSKEAG EAST	1/28/2019	250.1	YES	post rehabilitation survey
KE206	KENDUSKEAG EAST	1/28/2019	90.9	NO	
KE210	KENDUSKEAG EAST	1/28/2019	70.9	NO	

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Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
KE211	KENDUSKEAG EAST	1/28/2019	6.6	NO	
KE250	KENDUSKEAG EAST	1/29/2019	167.3	YES	post rehabilitation survey
KE260	KENDUSKEAG EAST	1/28/2019	150.8	YES	post rehabilitation survey
KE260	KENDUSKEAG EAST	1/29/2019	24.6	YES	reversal, post rehabilitation survey
KE261	KENDUSKEAG EAST	1/22/2019	156.3	YES	post rehabilitation survey
KE600	KENDUSKEAG EAST	9/20/2019	15.6	NO	
KE601	KENDUSKEAG EAST	9/19/2019	324.0	NO	
KE601	KENDUSKEAG EAST	9/20/2019	7.3	NO	
KE602	KENDUSKEAG EAST	9/20/2019	299.0	NO	
KI037	KENDUSKEAG EAST	2/27/2019	249.0	NO	
KW040	KENDUSKEAG WEST	2/19/2019	32.4	YES	post rehabilitation survey
KW090	KENDUSKEAG WEST	11/22/2019	38.9	NO	
KW240	KENDUSKEAG WEST	11/25/2019	110.3	NO	
KW250	KENDUSKEAG WEST	11/22/2019	165.3	NO	
KW251	KENDUSKEAG WEST	11/22/2019	208.3	NO	
KW295	KENDUSKEAG WEST	11/25/2019	38.7	NO	
KW296	KENDUSKEAG WEST	11/25/2019	26.8	NO	
KW550	KENDUSKEAG WEST	1/31/2019	155.1	NO	
KW551	KENDUSKEAG WEST	1/31/2019	141.5	NO	
MB019A	MEADOWBROOK	6/19/2019	338.0	NO	
MB104	MEADOWBROOK	12/27/2019	251.3	NO	
MB105	MEADOWBROOK	3/25/2019	24.0	NO	
MB106	MEADOWBROOK	2/8/2019	178.1	NO	
MB106	MEADOWBROOK	3/25/2019	183.5	YES	capital improvement
MB107	MEADOWBROOK	2/8/2019	171.9	NO	
MB107	MEADOWBROOK	3/25/2019	174.3	YES	capital improvement
MB108	MEADOWBROOK	2/19/2019	30.6	NO	
MB109	MEADOWBROOK	11/19/2019	233.8	NO	
MB110	MEADOWBROOK	11/19/2019	196.8	NO	
MB111	MEADOWBROOK	11/19/2019	220.6	NO	
MB112	MEADOWBROOK	11/18/2019	218.6	NO	
MB113	MEADOWBROOK	11/18/2019	355.7	NO	
MB114	MEADOWBROOK	11/18/2019	293.0	NO	
MB115	MEADOWBROOK	11/18/2019	127.8	NO	
MB115	MEADOWBROOK	11/25/2019	128.1	YES	resurvey to correct camera error
MB120	MEADOWBROOK	12/27/2019	370.0	NO	
MB125	MEADOWBROOK	12/27/2019	137.0	NO	
MB130	MEADOWBROOK	2/19/2019	248.7	NO	
MB135	MEADOWBROOK	2/19/2019	207.1	NO	
MB140	MEADOWBROOK	2/19/2019	200.7	YES	maintenance related
MB146	MEADOWBROOK	12/13/2019	125.1	NO	
MB147	MEADOWBROOK	12/13/2019	190.8	NO	
MB202	MEADOWBROOK	12/6/2019	78.9	NO	
MB203	MEADOWBROOK	12/6/2019	74.8	NO	
MB204	MEADOWBROOK	12/6/2019	115.6	NO	

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Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
MB205	MEADOWBROOK	12/6/2019	69.0	NO	
MB206	MEADOWBROOK	12/6/2019	162.5	NO	
MB207	MEADOWBROOK	12/6/2019	239.6	NO	
MB208	MEADOWBROOK	12/11/2019	168.3	NO	
MB209	MEADOWBROOK	12/11/2019	103.0	NO	
MB210	MEADOWBROOK	12/11/2019	41.7	NO	
MB311	MEADOWBROOK	11/20/2019	249.1	NO	
MB312	MEADOWBROOK	11/20/2019	233.8	NO	
MB313	MEADOWBROOK	11/20/2019	184.0	NO	
MB314	MEADOWBROOK	11/20/2019	25.0	NO	
MB315	MEADOWBROOK	11/20/2019	315.8	NO	
MB316	MEADOWBROOK	11/20/2019	354.0	NO	
MB320	MEADOWBROOK	12/16/2019	19.7	NO	
MB321	MEADOWBROOK	12/16/2019	336.2	NO	
MB322	MEADOWBROOK	12/16/2019	151.3	NO	
MB322	MEADOWBROOK	12/26/2019	1.3	NO	
MB330	MEADOWBROOK	12/16/2019	142.6	NO	
MB337	MEADOWBROOK	11/19/2019	32.5	NO	
MB340	MEADOWBROOK	11/19/2019	187.5	NO	
MB350	MEADOWBROOK	2/15/2019	37.5	NO	
MB351	MEADOWBROOK	2/15/2019	205.7	NO	
MB352	MEADOWBROOK	2/15/2019	236.4	NO	
MB353	MEADOWBROOK	2/15/2019	104.3	YES	maintenance related
MB355	MEADOWBROOK	2/15/2019	28.0	NO	
MB360	MEADOWBROOK	4/12/2019	218.6	YES	resurvey to check condition
MB371	MEADOWBROOK	11/20/2019	298.2	NO	
MB477	MEADOWBROOK	10/1/2019	93.6	YES	post rehabilitation survey
MB559	MEADOWBROOK	10/17/2019	22.2	NO	
MB560	MEADOWBROOK	6/17/2019	79.0	YES	resurvey after cleaning
MB560	MEADOWBROOK	6/18/2019	39.5	YES	post rehabilitation survey
MB560	MEADOWBROOK	10/17/2019	74.6	YES	post rehabilitation survey after mh install
MB560	MEADOWBROOK	10/18/2019	239.0	YES	post rehabilitation survey after 2nd mh install
MB600	MEADOWBROOK	12/4/2019	192.6	NO	
MB601	MEADOWBROOK	12/4/2019	25.0	NO	
MB602	MEADOWBROOK	12/4/2019	281.5	NO	
MB603	MEADOWBROOK	12/4/2019	311.2	NO	
MB605	MEADOWBROOK	11/22/2019	296.1	NO	
MB606	MEADOWBROOK	11/22/2019	258.2	NO	
MB607	MEADOWBROOK	11/22/2019	29.3	NO	
MB608	MEADOWBROOK	11/22/2019	114.5	NO	
MB609	MEADOWBROOK	11/22/2019	164.6	NO	
MB702	MEADOWBROOK	2/6/2019	257.9	NO	
MB703	MEADOWBROOK	2/6/2019	44.2	NO	
MB725	MEADOWBROOK	12/9/2019	74.6	NO	
MB726	MEADOWBROOK	12/9/2019	175.6	NO	

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Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
MB727	MEADOWBROOK	12/9/2019	12.8	NO	
MB728	MEADOWBROOK	12/9/2019	222.8	NO	
MB729	MEADOWBROOK	12/9/2019	233.3	NO	
MB730	MEADOWBROOK	9/18/2019	267.1	NO	
MB731	MEADOWBROOK	9/18/2019	292.8	NO	
MB732	MEADOWBROOK	9/18/2019	330.5	NO	
MB733	MEADOWBROOK	9/18/2019	272.7	NO	
MB750	MEADOWBROOK	12/5/2019	34.7	NO	
MB751	MEADOWBROOK	12/5/2019	300.8	NO	
MB752	MEADOWBROOK	12/5/2019	299.7	NO	
MB753	MEADOWBROOK	12/5/2019	205.1	NO	
MB760	MEADOWBROOK	9/17/2019	294.0	NO	
MB761	MEADOWBROOK	9/17/2019	8.6	NO	
MB761	MEADOWBROOK	9/17/2019	278.1	NO	
MB762	MEADOWBROOK	9/17/2019	290.7	NO	
MB763	MEADOWBROOK	9/18/2019	308.3	NO	
MB765	MEADOWBROOK	8/30/2019	285.1	NO	
MB766	MEADOWBROOK	8/30/2019	307.1	NO	
MB767	MEADOWBROOK	12/9/2019	221.8	NO	
MB768	MEADOWBROOK	12/9/2019	216.3	NO	
MB770	MEADOWBROOK	8/30/2019	332.5	NO	
MB771	MEADOWBROOK	8/30/2019	210.0	NO	
MB772	MEADOWBROOK	8/30/2019	116.3	NO	
MB840	MEADOWBROOK	12/5/2019	264.6	NO	
MB901	MEADOWBROOK	2/8/2019	24.8	NO	
MB902	MEADOWBROOK	2/8/2019	235.0	NO	
MB903	MEADOWBROOK	2/8/2019	230.8	NO	
MB904	MEADOWBROOK	2/8/2019	242.6	NO	
MB905	MEADOWBROOK	2/8/2019	294.1	NO	
MB906	MEADOWBROOK	2/6/2019	349.2	NO	
MB930	MEADOWBROOK	9/23/2019	157.1	NO	
MB950	MEADOWBROOK	2/6/2019	261.7	YES	maintenance related
MB951	MEADOWBROOK	2/6/2019	328.6	NO	
MB952	MEADOWBROOK	2/1/2019	303.1	NO	
MB953	MEADOWBROOK	2/1/2019	212.8	NO	maintenance related
MB953	MEADOWBROOK	2/1/2019	82.4	YES	reversal, maintenance related
MB954	MEADOWBROOK	2/1/2019	221.9	NO	
MB955	MEADOWBROOK	2/1/2019	293.6	NO	
MS002	MILL STREET	11/22/2019	160.3	NO	
OC026	OLD CAPEHART	10/21/2019	279.6	NO	
OC027	OLD CAPEHART	10/21/2019	262.0	NO	
OC031	OLD CAPEHART	4/5/2019	150.0	NO	
OC032	OLD CAPEHART	4/5/2019	302.6	NO	
OC251	OLD CAPEHART	10/21/2019	0.5	NO	
OC301	OLD CAPEHART	9/4/2019	240.0	NO	

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Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
OC330	OLD CAPEHART	10/22/2019	229.8	NO	
OC350	OLD CAPEHART	9/4/2019	173.1	NO	
OC351	OLD CAPEHART	9/4/2019	307.7	NO	
OC352	OLD CAPEHART	9/4/2019	295.3	NO	
OC404	OLD CAPEHART	9/6/2019	158.3	NO	
OC405	OLD CAPEHART	9/6/2019	181.1	NO	
OC409	OLD CAPEHART	10/7/2019	204.3	NO	
OC410	OLD CAPEHART	10/21/2019	169.0	NO	
OC413	OLD CAPEHART	9/10/2019	39.2	NO	
OC413	OLD CAPEHART	9/10/2019	186.8	NO	reversal
OC413	OLD CAPEHART	9/11/2019	286.7	YES	resurvey after cleaning
OC415	OLD CAPEHART	10/16/2019	125.9	NO	
OC415	OLD CAPEHART	10/17/2019	205.0	YES	resurvey after cleaning
OC416	OLD CAPEHART	10/15/2019	235.5	NO	
OC430	OLD CAPEHART	10/17/2019	212.6	NO	
OC431	OLD CAPEHART	10/17/2019	114.0	NO	
OC440	OLD CAPEHART	9/10/2019	137.1	NO	
OC441	OLD CAPEHART	9/10/2019	201.3	NO	
OC473	OLD CAPEHART	10/15/2019	75.6	NO	
OC490	OLD CAPEHART	10/15/2019	77.1	NO	
OC510	OLD CAPEHART	10/15/2019	195.0	NO	
OC511	OLD CAPEHART	10/15/2019	140.6	NO	
OC750	OLD CAPEHART	10/15/2019	185.1	NO	
OC810	OLD CAPEHART	10/17/2019	85.6	NO	
OC900	OLD CAPEHART	9/4/2019	51.9	NO	
OC901	OLD CAPEHART	9/3/2019	371.5	NO	
OC902	OLD CAPEHART	9/3/2019	388.6	NO	
OC903	OLD CAPEHART	9/3/2019	163.0	NO	
OC907	OLD CAPEHART	9/3/2019	232.5	NO	
OC920	OLD CAPEHART	9/3/2019	237.5	NO	
OC921	OLD CAPEHART	9/3/2019	234.6	NO	
OC950	OLD CAPEHART	9/5/2019	337.0	NO	
OC951	OLD CAPEHART	9/5/2019	333.0	NO	
OC952	OLD CAPEHART	9/5/2019	128.5	NO	
OC953	OLD CAPEHART	9/5/2019	350.2	NO	
OC954	OLD CAPEHART	9/4/2019	347.7	NO	
PJ038	PENJAJAWOC	10/21/2019	207.6	NO	
PJ039	PENJAJAWOC	10/21/2019	56.7	NO	
PJ040	PENJAJAWOC	10/21/2019	275.5	NO	
PJ048	PENJAJAWOC	10/25/2019	156.1	NO	
PJ049	PENJAJAWOC	10/25/2019	291.7	NO	
PJ050	PENJAJAWOC	10/25/2019	266.1	NO	
PJ051	PENJAJAWOC	10/25/2019	204.8	NO	
PJ052	PENJAJAWOC	10/24/2019	299.5	NO	
PJ053	PENJAJAWOC	10/24/2019	193.6	NO	

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Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
PJ054	PENJAJAWOC	10/24/2019	108.5	NO	
PJ055	PENJAJAWOC	10/22/2019	299.1	NO	
PJ056	PENJAJAWOC	10/22/2019	260.5	NO	
PJ058	PENJAJAWOC	10/22/2019	213.3	NO	
PJ220	PENJAJAWOC	10/7/2019	114.9	NO	
PJ221	PENJAJAWOC	10/3/2019	262.2	NO	
PJ222	PENJAJAWOC	10/1/2019	253.6	NO	
PJ223	PENJAJAWOC	10/1/2019	315.8	NO	
PJ224	PENJAJAWOC	10/1/2019	278.1	NO	
PJ225	PENJAJAWOC	10/1/2019	290.1	NO	
PJ226	PENJAJAWOC	10/1/2019	38.4	NO	
PJ252	PENJAJAWOC	10/3/2019	164.8	NO	
PJ253	PENJAJAWOC	10/3/2019	182.6	NO	
PJ254	PENJAJAWOC	10/3/2019	336.5	NO	
PJ705	PENJAJAWOC	10/24/2019	314.5	NO	
PJ706	PENJAJAWOC	10/17/2019	263.1	NO	
PJ707	PENJAJAWOC	10/17/2019	118.0	NO	
PJ708	PENJAJAWOC	10/17/2019	118.5	NO	
PJ709	PENJAJAWOC	10/17/2019	104.1	NO	
PJ750	PENJAJAWOC	8/16/2019	203.3	NO	
PJ770	PENJAJAWOC	10/24/2019	163.1	NO	
PJ771	PENJAJAWOC	10/24/2019	294.1	NO	
PJ950	PENJAJAWOC	2/14/2019	172.1	NO	
PJ951	PENJAJAWOC	2/14/2019	275.0	YES	maintenance related
PJ952	PENJAJAWOC	2/15/2019	77.1	NO	
PJ953	PENJAJAWOC	2/15/2019	137.8	NO	
PJ955	PENJAJAWOC	2/14/2019	13.5	YES	maintenance related
PJ956	PENJAJAWOC	2/14/2019	314.2	NO	
SL005	STRICKLAND	6/12/2019	248.8	NO	
SL006	STRICKLAND	6/12/2019	401.0	NO	
SL007	STRICKLAND	6/12/2019	400.8	NO	
SL008	STRICKLAND	6/12/2019	402.0	NO	
SL009	STRICKLAND	6/12/2019	44.5	NO	
SL010	STRICKLAND	6/12/2019	368.5	NO	
SL010	STRICKLAND	6/12/2019	26.2	NO	
SL011	STRICKLAND	6/12/2019	454.2	NO	
SL100	STRICKLAND	2/26/2019	135.2	NO	
SL101	STRICKLAND	2/26/2019	80.3	NO	
SL102	STRICKLAND	2/26/2019	106.1	NO	
SL103	STRICKLAND	2/26/2019	60.1	NO	
SL110	STRICKLAND	2/26/2019	170.7	NO	
WL004	WOODLAWN	6/13/2019	200.6	NO	
WL151	WOODLAWN	6/13/2019	211.6	NO	reversal
WL151	WOODLAWN	6/13/2019	2.2	YES	resurvey after cleaning
WL152	WOODLAWN	6/13/2019	22.7	NO	

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Pipe ID	Subsection	Inspection Date	Inspected Length (ft)	Repeat Inspection	Justification for Repeat Inspection
WL600A	WOODLAWN	12/10/2019	51.2	YES	post rehabilitation survey
WL601	WOODLAWN	12/10/2019	128.6	YES	post rehabilitation survey
WS201	WESTLAND	3/7/2019	232.7	NO	
WS202	WESTLAND	3/6/2019	174.5	NO	
WS204	WESTLAND	3/6/2019	21.2	NO	reversal
WS203	WESTLAND	3/6/2019	176.7	NO	
WS205	WESTLAND	3/6/2019	63.6	NO	
WS205	WESTLAND	3/12/2019	413.3	YES	resurvey after cleaning
Total Feet			123982.7		
Total Miles			23.5		

Appendix B

Manhole Inspection Log

APPENDIX B: MANHOLE INSPECTION LOG

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Manhole ID	Subsection	Date Inspected	Repeat Inspection	Justification for Repeat Inspection
AB001	ARCTIC BROOK	3/20/2019		
AB353	ARCTIC BROOK	1/23/2019		
AB354	ARCTIC BROOK	1/23/2019		
AB356	ARCTIC BROOK	1/23/2019		
AB360	ARCTIC BROOK	1/23/2019		
AB370	ARCTIC BROOK	1/23/2019		
AB435A	ARCTIC BROOK	12/20/2019		
AB436	ARCTIC BROOK	12/20/2019		
AB450	ARCTIC BROOK	4/8/2019		
AB451	ARCTIC BROOK	4/8/2019		
AB453	ARCTIC BROOK	4/8/2019		
AB455	ARCTIC BROOK	4/8/2019		
AB500	ARCTIC BROOK	2/12/2019		
AB502	ARCTIC BROOK	2/12/2019		
AB504	ARCTIC BROOK	2/12/2019		
AB505	ARCTIC BROOK	2/1/2019		
AB623	ARCTIC BROOK	10/23/2019		
AP024	AIRPORT	1/29/2019		
AP026	AIRPORT	1/29/2019		
AP027	AIRPORT	1/29/2019		
AP232	AIRPORT	7/24/2019		
AP302	AIRPORT	6/10/2019		
AP311	AIRPORT	1/16/2019		
AP401	AIRPORT	1/29/2019		
AP402	AIRPORT	1/29/2019		
AP403	AIRPORT	1/31/2019		
AP404	AIRPORT	1/31/2019		
AP406	AIRPORT	1/31/2019		
AP408	AIRPORT	1/31/2019		
AP409	AIRPORT	1/31/2019		
AP430	AIRPORT	1/31/2019		
AP702	AIRPORT	12/20/2019		
BS001	BLANCHARD ST	3/20/2019		
BS002	BLANCHARD ST	3/20/2019		
BS016	BLANCHARD ST	2/20/2019		
BS017	BLANCHARD ST	2/20/2019		
BS900	BLANCHARD ST	3/25/2019		
BS902	BLANCHARD ST	3/25/2019		
BS903	BLANCHARD ST	3/25/2019		

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City of Bangor, Maine
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Manhole ID	Subsection	Date Inspected	Repeat Inspection	Justification for Repeat Inspection
BV003	BARKERSVILLE	3/7/2019		
BV006	BARKERSVILLE	5/31/2019		
BV012	BARKERSVILLE	5/30/2019		
BV013	BARKERSVILLE	5/30/2019		
BV015	BARKERSVILLE	5/30/2019		
BV016	BARKERSVILLE	5/30/2019		
BV017	BARKERSVILLE	2/15/2019		
BV020	BARKERSVILLE	5/14/2019		
BV021	BARKERSVILLE	5/14/2019		
BV051	BARKERSVILLE	3/7/2019		
BV052	BARKERSVILLE	3/7/2019		
BV090	BARKERSVILLE	12/11/2019		
BV091	BARKERSVILLE	12/11/2019		
BV092	BARKERSVILLE	12/11/2019		
BV093	BARKERSVILLE	12/18/2019		
BV094	BARKERSVILLE	12/11/2019		
BV095	BARKERSVILLE	12/18/2019		
BV096	BARKERSVILLE	12/11/2019		
BV101A	BARKERSVILLE	12/18/2019		
BV103	BARKERSVILLE	5/30/2019		
BV105	BARKERSVILLE	5/30/2019		
BV107	BARKERSVILLE	5/15/2019		
BV109	BARKERSVILLE	5/15/2019		
BV110	BARKERSVILLE	5/15/2019		
BV119	BARKERSVILLE	5/28/2019		
BV120	BARKERSVILLE	4/30/2019		
BV121	BARKERSVILLE	5/30/2019		
BV121	BARKERSVILLE	12/20/2019	yes	post-rehabilitation
BV125	BARKERSVILLE	4/16/2019		
BV125A	BARKERSVILLE	4/16/2019		
BV126	BARKERSVILLE	4/16/2019		
BV128	BARKERSVILLE	5/30/2019		
BV129	BARKERSVILLE	5/30/2019		
BV131	BARKERSVILLE	5/30/2019		
BV135	BARKERSVILLE	5/30/2019		
BV136	BARKERSVILLE	5/30/2019		
BV137	BARKERSVILLE	2/15/2019		
BV138	BARKERSVILLE	2/15/2019		
BV139	BARKERSVILLE	2/14/2019		

APPENDIX B: MANHOLE INSPECTION LOG

City of Bangor, Maine
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Manhole ID	Subsection	Date Inspected	Repeat Inspection	Justification for Repeat Inspection
BV140	BARKERSVILLE	2/14/2019		
BV141	BARKERSVILLE	2/15/2019		
BV150	BARKERSVILLE	2/8/2019		
BV151	BARKERSVILLE	5/8/2019		
BV217	BARKERSVILLE	5/15/2019		
BV218	BARKERSVILLE	5/15/2019		
BV220	BARKERSVILLE	5/14/2019		
BV221	BARKERSVILLE	5/14/2019		
BV221A	BARKERSVILLE	5/14/2019		
BV222	BARKERSVILLE	5/14/2019		
BV222A	BARKERSVILLE	5/14/2019		
BV224	BARKERSVILLE	5/14/2019		
BV225	BARKERSVILLE	5/14/2019		
BV226	BARKERSVILLE	5/14/2019		
BV227	BARKERSVILLE	2/27/2019		
BV250	BARKERSVILLE	5/30/2019		
BV251	BARKERSVILLE	5/30/2019		
BV252	BARKERSVILLE	5/30/2019		
BV300	BARKERSVILLE	2/11/2019		
BV301	BARKERSVILLE	2/11/2019		
BV301	BARKERSVILLE	12/20/2019	yes	post-rehabilitation
BV331	BARKERSVILLE	2/15/2019		
BV335	BARKERSVILLE	2/15/2019		
BV350	BARKERSVILLE	5/31/2019		
BV401	BARKERSVILLE	5/14/2019		
BV435	BARKERSVILLE	4/2/2019		
BV466	BARKERSVILLE	5/14/2019		
BV467	BARKERSVILLE	5/14/2019		
BV485	BARKERSVILLE	5/14/2019		
BV506	BARKERSVILLE	5/16/2019		
BV511	BARKERSVILLE	5/30/2019		
BV530	BARKERSVILLE	5/31/2019		
BV541	BARKERSVILLE	4/2/2019		
BV551	BARKERSVILLE	5/14/2019		
BV552	BARKERSVILLE	5/14/2019		
BV553	BARKERSVILLE	5/14/2019		
BV560	BARKERSVILLE	5/16/2019		
BV586	BARKERSVILLE	5/14/2019		
BV587	BARKERSVILLE	5/14/2019		

APPENDIX B: MANHOLE INSPECTION LOG

City of Bangor, Maine
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Manhole ID	Subsection	Date Inspected	Repeat Inspection	Justification for Repeat Inspection
BV590	BARKERSVILLE	4/8/2019		
BV603	BARKERSVILLE	4/2/2019		
BV617	BARKERSVILLE	5/14/2019		
BV619	BARKERSVILLE	4/1/2019		
BV620	BARKERSVILLE	4/8/2019		
BV625	BARKERSVILLE	5/14/2019		
CB026	CARR BROOK	4/8/2019		
CB027	CARR BROOK	4/8/2019		
CB028	CARR BROOK	4/8/2019		
CB450	CARR BROOK	2/12/2019		
CB601	CARR BROOK	4/8/2019		
CB800	CARR BROOK	4/8/2019		
CM511	CEMETERY	2/27/2019		
CM512	CEMETERY	2/27/2019		
CM513	CEMETERY	2/27/2019		
CM514	CEMETERY	2/27/2019		
CM515	CEMETERY	5/6/2019		
CM516	CEMETERY	2/27/2019		
CM517	CEMETERY	4/8/2019		
CM518	CEMETERY	4/8/2019		
CM519	CEMETERY	4/8/2019		
CM520	CEMETERY	4/8/2019		
CM570	CEMETERY	5/6/2019		
CM571	CEMETERY	5/6/2019		
CM580	CEMETERY	2/27/2019		
CM581	CEMETERY	4/8/2019		
CM590	CEMETERY	2/27/2019		
CM591	CEMETERY	2/27/2019		
CM710	CEMETERY	2/27/2019		
CM791	CEMETERY	4/8/2019		
CM902	CEMETERY	2/27/2019		
CM903	CEMETERY	2/27/2019		
CS001	CENTRAL ST	1/15/2019		
CS002	CENTRAL ST	1/25/2019		
CS003	CENTRAL ST	1/15/2019		
CS004	CENTRAL ST	1/25/2019		
CS005	CENTRAL ST	1/25/2019		
CS999	CENTRAL ST	1/25/2019		
DB004	DAVIS BROOK	12/19/2019		

APPENDIX B: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2019

Manhole ID	Subsection	Date Inspected	Repeat Inspection	Justification for Repeat Inspection
DB005	DAVIS BROOK	5/6/2019		
DB019	DAVIS BROOK	4/17/2019		
DB020	DAVIS BROOK	4/17/2019		
DB022	DAVIS BROOK	4/24/2019		
DB024A	DAVIS BROOK	4/17/2019		
DB025	DAVIS BROOK	3/7/2019		
DB026	DAVIS BROOK	5/6/2019		
DB100	DAVIS BROOK	5/6/2019		
DB101C	DAVIS BROOK	4/26/2019		
DB102	DAVIS BROOK	5/6/2019		
DB105	DAVIS BROOK	4/26/2019		
DB106	DAVIS BROOK	4/26/2019		
DB107	DAVIS BROOK	4/26/2019		
DB108	DAVIS BROOK	4/26/2019		
DB110A	DAVIS BROOK	4/26/2019		
DB120	DAVIS BROOK	4/26/2019		
DB120A	DAVIS BROOK	4/26/2019		
DB125	DAVIS BROOK	4/26/2019		
DB126	DAVIS BROOK	4/26/2019		
DB127	DAVIS BROOK	4/26/2019		
DB200	DAVIS BROOK	5/6/2019		
DB201	DAVIS BROOK	5/22/2019		
DB203	DAVIS BROOK	4/23/2019		
DB205	DAVIS BROOK	5/22/2019		
DB206	DAVIS BROOK	2/28/2019		
DB209	DAVIS BROOK	2/27/2019		
DB209	DAVIS BROOK	4/23/2019	yes	resurvey to verify I/I amounts
DB236	DAVIS BROOK	5/6/2019		
DB245	DAVIS BROOK	4/24/2019		
DB265A	DAVIS BROOK	4/17/2019		
DB266	DAVIS BROOK	4/17/2019		
DB304	DAVIS BROOK	4/17/2019		
DB305	DAVIS BROOK	4/17/2019		
DB350	DAVIS BROOK	4/17/2019		
DB380	DAVIS BROOK	2/8/2019		
DB381	DAVIS BROOK	5/6/2019		
DB400	DAVIS BROOK	5/22/2019		
DB403A	DAVIS BROOK	4/17/2019		
DB430A	DAVIS BROOK	5/7/2019		

APPENDIX B: MANHOLE INSPECTION LOG

City of Bangor, Maine
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Manhole ID	Subsection	Date Inspected	Repeat Inspection	Justification for Repeat Inspection
DB503	DAVIS BROOK	5/6/2019		
DB528	DAVIS BROOK	4/26/2019		
DB704	DAVIS BROOK	4/17/2019		
DB705	DAVIS BROOK	4/17/2019		
DB750	DAVIS BROOK	4/17/2019		
DB801	DAVIS BROOK	5/22/2019		
DB802	DAVIS BROOK	4/23/2019		
DB810	DAVIS BROOK	5/22/2019		
DB825	DAVIS BROOK	4/17/2019		
DB900	DAVIS BROOK	4/17/2019		
DB901	DAVIS BROOK	4/17/2019		
DB950	DAVIS BROOK	4/17/2019		
DB951	DAVIS BROOK	3/22/2019		
DB965	DAVIS BROOK	12/23/2019		
DB966	DAVIS BROOK	12/19/2019		
DB966	DAVIS BROOK	12/30/2019	yes	resurvey to verify I/I amounts
DB967	DAVIS BROOK	12/19/2019		
DB968	DAVIS BROOK	12/19/2019		
DB969	DAVIS BROOK	12/19/2019		
DB971	DAVIS BROOK	12/19/2019		
DB972	DAVIS BROOK	12/19/2019		
DB997	DAVIS BROOK	5/22/2019		
DB999	DAVIS BROOK	5/22/2019		
DW211	DOW	2/27/2019		
DW212	DOW	4/8/2019		
DW213	DOW	4/8/2019		
DW214	DOW	12/20/2019		
DW275	DOW	4/8/2019		
DW276	DOW	4/8/2019		
DW280	DOW	4/8/2019		
DW284	DOW	2/27/2019		
DW285	DOW	2/27/2019		
DW286	DOW	2/27/2019		
DW287	DOW	2/27/2019		
DW290	DOW	2/27/2019		
DW291	DOW	2/27/2019		
DW292	DOW	2/27/2019		
EK001	E KENDUSKEAG INT	8/20/2019		
EK002	E KENDUSKEAG INT	8/20/2019		

APPENDIX B: MANHOLE INSPECTION LOG

City of Bangor, Maine
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Manhole ID	Subsection	Date Inspected	Repeat Inspection	Justification for Repeat Inspection
EK018	E KENDUSKEAG INT	1/10/2019		
ES002	EVERETT ST	4/19/2019		
ES100	EVERETT ST	4/19/2019		
FK001	FRANKLIN	1/28/2019		
FK002	FRANKLIN	1/25/2019		
FK003	FRANKLIN	1/25/2019		
FK004	FRANKLIN	1/25/2019		
FK005	FRANKLIN	1/25/2019		
FK006	FRANKLIN	1/7/2019		
FK008	FRANKLIN	1/25/2019		
FK009	FRANKLIN	1/25/2019		
FK011	FRANKLIN	1/25/2019		
FK012	FRANKLIN	1/25/2019		
FK013	FRANKLIN	1/25/2019		
FK100	FRANKLIN	1/7/2019		
FK101	FRANKLIN	1/7/2019		
FK302	FRANKLIN	1/25/2019		
FK303	FRANKLIN	1/25/2019		
FK304	FRANKLIN	1/2/2019		
FK305	FRANKLIN	1/25/2019		
FK350	FRANKLIN	1/25/2019		
FK351	FRANKLIN	1/25/2019		
FK400	FRANKLIN	1/25/2019		
FK401	FRANKLIN	1/25/2019		
FK402	FRANKLIN	1/25/2019		
FK403	FRANKLIN	1/25/2019		
FK404	FRANKLIN	1/25/2019		
FK406	FRANKLIN	1/28/2019		
FK408	FRANKLIN	1/29/2019		
FK450	FRANKLIN	1/29/2019		
FK450A	FRANKLIN	1/25/2019		
FK460	FRANKLIN	1/28/2019		
FK900	FRANKLIN	1/28/2019		
FK901	FRANKLIN	1/28/2019		
FK903	FRANKLIN	1/28/2019		
FK904	FRANKLIN	1/28/2019		
FS406	FOURTEENTH ST	1/17/2019		
FS500	FOURTEENTH ST	1/31/2019		
FS501	FOURTEENTH ST	1/31/2019		

APPENDIX B: MANHOLE INSPECTION LOG

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Manhole ID	Subsection	Date Inspected	Repeat Inspection	Justification for Repeat Inspection
FS503	FOURTEENTH ST	1/31/2019		
FS600	FOURTEENTH ST	1/17/2019		
FS601	FOURTEENTH ST	1/17/2019		
FS602	FOURTEENTH ST	1/17/2019		
FS603	FOURTEENTH ST	1/17/2019		
FS605	FOURTEENTH ST	2/27/2019		
HK080	HANCOCK	2/11/2019		
HK272	HANCOCK	4/8/2019		
HK501	HANCOCK	3/20/2019		
HK502	HANCOCK	3/20/2019		
HK503	HANCOCK	3/20/2019		
HK600	HANCOCK	3/20/2019		
HK601	HANCOCK	3/13/2019		
HK602	HANCOCK	3/13/2019		
HK625	HANCOCK	1/23/2019		
HK626	HANCOCK	1/23/2019		
HK700	HANCOCK	3/20/2019		
HK701	HANCOCK	3/13/2019		
HP036	HILDRETH-PERRY	8/20/2019		
HP037	HILDRETH-PERRY	8/20/2019		
HP223	HILDRETH-PERRY	1/14/2019		
HP224	HILDRETH-PERRY	1/14/2019		
HP225	HILDRETH-PERRY	1/14/2019		
HP226	HILDRETH-PERRY	1/11/2019		
HP301	HILDRETH-PERRY	3/19/2019		
HP416	HILDRETH-PERRY	2/15/2019		
HP494	HILDRETH-PERRY	2/26/2019		
HP495	HILDRETH-PERRY	2/26/2019		
HP553	HILDRETH-PERRY	3/8/2019		
HP556	HILDRETH-PERRY	3/8/2019		
HP559	HILDRETH-PERRY	3/15/2019		
HP801	HILDRETH-PERRY	1/11/2019		
HP802	HILDRETH-PERRY	1/10/2019		
HP802	HILDRETH-PERRY	1/17/2019	yes	IDDE-looking for I/I with dye
HP850	HILDRETH-PERRY	1/11/2019		
KE197	KENDUSKEAG EAST	1/18/2019		
KE198	KENDUSKEAG EAST	1/18/2019		
KE199	KENDUSKEAG EAST	1/18/2019		
KE201	KENDUSKEAG EAST	1/18/2019		

APPENDIX B: MANHOLE INSPECTION LOG

City of Bangor, Maine
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Manhole ID	Subsection	Date Inspected	Repeat Inspection	Justification for Repeat Inspection
KE203	KENDUSKEAG EAST	1/18/2019		
KE204	KENDUSKEAG EAST	1/18/2019		
KE205	KENDUSKEAG EAST	1/28/2019		
KE206	KENDUSKEAG EAST	1/18/2019		
KE210	KENDUSKEAG EAST	1/18/2019		
KE211	KENDUSKEAG EAST	1/18/2019		
KE260	KENDUSKEAG EAST	1/18/2019		
KE261	KENDUSKEAG EAST	1/18/2019		
KE600	KENDUSKEAG EAST	12/18/2019		
KE601	KENDUSKEAG EAST	12/18/2019		
KE602	KENDUSKEAG EAST	12/18/2019		
KI044	KENDUSKEAG INT	3/20/2019		
KI094	KENDUSKEAG INT	1/8/2019		
KW002	KENDUSKEAG WEST	2/21/2019		
KW004	KENDUSKEAG WEST	2/19/2019		
KW005	KENDUSKEAG WEST	2/19/2019		
KW006	KENDUSKEAG WEST	2/19/2019		
KW206	KENDUSKEAG WEST	2/27/2019		
KW350A	KENDUSKEAG WEST	2/12/2019		
KW351A	KENDUSKEAG WEST	2/12/2019		
KW550	KENDUSKEAG WEST	1/31/2019		
MB001	MEADOWBROOK	2/21/2019		
MB019A	MEADOWBROOK	12/18/2019		
MB105	MEADOWBROOK	2/11/2019		
MB106	MEADOWBROOK	2/11/2019		
MB107	MEADOWBROOK	2/11/2019		
MB108	MEADOWBROOK	2/19/2019		
MB110	MEADOWBROOK	2/19/2019		
MB130	MEADOWBROOK	2/19/2019		
MB135	MEADOWBROOK	2/19/2019		
MB140	MEADOWBROOK	2/19/2019		
MB141	MEADOWBROOK	2/20/2019		
MB308	MEADOWBROOK	2/20/2019		
MB350	MEADOWBROOK	2/20/2019		
MB351	MEADOWBROOK	2/15/2019		
MB352	MEADOWBROOK	2/20/2019		
MB353	MEADOWBROOK	4/8/2019		
MB355	MEADOWBROOK	2/20/2019		
MB559	MEADOWBROOK	12/18/2019		

APPENDIX B: MANHOLE INSPECTION LOG

City of Bangor, Maine
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Manhole ID	Subsection	Date Inspected	Repeat Inspection	Justification for Repeat Inspection
MB701	MEADOWBROOK	2/6/2019		
MB703	MEADOWBROOK	2/6/2019		
MB900	MEADOWBROOK	2/8/2019		
MB901	MEADOWBROOK	2/8/2019		
MB902	MEADOWBROOK	2/8/2019		
MB903	MEADOWBROOK	2/8/2019		
MB905	MEADOWBROOK	2/6/2019		
MB930	MEADOWBROOK	4/8/2019		
MB931	MEADOWBROOK	4/8/2019		
MB932	MEADOWBROOK	4/8/2019		
MB933	MEADOWBROOK	4/8/2019		
MB934	MEADOWBROOK	4/8/2019		
MB950	MEADOWBROOK	2/6/2019		
MB951	MEADOWBROOK	2/6/2019		
MB952	MEADOWBROOK	2/1/2019		
MB953	MEADOWBROOK	2/1/2019		
MB954	MEADOWBROOK	2/1/2019		
OC031	CAPEHART	4/5/2019		
OC100	CAPEHART	2/12/2019		
OC301	CAPEHART	9/4/2019		
OC351	CAPEHART	9/4/2019		
OC441	CAPEHART	9/10/2019		
OC950	CAPEHART	9/5/2019		
OC953	CAPEHART	9/5/2019		
PI013	PENOBSCOT INT	1/16/2019		
PI018	PENOBSCOT INT	1/14/2019		
PI020	PENOBSCOT INT	1/14/2019		
PI023	PENOBSCOT INT	1/14/2019		
PI025A	PENOBSCOT INT	1/14/2019		
PI027	PENOBSCOT INT	1/14/2019		
PI029	PENOBSCOT INT	1/14/2019		
SL006	STRICKLAND	6/12/2019		
SL008	STRICKLAND	2/26/2019		
SL010	STRICKLAND	6/12/2019		
SL011	STRICKLAND	6/12/2019		
SL100	STRICKLAND	2/26/2019		
SL102	STRICKLAND	2/26/2019		
SL103	STRICKLAND	2/26/2019		
TBV001	TANK-BARKERSVILLE	5/30/2019		

APPENDIX B: MANHOLE INSPECTION LOG

City of Bangor, Maine
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Manhole ID	Subsection	Date Inspected	Repeat Inspection	Justification for Repeat Inspection
TBV002	TANK-BARKERSVILLE	5/30/2019		
TBV003	TANK-BARKERSVILLE	5/30/2019		
TBV004	TANK-BARKERSVILLE	5/30/2019		
TBV005	TANK-BARKERSVILLE	5/30/2019		
TBV006	TANK-BARKERSVILLE	5/30/2019		
TBV007	TANK-BARKERSVILLE	5/30/2019		
WL151	WOODLAWN	12/23/2019		
WL600A	WOODLAWN	12/20/2019		
WS201	WESTLAND	3/7/2019		
WS204	WESTLAND	3/6/2019		
TOTAL MANHOLES INSPECTED			395	
excluding repeats				

Appendix C

CCTV Repair, Replacement and Upgrade Log

APPENDIX C: CCTV REPAIR, REPLACEMENT, AND UPGRADE LOG

City of Bangor, Maine
Calendar Year 2019

Subsection	Pipe Segment ID	Location	Description of Repair or Defect	Date Repaired or Schedule
ARCTIC BROOK	AB236		offset joint, intruding service	within 10 years
ARCTIC BROOK	AB236		offset joint	within 15 years
ARCTIC BROOK	AB261	extending from MH AB261	replaced 17.3 ft of 8" VCP with PVC	4/17/2019
ARCTIC BROOK	AB354		hole with void, multiple fractures	within 5 years
ARCTIC BROOK	AB435A	extending from MH AB423	replaced 95 ft of 8" VCP with PVC	8/27/2019
ARCTIC BROOK	AB436	extending from MH AB435	replaced 209 ft of 8" VCP with PVC	9/12/2019
ARCTIC BROOK	AB450		broken section, small sag, multiple cracks	within 5 years
ARCTIC BROOK	AB471		collapse, hole with void, fractures, sag	2020
ARCTIC BROOK	AB503		deformation and breaks	within 5 years
AIRPORT	AP233		hole and break, fractures, offset joint	within 5 years
AIRPORT	AP312	extending from MH AP311	replaced 7 ft of 8" VCP with PVC	1/16/2019
AIRPORT	AP415	extending from MH 414A	replaced 152 ft of 8" VCP with PVC	6/13/2019
AIRPORT	AP416	beginning 24 ft upstream of MH AP415	replaced 128 ft of 8" VCP with PVC	6/28/2019
AIRPORT	AP481	beginning 65 ft upstream of MH AP480	replaced 37 ft of 8" VCP with PVC	5/23/2019
AIRPORT	AP508	extending from MH AP507	replaced 40 ft of 8" VCP with PVC	7/26/2019
AIRPORT	AP702	beginning 5 ft upstream of MH AP701	replaced 25 ft of 8" VCP with PVC	6/28/2019
AIRPORT	AP703	extending from MH 702	replaced 70 ft of 8" VCP with PVC	7/9/2019
AIRPORT	AP704	beginning 5 ft from MH 703	replaced 14 ft of 8" VCP with PVC	7/11/2019
AIRPORT	AP723	extending from MH AP723	replaced 14 ft 8" VCP with PVC	5/29/2019
BURLEIGH	BU511	extending from MH BU510	replaced 83 ft of 8" truss pipe with PVC	8/2/2019
BARKERSVILLE	BV035		broken and missing pipe at manhole	2020
BARKERSVILLE	BV050	entire segment	abandoned 535 ft of 15" pipe	11/22/2019
BARKERSVILLE	BV051	entire segment	abandoned 278 ft of 15" pipe	11/22/2019
BARKERSVILLE	BV052	entire segment	abandoned 237 ft of 10" pipe	11/22/2019
BARKERSVILLE	BV053	entire segment	abandoned 57 ft of 10" pipe	11/22/2019
BARKERSVILLE	BV055	entire segment	abandoned 29 ft of 12" pipe	11/22/2019
BARKERSVILLE	BV060	entire segment	abandoned 37.5 ft of 12" pipe	11/22/2019
BARKERSVILLE	BV061		broken pipe and void near MH BV060	within 5 years
BARKERSVILLE	BV090	MH BV003 to new manhole	installed 46 ft of 15" PVC	11/22/2019
BARKERSVILLE	BV091	new manhole to new manhole	installed 216 ft of 15" PVC	11/22/2019
BARKERSVILLE	BV092	new manhole to new manhole	installed 263 ft of 15" PVC	11/22/2019
BARKERSVILLE	BV093	new manhole to new manhole	installed 48 ft of 12" PVC	11/22/2019
BARKERSVILLE	BV094	new manhole to new manhole	installed 295 ft of 15" PVC	11/22/2019
BARKERSVILLE	BV095	new manhole to new manhole	installed 54 ft of 12" PVC	11/22/2019
BARKERSVILLE	BV096	new manhole to new manhole	installed 270 ft of 12" PVC	11/22/2019
BARKERSVILLE	BV107		deformed brick pipe, missing brick	within 10 years
BARKERSVILLE	BV110		break with void	2020
BARKERSVILLE	BV115	from MH BV115 to existing main	installed 82 ft of 10" PVC	11/22/2019
BARKERSVILLE	BV119	entire segment	installed 67 ft of 12" PVC	11/22/2019
BARKERSVILLE	BV120	extending from new manhole	installed 91 ft of 12" PVC	4/12/2019
BARKERSVILLE	BV122	entire segment	abandoned 125 ft of 8" VCP pipe	5/16/2019
BARKERSVILLE	BV140		hole at joint, hinge fractures, crack at lead	within 10 years
BARKERSVILLE	BV150		offset joint right at manhole, roots	within 10 years
BARKERSVILLE	BV300	extending from new MH BV300	replaced 46 ft of 8" VCP with PVC	4/26/2019
BARKERSVILLE	BV301	entire segment	replaced 277 ft of 8" VCP with PVC	4/24/2019
BARKERSVILLE	BV320		small piece of missing pipe at joint, cracks	within 10 years
BARKERSVILLE	BV350		collapse, cannot enter manhole	2020
BARKERSVILLE	BV430		encrustation, hinge cracks, roots, aggregate missing	within 5 years
BARKERSVILLE	BV440		collapse, holes, multiple fractures	2020
BARKERSVILLE	BV450		hinge fractures	within 10 years
BARKERSVILLE	BV506		multiple areas 10% deformed, fractures, cracks	within 5 years

APPENDIX C: CCTV REPAIR, REPLACEMENT, AND UPGRADE LOG

City of Bangor, Maine
Calendar Year 2019

Subsection	Pipe Segment ID	Location	Description of Repair or Defect	Date Repaired or Schedule
BARKERSVILLE	BV511	beginning 158 ft upstream of MH BV510	replaced 63 ft of 10" VCP with PVC	5/15/2019
BARKERSVILLE	BV520A		deformed pipe, break, hole, small sags, roots	2020
BARKERSVILLE	BV530		break with void and soil visible	within 5 years
BARKERSVILLE	BV535		multiple holes, fractures, breaks	2020
BARKERSVILLE	BV561		deformed rigid pipe, break, multiple cracks, roots	within 5 years
BARKERSVILLE	BV626		piece of pipe missing at service, fractures, cracks	within 10 years
BARKERSVILLE	BV650		minor fractures, hole, breaks, inverse curvature	within 5 years
BARKERSVILLE	BV655		holes and fractures around services	within 5 years
BARKERSVILLE	BV703		large hole with void, material change fractures	2020
BARKERSVILLE	BV704		broken pipe, cracks, defective lead, fracture	within 5 years
BARKERSVILLE	BV726	extending from MH BV725	replaced 12 ft of 6" VCP with PVC	10/15/2019
BARKERSVILLE	BV763		hole forming under service, gravel	within 10 years
BARKERSVILLE	BV801		hole at service, deformation, hinge cracks, fractures	within 5 years
BARKERSVILLE	BV815		multiple cracks, defective repair	within 10 years
DAVIS BROOK	DB005	Davis Brook regulator	installed 95 ft of 7 ft X 6 ft precast box pipe	11/1/2019
DAVIS BROOK	DB005	Davis Brook regulator	abandoned 12 ft of pipe	11/1/2019
DAVIS BROOK	DB204		large hole near manhole, roots, displaced brick	within 5 years
DAVIS BROOK	DB246		large offset preventing camera passage	2020
DAVIS BROOK	DB265A		bottom fracture, separated joint	within 5 years
DAVIS BROOK	DB265A		break, fractures, hinge cracks	within 5 years
DAVIS BROOK	DB305		large void in side, missing mortar, displaced bricks	2020
DAVIS BROOK	DB305A		holes, displaced and missing brick	2020
DAVIS BROOK	DB362		Intruding service preventing passage	2020
DAVIS BROOK	DB400		starting inverse curvature, missing brick	within 5 years
DAVIS BROOK	DB440A		multiple fractures and cracks, debris	within 5 years
DAVIS BROOK	DB526		large rocks, missing brick, larger roots	within 5 years
DAVIS BROOK	DB527		large holes, rocks in fill invert	2020
DAVIS BROOK	DB547		defective joint, unused so should abandon	2020
DAVIS BROOK	DB621		fracture in pipe just outside manhole	within 10 years
DAVIS BROOK	DB730		missing mortar, dropped invert	within 10 years
DAVIS BROOK	DB951		hole, hinge cracks, offset joints, roots	within 5 years
DAVIS BROOK	DB965	Davis Brook regulator	installed 10 ft of 42" RCP	11/1/2019
DAVIS BROOK	DB966	Davis Brook regulator	installed 79 ft of 42" PVC	11/1/2019
DAVIS BROOK	DB967	Davis Brook regulator	installed 135 ft of 42" PVC	11/1/2019
DAVIS BROOK	DB968	Davis Brook regulator	installed 85 ft of 42" PVC	11/1/2019
DAVIS BROOK	DB969	Davis Brook regulator	installed 166 ft of 42" PVC	11/1/2019
DAVIS BROOK	DB970	Davis Brook regulator	installed 40 ft of 42" PVC	11/1/2019
DAVIS BROOK	DB972	Davis Brook regulator	installed 152 ft of 72" RCP	11/1/2019
DAVIS BROOK	DB973	Davis Brook regulator	installed 20 ft of 72" RCP	11/1/2019
DAVIS BROOK	DB974	Davis Brook regulator	installed 60 ft of 30" PVC	11/1/2019
DAVIS BROOK	DB998	Davis Brook regulator	abandoned 270 ft of 72" stone sewer	11/1/2019
DAVIS BROOK	DB998	Davis Brook regulator	installed 68 ft of 72" RCP	11/1/2019
DAVIS BROOK	DB999	Davis Brook regulator	abandoned 43 ft of 72" stone sewer	11/1/2019
DOW	DW214	entire segment	replaced 284 ft of 8" VCP with PVC	5/8/2019
DOW	DW261		sag	within 5 years
FOURTEENTH ST	FS050		deformed pipe, fracture, small sag	within 5 years
FOURTEENTH ST	FS151		broken catch basin lead, fracture, roots	within 10 years
HANCOCK	HK085		broken pipe, small hole, multiple cracks	2021
HANCOCK	HK104	beginning 106' upstream of MH HK103	replaced 41 ft of 8" VCP with PVC	10/3/2019
KENDUSKEAG EAST	KE600		hole at catch basin service, debris	within 5 years
MEADOWBROOK	MB477	extending from MH MB476	replaced 14 ft of 12" VCP with PVC	9/30/2019

APPENDIX C: CCTV REPAIR, REPLACEMENT, AND UPGRADE LOG

City of Bangor, Maine
Calendar Year 2019

Subsection	Pipe Segment ID	Location	Description of Repair or Defect	Date Repaired or Schedule
MEADOWBROOK	MB477		offset joint, roots	within 10 years
MEADOWBROOK	MB550	beginning 44 ft from MH MB019	replaced 35 ft of 12" VCP with PVC	3/23/2019
MEADOWBROOK	MB559	beginning at MH MB019A	replaced 24 ft of 12" VCP with PVC	9/26/2019
MEADOWBROOK	MB560	extending from MH MB559	replaced 24 ft of 12" VCP with PVC	9/26/2019
STRICKLAND	SL010		camera underwater in sag (65%)	within 5 years
WOODLAWN	WL600A	beginning at inlet to MH WL600	replaced 54 ft of 10" VCP with PVC	10/21/2019
WOODLAWN	WL601	beginning at inlet to MH WL600A	replaced 63 ft of 10" VCP with PVC	11/27/2019
WOODLAWN	WL601		fracture, broken pipe at service, possible sag	within 10 years
WOODLAWN	WS203		broken pipe, spiral fractures, cracks, roots	within 5 years

Appendix D
Cleaning Log

APPENDIX D: CLEANING LOG

City of Bangor, Maine
Calendar Year 2019

Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
AB053	ARCTIC BROOK	5/8/2019	52	1	52		
AB054	ARCTIC BROOK	5/8/2019	225	1	225		
AB057	ARCTIC BROOK	4/30/2019	366	1	366		
AB058	ARCTIC BROOK	4/30/2019	277	1	277		
AB060	ARCTIC BROOK	5/8/2019	56	1	56		
AB061	ARCTIC BROOK	4/26/2019	277	1	277		
AB062	ARCTIC BROOK	4/26/2019	174	1	174		
AB063	ARCTIC BROOK	4/25/2019	64	1	64		
AB064	ARCTIC BROOK	4/25/2019	77	1	77		
AB065	ARCTIC BROOK	4/25/2019	190	1	190		
AB070	ARCTIC BROOK	4/30/2019	339	2	678		
AB071	ARCTIC BROOK	4/30/2019	40	1	40		
AB072	ARCTIC BROOK	4/30/2019	52	1	52		
AB073	ARCTIC BROOK	4/30/2019	145	1	145		
AB075	ARCTIC BROOK	4/30/2019	16	1	16		
AB082	ARCTIC BROOK	4/23/2019	198	1	198		
AB083	ARCTIC BROOK	4/23/2019	364	1	364		
AB085	ARCTIC BROOK	4/23/2019	447	1	447		
AB101	ARCTIC BROOK	4/25/2019	150	1	150		
AB102	ARCTIC BROOK	4/25/2019	30	1	30		
AB103	ARCTIC BROOK	4/22/2019	34	3	102		
AB104	ARCTIC BROOK	4/22/2019	206	3	618		
AB105	ARCTIC BROOK	4/22/2019	17	3	51		
AB106	ARCTIC BROOK	4/11/2019	336	2	672		
AB107	ARCTIC BROOK	4/10/2019	118	2	236		
AB108	ARCTIC BROOK	4/10/2019	348	2	696		
AB109	ARCTIC BROOK	4/10/2019	221	2	442		
AB110	ARCTIC BROOK	4/10/2019	26	2	52		
AB120	ARCTIC BROOK	4/11/2019	294	2	588		
AB121	ARCTIC BROOK	4/11/2019	299	2	598		
AB122	ARCTIC BROOK	4/11/2019	154	2	308		
AB123	ARCTIC BROOK	4/11/2019	73	2	146		
AB124	ARCTIC BROOK	4/11/2019	249	3	747		
AB125	ARCTIC BROOK	4/11/2019	42	1	42		
AB130	ARCTIC BROOK	4/10/2019	213	2	426		
AB131	ARCTIC BROOK	4/10/2019	243	2	486		
AB132	ARCTIC BROOK	4/9/2019	333	2	666		
AB135	ARCTIC BROOK	4/10/2019	315	2	630		
AB136	ARCTIC BROOK	4/10/2019	15	1	15		

APPENDIX D: CLEANING LOG

City of Bangor, Maine
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Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
AB137	ARCTIC BROOK	4/10/2019	273	2	546		
AB140	ARCTIC BROOK	4/10/2019	337	2	674		
AB150	ARCTIC BROOK	4/10/2019	242	2	484		
AB151	ARCTIC BROOK	4/10/2019	240	2	480		
AB160	ARCTIC BROOK	4/10/2019	417	1	417		
AB161	ARCTIC BROOK	4/12/2019	330	2	660		
AB201	ARCTIC BROOK	4/22/2019	16	1	16		
AB202	ARCTIC BROOK	4/22/2019	219	1	219		
AB203	ARCTIC BROOK	4/22/2019	44	1	44		
AB204	ARCTIC BROOK	4/22/2019	283	1	283		
AB205	ARCTIC BROOK	4/22/2019	79	1	79		
AB206	ARCTIC BROOK	4/12/2019	293	2	586		
AB207	ARCTIC BROOK	4/12/2019	253	2	506		
AB208	ARCTIC BROOK	4/12/2019	137	2	274		
AB209	ARCTIC BROOK	4/12/2019	396	2	792		
AB210	ARCTIC BROOK	4/12/2019	190	2	380		
AB211	ARCTIC BROOK	4/12/2019	29	2	58		
AB220	ARCTIC BROOK	4/22/2019	175	1	175		
AB221	ARCTIC BROOK	4/11/2019	201	2	402		
AB230	ARCTIC BROOK	4/22/2019	101	1	101		
AB231	ARCTIC BROOK	4/12/2019	112	2	224		
AB232	ARCTIC BROOK	4/12/2019	303	2	606		
AB233	ARCTIC BROOK	4/11/2019	94	2	188		
AB234	ARCTIC BROOK	4/11/2019	204	2	408		
AB235	ARCTIC BROOK	4/11/2019	11	2	22		
AB236	ARCTIC BROOK	4/11/2019	241	2	482		
AB250	ARCTIC BROOK	4/22/2019	61	1	61		
AB251	ARCTIC BROOK	4/22/2019	131	1	131		
AB260	ARCTIC BROOK	4/22/2019	25	1	25		
AB261	ARCTIC BROOK	4/22/2019	166	3	498		
AB354	ARCTIC BROOK	5/8/2019	277	1	277		
AB355	ARCTIC BROOK	5/8/2019	143	1	143		
AB355	ARCTIC BROOK	12/23/2019	250	2	500	yes	known trouble spot
AB422	ARCTIC BROOK	5/16/2019	71	1	71		
AB423	ARCTIC BROOK	5/16/2019	233	1	233		
AB424	ARCTIC BROOK	5/16/2019	223	1	223		
AB425	ARCTIC BROOK	5/13/2019	117	1	117		
AB426	ARCTIC BROOK	5/13/2019	160	1	160		
AB427	ARCTIC BROOK	5/13/2019	21	1	21		

APPENDIX D: CLEANING LOG

City of Bangor, Maine
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Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
AB428	ARCTIC BROOK	5/13/2019	87	1	87		
AB429	ARCTIC BROOK	5/13/2019	61	2	122		
AB430	ARCTIC BROOK	5/16/2019	312	1	312		
AB435	ARCTIC BROOK	5/16/2019	242	1	242		
AB436	ARCTIC BROOK	5/16/2019	65	1	65		
AB440	ARCTIC BROOK	5/13/2019	46	1	46		
AB441	ARCTIC BROOK	5/16/2019	100	1	100		
AB452	ARCTIC BROOK	5/8/2019	126	1	126		
AB453	ARCTIC BROOK	5/8/2019	253	1	253		
AB454	ARCTIC BROOK	5/8/2019	191	1	191		
AB455	ARCTIC BROOK	5/8/2019	43	1	43		
AB456	ARCTIC BROOK	5/8/2019	206	1	206		
AB457	ARCTIC BROOK	5/8/2019	305	1	305		
AB458	ARCTIC BROOK	6/5/2019	122	1	122		
AB460	ARCTIC BROOK	5/8/2019	313	1	313		
AB461	ARCTIC BROOK	5/8/2019	191	1	191		
AB470	ARCTIC BROOK	5/16/2019	33	1	33		
AB471	ARCTIC BROOK	5/16/2019	140	1	140		
AB472	ARCTIC BROOK	5/16/2019	120	1	120		
AB480	ARCTIC BROOK	5/13/2019	352	1	352		
AB490	ARCTIC BROOK	5/13/2019	333	1	333		
AB501	ARCTIC BROOK	3/25/2019	166	2	332		
AB502	ARCTIC BROOK	3/25/2019	387	2	774		
AB509	ARCTIC BROOK	12/23/2019	398	2	796		
AP233	AIRPORT	7/17/2019	295	3	885		
AP312	AIRPORT	2/7/2019	227	4	908		
AP312	AIRPORT	2/25/2019	227	2	454	yes	needed more cleaning
AP355	AIRPORT	6/14/2019	330	2	660		
AP360	AIRPORT	4/24/2019	341	1	341		
AP370	AIRPORT	2/7/2019	205	3	615		
AP370	AIRPORT	2/25/2019	205	2	410	yes	needed more cleaning
AP380	AIRPORT	2/25/2019	132	2	264		
AP415A	AIRPORT	1/29/2019	167	3	501		
AP415A	AIRPORT	8/19/2019	167	2	334	yes	known trouble spot
AP509	AIRPORT	8/28/2019	102	2	204		
BS002	BLANCHARD ST	3/11/2019	24	2	48		
BS003	BLANCHARD ST	3/11/2019	239	2	478		
BS004	BLANCHARD ST	3/11/2019	358	2	716		
BS011	BLANCHARD ST	4/5/2019	139	2	278		

APPENDIX D: CLEANING LOG

City of Bangor, Maine
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Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
BS012	BLANCHARD ST	4/5/2019	375	2	750		
BS013	BLANCHARD ST	4/5/2019	294	2	588		
BS021	BLANCHARD ST	10/24/2019	240	1	240		
BS100	BLANCHARD ST	3/11/2019	83	2	166		
BS301	BLANCHARD ST	4/25/2019	278	1	278		
BS302	BLANCHARD ST	4/25/2019	300	1	300		
BS303	BLANCHARD ST	4/25/2019	295	1	295		
BS401	BLANCHARD ST	4/9/2019	146	1	146		
BS402	BLANCHARD ST	4/9/2019	348	1	348		
BS403	BLANCHARD ST	4/9/2019	335	1	335		
BS404	BLANCHARD ST	4/9/2019	169	1	169		
BS600	BLANCHARD ST	4/5/2019	296	2	592		
BS601	BLANCHARD ST	4/5/2019	198	2	396		
BS602	BLANCHARD ST	4/5/2019	296	2	592		
BS603	BLANCHARD ST	4/5/2019	131	2	262		
BS610	BLANCHARD ST	4/9/2019	86	2	172		
BS620	BLANCHARD ST	4/9/2019	66	2	132		
BS700	BLANCHARD ST	4/9/2019	210	2	420		
BS701	BLANCHARD ST	4/9/2019	297	2	594		
BS702	BLANCHARD ST	4/9/2019	269	2	538		
BS703	BLANCHARD ST	4/5/2019	181	2	362		
BU532	BURLEIGH	3/12/2019	187	2	374		
BU532	BURLEIGH	4/24/2019	187	1	187	yes	known trouble spot
BU532	BURLEIGH	6/10/2019	187	2	374	yes	known trouble spot
BU533	BURLEIGH	4/24/2019	116	2	232		
BU535	BURLEIGH	3/12/2019	268	2	536		
BU535	BURLEIGH	4/24/2019	268	2	536	yes	known trouble spot
BU535	BURLEIGH	6/10/2019	268	2	536	yes	known trouble spot
BV025	BARKERSVILLE	4/1/2019	575	2	1150		
BV062	BARKERSVILLE	1/23/2019	231	5	1155		
BV062	BARKERSVILLE	1/24/2019	231	3	693	yes	needed more cleaning
BV063	BARKERSVILLE	1/23/2019	318	5	1590		
BV064	BARKERSVILLE	1/23/2019	402	3	1206		
BV107	BARKERSVILLE	6/10/2019	179	3	537		
BV108	BARKERSVILLE	6/10/2019	363	2	726		
BV108	BARKERSVILLE	6/13/2019	363	1	363	yes	needed more cleaning
BV141	BARKERSVILLE	2/5/2019	230	4	920		
BV141	BARKERSVILLE	2/7/2019	230	2	460	yes	needed more cleaning
BV142	BARKERSVILLE	2/4/2019	60	2	120		

APPENDIX D: CLEANING LOG

City of Bangor, Maine
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Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
BV150	BARKERSVILLE	2/5/2019	75	2	150		
BV155	BARKERSVILLE	5/23/2019	281	2	562		
BV301	BARKERSVILLE	2/4/2019	221	3	663		
BV333	BARKERSVILLE	4/11/2019	150	1	150		
BV340	BARKERSVILLE	4/11/2019	183	2	366		
BV405	BARKERSVILLE	8/28/2019	500	1	500		
BV406	BARKERSVILLE	8/28/2019	282	1	282		
BV407	BARKERSVILLE	8/28/2019	519	1	519		
BV411	BARKERSVILLE	8/28/2019	530	1	530		
BV415	BARKERSVILLE	8/28/2019	94	1	94		
BV420	BARKERSVILLE	8/28/2019	257	1	257		
BV421	BARKERSVILLE	8/28/2019	221	1	221		
BV425	BARKERSVILLE	8/28/2019	379	1	379		
BV436	BARKERSVILLE	8/28/2019	221	1	221		
BV440	BARKERSVILLE	3/29/2019	435	2	870		
BV450	BARKERSVILLE	2/5/2019	552	2	1104		
BV452	BARKERSVILLE	3/12/2019	200	4	800		
BV476	BARKERSVILLE	11/7/2019	401	1	401		
BV478	BARKERSVILLE	11/7/2019	304	1	304		
BV479	BARKERSVILLE	11/7/2019	217	1	217		
BV480	BARKERSVILLE	11/7/2019	137	1	137		
BV485	BARKERSVILLE	11/7/2019	391	2	782		
BV490	BARKERSVILLE	11/7/2019	205	1	205		
BV510	BARKERSVILLE	4/11/2019	299	2	598		
BV511	BARKERSVILLE	4/11/2019	223	2	446		
BV520A	BARKERSVILLE	5/13/2019	322	4	1288		
BV535	BARKERSVILLE	4/1/2019	389	2	778		
BV541	BARKERSVILLE	4/1/2019	301	2	602		
BV617	BARKERSVILLE	4/10/2019	294	2	588		
BV619	BARKERSVILLE	3/28/2019	319	2	638		
BV640	BARKERSVILLE	4/1/2019	73	4	292		
BV645	BARKERSVILLE	4/1/2019	130	2	260		
BV650	BARKERSVILLE	3/28/2019	201	2	402		
BV655	BARKERSVILLE	3/28/2019	149	2	298		
BV730	BARKERSVILLE	2/25/2019	130	3	390		
BV741	BARKERSVILLE	2/25/2019	406	4	1624		
CB124	CARR BROOK	9/4/2019	347	2	694		
CB126	CARR BROOK	3/12/2019	356	2	712		
CB134	CARR BROOK	3/12/2019	348	2	696		

APPENDIX D: CLEANING LOG

City of Bangor, Maine
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Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
CB134	CARR BROOK	7/23/2019	348	1	348	yes	known trouble spot
CB134	CARR BROOK	8/16/2019	348	2	696	yes	known trouble spot
CB134	CARR BROOK	10/25/2019	348	1	348	yes	known trouble spot
CB161	CARR BROOK	8/28/2019	98	1	98		
CB165	CARR BROOK	8/28/2019	116	1	116		
CB165A	CARR BROOK	8/28/2019	164	1	164		
CB166	CARR BROOK	8/28/2019	249	1	249		
CB406	CARR BROOK	3/12/2019	146	2	292		
CB406	CARR BROOK	6/10/2019	146	2	292	yes	known trouble spot
CB406	CARR BROOK	7/23/2019	146	1	146	yes	known trouble spot
CB407	CARR BROOK	3/12/2019	159	2	318		
CB407	CARR BROOK	6/10/2019	150	2	300	yes	known trouble spot
CB407	CARR BROOK	7/23/2019	159	1	159	yes	known trouble spot
CM519	CEMETERY	5/8/2019	229	2	458		
CM520	CEMETERY	5/8/2019	186	2	372		
CM590	CEMETERY	5/8/2019	210	2	420		
CM591	CEMETERY	5/8/2019	183	2	366		
CM712	CEMETERY	5/8/2019	215	2	430		
CM791	CEMETERY	5/8/2019	255	2	510		
DB127	DAVIS BROOK	4/30/2019	142	1	142		
DB240A	DAVIS BROOK	4/25/2019	192	3	576		
DB300	DAVIS BROOK	4/26/2019	301	5	1505		
DB380	DAVIS BROOK	2/25/2019	25	3	75		
DB381	DAVIS BROOK	2/5/2019	225	5	1125		
DB382	DAVIS BROOK	2/5/2019	25	3	75		
DB511	DAVIS BROOK	2/4/2019	246	3	738		
DB512	DAVIS BROOK	2/4/2019	98	3	294		
DB512	DAVIS BROOK	5/23/2019	98	2	196	yes	
DB529	DAVIS BROOK	4/23/2019	10	2	20		
DB542	DAVIS BROOK	4/10/2019	380	2	760		
DB543	DAVIS BROOK	4/10/2019	340	1	340		
DB564	DAVIS BROOK	2/7/2019	142	1	142		
DB565	DAVIS BROOK	2/7/2019	162	1	162		
DB565	DAVIS BROOK	7/23/2019	162	1	162	yes	known trouble spot
DB566	DAVIS BROOK	2/7/2019	171	1	171		
DB566	DAVIS BROOK	7/23/2019	171	2	342	yes	known trouble spot
DB585	DAVIS BROOK	2/4/2019	264	2	528		
DB595	DAVIS BROOK	2/4/2019	405	2	810		
DB596	DAVIS BROOK	2/4/2019	41	2	82		

APPENDIX D: CLEANING LOG

City of Bangor, Maine
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Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
DW100A	DOW	6/25/2019	75	2	150		
DW100A	DOW	6/25/2019	154	2	308	yes	known trouble spot
DW260	DOW	12/23/2019	249	2	498		
DW261	DOW	12/23/2019	305	2	610		
DW265	DOW	2/7/2019	108	2	216		
DW265	DOW	3/13/2019	108	2	216	yes	known trouble spot
DW265	DOW	7/23/2019	108	2	216	yes	known trouble spot
DW265	DOW	8/19/2019	108	2	216	yes	known trouble spot
DW265	DOW	10/24/2019	108	2	216	yes	known trouble spot
DW614	DOW	1/29/2019	206	2	412		
DW614	DOW	3/13/2019	206	1	206	yes	known trouble spot
EK002	E KENDUSKEAG INT	8/21/2019	99	3	297		
FK900	FRANKLIN	1/9/2019	65	3	195		
FK901	FRANKLIN	1/9/2019	42	2	84		
FK902	FRANKLIN	1/9/2019	166	2	332		
FK903	FRANKLIN	1/9/2019	44	2	88		
HK010A	HANCOCK	7/23/2019	45	2	90		
HK010A	HANCOCK	10/25/2019	45	1	45	yes	known trouble spot
HK011	HANCOCK	7/23/2019	236	1	236		
HK040	HANCOCK	7/23/2019	31	1	31		
HK040	HANCOCK	10/25/2019	31	1	31	yes	known trouble spot
HK041	HANCOCK	7/23/2019	323	1	323		
HK085	HANCOCK	2/4/2019	247	2	494		
HK502	HANCOCK	3/11/2019	219	2	438		
HK503	HANCOCK	3/11/2019	220	2	440		
HK600	HANCOCK	3/11/2019	202	2	404		
HK601	HANCOCK	3/11/2019	296	2	592		
HK602	HANCOCK	3/11/2019	48	2	96		
HK625	HANCOCK	3/11/2019	325	2	650		
HK650	HANCOCK	3/11/2019	191	2	382		
HP226	HILDRETH PERRY	1/16/2019	521	3	1563		
HP554	HILDRETH PERRY	3/15/2019	394	1	394		
HP555	HILDRETH PERRY	3/13/2019	303	4	1212		
HP555A	HILDRETH PERRY	3/13/2019	98	3	294		
HP556	HILDRETH PERRY	3/13/2019	200	3	600		
HP557	HILDRETH PERRY	3/13/2019	371	3	1113		
HP558	HILDRETH PERRY	3/21/2019	354	2	708		
HP559	HILDRETH PERRY	3/21/2019	349	2	698		
HP800	HILDRETH PERRY	1/16/2019	640	4	2560		

APPENDIX D: CLEANING LOG

City of Bangor, Maine
Calendar Year 2019

Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
HP803	HILDRETH PERRY	1/16/2019	545	3	1635		
HP850	HILDRETH PERRY	1/16/2019	290	3	870		
HS500	HUSSON	3/12/2019	295	2	590		
HS500	HUSSON	6/10/2019	295	2	590	yes	known trouble spot
HS500	HUSSON	8/19/2019	295	1	295	yes	known trouble spot
HS500	HUSSON	10/24/2019	295	1	295	yes	known trouble spot
KE600	KENDUSKEAG EAST	9/19/2019	699	2	1398		
MB106	MEADOWBROOK	2/4/2019	189	2	378		
MB107	MEADOWBROOK	2/4/2019	172	2	344		
MB108	MEADOWBROOK	6/12/2019	36	1	36		
MB109	MEADOWBROOK	6/12/2019	240	1	240		
MB110	MEADOWBROOK	6/12/2019	204	1	204		
MB111	MEADOWBROOK	6/7/2019	224	1	224		
MB112	MEADOWBROOK	6/7/2019	225	1	225		
MB113	MEADOWBROOK	6/7/2019	356	1	356		
MB114	MEADOWBROOK	6/5/2019	300	1	300		
MB115	MEADOWBROOK	6/5/2019	132	1	132		
MB130	MEADOWBROOK	6/12/2019	252	1	252		
MB135	MEADOWBROOK	6/12/2019	213	1	213		
MB140	MEADOWBROOK	6/7/2019	208	1	208		
MB141	MEADOWBROOK	6/7/2019	342	1	342		
MB145	MEADOWBROOK	6/7/2019	202	1	202		
MB146	MEADOWBROOK	6/7/2019	137	2	274		
MB147	MEADOWBROOK	6/7/2019	201	2	402		
MB311	MEADOWBROOK	6/10/2019	255	1	255		
MB312	MEADOWBROOK	6/5/2019	237	1	237		
MB313	MEADOWBROOK	6/5/2019	189	1	189		
MB314	MEADOWBROOK	6/5/2019	32	1	32		
MB315	MEADOWBROOK	6/5/2019	320	1	320		
MB316	MEADOWBROOK	6/5/2019	359	1	359		
MB320	MEADOWBROOK	6/13/2019	25	2	50		
MB321	MEADOWBROOK	6/13/2019	337	2	674		
MB335	MEADOWBROOK	6/10/2019	38	1	38		
MB336	MEADOWBROOK	6/10/2019	451	1	451		
MB337	MEADOWBROOK	6/10/2019	87	2	174		
MB340	MEADOWBROOK	6/10/2019	192	2	384		
MB345	MEADOWBROOK	6/10/2019	391	2	782		
MB346	MEADOWBROOK	6/10/2019	88	1	88		
MB350	MEADOWBROOK	6/10/2019	41	1	41		

APPENDIX D: CLEANING LOG

City of Bangor, Maine
Calendar Year 2019

Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
MB351	MEADOWBROOK	6/10/2019	212	1	212		
MB352	MEADOWBROOK	6/10/2019	242	1	242		
MB353	MEADOWBROOK	6/10/2019	109	1	109		
MB355	MEADOWBROOK	6/10/2019	38	1	38		
MB356	MEADOWBROOK	6/10/2019	130	2	260		
MB360	MEADOWBROOK	6/10/2019	231	1	231		
MB370	MEADOWBROOK	6/5/2019	295	1	295		
MB371	MEADOWBROOK	6/5/2019	298	1	298		
MB372	MEADOWBROOK	6/5/2019	237	1	237		
MB373	MEADOWBROOK	6/5/2019	114	2	228		
MB560	MEADOWBROOK	6/17/2019	50	3	150		
MB561	MEADOWBROOK	6/17/2019	50	3	150		
MB701	MEADOWBROOK	2/5/2019	54	2	108		
MB702	MEADOWBROOK	2/5/2019	267	2	534		
MB703	MEADOWBROOK	2/5/2019	52	2	104		
MB858	MEADOWBROOK	10/25/2019	62	1	62		
MB901	MEADOWBROOK	2/5/2019	30	2	60		
MB902	MEADOWBROOK	2/5/2019	240	2	480		
MB903	MEADOWBROOK	2/5/2019	236	2	472		
MB904	MEADOWBROOK	2/5/2019	246	2	492		
MB905	MEADOWBROOK	2/5/2019	300	2	600		
MB906	MEADOWBROOK	2/5/2019	354	2	708		
MB953	MEADOWBROOK	2/4/2019	304	2	608		
MB954	MEADOWBROOK	2/4/2019	226	1	226		
MB955	MEADOWBROOK	2/4/2019	293	2	586		
MB956	MEADOWBROOK	7/26/2019	354	1	354		
MB978	MEADOWBROOK	7/26/2019	242	1	242		
MB980	MEADOWBROOK	7/26/2019	206	1	206		
MB981	MEADOWBROOK	7/26/2019	450	1	450		
MB982	MEADOWBROOK	7/26/2019	176	1	176		
MB985	MEADOWBROOK	7/26/2019	220	1	220		
MB995	MEADOWBROOK	7/26/2019	339	1	339		
OC402	CAPEHART	8/19/2019	144	1	144		
OC403	CAPEHART	2/7/2019	226	1	226		
OC403	CAPEHART	2/25/2019	226	2	452	yes	known trouble spot
OC403	CAPEHART	8/19/2019	226	1	226	yes	known trouble spot
OC403	CAPEHART	10/24/2019	226	1	226	yes	known trouble spot
OC413	CAPEHART	9/11/2019	287	4	1148		
OC420	CAPEHART	2/7/2019	95	2	190		

APPENDIX D: CLEANING LOG

City of Bangor, Maine
Calendar Year 2019

Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
OC420	CAPEHART	2/25/2019	95	2	190	yes	known trouble spot
OC420	CAPEHART	8/19/2019	95	1	95	yes	known trouble spot
OC420	CAPEHART	10/24/2019	95	1	95	yes	known trouble spot
OC421	CAPEHART	2/7/2019	360	2	720		
OC421	CAPEHART	2/25/2019	360	2	720	yes	known trouble spot
OC421	CAPEHART	8/19/2019	360	1	360	yes	known trouble spot
OC421	CAPEHART	10/24/2019	360	1	360	yes	known trouble spot
OC422	CAPEHART	2/7/2019	268	2	536		
OC422	CAPEHART	2/25/2019	268	2	536	yes	known trouble spot
OC422	CAPEHART	8/19/2019	268	1	268	yes	known trouble spot
OC453	CAPEHART	10/24/2019	236	2	472		
OC455	CAPEHART	10/24/2019	191	2	382		
OC455	CAPEHART	10/24/2019	191	1	191	yes	known trouble spot
OC460	CAPEHART	4/24/2019	135	1	135		
OC461	CAPEHART	4/24/2019	150	1	150		
OC801	CAPEHART	10/24/2019	203	1	203		
OC907	CAPEHART	10/24/2019	235	1	235		
OC954	CAPEHART	10/24/2019	347	1	347		
PJ032	PENJAJAWOC	10/18/2019	336	2	672		
PJ033	PENJAJAWOC	10/18/2019	237	2	474		
PJ034	PENJAJAWOC	10/18/2019	41	2	82		
PJ035	PENJAJAWOC	10/18/2019	51	2	102		
PJ038	PENJAJAWOC	10/16/2019	211	2	422		
PJ039	PENJAJAWOC	10/16/2019	58	2	116		
PJ040	PENJAJAWOC	10/16/2019	278	2	556		
PJ041	PENJAJAWOC	10/15/2019	321	4	1284		
PJ042	PENJAJAWOC	10/15/2019	113	2	226		
PJ043	PENJAJAWOC	10/15/2019	200	2	400		
PJ044	PENJAJAWOC	10/15/2019	191	2	382		
PJ045	PENJAJAWOC	10/15/2019	173	2	346		
PJ046	PENJAJAWOC	10/15/2019	158	2	316		
PJ047	PENJAJAWOC	10/15/2019	174	2	348		
PJ048	PENJAJAWOC	10/15/2019	159	2	318		
PJ049	PENJAJAWOC	10/15/2019	290	2	580		
PJ050	PENJAJAWOC	10/15/2019	267	2	534		
PJ051	PENJAJAWOC	10/15/2019	209	2	418		
PJ052	PENJAJAWOC	10/10/2019	301	2	602		
PJ053	PENJAJAWOC	10/10/2019	196	2	392		
PJ054	PENJAJAWOC	10/10/2019	110	2	220		

APPENDIX D: CLEANING LOG

City of Bangor, Maine
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Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
PJ055	PENJAJAWOC	10/10/2019	300	2	600		
PJ056	PENJAJAWOC	10/10/2019	263	2	526		
PJ057	PENJAJAWOC	10/10/2019	48	2	96		
PJ058	PENJAJAWOC	10/10/2019	212	2	424		
PJ059	PENJAJAWOC	10/15/2019	192	2	384		
PJ060	PENJAJAWOC	10/15/2019	295	2	590		
PJ061	PENJAJAWOC	10/10/2019	304	2	608		
PJ062	PENJAJAWOC	10/10/2019	302	2	604		
PJ220	PENJAJAWOC	10/7/2019	150	2	300		
PJ221	PENJAJAWOC	10/3/2019	268	2	536		
PJ222	PENJAJAWOC	10/3/2019	253	2	506		
PJ223	PENJAJAWOC	10/2/2019	323	2	646		
PJ224	PENJAJAWOC	9/30/2019	280	2	560		
PJ225	PENJAJAWOC	9/30/2019	301	2	602		
PJ226	PENJAJAWOC	9/30/2019	41	3	123		
PJ250	PENJAJAWOC	10/3/2019	53	2	106		
PJ251	PENJAJAWOC	10/3/2019	407	2	814		
PJ252	PENJAJAWOC	10/3/2019	166	2	332		
PJ253	PENJAJAWOC	10/3/2019	185	2	370		
PJ254	PENJAJAWOC	10/7/2019	342	2	684		
PJ400	PENJAJAWOC	3/12/2019	165	2	330		
PJ400	PENJAJAWOC	6/10/2019	165	2	330	yes	known trouble spot
PJ400	PENJAJAWOC	8/19/2019	165	1	165	yes	known trouble spot
PJ400	PENJAJAWOC	10/25/2019	165	1	165	yes	known trouble spot
PJ401	PENJAJAWOC	8/19/2019	112	1	112		
PJ402	PENJAJAWOC	8/19/2019	96	1	96		
PJ701	PENJAJAWOC	10/16/2019	342	2	684		
PJ703	PENJAJAWOC	10/16/2019	343	2	686		
PJ704	PENJAJAWOC	10/16/2019	135	2	270		
PJ705	PENJAJAWOC	10/16/2019	317	2	634		
PJ750	PENJAJAWOC	8/16/2019	211	3	633		
PJ760	PENJAJAWOC	10/15/2019	49	2	98		
PJ770	PENJAJAWOC	10/10/2019	167	2	334		
PJ771	PENJAJAWOC	10/10/2019	295	2	590		
WL107	WOODLAWN	12/23/2019	414	2	828		
WL502	WOODLAWN	9/4/2019	231	2	462		
WL504	WOODLAWN	9/4/2019	315	2	630		
WL511	WOODLAWN	9/4/2019	198	2	396		
WL520	WOODLAWN	9/4/2019	338	2	676		

APPENDIX D: CLEANING LOG

City of Bangor, Maine
Calendar Year 2019

Pipe ID	Subsection	Date	Length of Pipe (ft)	# Passes	Approx. Length Cleaned (ft)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
WL600	WOODLAWN	7/23/2019	75	2	150		
WS205	WESTLAND	3/11/2019	413	6	2478		
Total feet					168,147		
Total miles					31.8		

Appendix E

SSO Event Log

APPENDIX E: SSO EVENT LOG

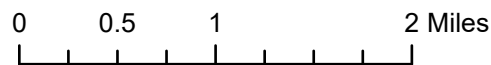
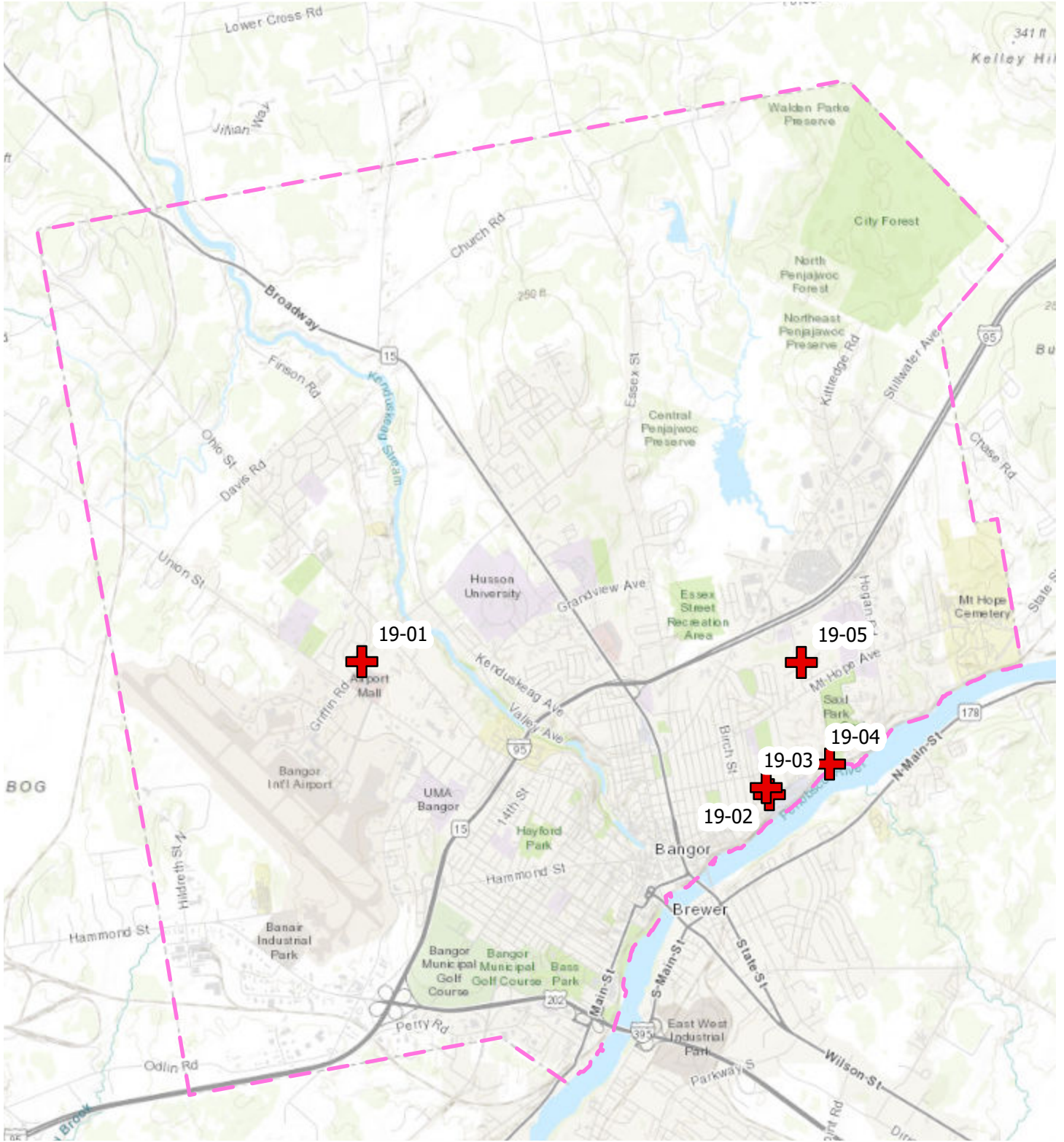
City of Bangor, Maine
Calendar Year 2019

Event No.	Date/Time Reported or Discovered	Date/Time Stopped	Location (Nearest Address)	Final Disposition (Ground, Street, MS4, Surface Water)	Source of Notification	Suspected Cause of Event	Due to blockage or hydraulic limitation within publicly owned Collection System	Measures Taken to Stop Event	Estimated Release Volume (gal)/ Methodology	Date of Most Recent Prior SSO Event at Location
19-01	7/18/2019	unknown	249 Griffin Rd	Birch Stream via MS4	City staff IDDE sampling	roots blockage in sewer main or laterals	probably	cleared roots in sewer main, subsequent <i>E. coli</i> tests showed problem resolved	unknown	none
19-02	8/8/2019	8/8/2019	Manhole CB011 in Wing parking lot (410 State St)	Penobscot River through CSO outfall	sewer crew	heavy rain, hydraulically inadequate lines	yes	drained to stormwater line and discharged at CSO outfall	5,000 gallons/ visual estimate	1/13/2018
19-03	8/8/2019	8/8/2019	Manhole CB012 in Wing parking lot (410 State St)	back into system	sewer crew	heavy rain, hydraulically inadequate lines	yes	drained back into system	5,000 gallons/ visual estimate	3/7/2011
19-04	8/8/2019	8/8/2019	Manhole WL003 near Cascade Park (600 State St)	ground	sewer crew	heavy rain	unknown	drained into system and ground	1,000 gallons/ visual estimate	none
19-05	9/4/2019	9/4/2019	78 Saratoga Ave	back into system	citizen homeowner	sewer crew flushing lines caused overflow of toilet	no	stopped flushing, homeowner cleaned up water	10 gallons/ visual estimate	none

Appendix F

Location Map of Sanitary Sewer Overflows

Location of Sanitary Sewer Overflows 2019



CITY OF BANGOR