



Infrastructure Review 2023

December 12th, 2023 – Hamlet Room

Drinking Water System Name:

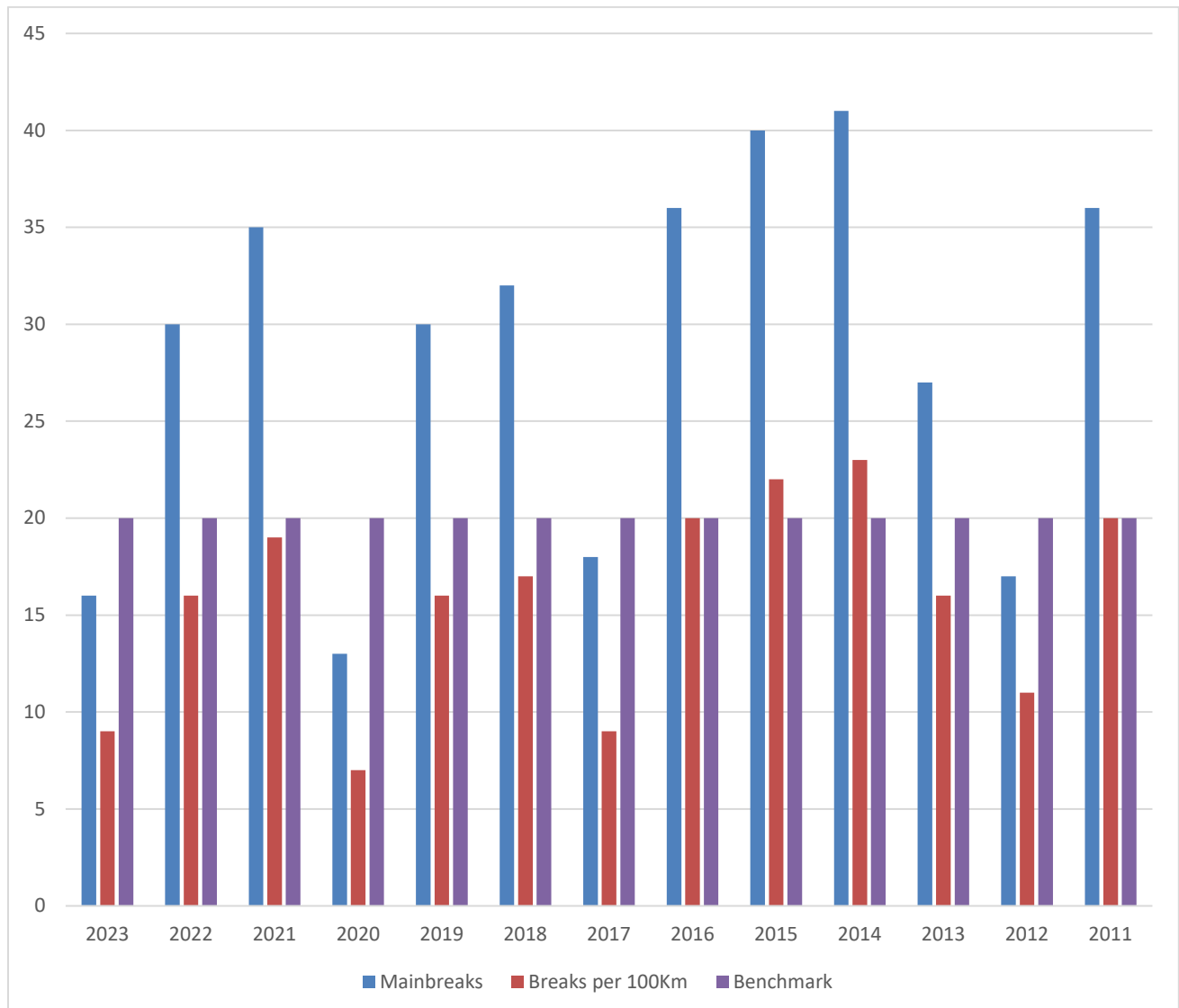
Stratford Drinking Water System

Maintenance Review

November 1st, 2022 – November 30th, 2023

1. Number of Mainbreaks

- o 35 In 2021
- o 30 in 2022
- o 16 in 2023



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2. Frozen Services Response:

- 2022 – 2 frozen services (38 & 58 Norfolk Street)
 - i. Batch 1 – 9 services (Jan. 10 – April 11)
 - ii. Batch 2 – 72 services (Jan. 14 – April 11)
 - iii. Batch 3 – 126 services (Jan. 31 – April 11)
- 2023 – 0 Frozen Services
 - i. Batch 1 – 9 Services (December 22 – April 9)

3. Valve Program:

- Exercise program –197 valves exercised in 2019
- Exercise program –121 valves exercised in 2020
- Exercise program – 588 valves exercised in 2021
- Exercise program – 196 valves exercised in 2022
- Exercise program – 113 Valves exercised in 2023

4. Hydrants Checked 2023:

- Hydrant maintenance program – 8 Hydrant repairs
- Replaced 0 hydrant valves
- All public hydrants are operated to ensure hydrants are operational at a minimum of 1x per year, in conjunction with our flushing program.
- System wide hydrant leak survey completed in 2023

5. Water Loss:

- Water Loss 2019 – 12.1%
- Water Loss 2020 – 8.5% (flushing, fire department, main breaks, service leaks, frozen services, automatic flusher, dead-end flushing).
- Water Loss 2021 – 21% (Hydrant flushing, fire department, main breaks, large hydrant break on Griffith Rd, service leaks, frozen services, automatic flusher, dead-end flushing, Romeo Reservoir cleaning).
- Water Loss During Reporting Period – Unconfirmed 17% (requires annual data from FH at year end)

6. Lead Replacements Replaced (city side) or removed:

- 2 in 2019
- 0 in 2020
- 2 in 2021 (140 Norman Street & 151 Nelson Street)
- 28 in Reporting Period (11 on Huron Street, 16 Argyle Street, 1 Mackenzie Street)



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Infrastructure Review 2022/2023

Project Name	Topic	Description of Project	Costing	Budget	Action Items	Target Date
Dufferin and Forman Water Tower Cleaning and Inspections	Water Distribution System Maintenance	Physical and CCTV inspections and condition assessments of the City's water towers.	\$8,200	2023 Operating	Under Review	Completed
Chlorine Valve Regulator Replacements	Water Treatment System Repair & Replacement	Replacement of 4 chlorine gas flow regulators and 2 remote flowmeters.	\$18,400	2023 Capital	None	Completed
System Wide Leak Detection Survey	Water Distribution System Maintenance	QMS program requires a 3-year system wide leak detection survey.	\$10,000	2023 Capital	None	Completed
Mornington PLC Upgrade	Water Treatment System Replacement	Replacement of existing PLC at the Mornington Treatment Well.	\$5,600	2023 Capital	None	Completed
Mag Meter Installations: FW6, Lorne and O'Loane Wells	Water Treatment System Replacement	Install new mag meters at FW6, Lorne and O'Loane Wells.	\$20,900	2023 Capital	None	Completed
Groundwater Program Review	Raw Water Supply	Geotechnical consultant retained to review and update our groundwater monitoring program.	\$14,000	2022 Operating	Awaiting report	Ongoing
Bottle Fill Station Installations	Public Drinking Water Accessibility	Installed public combo unit water bottle fill and foundation stations at SERC and The Boathouse.	\$10,000	2022 Capital	Shared cost with Community Services for installation of these units	Completed



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Conclusions

- Valves - Program continues to evolve on an annual basis. An increase in development and capital commissioning plans took away time normally allotted for Valve PM.
- Well Program – In 2022 returned to a scheduled based system 5-10 years with a preliminary step-test component to determine if the well needs a full rehabilitation. Started with performance step testing on FW6, FW7 and Dunn Rd. This is to be further developed in 2023/2024 with the assistance from our geotechnical consultant.
- Installation of more bottle fill stations have resulted in less use of the portable “Water wagon”. The fill stations have been well received and is a cost savings internally.
- Water Loss – No concerns currently. Hydrant Distribution monitoring to improve analysis.
- Watermain Breaks – No concerns currently. Below benchmark. All procedures followed.