THE CORPORATION OF THE CITY OF BARRIE

2024 Sanitary Collection System Annual Report

Environmental Compliance Approval 014-W601

March 26, 2025

The City of Barrie
Wastewater Operations Branch
P.O. Box 400 Barrie, Ontario L4M 4T5
Telephone 705-739-4220 ▪ Fax 705-739-4251 ▪ www.barrie.ca

This page is intentionally left blank.

Table of Contents

Overview 7
Reporting Section 4.6.3: Summary and Interpretation of Monitoring Data 7
Pump Stations Monthly Average Daily Flows 8
Reporting Section 4.6.4: Description of Operating Problems and Corrective Actions 14
Pump Stations and Force Mains 14
Report Section 4.6.5: Summary of Calibration and Maintenance Program 15
Pump Stations and Force Mains 15
Gravity Collection System 17
CCTV Inspection 17
Flow Monitoring 17
In-Situ Repair 17
Sanitary Flushing 18
Sanitary Lateral Repair and Replacement 18
Reporting Section 4.6.6: Summary of Complaints and Responses 21
Pump Stations and Force Mains 21
Gravity Collection System 21
Reporting Section 4.6.7: Alterations/Notices of Modifications Including Status 21
Pump Stations and Force Mains 22
Gravity Collection System 22
Reporting Section 4.6.8: Summary of all Collection System Overflow(s) and Spill(s) of Sewage 23
Pump Stations and Force Mains 23
Gravity Collection System 23
Reporting Section 4.6.9: Summary of Efforts Made to Reduce Overflows and Spills 25
APPENDIX A: Sanitary Flushing and CCTV for 2024 26
APPENDIX B: Sanitary CIPP Relining for 2024 27

List of Tables

Table 1 System-Wide ECA Approvals History 7
Table 2 Pump Station Yearly Average Daily Flow (m^3/d) 13
Table 3 Pump Station and Forcemain Repairs Completed in 2024 14
Table 4 2024 Flow Meter Verifications 16
Table 5 Gravity Sewers on Weekly Flushing Program 18
Table 6 2024 Lateral Repair and Replace Lateral Locations 18
Table 7 Summary of Other Maintenance on Gravity Sewers in 2024 20
Table 8 Service Request Summary 21
Table 9 Notices of Modifications & Status 22
Table 10 2024 Collection System Overflows and Spills 23

List of Figures

Figure 1 Grove Street SPS Monthly Average Daily Flows 8
Figure 2 Heritage Park SPS Monthly Average Daily Flows 8
Figure 3 Holly SPS Monthly Average Daily Flows 9
Figure 4 Little Lake SPS Monthly Average Daily Flows 9
Figure 5 Lockhart SPS Monthly Average Daily Flows 10
Figure 6 Minet's Point SPS Monthly Average Daily Flows 10
Figure 7 Mooregate SPS Monthly Average Daily Flows 11
Figure 8 Splash Pond SPS Monthly Average Daily Flows 11
Figure 9 Tyndale Park SPS Monthly Average Daily Flows 12
Figure 10 Johnson's Beach SPS Monthly Average Daily Flows 12
Figure 11 Innisfil SPS Monthly Average Daily Flows 13
Figure 12 2024 Sanitary Sewer Condition Rating 17

Review and Sign-Off

2024 Sanitary Collection System Annual Report Approved by:	Signature
S. Diemert, Director of Infrastructure	
G. Jorden, Manager of Wastewater Operations	Greg Jorden (Mar 26, 2025 14:04 EDT)
P. Rhebergen, Senior Wastewater Technologist	Pamela Rhebergen (Mar 26, 2025 13:07 EDT)

Review and/or Support Provided by:

D. Parent, Supervisor of Wastewater Operations and Maintenance
J. Burns, IMS Coordinator
S. Van Leusen, Wastewater Collections Foreperson
K. Lloyd, Regulatory Compliance Technician
D. Tone, Engineer – Stormwater and Wastewater Planning
D. O'Neill, Supervisor of Wastewater Capital Works
D. Reynolds, Senior Wastewater Optimization Engineer
K. Quigley, Supervisor of Operational Technology

This page is intentionally left blank.

Overview

The City of Barrie owns and operates a wastewater collection system which terminates at the Wastewater Treatment Facility (WwTF) located at 249 Bradford Street. In 2024, the collection system operated under Ministry of the Environment, Conservation and Parks (MECP) Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) No. 014-W601 dated February 15, 2023. A recent history of collection system ECA approvals is as follows:

Table 1 System-Wide ECA Approvals History

System-Wide ECA Number	Date of Issue	Reason for Issue
2883-AKUJQZ	August 16, 2017	Approved Holly PS upgrade
7160-AQWSAX	September 11, 2017	Corrected error re: Minet's Point PS flow capacity
5921-ATUKKR	January 10, 2018	Decommissioning of Huronia Pump Station PS-3
014-W601	February 15, 2023	New approval format for Consolidated Linear Infrastructure

This report has been prepared in accordance with the requirements of section 4.6 of Schedule E of CLI-ECA 014-W601.

Reporting Section 4.6.3: Summary and Interpretation of Monitoring Data

This section discusses all monitoring data and includes an overview of how the collection system works. Five-year (5) flow summaries are shown below for each sewage pumping station (SPS) except for Perry Street SPS which does not have a flow meter or level senser to allow for flow measurement or calculation. In March 2020, communication upgrades at Innisfil SPS enabled the transmission of flow data back to the data server located at the WwTF allowing data to be graphed below. Little Lake SPS underwent internal process upgrades resulting in unreliable flow measurements during testing and commissioning in the months of November and December.

Pump Stations Monthly Average Daily Flows

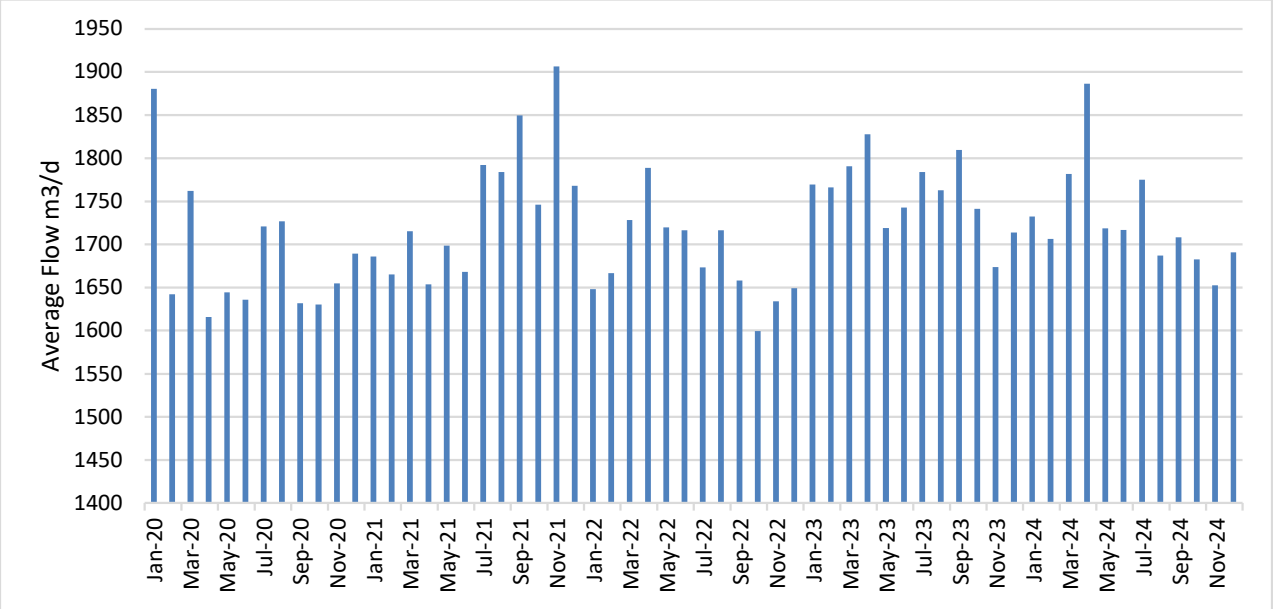


Figure 1 Grove Street SPS Monthly Average Daily Flows

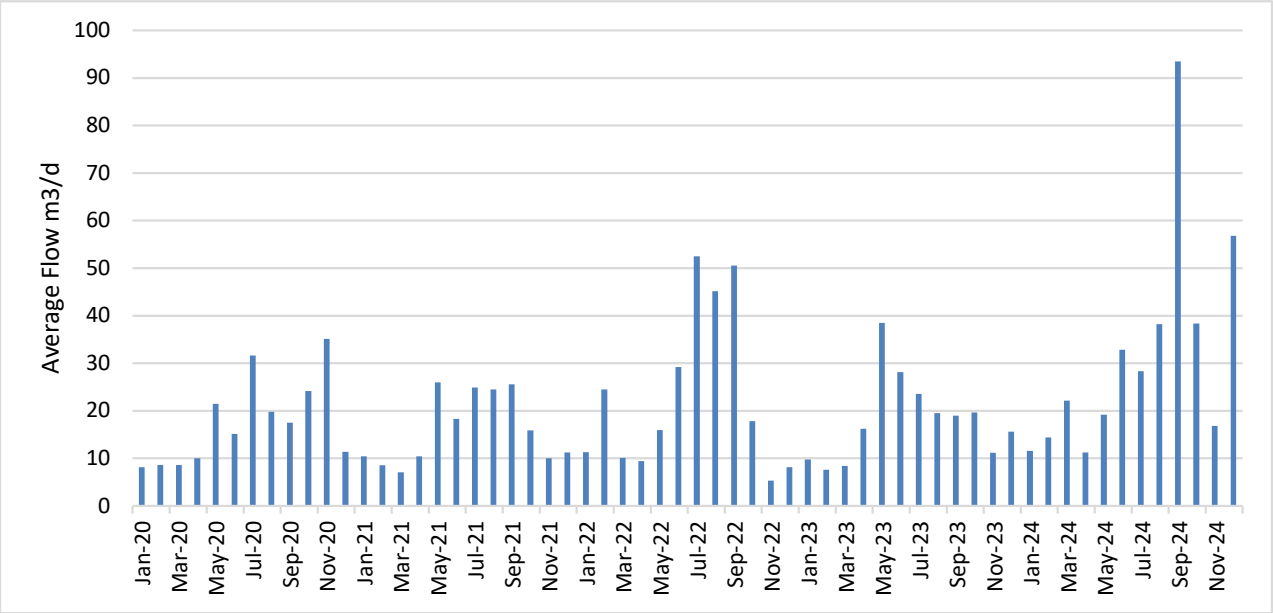


Figure 2 Heritage Park SPS Monthly Average Daily Flows

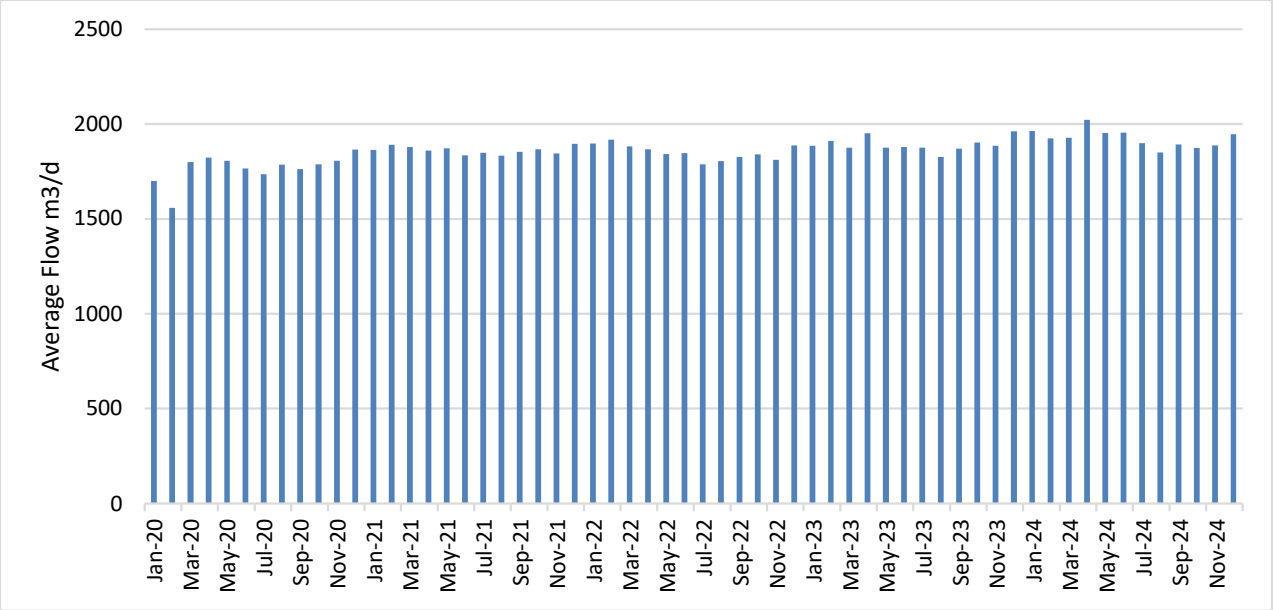


Figure 3 Holly SPS Monthly Average Daily Flows

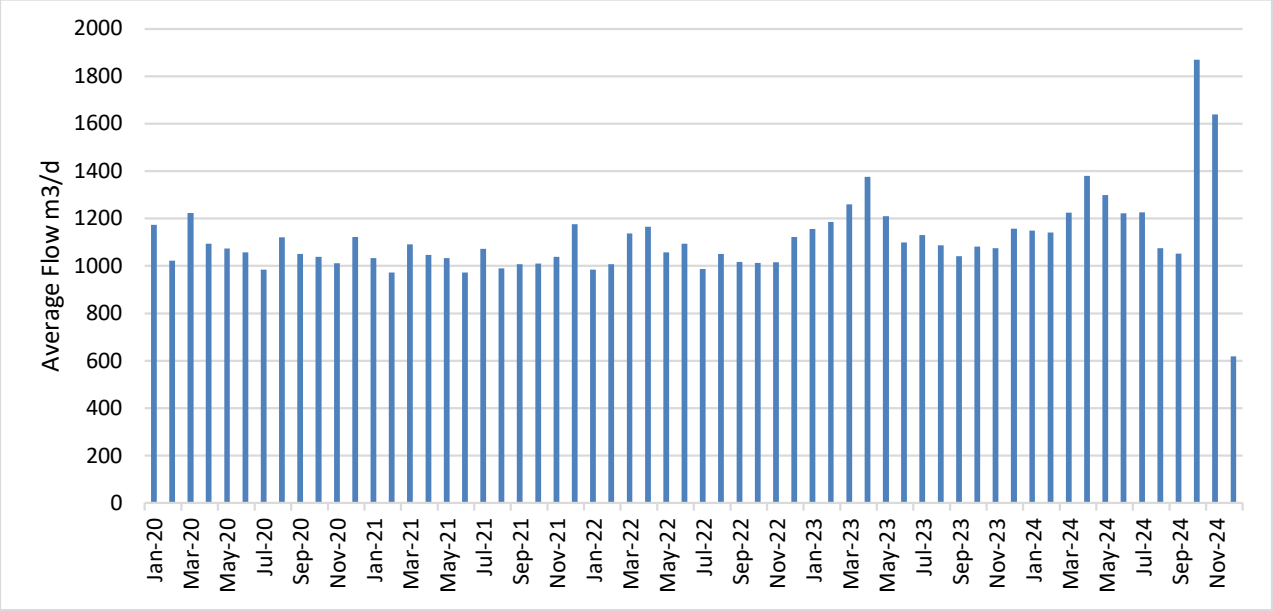


Figure 4 Little Lake SPS Monthly Average Daily Flows

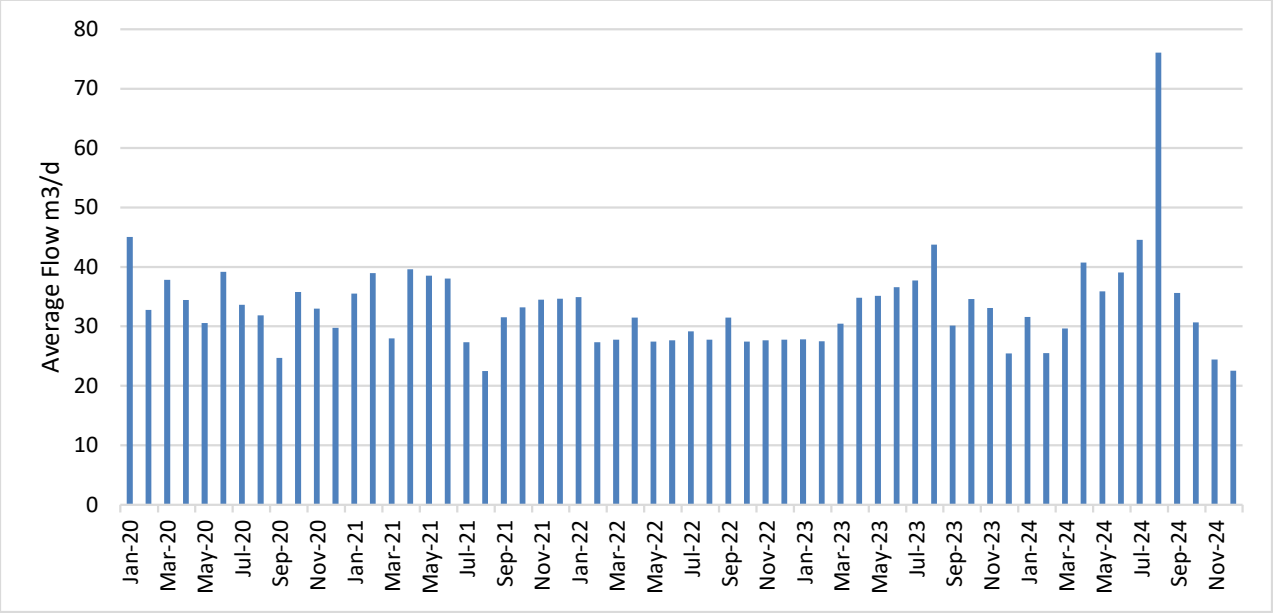


Figure 5 Lockhart SPS Monthly Average Daily Flows

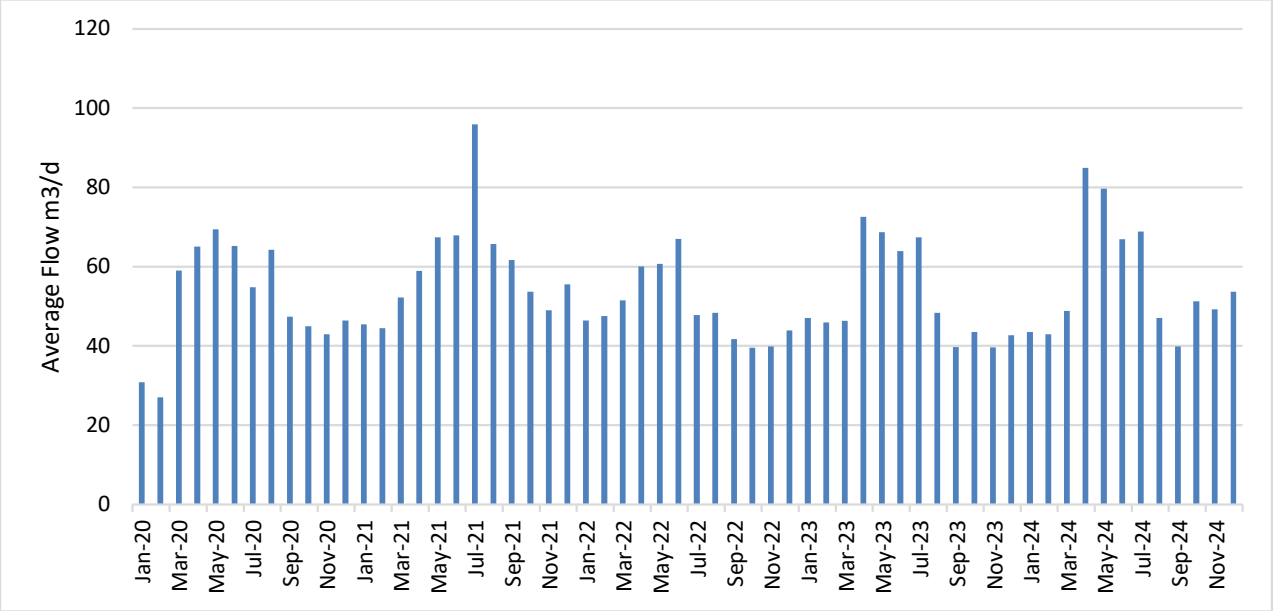


Figure 6 Minet's Point SPS Monthly Average Daily Flows

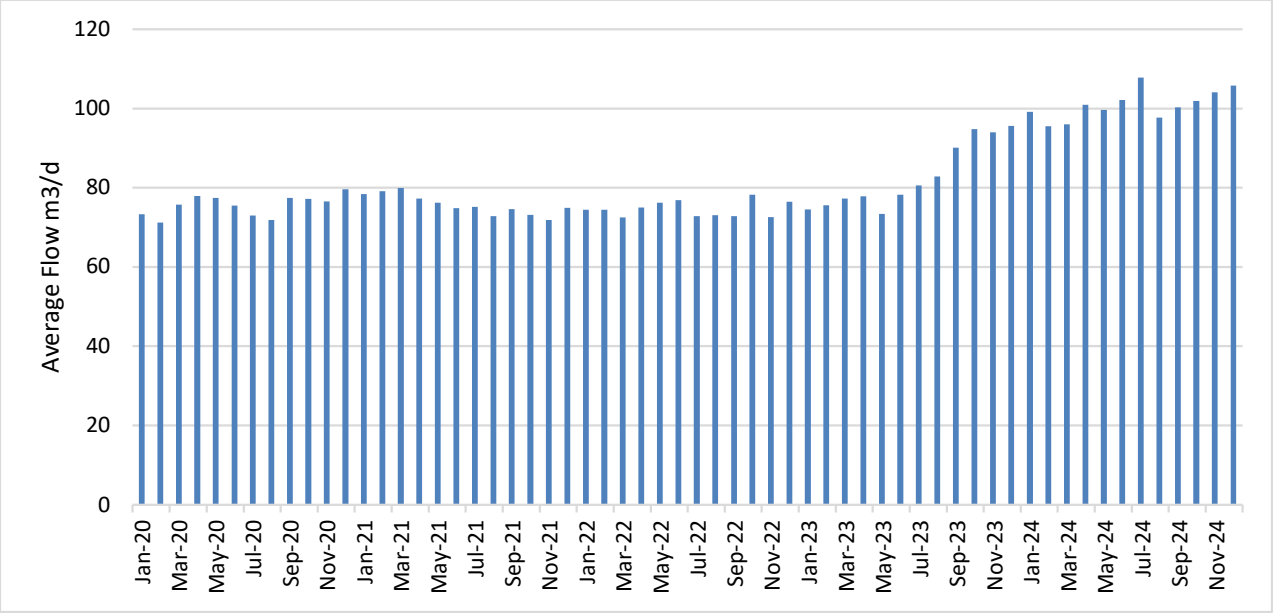


Figure 7 Mooregate SPS Monthly Average Daily Flows

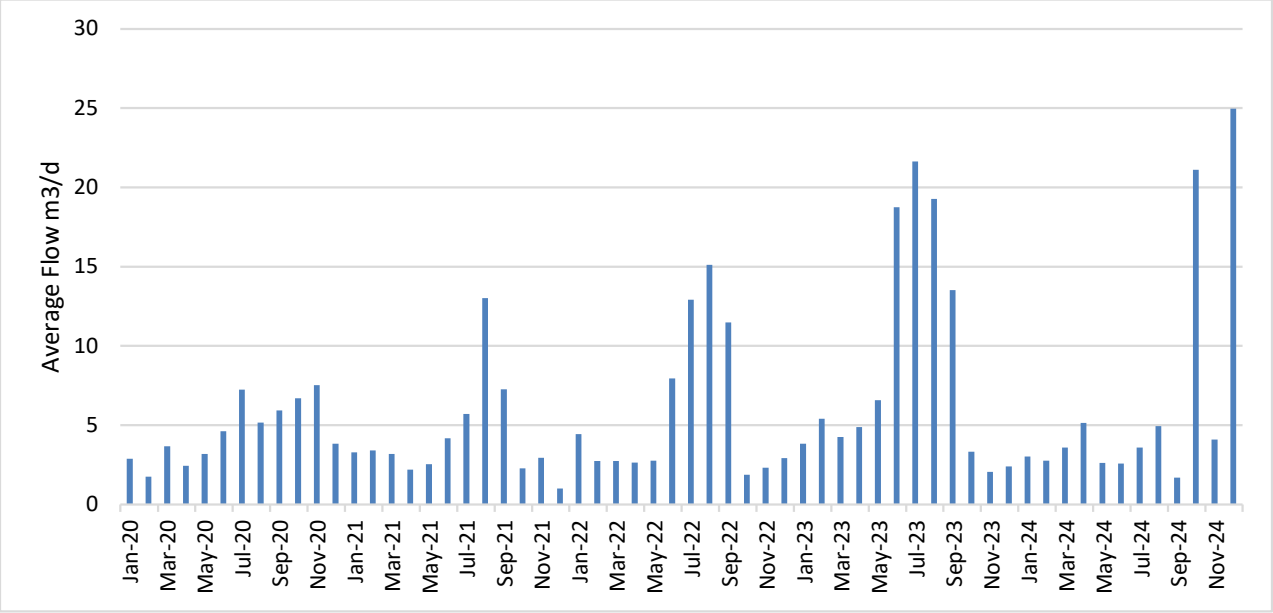


Figure 8 Splash Pond SPS Monthly Average Daily Flows

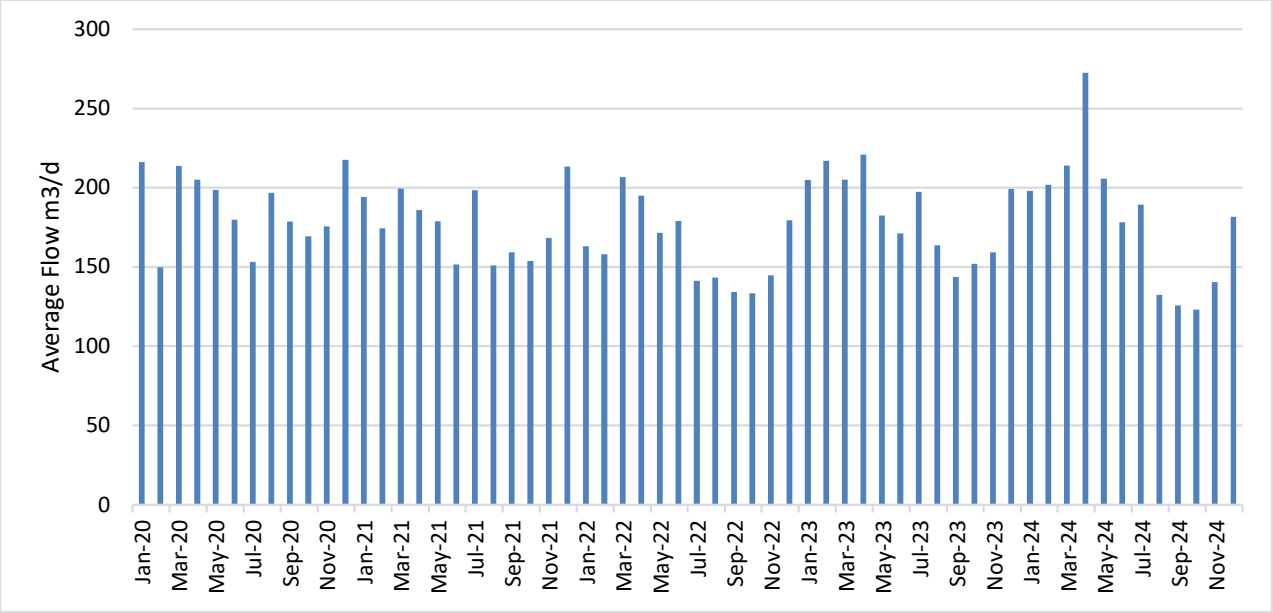


Figure 9 Tyndale Park SPS Monthly Average Daily Flows

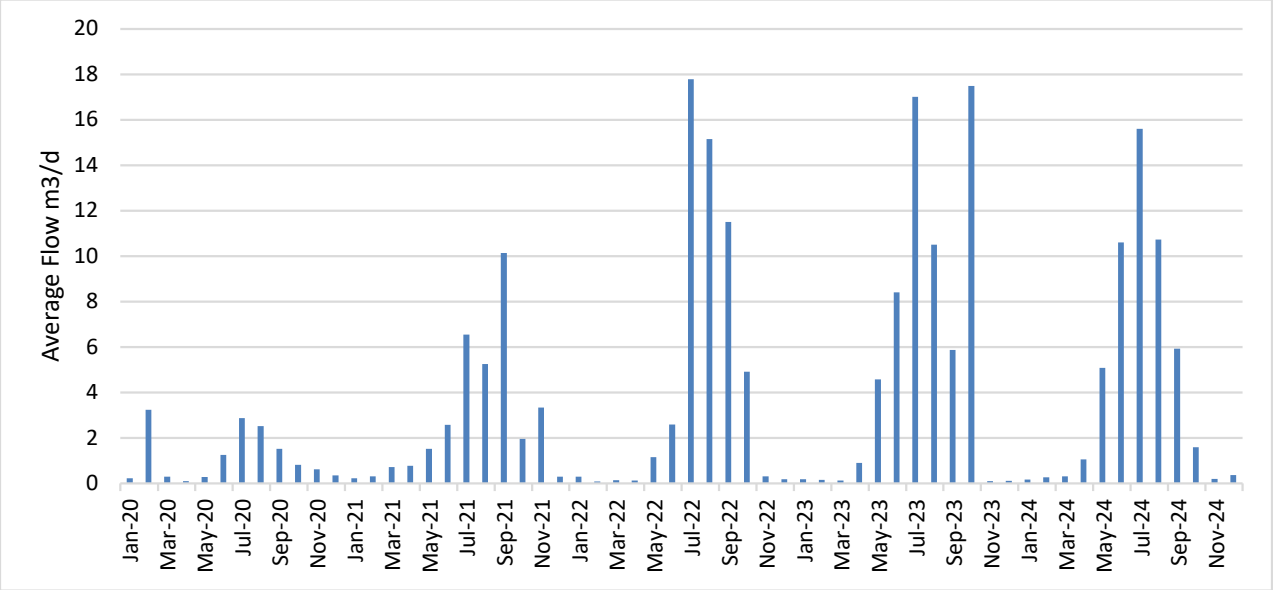


Figure 10 Johnson's Beach SPS Monthly Average Daily Flows

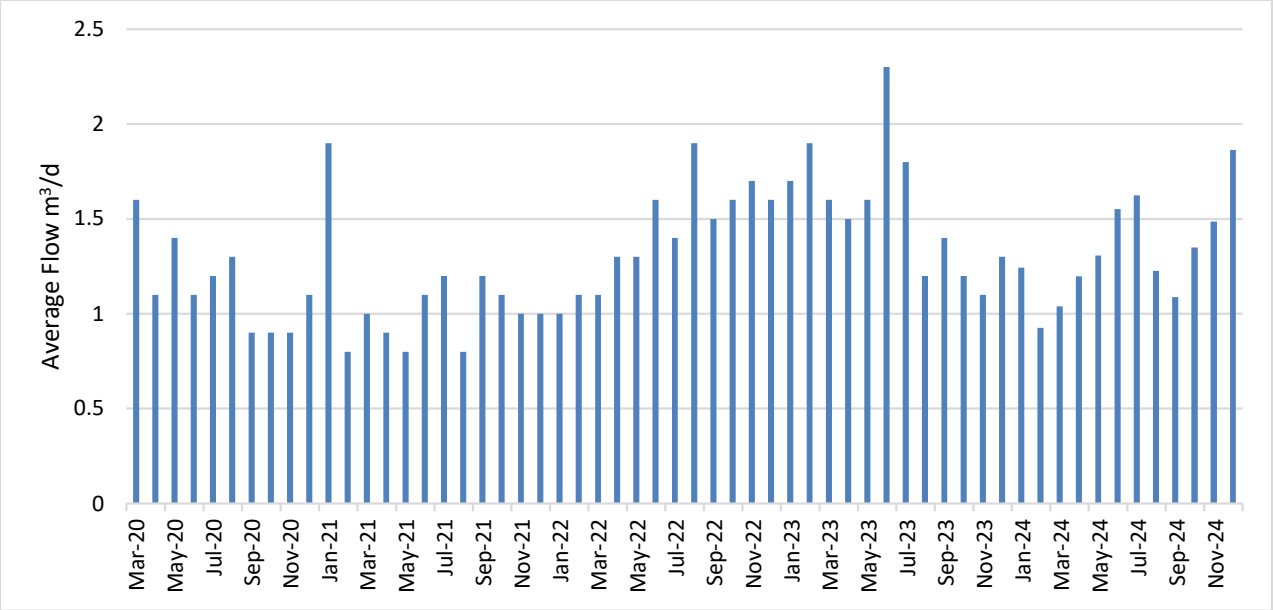


Figure 11 Innisfil SPS Monthly Average Daily Flows

Yearly average daily flows for pump stations over the past five (5) years are presented in the chart below:

Table 2 Pump Station Yearly Average Daily Flow (m^3/d)

Pump Station	Average Flow (m^3/d)				
	2020	2021	2022	2023	2024
Holly SPS	1768	1862	1851	1892	1925
Tyndale Park SPS	188	177	162	185	180
Splash Pond SPS	5	4	6	9	7
Mooregate SPS	76	76	75	83	101
Lockhart SPS	42	33	30	33	36
Minet's Point SPS	52	60	50	52	56
Heritage Park SPS	18	16	23	18	32
Johnson's Beach SPS	1	3	5	6	4
Grove Street SPS	1687	1745	1683	1758	1728
Little Lake SPS	1082	1038	1054	1155	1274
Innisfil SPS	1	1	1	2	1
Total	4882	5015	4940	5193	4707

The adequacy of the existing system is sufficient from a compliance standpoint, despite rising flows at some stations. Over the past five (5) years development and population growth, as well as an increase in multi-unit dwellings being built within the City, have driven the increase in flows. Mooregate SPS has experienced

a rise in flow as a result of intensified activity within the SPS collection zone driven by high-rise developments. In September, Heritage Pumping Station experienced increased flows because of transmission watermain flushing during which flows were directed into the pumping station to prevent discharge into Lake Simcoe. Lockhart SPS experienced abnormally high flows from August 26th to 31st. Despite a thorough review of system data and equipment inspections, operations were unable to determine the exact cause of the increase. Lockhart receives most of its flow from industrial facilities, and these sources may have contributed to the increased flows due to maintenance activities. Moving forward, operations staff will more closely monitor the station for any anomalies.

During the months of October and November, the internal piping system at Little Lake SPS was upgraded by a capital construction project. The internal process piping within the wet well was replaced including a connection to the second 450mm forcemain, previously installed. During this time flows were monitored by the contractor on a weekly basis and reported to the City.

The City intends to outfit all stations with flow meters, if possible. Where there is no flow meter, flows are calculated based on volume change in the well when a pump is running. Flows are calculated at the following pump stations: Grove Street, Heritage, Lockhart, Minet's Point, Johnson's Beach, and Innisfil.

Reporting Section 4.6.4: Description of Operating Problems and Corrective Actions

The City of Barrie uses a computerized maintenance management system (CMMS) to track work orders, inspections, repairs, repair costs and internal and external service requests. These systems are the source of asset and maintenance data presented in this report.

Pump Stations and Force Mains

A list of Work Orders issued and completed for pump station repairs conducted as follows:

Table 3 Pump Station and Forcemain Repairs Completed in 2024

Date	Repair Detail	Resolution and Closing Comments	Pump Station
March 29, 2024	Pump #4 failed to start twice - switched to manual and stand-by.	Issues with the contactors on the starter. Contacts were changed and returned to service.	Holly
May 16, 2024	Station pumped itself down too far into LO alarm at 03:55 May 16th, 2024. Investigation as to why on trends looks like it only pumped 0.05m past the pump stop level to 0.65m (stop is 0.70m).	Level sensor not reading properly due to debris in wet well. Cleaned wet well and removed debris.	Johnsons
July 31, 2024	Pump #1 has gone into alarm for fail to start twice. Once at 11:15 and 12:05. Pump #3 has been coming on in response and seems to be functioning fine.	Ordered a new input/output card and tried to change the coil of coil relay 2. New card installed, repairs complete.	Holly
August 15, 2024	Pump #2 keeps locking out	Installed temporary relay just to start pump. VFD issue traced back to start command. Waiting for VFD to arrive or alternate solution. Station working properly.	Grove
September 23, 2024	Remove rags from inlet gate for construction project	Rags were removed from the inlet gate.	Little Lake

Date	Repair Detail	Resolution and Closing Comments	Pump Station
October 29, 2024	Repair pump #2	Pump failed to start and lockout status. Pump shows a leak detection alarm and there's no power going to the hour meter. Installed spare pump and sent original pump for repairs.	Tyndale
December 6, 2024	Install spare pump	Removed and replaced pump #2.	Mooregate

Report Section 4.6.5: Summary of Calibration and Maintenance Program

Pump Stations and Force Mains

Normal pump station operation is unmanned and automated by use of electronics, electro-mechanical devices and programmable logic controllers. Real-time condition data is monitored by a Supervisory Control and Data Acquisition (SCADA) system and recorded on a data server ("Historian") located at the WwTF. Five pump stations have flow meters.

Station alarms will call out via telephone line or wireless network to operations staff 24/7/365. Alarms are also annunciated at the WwTF.

The following alarms are available at all pump stations and will appear on the SCADA system until cleared. These alarms are "high priority" and, as a result, call-out to an on-call operator:

- Wet well HI Level
- Wet well HI HI Level
- Wet well LO Level
- Building or Panel Intrusion
- AC Fail, LO Temp
- Communication Failure
- Pumps Not in Auto
- Pump Fault

Each station may also have additional alarms including:

- Generator Running
- Generator Fault
- Generator Not in Auto
- Generator Louver Fault
- Load Transfer Switch Not in Auto

All alarms and acknowledgments are logged as well as actions by operators. There is one alarm file per day and daily reports are available upon request.

In addition to automated monitoring, inspections are routinely conducted by wastewater operations staff. Pump station inspections are performed 2 times per week and generally consist of:

- Inspecting and recording pump hours for each pump in a pump hour logbook
- Inspecting pump house or cabinet condition (depending on station)
- Recording backup generator hours (if applicable) and inspect condition (oil levels, coolant etc.)
- Recording all findings in the station logbook

Depending on the station and its requirements, less frequent maintenance will generally consist of:

- Weekly pump down of the well for cleaning
- Weekly testing, cleaning, if necessary, inspect floats for proper operation and alarm
- Weekly check intrusion alarm
- Bi-weekly generator inspection and exercise
- Quarterly entry into the wet well and inspection/cleaning
- Semi-Annual generator/transfer switch inspection at load, replenish fluid levels
- Safety inspections conducted twice yearly
- Snow clearing as needed

Maintenance, repairs, service requests and inspections are tracked through work orders in CMMS.

Over the reporting period, 1,359 work orders were completed for inspections and maintenance at pump stations. Most work orders were for routine preventative maintenance and inspections, and all are tracked in CMMS. A list of all completed work orders is available upon request.

Flow meters at pump stations are verified annually by a Certified Calibration Contractor. This was completed in February and July in accordance with Reporting section 4.6.5. Flow meter verification information is presented in the chart below:

Table 4 2024 Flow Meter Verifications

Tag ID	Description	Serial No.	Flow Range	Mfr	Result	Date
PSMGFIT201 P2	Mooregate PS 300 Kozlov St.	F7015916000	360 m^3/hr	E+H	Passed	July 07, 2024
PSMG_FIT200 P1	Mooregate PS 300 Kozlov St.	F7013916000	360 m^3/hr	E+H	Passed	July 29, 2024
PSHO_FIT100	Holly PS 65 Logan Cr.	3K6720182909 56	400.90 l/s	ABB	Passed	July 31, 2024
PSHO_FIT200	Holly PS 65 Logan Cr	3K6720182909 58	400.90 l/s	ABB	Passed	July 31, 2024
PSSP_FIT100	Splash Pond PS 5 Lakeshore Dr	E60EC616000	90 m^3/h	E+H	Passed	July 29, 2024
PSTD_FIT100	Tyndale Park PS 45 Tyndale Rd	F31BE719000	68.1 m^3/h	E+H	Passed	July 29, 2024
PSLL_FIT100	Little Lake PS 510 Duckworth	J30B8416000	500 m^3/h	E+H	Passed	February 08, 2024
PSLL-FIT101	Little Lake PS 510 Duckworth	694541H264	900 m^3/h	Siemens	Passed	August 5, 2024
PSLL-FIT102	Little Lake PS 510 Duckworth	964641H264	900 m^3/h	Siemens	Passed	August 5, 2024

Gravity Collection System

CCTV Inspection

The City administers a closed-circuit television (CCTV) sewer inspection program for sanitary sewers. The City's contractor conducted inspections on approximately 52 km of sanitary sewers. Please refer to Appendix A for a map of Sanitary Flushing and CCTV. The sanitary mains that were inspected ranged in age from 25 to 50 years old. Despite the age of the pipes, the CCTV results revealed that the pipe conditions were generally rated as very good condition. The use of CCTV technology allows a thorough examination of the sanitary collection system to ensure early and effective detection of any potential issues such as damaged pipes, inflow, infiltration and potential blockages. The information garnered from the CCTV inspections feed into the flushing and insitu repair programs described below. The inspected sewers had an 84% very good condition rating, indicating that the CCTV program has effectively provided staff with information to complete proactive and preventative maintenance within the system. These efforts have preserved the integrity of the pipes, contributing to the overall functionality and longevity of the sanitary collection system. The condition rating of the sanitary sewer collection system in its entirety is shown in the figure below:

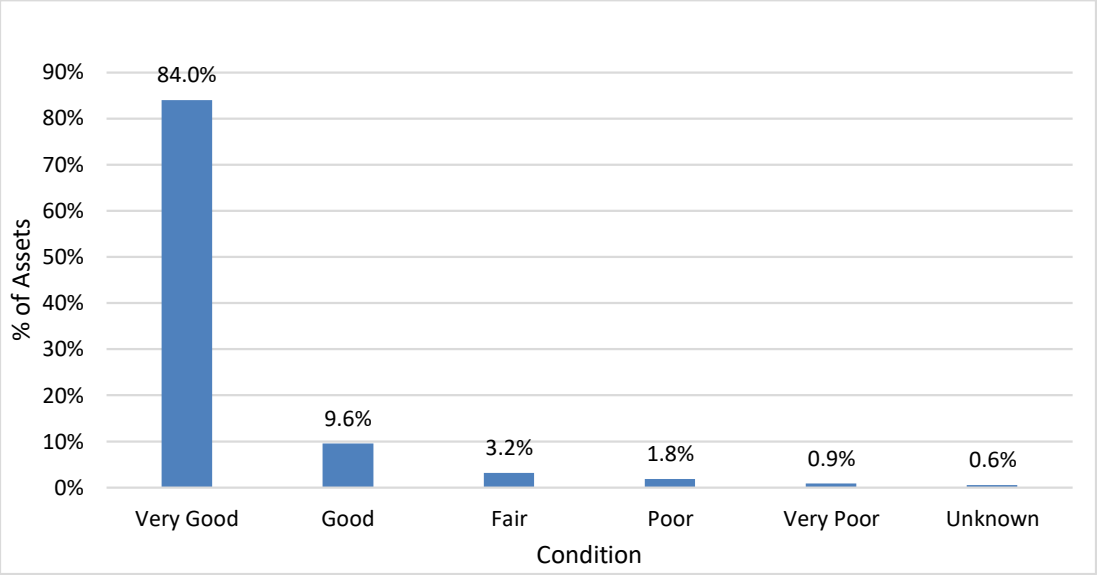


Figure 12 2024 Sanitary Sewer Condition Rating

Flow Monitoring

The City conducted flow monitoring at six (6) locations within the gravity sanitary sewer system from October to December. Temporary monitors were installed to allow City staff to identify areas with significant inflow and infiltration (I&I), providing critical data to guide fieldwork and mitigation measures.

In-Situ Repair

The City administers an annual in-situ repair program for the gravity collection system. Repair locations are derived from CCTV inspections and issues noted by field operations staff. Issues are prioritized based on structural deficiencies and sources of I&I, and repairs are scheduled to optimize the available annual budget. This resulted in thirty-one (31) locations were identified and repaired with a full cured in place pipe (CIPP) lining. A map showing the locations of sanitary CIPP relining is in Appendix B.

Sanitary Flushing

Local sanitary sewer cleaning is undertaken by a City operated flushing crew. Efforts are made to clean each local sanitary pipe every 2 to 3 years. Problem areas, usually in older parts of the City, are put on a weekly flushing list. The weekly flushing program keeps the sewer in working condition until the underlying problem can be addressed as part of our in-situ repair program, or as part of a larger capital project. Additionally, the Wastewater Operations Branch (WWOB) oversees a flushing contractor who performs flushing of the larger trunk mains. The City's contractor flushed a total of 12 km of sanitary trunk mains. The following sewers were included in the weekly flushing program:

Table 5 Gravity Sewers on Weekly Flushing Program

Sewer ID	Location
SAI02023-SAI02021	Frederick St.
SAN04142-SAN04141	Wellington St.
SAC07018-SAC07019	Glenwood Dr.
SAI06101-SAI06100	Cundles Rd.
SAC03026-SAC03025	Brookdale Dr.
SAE02002-SAE12064	Caroline St.
SAI02017-SAI02016	Sanford St.
SAB01021-SAB0109	Cumberland St.
SAE02010-SAE02011	Marcus St.

Sanitary Lateral Repair and Replacement

The City is responsible for sanitary lateral replacements and critical repairs between the sewer main and homeowners' property line if the repairs are a result of a structural deficiency in the lateral. Repairs due to misuse of the sewer system resulting in a blockage of the lateral (i.e. disposal of grease down the drain) are the responsibility of the homeowner. The lateral on private property is also the homeowner's responsibility. Below is a list of properties where laterals were repaired or replaced:

Table 6 2024 Lateral Repair and Replace Lateral Locations

WO#	Description	Date	Address
560311	Repair/Replace Lateral (Contractor)	2024-01-11	97 Codrington St
568579	Repair/Replace Lateral (Contractor)	2024-03-01	191 Anne St S
568580	Repair/Replace Lateral (Contractor)	2024-03-01	59 Melrose Ave
568634	Repair/Replace Lateral (Contractor)	2024-03-01	77 Melrose Ave
568637	Repair/Replace Lateral (Contractor)	2024-03-01	110 Strabane Ave
568639	Repair/Replace Lateral (Contractor)	2024-03-01	189 Grove St E
568640	Repair/Replace Lateral (Contractor)	2024-03-01	107 Strabane Ave
568641	Repair/Replace Lateral (Contractor)	2024-03-01	108 Strabane Ave
568674	Repair/Replace Lateral (Contractor)	2024-03-01	1 Ryan Court
568675	Repair/Replace Lateral (Contractor)	2024-03-01	40 Queen St
568676	Repair/Replace Lateral (Contractor)	2024-03-01	97 Codrington St

WO#	Description	Date	Address
568678	Repair/Replace Lateral (Contractor)	2024-03-01	30 Alfred St
568679	Repair/Replace Lateral (Contractor)	2024-03-01	32 Alfred St
568683	Repair/Replace Lateral (Contractor)	2024-03-01	65 Queen St
568684	Repair/Replace Lateral (Contractor)	2024-03-01	38 Strabane Ave
568685	Repair/Replace Lateral (Contractor)	2024-03-01	59 Mary St
571474	Repair/Replace Lateral (Contractor)	2024-03-18	29 Campbell Ave
571584	Repair/Replace Lateral (Contractor)	2024-03-19	185 Anne St S
571585	Repair/Replace Lateral (Contractor)	2024-03-19	13 Drury Lane
571586	Repair/Replace Lateral (Contractor)	2024-03-19	69 Steel St
572526	Repair/Replace Lateral (Contractor)	2024-03-25	34 Bothwell Crescent
575895	Repair/Replace Lateral (Contractor)	2024-04-16	26 Northpark Rd
575927	Repair/Replace Lateral (Contractor)	2024-04-16	112 Johnson St
578593	Repair/Replace Lateral (Contractor)	2024-04-24	132 Sovereign's Gate
579256	Repair/Replace Lateral (Contractor)	2024-04-29	236 St Vincent St
580005	Repair/Replace Lateral (Contractor)	2024-05-02	39 Davies Crescent
580553	Repair/Replace Lateral (Contractor)	2024-05-06	121 Daphne Crescent
581768	Repair/Replace Lateral (Contractor)	2024-05-13	27 Janice Dr
581770	Repair/Replace Lateral (Contractor)	2024-05-13	185 Anne St S
581774	Repair/Replace Lateral (Contractor)	2024-05-13	27 Baker Crescent
581775	Repair/Replace Lateral (Contractor)	2024-05-13	372 Yonge St
581778	Repair/Replace Lateral (Contractor)	2024-05-13	112 Strabane Ave
581783	Repair/Replace Lateral (Contractor)	2024-05-13	12 Donald St
581954	Repair/Replace Lateral (Contractor)	2024-05-14	27 Thomson St
585152	Repair/Replace Lateral (Contractor)	2024-05-31	63 Morrow Rd
587380	Repair/Replace Lateral (Contractor)	2024-06-10	17 Marion Crescent
587563	Repair/Replace Lateral (Contractor)	2024-06-11	326 Codrington St
588145	Repair/Replace Lateral (Contractor)	2024-06-13	57 Pae Dr
600494	Repair/Replace Lateral (Contractor)	2024-08-16	96 Lillian Crescent
600764	Repair/Replace Lateral (Contractor)	2024-08-19	236 St Vincent St
601194	Repair/Replace Lateral (Contractor)	2024-08-21	151 Cundles Rd E
601278	Repair/Replace Lateral (Contractor)	2024-08-21	326 Codrington St
601647	Repair/Replace Lateral (Contractor)	2024-08-22	57 Pae Dr
602730	Repair/Replace Lateral (Contractor)	2024-08-28	75 Melrose Ave
608331	Repair/Replace Lateral (Contractor)	2024-09-23	85 Shanty Bay Rd
608339	Repair/Replace Lateral (Contractor)	2024-09-23	78 Patterson Rd
611099	Repair/Replace Lateral (Contractor)	2024-10-08	42 Glenwood Dr
618544	Repair/Replace Lateral (Contractor)	2024-11-19	6 Brookdale Dr
618545	Repair/Replace Lateral (Contractor)	2024-11-19	67 Briar Rd
623886	Repair/Replace Lateral (Contractor)	2024-12-16	60 Queen St

WO#	Description	Date	Address
568677	Reline Lateral (Contractor)	2024-03-01	38 Grove St E
568681	Reline Lateral (Contractor)	2024-03-01	204 Toronto St N
575928	Reline Lateral (Contractor)	2024-04-16	82 Sophia St E
621268	Reline Lateral (Contractor)	2024-12-03	84 Penetang St
560154	Repair/Replace Lateral	2024-01-10	10 Weldon Crescent
563361	Repair/Replace Lateral	2024-01-29	177 Wellington St E
566058	Repair/Replace Lateral	2024-02-14	46 Eccles St N
568680	Repair/Replace Lateral	2024-03-01	10 Weldon Crescent
568682	Repair/Replace Lateral	2024-03-01	177 Wellington St E
569093	Repair/Replace Lateral	2024-03-04	16 Burton Ave
570474	Repair/Replace Lateral	2024-03-11	27 Penetang St
570867	Repair/Replace Lateral	2024-03-14	88 Sophia St E
572446	Repair/Replace Lateral	2024-03-25	112 Shanty Bay Rd
572605	Repair/Replace Lateral	2024-03-26	112 Shanty Bay Rd
575747	Repair/Replace Lateral	2024-04-15	2 Frances St S
575929	Repair/Replace Lateral	2024-04-16	143 Burton Ave
578773	Repair/Replace Lateral	2024-04-25	146 Penetang St
579933	Repair/Replace Lateral	2024-05-02	42 Downsview Dr
584610	Repair/Replace Lateral	2024-05-28	62 Innisfil St
595324	Repair/Replace Lateral	2024-07-19	65 Puget St
607691	Repair/Replace Lateral	2024-09-19	77 Wellington St E
616255	Repair/Replace Lateral	2024-11-06	15 Wood St

Additionally, the following table summarizes all maintenance activity on the gravity collection system:

Table 7 Summary of Other Maintenance on Gravity Sewers in 2024

Description	Number of Work Orders
Benching in Maintenance Hole	2
Check Sanitary Main	9
Clear Blocked Lateral	5
Clear Blocked Sanitary Main	9
Clear Debris/Obstruction	7
Inspect Lateral (CCTV)	88
Inspect Main (CCTV)	2
Maintenance Hole - Inspection	1
Perform Sanitary Flushing	203
Reline Lateral (Contractor)	4
Reline/Repair Sanitary Main (Contractor)	4

Description	Number of Work Orders
Repair/Replace Lateral	18
Repair/Replace Lateral (Contractor)	50
Repair/Replace Sanitary Main	2
Sanitary Maintenance Hole Repair	1
Check Float at Lougheed Maintenance Hole	46
Weekly Cleaning of Sanitary Main	37
Total	**489**

A detailed list of individual work orders can be supplied upon request.

Reporting Section 4.6.6: Summary of Complaints and Responses

Pump Stations and Force Mains

No complaints were received relating to sewage pumping stations or forcemains.

Gravity Collection System

The City uses a CMMS to track internal and external service requests, along with work orders related to the gravity collection system. During the reporting period, the City received 128 service requests from the public for this system. These requests are categorized and compared to previous years' data in Table 8 below.

To enhance efficiency and reduce redundancies in Cityworks data collection, the *Miscellaneous Service Request* and *Sanitary Lateral Problems* categories have been discontinued and integrated into other categories. Consequently, these fields are now greyed out in the table.

Table 8 Service Request Summary

Type of Service Request	Number of Service Requests				
	2020	2021	2022	2023	2024
Miscellaneous Service Requests	10	9	2		
Sanitary Lateral Problems	51	25	10	4	
Maintenance Hole Overflow	51	25	10	4	1
Sewer back up in basement	102	85	98	128	120
Sewer Smell	10	10	14	8	7

Reporting Section 4.6.7: Alterations/Notices of Modifications Including Status

This section contains the status of all alterations that require Notices of Modifications.

Pump Stations and Force Mains

No Notices of Modification were issued or in effect.

Gravity Collection System

There were four (4) Notices of Modification issued. The status of recent Notices of Modification is provided in the table below.

Table 9 Notices of Modifications & Status

Number	Description	Date Signed	Status as of Dec. 31, 2024	Well Head Protection Area
Not assigned	Sanitary sewer modifications on Owen Street between Dunlop Street and Sophia Street. Relocation and upsizing of existing sanitary sewers, removal of existing sanitary sewers and transfer of sanitary laterals.	March 3, 2024	Project was awarded in October 2024, preparation work started. Construction is anticipated to begin in spring of 2025.	N/A
Not assigned	The proposed works include new sanitary sewers to be installed for Phase 1 of the Sandy Creek Estates Subdivision Development, on Mapleview Drive East in the City of Barrie. Sanitary sewers to be constructed on Terry Fox Drive and Harbourview Drive. Design includes installation of 221m of sanitary sewers and 4 sanitary junction structures.	August 23, 2024	Project anticipated to be available for contractor bid in 2025	N/A
Not assigned	Two sanitary sewers to be constructed on Walker Street, one sanitary sewer to be constructed on Pura Vida Trail, and another sanitary sewer to be constructed on Da Vinci Avenue within the Watersand Residential Subdivision	June 6, 2024	Project currently on hold	N/A
Not assigned	Sanitary sewer addition for the Mattamy Lockhart Subdivision Phase 2. Sanitary sewers to be constructed on Greer Street, Lower Street, Yorkshire Drive, McBride Trail, Gretzky Avenue, Fleetwood Street, Vinewood Crescent, Ivory Road, Lewis Road, and Reddit Crescent.	March 26, 2024	Sanitary sewers were installed in 2024.	N/A

Reporting Section 4.6.8: Summary of all Collection System Overflow(s) and Spill(s) of Sewage

Pump Stations and Force Mains

There were no overflows from pump stations.

Gravity Collection System

There were seven (7) reportable incidents that occurred in the gravity collection system. A summary of events and City responses, as reported by the City's Environmental Risk Management and Compliance team (ERMC), are provided in the following table:

Table 10 2024 Collection System Overflows and Spills

Incident No.	Date and location	Volume or Duration	Sample Results	Disinfection provided	Cause	Adverse impacts and corrective actions
EIR-028-2024	March 21, 2024 428 Codrington St., Barrie, ON	Estimated 9,000 liters	No samples collected	A bleach water mixture was applied to the impacted roadway.	Broken piece of clay pipe created a blockage in the sewer main which resulted in wastewater flowing out of the top of a Maintenance hole.	The blockage was removed by City's Collections team flow restored. The storm catch basins on Puget St between Blake St and Shanty Bay Rd were vacuumed out as a precaution.
EIR-088-2024	June 10, 2024 55 Lakeshore Dr., Barrie ON	Unknown	No samples collected	No disinfection provided	Private-side Issue: The holding tank at the City of Barrie Marina, where boats offload waste, leaked near the base of the pump when activated.	Marina was instructed to stop using tank. Private plumbers were called to locate and fix the leak. An e-mail was sent to all boaters to let them know they are temporarily shut down. Leak was found and repairs completed.
EIR-115-2024	July 13 2024 240 Big Bay Point Rd, Barrie On	Unknown	No samples collected	Sprayed bleach mixture onto the impacted areas from the sewage spill to disinfect the area	Private-side Issue: Overland sewage spill due to blocked sanitary lateral at restaurant.	City's Collections team completed sanitary lateral flushing and cleaning. The lateral was flowing at this point in time. The grassy area where the sewage had spilled was cleaned up with the vac truck and water.

Incident No.	Date and location	Volume or Duration	Sample Results	Disinfection provided	Cause	Adverse impacts and corrective actions
EIR-125-2024	July 22, 2024, Bayview Drive Sewage Spill	Unknown	TSS 3.0mg/L BOD 2.0mg/L TP 0.002mg/L TKN 0.05 mg/L E.Coli 1 CFU/100ml	No disinfection provided	Sewer main was hit during construction on Bayview Drive just south of Little Ave.	Wastewater spilled into Whiskey Creek. Sandbags were placed inside the trench to hold back the wastewater until by-pass pumping was set up to divert flow back to sewer. Contractor requested a City vac truck to help remediate the impacted creek area and to remain on stand-by in case the sandbag berm was breached.
EIR-161-2024	September 13, 2024, 407 Cundles Rd. E., Barrie On.	Approx. 50L	No samples collected	Sprayed bleach onto the areas of visible dampness on the asphalt surface	Private-side Issue: A spill occurred in the parking lot of a restaurant. A small amount of liquid was visible running into two storm drains.	City staff cleaned out both catch basins as well as the sanitary lateral from the restaurant to remove any blockage and restore flow.
EIR-163-2024	September 22, 2024, 18 Cundles Rd. E., Barrie On.	Unknown	No samples collected	No disinfection provided	Private-side Issue: Sewage spill at car wash on Cundles Rd. E. Wastewater spilled into storm catch basin.	Plaza sanitary sewer cleared by City staff, who also flushed the sanitary sewer from Cundles Rd E to the intersection where restaurant is located.
EIR-222-2024	December 6, 2024, 647 Welham Rd., Barrie, ON	Approx. 3 weeks	No samples collected	Sprayed down affected area with bleach	Private-side Issue: Sewage injector failed inside maintenance hole on private property.	Sewage spilled from a private maintenance hole into a catch basin that flows to a ravine. City staff vacuumed out catch basin to stop flow of sewage into the ravine. Property owner to complete repairs to the pump in the private Maintenance Hole

Reporting Section 4.6.9: Summary of Efforts Made to Reduce Overflows and Spills

The ERMC team has successfully completed the "stop treating toilets like garbage dumps" outreach program targeting residents and businesses. The outreach focused on preventing the disposal of unwanted materials into sinks and drains, particularly fats, oils, and grease (FOG), as well as hygiene products. By raising awareness of the risk and damages associated with improper disposal, the initiative aims to reduce sanitary blockages and mitigate the possibility of environmental spills.

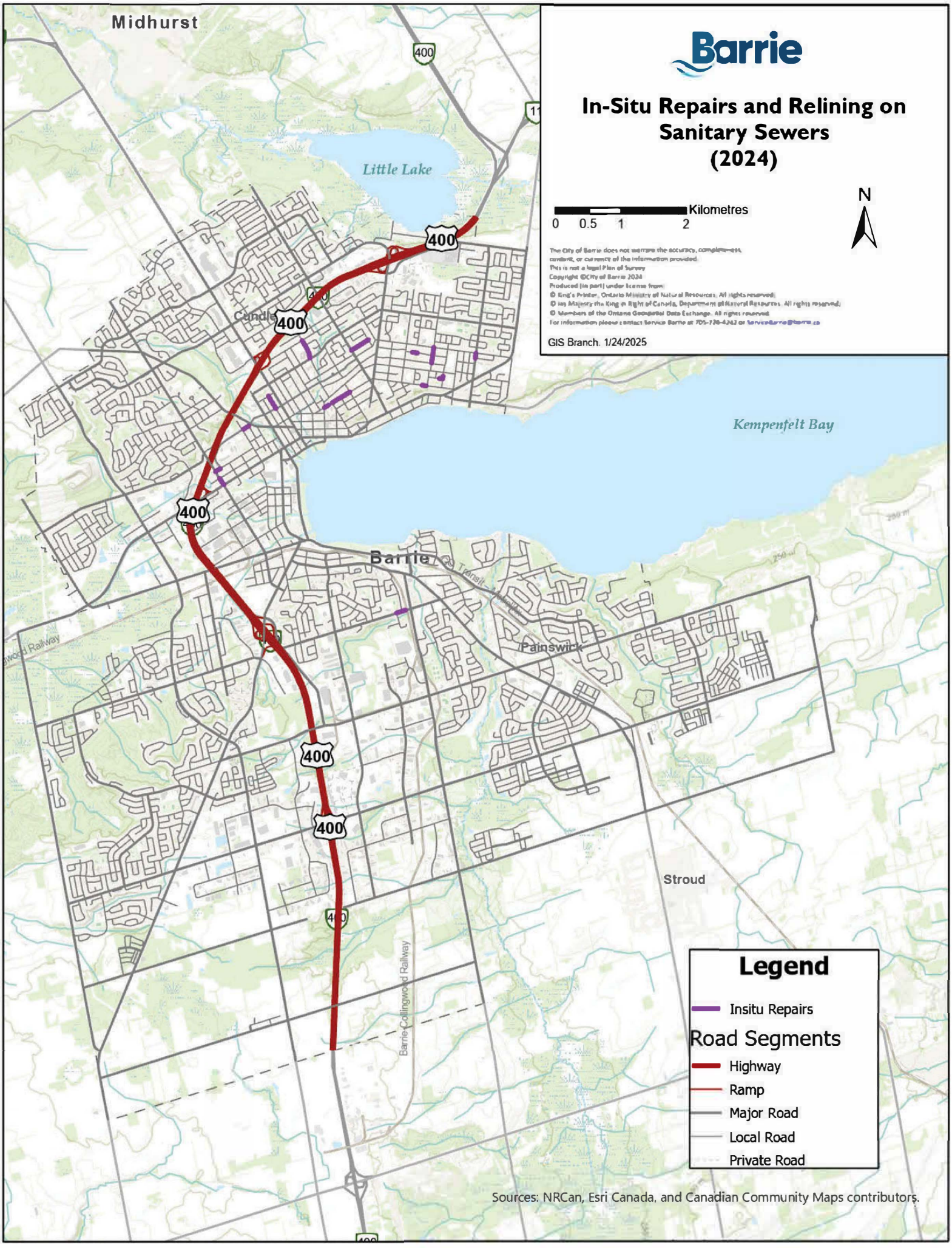
The City's Corporate Assessment Management team retained a consultant to complete Phase 2 of the ongoing I&I study. Phase 2 included flow monitoring for high I&I sewersheds to isolate areas of significant I&I flow. Results were used to inform the scope of field work and mitigation opportunities. The overall flow monitoring program for the study has been finalized. In 2025, field work (FOG testing, dye testing, inspections, etc.) will be completed.

Additionally, the WWOB performs routine maintenance in the gravity collection system through flushing, annual CCTV inspection, and in-situ repair programs. These programs provide insight into the performance and overall functionality of the sanitary collection system and allow staff to identify and address issues early to ensure that potential spills or overflows are avoided.

APPENDIX A: Sanitary Flushing and CCTV for 2024

Barrie
2024 Sanitary CCTV Work
0 600 1,200 2,400 Meters
The City of Barrie does not warrant the accuracy, completeness, content, or currency of the information provided.
This is not a legal Plan of Survey
Copyright ©City of Barrie 2020
Produced (in part) under license from:
© Queens Printer, Ontario Ministry of Natural Resources. All rights reserved;
© Her Majesty the Queen in Right of Canada, Department of Natural Resources. All rights reserved;
© Members of the Ontario Geospatial Data Exchange. All rights reserved.
For information please contact Service Barrie at 705-726-4242 or ServiceBarrie@barrie.ca
N
Updated: 2/10/2025
Author: Katie.Lloyd
Kempenfelt Bay
ST.VINCENT
BAYFIELD
LIVINGSTONE
CUNDLES
DUCKWORTH
PENETANGUISHENE
BLAKE
ANNE
WELLINGTON
HIGH
DONALD
BRADFORD
LAKESHORE
DUNLOP
FERNDALE
TIFFIN
BURTON
LITTLE
HURST
BIG BAY POINT
YONGE
ARDAGH
FAIRVIEW
BRYNE
HARVIE
ESSA
MAPLEVIEW
HURONIA
TOWN
VETERAN'S
SALEM
COUNTY ROAD 27
Legend
CCTV Inspection
Trunk CCTV and Sewer Cleaning
Sanitary Pipe

APPENDIX B: Sanitary CIPP Relining for 2024


Barrie
In-Situ Repairs and Relining on Sanitary Sewers (2024)
Kilometres
0 0.5 1 2
N
GIS Branch. 1/24/2025
Midhurst
Little Lake
Kempenfelt Bay
Barrie
Painswick
Stroud
Barrie-Collingwood Railway
400
Legend
Insitu Repairs
Road Segments
Highway
Ramp
Major Road
Local Road
Private Road
Sources: NRCan, Esri Canada, and Canadian Community Maps contributors.