

# **MUNICIPALITY OF STRATHROY-CARADOC**

## **Sewage Collection System 2023 Annual Report**

**January 1, 2023 to December 31, 2023**

as per ECA # 058-W601 Section 4.6



## **1. Summary of all Required Monitoring Data** (Certificate of Approval 4.6.3)

The Operating data is summarized in Appendix A. The collection system operated as expected throughout the reporting period. No future modifications are needed at this time.

## **2. Operating Issues and Corrective Actions** (Certificate of Approval 4.6.4)

There were no operating issues during the reporting period.

## **3. Calibration/Maintenance Summary** (Certificate of Approval 4.6.5)

Flow meter calibrations were carried out by SCG in February 2023. The operators performed the routine maintenance throughout the year. In addition to the routine maintenance, which includes greasing and oiling, a detailed list is included in Appendix B.

## **4. Complaints Summary** (Certificate of Approval 4.6.6)

The following is a list of customer complaints and actions taken regarding the wastewater collection system.

Date	Issue	Location	Action
7-Mar-23	Sewer back up	Erie St	Flushed sewer and restored normal flow
7-Nov-23	Sewer back up	Ross Crt	Flushed sewer and restored normal flow

## **5. Summary of Alterations** (Certificate of Approval 4.6.7)

The Albert St Pump Station construction project started in 2023. This project will include:

- Replacement of electrical equipment (MCC, ATS, etc.)
- Replacement of surge suppression system,
- Modifications to the building to comply with NFPA 820 requirements, including:
  - Exterior works in support of the works;
  - Replacement of HVAC equipment as it is at the end of it's useful life.
  - Replacement of roof due to age related deterioration.

Queen St – This project involved the replacement of sanitary sewers completed with services and all appurtenances on Queen St from Carroll St E to a few meters north of English St. and Rosewood Court

Drury Lane – This project involved the replacement of sanitary sewers completed with services and all appurtenances on Drury Lane from Albert Street to Saulsbury Street, and Anderson Ave from 50m west of Carrie Street to Drury Lane.

Agnes Drive Road Extension – This project extended the sanitary sewer works from the southerly portion of Agnes Drive to Wright Street. This included the construction of 200 mm diameter sanitary sewer, sanitary sewer appurtenances and sanitary sewer private drain connections.

Brennan Drive Road Extension – This project extended from the existing road bend approximately 55 m west to the adjacent property line. This included construction of 200 mm diameter sanitary sewer, sanitary sewer appurtenances and sanitary sewer private drain connections.

## **6. Summary of Collection System Overflows/Spills** (Certificate of Approval 4.6.8)

There were no overflows or spills of sewage during the reporting period.

## **7. Reduction of Overflows/Spills/Bypasses** (Certificate of Approval 4.6.9)

There were no overflows or spills of sewage during the reporting period.

As part of the Municipality's Masterplan Project, the Municipality is undertaking the completion of a PPCP. It is anticipated to be completed in Q3 of 2024

# APPENDIX A

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# Strathroy-Caradoc Sanitary Sewer Collection System

Year: 2023

		January	February	March	April	May	June	July	August	September	October	November	December	Average
<b>Albert St PS</b>														
Pump #1 Avg	hrs	2.6	2.8	3.2	4.4	3.0	3.1	3.9	3.7	3.8	3.6	4.3	3.7	3.5
Pump #2 Avg	hrs	2.8	3.9	4.1	4.8	3.0	3.1	4.2	3.9	3.9	3.7	4.0	3.8	3.8
Pump #3 Avg	hrs	2.8	3.0	3.2	5.3	3.0	3.1	4.1	3.7	3.9	3.8	4.1	3.8	3.7
Avg Daily Flow	m <sup>3</sup> /day	No data	No data	No data	4,551	3,324	3,326	4,548	4,015	4,063	3,982	4,241	4,028	4,009
<b>Arnella PS</b>														
Pump #1 Avg	hrs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.1	0.1	0.2	0.2
<b>Bella PS</b>														
Pump #1 Avg	hrs	0.1	0.6	0.6	0.6	0.6	0.6	0.5	0.3	0.3	0.5	0.2	0.1	0.4
Pump #2 Avg	hrs	0.69	0.82	0.00	0.00	0.00	0.00	2.06	0.34	1.00	0.49	0.34	0.14	0.49
<b>High PS</b>														
Pump #1 Avg	hrs	1.2	1.3	1.7	2.8	1.9	3.3	2.9	3.2	2.1	1.6	1.6	1.3	2.1
Avg Daily Flow	m <sup>3</sup> /day	58	63	85	121	85	148	204	251	184	73	76	60	117
<b>McNab PS</b>														
Pump #1 Avg	hrs	1.4	1.4	1.5	1.8	1.4	4.0	6.5	7.0	8.7	8.1	7.4	5.2	4.5
Pump #2 Avg	hrs	1.3	1.3	1.4	1.6	1.3	4.0	6.8	7.1	7.6	6.6	6.2	4.7	4.2
Avg Daily Flow	m <sup>3</sup> /day	497	496	517	728	500	1,272	2,636	2,563	3,322	2,589	2,487	1,779	1,615
<b>Millpond PS</b>														
Pump #1 Avg	hrs	0.3	0.4	0.4	0.5	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.4
Pump #2 Avg	hrs	0.28	0.32	0.35	0.44	0.30	0.23	0.35	0.29	0.27	0.22	0.27	0.34	0.30
<b>Park PS</b>														
Pump #1 Avg	hrs	1.3	1.4	1.5	4.3	1.9	1.4	1.9	1.7	1.6	1.4	1.4	1.5	1.8
Pump #2 Avg	hrs	1.3	1.3	1.5	3.2	1.8	1.4	2.1	1.8	1.6	1.5	1.5	1.6	1.7
Avg Daily Flow	m <sup>3</sup> /day	233	239	265	558	332	242	365	292	267	237	242	251	294
<b>Metcalfe PS</b>														
Pump #1 Avg	hrs	2.6	2.7	2.6	3.7	2.9	2.5	1.6	3.1	1.9	1.6	1.7	1.9	2.4
Pump #2 Avg	hrs	2.6	2.7	2.7	3.8	2.8	4.2	4.0	2.7	2.8	1.6	1.6	6.9	3.2
Avg Daily Flow	m <sup>3</sup> /day	1,080	1,083	1,126	1,405	1,170	1,005	1,145	1,107	1,028	966	944	1,035	1,091
<b>North West PS</b>														
Avg Daily Flow	m <sup>3</sup> /day	152	148	155	224	213	152	152	151	174	194	162	183	172
<b>Main PS</b>														
Avg Daily Flow	m <sup>3</sup> /day	265	273	285	380	288	279	271	264	273	276	275	312	287

# APPENDIX B

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## 2023 Pump Stations Annual Maintenance Summary:

### January

- Updated electrical panel, Arnella Cres.

### February

- Changed out start capacitor, Bella St.
- Cleaned & high pressure power wash debris, Main & NW PS
- Annual Electrical Inspections, Head St., Bella St., High St., Mill Pond Rd., Arnella Cres., Mill Rd., Main & NW PS
- Cleaned & high pressure power wash debris, Albert St. & Metcalfe St.
- Cleaned & washed out debris, Ewart St.

### March

- Repaired heater, Mill Rd.
- Replaced red lion HMI, NW PS
- Reconnect and test flow meter with programmer, Albert St.
- Repaired pump control pilot lights, Mill Rd.
- Replaced main disconnect switch, disconnect fuse, handle, operating rod , Bella St.
- Replaced main disconnect switch, High St.

### April

- Labelled disconnects NW PS

### May

- Routine maintenance

### June

- Cleaned & high pressure power wash, Albert St & Metcalfe St
- Moved SCADA comms outside, run power outside and installed box, Albert St.
- Repaired sump pump in basement, Albert St
- Replaced explosion proof switch, Metcalfe St
- Changed out pump wiring to test soft start, NW

### July

- Test pump feeds to soft start, NW
- Reset PLC to clear fault issues, Park St.
- Changed out bad VFD, program in setpoints, Metcalfe St.
- Check amperage and float, Arnella Cres.

### August

- Replaced 2 check valves, Bella St.
- Repaired VFD, Main PS
- Replaced low level float in wet well pump #2, Main PS

### September

- Cleaned & high pressure power wash debris, Albert St. & Metcalfe St.
- Cleaned & high pressure power wash debris, Mt Brydges Main, & NW

### October

- Installed replacement relay output module, Park St.
- Tested all alarms, bad auxiliary pump cable issue, Main PS

### November

- Reset faulty ultrasonic sensor settings, Metcalfe St.
- Replaced fuse, Bella St.

### December

- Cleaned & high pressure power wash debris, Mt Brydges Main, & NW
- Cleaned & high pressure power wash debris, Albert St. & Metcalfe St.