



THE CORPORATION OF THE CITY OF LONDON

2023 Annual Performance Report – Municipal Sewage Collection System Environmental Compliance Approval #006-W601



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1. Overview

The City of London (the City) owns and operates a sewage collection system, which includes 1,155 km of local sewers (diameter less than 450mm), 47 forcemains, and 34 sewage pumping stations. This system also comprises 14.09 km of combined sewer and 7 offline wet-weather storage facilities. It is responsible for collecting and transmitting sewage from residential, commercial, industrial, and institutional sources to one of the five wastewater treatment plants owned and operated by the City of London. The treated effluent is then released into the Thames River.

2. Summary and Interpretation of Monitoring Data

The City of London has no data to report from the municipal sewage collection system for the specified period.

3. Summary of Operating Problems Encountered and Corrective Actions Taken

In 2023, the City of London addressed various work orders related to operational issues. Table 6 in Appendix A details the specific operational problems, the dates of the incidents, and the actions taken to resolve them.

Additionally, the City of London handles service requests concerning sewer backups. Problems identified within sewer laterals (from the sewer main to the home) are the responsibility of the private property owners to maintain and repair, as indicated in Table 7 in Appendix A. Corrective actions taken include removing obstructions, assessing the likely cause, and implementing ongoing monitoring to minimize the possibility of recurring incidents.

4. Summary of all Calibration, Maintenance, and Repairs on the Municipal Sewage Collection System

4.1. Pumping Stations

Table 6 in Appendix A shows the details about the calibration, maintenance, and repairs of the pumping stations.

4.2. CCTV Inspections

The City of London conducts a CCTV sewer inspection program to assess the condition of sewage system pipes and identify potential issues such as pipe damage and blockages. In 2023, a total of 68,100m of sanitary sewer pipe were inspected, covering

819 sewers. The age of the sanitary mains ranged from 170 years old to brand new, and the pipe sizes ranged from 150 mm up to 1350 x 910mm.

4.3. Sewer Lining

The City of London manages a sewer lining program annually to repair and replace cracked, leaked, backed up, and damaged sewer lines. In 2023, 5,467m of sanitary sewer pipes were lined, representing 56 sewers. The age of the sanitary pipes ranged from 90 years old to 70 years old, and the pipe sizes ranged from 200mm up to 900mm.

4.4. Sanitary Flushing

The City of London carries out a preventative sewer flushing and inspection program. Problematic areas are given high-priority flushing to maintain the system until the underlying problem can be addressed through an in-situ repair program or as part of a larger capital project. A summary of maintenance activities on the gravity collection system in 2023 is shown in Table 1.

Maintenance Activity	Total Inspections/ Work
	Orders
Sanitary Sewer Flushed (m)	865,662
Sanitary Manholes Inspected (#)	14,475
Sanitary Main Spot Repair (#)	16
Sanitary Main Replacement (#)	12
Sanitary Manhole Repair (#)	1
Sanitary Manhole Replacement (#)	10

Table 1: Summary of maintenance activities on gravity collection system in 2023

5. Summary of any Public Complaints Related to Sewer Works and Corrective Actions Taken

Sanitary Sewer Appurtenance Inspections (#)

The City of London addresses service requests reported by the public. Problems identified within sewer laterals (from the sewer main to the home) are the responsibility of private property owners to maintain and repair. Corrective actions taken may include removing obstructions, evaluating the likely cause of odour complaints, flushing and installing and maintaining odour control filters, and conducting follow-up monitoring to minimize the chance of recurrence. Table 2 shows a summary of public complaints received in 2023.

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Table 2: Summary of public complaints in 2023

Type of Service Request	Number of Service Requests	Corrective Actions Taken
Odour complaint	57	Evaluate probable cause of odour complaints, flushing and odour control filter installation and maintenance, and follow up monitoring to reduce the possibility of repeat occurrences.
Sewer backup complaint – Mainline (partial blockage)	9	Remove obstructions utilizing high- pressure flushing, evaluating probable cause, monitoring and implement corrective measures.
Sewer backup complaint – Lateral	370	These occurrences are reported to the City but ultimately determined to be private in nature (building drainage or plumbing related), not caused by City infrastructure.
Sewer backup complaint – Rainfall event	193	Monitor system after event to ensure functionality. Review for system optimization opportunities.

6. Summary of Alterations to the Authorized System

This section includes a summary of all alterations to the Authorized System within the period of January 1st, 2023, to December 31st, 2023. Table 3 illustrates the different alterations to the authorized system.

Table 3: Summary of Alterations made to the Authorized System

Street Name	Limits	Type of Work	Description
Quebec Street	Oxford Street to Salisbury Street	Capital work	Proposed 375mm dia. sanitary sewer & appurtenances on Quebec Street from Oxford Street East to underneath the Quebec Street bridge to service a 45.59ha area, including 200mm and 250mm dia. sanitary sewer & appurtenances on Mornington Avenue and 200mm dia. sanitary sewer & appurtenances on Salisbury Street.
Lyle Street Elizabeth Street	Dundas Street to King Street Queen Avenue to Dundas Street	Capital work	Lyle Street & Elizabeth Street Reconstruction: Sewer replacement along Elizabeth Street from Queens Avenue to Dundas Street including approximately 122m of new 200mm sanitary sewers including appurtenances. Sewer replacement along Lyle Street from Dundas Street to King Street including approximately 70m of new 250mm sanitary sewers including appurtenances.
Platt's Lane	Oxford Street West to Cherryhill Place	Capital work	Platt's Lane from Oxford Street West to Cherryhill Place. The sanitary sewer works include the construction of a 200mm diameter sanitary sewer, sanitary sewer appurtenances, and sanitary sewer private drain connections to replace existing infrastructure on Platt's Lane.
McKenzie Avenue Baker Street Windsor Avenue	Wortley Road to Ridout Street Ridout Street to Belgrave Street	Capital work	Replacement of existing sanitary sewers as follows: McKenzie Avenue (Wortley Road to Ridout Street): Sanitary 249.0m of 200mm, McKenzie Avenue (Ridout Street to Belgrave Avenue): Sanitary 64.5m of 250mm, 160.0m of 200mm,

	Ridout Street to Belgrave Street		Baker Street (Ridout Street to Belgrave Avenue): Sanitary 219.1m of 200mm, 12.0m of 150mm, and Windsor Avenue (Ridout Street to Belgrave Avenue): Sanitary 83m of 250mm, 145.2m of 200m.
White Oak Road	Exeter Road to 400m south of Exeter Road	Capital work	New sanitary sewers as follows: White Oak Road (Manhole 1 north of Exeter Road southward to Manhole 2) 40.0m of 375mm; (Manhole 2 southward to Manhole 3) 56.9m of 375mm; (Manhole 3 southward to Manhole 4) 67.9m of 375mm; and (Manhole 4 southward to Manhole 5) 60.0m of 375mm and (Manhole 5 connect to existing sewer north of Manhole WO878) 61.0m of 450mm.
Southdale Road West	Colonel Talbot Road (Roundabout)	Capital work	Sanitary servicing works involve the construction of 200mm diameter sewers, sanitary sewer appurtenances, and sanitary private drain connections installed on Southdale Road West, east of Colonel Talbot Road on Colonel Talbot Road, north of Southdale Road West and outletting to an existing 200mm diameter sanitary sewer on Southdale Road west at STA 1+460.
Paardeberg Crescent, Flanders Row and Rhine Avenue	Whole streets	Capital work	Paardeberg Crescent, Flanders Row, and Rhine Avenue scope includes the replacement of 200- 300mm sanitary sewers and appurtenances, as well as the decommissioning and abandonment of the existing Paardeberg Sanitary Pump Station.
Regent Street	Colborne St to Maitland St	Capital work	Regent Street and Fraser Avenue. The project includes the replacement of sanitary sewers and

Fraser Avenue	Regent Street to Huron Street		maintenance holes on Regent Street from Colborne Street to Maitland Street (236m) and Fraser Avenue from Regent Street to Huron Street (112m). 348m of new sanitary sewers will be installed (115m of 200mm diameter and 234m of 250mm diameter pipe). Existing services will be replaced and connected to the new sanitary sewers. The proposed sanitary sewers will outlet to the existing sanitary sewers on Colborne Street.
2300 Richmond Street	Subdivision	Development work	This ECA is for a proposed sanitary sewer (200mm dia. to 450mm dia.) on Richmond Street North to service a 3.21ha residential site development at 2300 Richmond Street. The proposed sanitary sewer will connect to the existing sanitary sewer on the Villagewalk attached sanitary design brief and supporting area plan/sewer design sheet for technical details. Boulevard west of the intersection with Richmond Street and extend North to service the proposed.
Liberty Crossing	Subdivision	Development work	The proposed sanitary servicing works include the construction of a 200mm diameter sanitary sewer to service 99 single-family homes, 1 medium-density street-fronting townhouse block, and a medium-density condominium block (to be serviced internally by others at a later date) along Green Bend, Liberty Crossing, and Calhoun Way. Under temporary conditions until built out, an automatic flushing device will provide watermain turnover and direct discharge to the

			sanitary sewer network. The subdivision sewer system will discharge to the Hamlyn Street 900mm diameter sewer.
6019 Hamlyn Street (Sunningdale Court)	Subdivision	Development work	Sunningdale Court subdivision: Phase 2 - Valleyview Walk - An approximate extension of 70m of 200mm sanitary sewers in front of Block 33-2. Phase 3 - Creekview Chase - An approximate extension of 70m of 200mm sanitary sewers in front of Block 35-3.
Talbot Village North of Old Garisson Road (between Colonel Talbot Road and Bostwick Road)	Subdivision	Development work	The project involves the servicing of 108-lot residential subdivision located on the north side of Old Garrison Road, between Colonel Talbot Road and Bostwick Road. This is Phase 7 of the Talbot Village subdivision and is a northern extension of the existing development. Proposed sewers will vary in size from 200mm to 250mm and will provide service to 108 proposed lots.

7. Collection System Overflows and Spills of Sewage

In 2023, 12 incidents occurred in the City of London sewage collection system. A summary of those events is shown in Tables 4 and 5 with all the details.

Station	Start Date	Start Time	Finish date	Finish time	Duration (hr)	Volume (m³)
Dingman	April 1, 2023	12:05 AM	April 2, 2023	7:35 PM	30.06	61,120
Medway	April 1, 2023	12:19 AM	April 1, 2023	5:37 PM	17.30	6,836
Berkshire	April 1, 2023	12:20 AM	April 1, 2023	5:20 AM	5.00	4,331
Sunninghill	April 1, 2023	1:33 AM	April 1, 2023	4:10 AM	2.62	313
Pond Mills	April 1, 2023	1:40 AM	April 1, 2023	1:51 AM	0.18	55
Byron	April 1, 2023	1:44 AM	April 1, 2023	3:56 AM	2.20	15,956
Adelaide	April 1, 2023	2:00 AM	April 2, 2023	12:50 AM	22.83	5,217
Adelaide	April 4, 2023	6:00 AM	April 4, 2023	10:10 PM	16.17	2,584
Dingman	April 4, 2023	3:30 AM	April 7, 2023	12:20 AM	68.83	56,990
Berkshire	July 3, 2023	7:41 AM	July 3, 2023	11:23 AM	3.70	3,751
Byron	July 3, 2023	8:25 AM	July 3, 2023	12:33 PM	4.13	40,568
Sunninghill	July 3, 2023	8:25 AM	July 3, 2023	9:59 AM	1.57	154

Table 4: Collection system overflows in 2023

Table 5: Summary of Spill(s) of Sewage in 2023

Date	GIS Asset ID	Volume and Duration	Sample Results	Disinfection Provided	Type	Corrective Actions
September 23, 2023	13953213	Unknown	N/A	N/A	Obstruction	Obstruction removed/ ongoing monitoring
December 5, 2023	10487069	Unknown	N/A	N/A	Obstruction	Obstruction removed/ ongoing monitoring

8. Summary of Efforts Made to Reduce Collection System Overflows, Spills, and/or STP Bypasses

The Sewer Operations Division of the City of London is responsible for clearing blockages and conducting ongoing monitoring and maintenance to prevent sewage spills.

In 2023, the city prepared a technical memo for the Pollution Prevention and Control Plan (PPCP), specifically focusing on the Typical Year Rainfall Analysis. This analysis evaluates combined sewer overflow (CSO) and sanitary sewer overflow (SSO) discharges in accordance with Procedure F-5-5. Additionally, the City employs this analysis alongside a hydraulic model to estimate overflow discharges and ensure compliance with Ontario's regulations governing sewage treatment works that discharge

into surface waters. Due to changes in precipitation patterns over time, the City recognized the need to update the historical rainfall data from 2010, which had previously been used as the typical year for rainfall. The 2010 data may no longer accurately represent current annual precipitation conditions.

Details about projects undertaken and completed within the Authorized System that contribute to overall overflow reduction are provided in the Summary of Calibration, Maintenance, and Repairs of the Municipal Sewage Collection System (**Section 4**, page 4).

Appendix A: Different Operating Repairs Completed in 2023

Table 6: Different operating repairs completed in 2023

Preventive maintenance - Annual biofilter irrigation Annual Preventive maintenance Annual Preventive maintenance Scrubb Recirculation pump Preventive maintenance Channel grinder Preventive maintenance for air Preventive maintenance for channel Preventive maintenan
Annual Preventive maintenance Scrubb Recirculation pump Preventive maintenance channel grinder Preventive maintenance for air release valve
Annual Preventive maintenance Scrubb Recirculation pump Preventive maintenance channel grinder Preventive maintenance for air release valve
Annual Preventive maintenance Scrubb Recirculation pump Preventive maintenance channel grinder Preventive maintenance channel grinder Preventive maintenance for air release valve Raw sewage pump 1 – Air release valve 1 Preventive maintenance for air release valve
2023-05-01 Retired – Recirculation pump 2 Scrubb Recirculation pump Preventive maintenance channel grinder Preventive maintenance for air release valve
Preventive maintenance channel grinder Channel grinder Preventive maintenance channel grinder Preventive maintenance for air release valve 1 Raw sewage pump 1 – Air release valve 1 Preventive maintenance for air release valve 1 Preventive maintenance for air release valve 1 Preventive maintenance for air release valve Preventive maintenance for air release valve Preventive maintenance for air release valve
2023-05-01 Channel grinder 2023-05-01 Raw sewage pump 1 – Air release valve 1 2023-05-01 Raw sewage pump 2 – Air release valve 1 Raw sewage pump 2 – Air release valve 1 2023-05-01 Raw sewage pump 3 – Air release valve 1 Raw sewage pump 3 – Air release valve 1 Raw sewage pump 3 – Air release valve 1 Preventive maintenance for air release valve 1
Preventive maintenance for air release valve 1 Raw sewage pump 1 – Air release valve 1 Preventive maintenance for air release valve Preventive maintenance for air release valve Raw sewage pump 2 – Air release valve 1 Preventive maintenance for air release valve Preventive maintenance for air release valve Preventive maintenance for air release valve
2023-05-01 Raw sewage pump 1 – Air release valve 1 2023-05-01 Raw sewage pump 2 – Air release valve 1 2023-05-01 Raw sewage pump 3 – Air release valve 1 Raw sewage pump 3 – Air release valve 1 Preventive maintenance for air release valve 1 Preventive maintenance for air release valve 1
Preventive maintenance for air Raw sewage pump 2 – Air release valve 1 Raw sewage pump 3 – Air release valve 1 Raw sewage pump 3 – Air release valve 1 Raw sewage pump 3 – Air release valve 1
2023-05-01 Raw sewage pump 2 – Air release valve 1 release valve Preventive maintenance for air release valve 1 Raw sewage pump 3 – Air release valve 1 release valve
Preventive maintenance for air 2023-05-01 Raw sewage pump 3 – Air release valve 1 release valve
2023-05-01 Raw sewage pump 3 – Air release valve 1 release valve
5 1 1
Droventive maintenance for channel
2023-05-01 Channel grinder grinder
Uninterrupted Power Supply – Chelsea Heights Uninterrupted Power Supply Dead
2023-05-01 pumping station battery
Channel grinder Preventive maintenance for channel
2023-05-01 grinder
Channel grinder Preventive maintenance for channel
2023-05-01 grinder Preventive maintenance for channel
2023-05-01 Channel grinder 1 (Wet Well Level 1) grinder Preventive maintenance for channel
2023-05-01 Channel grinder 2 (Wet Well Level 2) grinder
Preventive maintenance for channel
2023-05-01 Channel grinder grinder
Preventive maintenance raw sewage
2023-05-01 Raw sewage pump 1 – Medway pumping station pump
Annual Preventive maintenance for
2023-05-01 Raw sewage pump 2 - Medway pumping station raw sewage pump
Annual Preventive maintenance for
2023-05-01 Raw sewage pump 3 - Medway pumping station raw sewage pump
Annual Preventive maintenance for
2023-05-01 Raw sewage pump 4 - Medway pumping station raw sewage pump
Channel grinder Preventive maintenance for channel
2023-05-01 grinder
Channel grinder Preventive maintenance for channel
2023-05-01 grinder

	Channel grinder	Preventive maintenance for channel
2023-05-01		grinder
2023-05-02	Raw sewage pumping	Inspect and replace chain
2023-05-03	Portable Genset 33-104	Replace battery
2023-05-03	Generator - Genset	Replace hand primer
2023-05-03	Building 101	Repair railing post/concrete
2023-05-03	Generator – New location	Replace heater hoses
		Uninterrupted Power Supply not
2023-05-04	Westminster plant - SCADA	working
2023-05-04	Generator (new 2022)	Propane refill
2023-05-08	Building B01	ATS status not available
2023-05-09	WWL inlet channel sluice gate	Inspect
2023-05-09	Wet wells	Secure middle rail
2023-05-10	Building B01	Repair Faccia
2023-05-11	Raw sewage pump 3	Temporary/leak alarm
2023-05-11	Chemical storage/feed Building 5	Purchase strainer cover
2023-05-15	Bostwick pumping station	Repair fence
2023-05-15	Raw sewage pumping	Modify lead/lag duty cycle
2023-05-16	Retrieval Block 10 (81366)	Pay invoice
2023-05-16	Drain/grit pump - WWL	Repair discharge line
2023-05-16	Raw sewage pump - (RSP 2)	Temporary alarm
2023-05-16	Raw sewage pump 1 pump only	Plugged
	Uninterrupted Power Supply for lightning panel	Annual Preventive maintenance –
2023-05-16	31	Battery bank
2023-05-17	Raw sewage pumping	Secure guards
2023-05-18	Jib crane – Wet well	Annual inspection
		Annual Preventive maintenance –
2023-05-19	Davit Arm (DBI – Gold)	Davit Arm
0000 05 40	D = 14 A = = 7 (4 d = = 1)	Annual Preventive maintenance –
2023-05-19	Davit Arm 7 (tripod)	Davit Arm
2023-05-19	Retrieval Block 3 (37476)	Annual Preventive maintenance – Retrieval Block
2023-05-19	Retileval block 3 (3/4/0)	Annual Preventive maintenance –
2023-05-19	Retrieval Block 12 (091130)	Retrieval Block
2020 00 10	1.00110Val B1001(12 (001100)	Annual Preventive maintenance –
2023-05-19	Retrieval Block 6 (74110)	Retrieval Block
	` '	Annual Preventive maintenance –
2023-05-19	Retrieval Block 8 (3629)	Retrieval Block
		Annual Preventive maintenance –
2023-05-19	Retrieval Block 16 (134280)	Retrieval Block
0000 0- 1-		Annual Preventive maintenance –
2023-05-19	Retrieval Block (17717)	Retrieval Block

2023-05-19	Raw sewage pump 2	Off/on fault alarm
		Annual Preventive maintenance –
2023-05-19	Davit Arm 8 (DBI - Gold)	Davit Arm
2023-05-23	Oxidizer	Off/on fault
2023-05-24	Building B01	Soffit repair
2023-05-24	Area lightning	Dry well lights
2023-05-24	Building B01 – Original building	Generator decision making alarm
		Order and install Confined Space
2023-05-29	Medway pumping station Building B01	sign
		Automatic Transfer Switch automatic
2023-05-30	Generator - Genset - Small	status alarm
	D: (1) D 14 () (1)	Annual Preventive maintenance -
2023-06-01	Biofilter Bed 1 (south cell)	Biofilter flow
2022 06 04	Distillation 2 (middle call)	Annual Preventive maintenance -
2023-06-01	Biofilter bed 2 (middle cell)	Biofilter flow Annual Preventive maintenance I -
2023-06-01	Biofilter bed 3 (north cell)	Biofilter flow
2020 00 01	Biolitici bed o (nortii eeli)	Annual Preventive maintenance -
2023-06-01	Biofilter supply fan	Biofilter flow
	2 22 22 P. J. 22	Annual Preventive maintenance wet
2023-06-01	Wet well 2A aerator	well aerator
		Annual Preventive maintenance wet
2023-06-01	Wet well 2B aerator	well aerator
2023-06-01	Building B01	Replace water connections
2023-06-05	Pumping station general	Portable Genset MODS
2023-06-05	Raw sewage pump 2 - (RSP 2)	Replace pump guide rails
2023-06-05	Dingman pumping station	Replace ladder rungs in
		Confined Space sign purchase and
2023-06-05	Wet wells	installation
2023-06-05	Wet well 1	Repair float ball support
2023-06-05	Wet well (new 2022)	Install LID hasps
2023-06-08	Safety training/supplies	Purchase new gas meter
		Replace failed Uninterrupted Power
2023-06-09	Programmable Logic Controller - control panel	Supply
2022 06 44	Divorband numering station	No coms Programmable Logic
2023-06-11	Riverbend pumping station	Controller issue
2023-06-11	Electrical Department	Noise complaint from customer
2023-06-13	Building B01	Roof leak – Water heater stack
2023-06-14	Wet well 1	Tighten and secure
2023-06-15	Oxidizer	Compressor rebuild
2023-06-19	Raw sewage pump 2	Potential plug
2023-06-21	Oxidizer	High volume card fault
2023-06-29	Biofilter irrigation system	Repair hose

2023-06-29	EnviroRanger control panel	Communication erratic
	,	Annual Preventive maintenance
2023-07-01	Chemical metering pump 1	chemical meter pump
		Annual Preventive maintenance
2023-07-01	Chemical metering pump 2	chemical meter pump
		Annual Preventive maintenance raw
2023-07-01	Raw sewage pump 1	sewage pump
0000 07 04	D 0	Annual Preventive maintenance raw
2023-07-01	Raw sewage pump 2	sewage pump
2022 07 04	Chamical matering nump 1	Annual Preventive maintenance and
2023-07-01	Chemical metering pump 1	chemical meter pump Preventive maintenance channel
2023-07-01	Channel grinder 1	grinder
2020 07 01	Onarnier grinder 1	Preventive maintenance for channel
2023-07-01	Channel grinder 2	grinder
2023-07-03	Channel grinder	Will not run on Automatic
2023-07-05	Septage receiving fog tank 1	Protect from Ultraviolet rays
2023-07-05	Building B01	Device network issues
2023-07-06	EnviroRanger control panel	No communication
2023-07-06	Wet well 2 level	Lit 02
2023-07-07	Wet well 2 level	Inspect sensor
		Raw sewage pump 1 and 2 not
2023-07-07	Raw sewage pumping	pumping
2023-07-11	Adelaide Pollution Control Plant sludge disposal	Rapid change alarm
2023-07-11	Inline chopper 1 for grit pump	Rebuild
2023-07-11	Raw sewage pump 2	Install new pumps
2023-07-11	Wet well grit pump 2	Plugged
2023-07-12	Raw sewage meter 1 (Wet Well Level 1)	Communication alarm
2023-07-13	Raw sewage pumping	No low efficiency alarm
2023-07-14	Raw sewage pumping	Replace checks
2023-07-16	Gore Road pumping station	Faulty Uninterrupted Power Supply
2023-07-16	Storybrook East pumping station	Faulty Uninterrupted Power Supply
2023-07-17	Channel grinder	Fault
2023-07-18	Main gate and perimeter fence	Broken FOB reader
2023-07-19	Wet well isolation valve 3	Support loose
2023-07-19	Medway pumping station building B01	Repair hose connection
2023-07-19	Channel grinder 1	Low oil
2023-07-19	Channel grinder 2	Running backwards/unplug
2023-07-19	Wet well grit pump 2	Not mating
2023-07-20	Raw sewage pump 2	Inspect pump
2023-07-24	Inlet gate 1 – Wet Well Level 1	Adjust limits
2023-07-26	Safety training/supplies	Lifting/hoisting equipment

2023-07-26	Exhaust fan - Building 1	Louvers will not open in auto
2023-07-27	Storybrook East pumping station	Power issue
2023-07-28	Building B01	Remove graffiti
2023-07-28	Programmable Logic Controller - control panel	Uninterrupted Power Supply Faulted
2023-07-30	Raw sewage pump 2 (RSP 2)	Low efficiency
2023-08-01	Bioxide holding tank	Line split
		Annual Preventive maintenance
2023-08-01	Forcemain air compressor	Industrial Air Compressor
0000 00 04		Annual Preventive maintenance raw
2023-08-01	Raw sewage pump 1	sewage pump
2023-08-01	Paw sawaga nump 2	Annual Preventive maintenance raw
2023-06-01	Raw sewage pump 2	Sewage pump Annual Preventive maintenance raw
2023-08-01	Raw sewage pump 1	sewage pump
2020 00 01	Naw cowago pamp 1	Annual Preventive maintenance raw
2023-08-01	Raw sewage pump 2	sewage pump
	<u> </u>	Annual Preventive maintenance raw
2023-08-01	Raw sewage pump 3	sewage pump
2023-08-01	Stanley Street pumping station	Sink hole
2023-08-01	Building	Repair fence
		Annual Preventive maintenance raw
2023-08-01	Raw sewage pump 1	sewage pump
		Annual Preventive maintenance raw
2023-08-01	Raw sewage pump 2	sewage pump
2023-08-02	Dingman heritage house	Remove wasp nest
2023-08-03	Building B01	Smoke detector fault
2023-08-03	Byron pumping station	Little Johnny
2023-08-03	Check valve – Raw sewage pump 3	Replace
2023-08-10	Generator – Genset	Heater hoses leak
2023-08-14	Oxidizer	Verify instrument lights
2023-08-15	Dingman pumping station	No communications with Scada
2023-08-16	Retrieval block (17717)	Retrieval block certification
2023-08-16	Building B01	Check sensor for light
2023-08-16	Raw sewage pump 3	Cannot clear interlocks
2023-08-17	Raw sewage pump 3	Faulting on general alarm
		Reservoir and pumping unit 01 not
2023-08-21	Dingman pumping station	communicating
2023-08-21	Raw sewage pump 1	No communications with Scada
2023-08-22	Area lightning	Exterior lightning staying on
2023-08-22	Channel grinder 1	Faulting – will not reset
2023-08-23	Building B01	Replace paper towel dispenser
2023-08-24	Gordon Avenue biofilter	Reattach pressure gauge

2023-08-24	Raw sewage pump 4	General alarm
2023-08-24	Programmable logic controller control panel	No communications
2023-08-30	Overhead door 1 - Operator	Will not open
	•	Preventive maintenance semi
		annual - Heating, Ventilation, and Air
		Conditioning Makeup air unit and air
2023-09-01	Supply fan 3A	handling unit
		Preventive maintenance semi
		annual - Heating, Ventilation, and Air
		Conditioning makeup air unit and air
2023-09-01	Wet well supply fan	handling unit
		Semi-annual Preventive
2023-09-01	Oxidizer	maintenance for Oxidizer
		Annual Preventive maintenance -
		Heating, Ventilation, and Air
2023-09-01	Unit heater 1A	Conditioning unit heater
		Annual Preventive maintenance -
		Heating, Ventilation, and Air
2023-09-01	Unit heater 2A	Conditioning unit heater
		Annual Preventive maintenance -
		Heating, Ventilation, and Air
2023-09-01	Unit heater 2B	Conditioning unit heater
		Annual Preventive maintenance -
		Heating, Ventilation, and Air
0000 00 04	O I . C A	Conditioning Makeup air unit and air
2023-09-01	Supply fan A	handling unit
2022 00 04	Ovidinar	Preventive maintenance semi -
2023-09-01	Oxidizer	Oxidizer Annual Preventive maintenance -
		Heating, Ventilation, and Air
		Conditioning Makeup air unit and air
2023-09-01	Air handling unit - Drywell	handling unit
2023-03-01	All Handling drift - Drywell	Annual Preventive maintenance -
	Unit heater equipment room 1A - (Unit Heater	Heating, Ventilation, and Air
2023-09-01	11)	Conditioning unit heater
	• • • /	Annual Preventive maintenance -
	Unit heater equipment room 1B - (Unit Heater	Heating, Ventilation, and Air
2023-09-01	12)	Conditioning unit heater
	,	Annual Preventive maintenance -
	Unit heater equipment room 2A - (Unit Heater	Heating, Ventilation, and Air
2023-09-01	21)	Conditioning unit heater
	•	Annual Preventive maintenance -
	Unit heater equipment room 2B - (Unit Heater	Heating, Ventilation, and Air
2023-09-01	22)	Conditioning unit heater

		Annual Preventive maintenance -
2023-09-01	Unit heater equipment room 3A - Unit Heater 31)	Heating, Ventilation, and Air Conditioning unit heater
	Unit heater equipment room 3B - (Unit Heater	Annual Preventive maintenance - Heating, Ventilation, and Air
2023-09-01	32)	Conditioning unit heater
		Annual Preventive maintenance -
		Heating, Ventilation, and Air
2023-09-01	Unit heater equipment room 5A (Unit Heater 51)	Conditioning unit heater
		Annual Preventive maintenance -
2022 00 04	Linit hooter equipment room ED. Linit Llegter EQ.	Heating, Ventilation, and Air
2023-09-01	Unit heater equipment room 5B - Unit Heater 52)	Conditioning unit heater Annual Preventive maintenance -
		Heating, Ventilation, and Air
2023-09-01	Unit heater equipment room 2A	Conditioning unit heater
2020 00 01	Chic Hodior oquipment room 27	Annual Preventive maintenance -
		Heating, Ventilation, and Air
2023-09-01	Unit heater equipment room 2B	Conditioning unit heater
		Annual Preventive maintenance -
		Heating, Ventilation, and Air
2023-09-01	Unit heater equipment room 3A	Conditioning unit heater
2023-09-03	Oxidizer	Odour control unit
2023-09-03	Security panel – Building alarm	Alarm system
	Raw sewage pump 5 – Variable Frequency	Check Variable Frequency Drive
2023-09-05	Drive	alarm
2023-09-06	Bypass flow at Windemere Road	No communications
2023-09-12	Oxidizer	Inspect fault
2023-09-12	Generator – New location	Repair broken door lock
2023-09-14	Electrical department	Remove electrical from station
		Uninterrupted Power Supply 02
2023-09-18	Building B01 – Original building	battery status fault
2023-09-20	Area lightning	E-light out
2023-09-21	Pumping station general	Deliver pumps
2023-09-25	Inline chopper 1 for grit pump	Repair
2023-09-25	Generator – Genset small	Replace alternator belt
2023-09-25	Stanley Street pumping station	Inspect BFM01 reading flow
2023-09-26	Raw sewage pump 2 - Pump	Drive shaft bearing
2023-09-28	Pumping station general	220v adaptor plug
0000 15 5 1		Annual Preventive maintenance
2023-10-01	Forcemain connection - RMC	private force connection
2023-10-01	Air release valve 1 - Forcemain	Preventive maintenance air release valve

		Preventive maintenance air release
2023-10-01	Air release valves A and B inside	valve
0000 40 04		Annual Preventive maintenance raw
2023-10-01	Raw sewage pump 1	sewage pump
0000 40 04	D	Annual Preventive maintenance raw
2023-10-01	Raw sewage pump 2	sewage pump
2022 40 04	Daw assume a summer 4 (saw 2002)	Annual Preventive maintenance raw
2023-10-01	Raw sewage pump 1 (new 2022)	sewage pump
2023-10-01	Dow sowers numb 2 (now 2022)	Annual Preventive maintenance raw
2023-10-01	Raw sewage pump 2 (new 2022)	sewage pump Preventive maintenance channel
2023-10-01	Channel grinder 1	grinder
2023-10-01	Ghanner gillider i	Preventive maintenance channel
2023-10-01	Channel grinder 2	grinder
2023-10-01	Biofilter foul air blower	biofilter blower
2023-10-01	Dioliter four all blower	Inspect Bypass meter 01 and Raw
2023-10-04	Pond Mills Road pumping station	Sewage Meter 01 signals
2023-10-05	Wet well grit pump 2	Plugged
2023-10-03	Area lightning	Dry well lights
2023-10-11		Reconnect Raw sewage pump
	Raw sewage pump 1	
2023-10-12	Security panel – Building alarm	Inspect security alarm switch
2023-10-13	Main building - B01	October Continuous Safety Services electrical inspection defects
2023-10-13	Main building - Bot	October Continuous Safety Services
2023-10-13	Electrical department	electrical inspection defects
2023-10-16	Raw sewage pump 2	Not pumping
2023-10-10		Temperature/leak alarm
	Raw sewage pump 3	<u> </u>
2023-10-21	Screens screw conveyor 2	No power
2023-10-23	Raw sewage pump 2 - Pump	Rebuild spare
2023-10-26	Pumping station – Master key/lock program	Repair 5 pad locks
2023-10-27	Mechanical department hand tools	Tools
2023-10-30	Riverbend pumping station	Leaking sink faucet
2023-10-30	Raw sewage pump 2 – Pump	Inspect
		Remove roots in Rainwater Leader
2023-10-31	Building B01	drains
2023-10-31	Programmable Logic Controller control panel	Battery failure fault
		Annual Preventive maintenance
2023-11-01	Biofilter irrigation system	biofilter irrigation
2023-11-01	Portable Genset 1A (Summercrest)	Low oil pressure fault
	_	Preventive maintenance air release
2023-11-01	Raw sewage pump 1 – Air release valve 1	valve
	Raw sewage pump 2 – Air release valve 1	Preventive maintenance air release
2023-11-01		valve

2023-11-01	Raw sewage pump 3 – Air release valve 1	Preventive maintenance air release valve
		Annual Preventive maintenance
2023-11-01	Windmill for fire water pond	windmill winterize
2023-11-02	Raw sewage pumping	Replace seal water solenoids
2023-11-07	Raw sewage pump 1 (new 2022)	Plugged pump and cable repair
2023-11-09	Wet well gantry crane	Repairs
	į į	Heating, Ventilation, and Air
		Conditioning faulted and will not
2023-11-13	Building B01	reset
2023-11-13	Exhaust fan 3	Two broken belts
2023-11-13	Huron Street pumping station	Barb wire cut
2023-11-13	Raw sewage pump 2	Verify electrical operation
2023-11-14	Hydrogen sulphide sensor	Remove sensor and tube
2023-11-15	Gordon Avenue biofilter	Winterization
2023-11-15	Inline chopper 1 for grit pump	Low oil
2023-11-15	Biofilter irrigation system	Winterization
2023-11-16	Wet well 1	Float ball replace
2023-11-16	Wet well 1	Pump into new slot
2023-11-19	Channel grinder	Unit jammed
2023-11-20	Main gate and perimeter fence	Will not close
2023-11-27	Ferric holding tank 2	Modify flange for radar
2023-12-04	Dingman Drive pumping station	Fab handle
		Replace Uninterrupted Power
2023-12-07	East Park pumping station	Supply
2023-12-07	Raw sewage pump 1	Leak
2023-12-08	Raw sewage pump 2	Discharge pipe leaking
2023-12-08	Westmount pumping station	Install fire extinguisher bracket
	Raw sewage pump 4 – Medway River pumping	
2023-12-11	station	Water line dual solenoid leaking
2023-12-13	Raw sewage pump 1	Inspect leak
2023-12-14	Raw sewage pump 2	Check valve leak
2023-12-14	Raw sewage pump 2	Suspect check valve is not holding
2023-12-15	Raw sewage pump 1	Plugged
2023-12-21	Dingman Drive pumping station	Iron new tank dual level sensor call
2023-12-21	Stanley Street pumping station	Check comms
2023-12-24	Oxidizer	Low flow alarm
2023-12-27	Inline chopper 1 for grit pump	Rebuild grinder

Table 7: Summary of operating problems addressed in 2023

Date	Operating Problem	Corrective Actions Taken
2023-01-12	Sewer Main Obstructions	Obstruction removed/ongoing monitoring
2023-01-16	Sewer Main Obstructions	Obstruction removed/ongoing monitoring
2023-01-27	Sewer Main Obstructions	Obstruction removed/ongoing monitoring
2023-02-11	Sewer Main Obstructions	Obstruction removed/ongoing monitoring
2023-04-19	Sewer Main Obstructions	Obstruction removed/ongoing monitoring
2023-04-20	Sewer Main Obstructions	Obstruction removed/ongoing monitoring
2023-05-07	Sewer Main Obstructions	Obstruction removed/ongoing monitoring
2023-09-23	Sewer Main Obstructions	Obstruction removed/ongoing monitoring
2023-10-13	Sewer Main Obstructions	Obstruction removed/ongoing monitoring