

Hydrant Inspection Report

ISSUE

At the City Council meeting on June 29, 2020, Councillor Donauer made the following inquiry, requesting the Administration to report back on the current maintenance plan for fire hydrants, so as the public can be assured they are in good working order and being checked regularly.

BACKGROUND

On June 5, 2020, there was a fire on Stechishin Crescent. The initial hydrant used by the Saskatoon Fire Department, near 243 Stechishin Crescent, did not work. The second hydrant accessed at 223 Stechishin Crescent would not shut off after the fire was controlled. This resulted in the whole block being without water.

All hydrants on Stechishin Crescent were inspected in September of 2019. Due to these inspections, the hydrant at 223 Stechishin Crescent was replaced on October 9, 2019. Unfortunately, this hydrant encountered unreported damage from being hit by a vehicle between the time of the inspection and the time of the fire. It was replaced on June 6, 2020.

The hydrant at 243 Stechishin Crescent, had a defect that did not readily present itself. Water & Waste Operations (WVO) employees were able to successfully operate the hydrant multiple times before replicating the issue the Saskatoon Fire Department encountered. This hydrant was subsequently replaced on June 12, 2020.

CURRENT STATUS

At its meeting on September 25, 2017, City Council approved the current service level for inspections of fire hydrants:

- 100% of hydrants are inspected each winter season – examined and checked that they start to fill with water.
- 50% of hydrants are inspected each summer season (100% over 2 summers) – examined and flushed with the main valve and any outlet valves fully opened until the water runs clear.

The hydrant inspection program has the following characteristics:

- Hydrant inspections follow the hydrant manufacturers' specifications and the National Fire Code Regulations.
- Hydrant inspections also occur when a problem is reported:
 - Minor repairs will occur during inspection, while more extensive repairs or replacements require different crews to complete.
 - Hydrant repairs causing water outage are repaired on a priority basis and water usage is restored within 1-2 days. If two adjacent hydrants need repair, one will be deemed priority, minimizing the amount of time that two adjacent hydrants are out of service.

- WWO has an established process with The Saskatoon Fire Department (SFD) for reporting hydrants after each use. When a hydrant is operated by the SFD, notification is sent to WWO, an inspection is completed, and the hydrant is restored and/or repaired if required.
- The WWO employees responsible for hydrant inspections and repairs, also perform duties such as shutting down water main breaks, dealing with frozen connections, and providing shutdown services for plumbers and contractors, to ensure a clean, safe water supply is present for all residents and businesses of Saskatoon, and is deemed as a top priority.

DISCUSSION/ANALYSIS

On average, over the past five years, 90% of hydrants have been inspected on an annual basis. From 2016 to 2018, when minimal disruptive impacts occurred, some hydrants were inspected more often than the current service level (103% per year on average were inspected, with a high of 112% in 2018). However, in the past two years, not all hydrants were inspected per the current service level (71% of hydrants were inspected in both 2019 and 2020). Appendix 1 - Hydrants Inspected and Frozen Connections Per Year provides further details.

In 2019, hydrant inspection numbers were lower due to the need to shift available resources to address significantly higher than normal amounts of Frozen Water Connections that occurred. As part of the 2020-2021 Business Plan and Budget deliberations, City Council approved an additional 1.0 FTE to support hydrant inspections beginning in 2021.

The hydrant inspection numbers were lower in 2020, due to the COVID Pandemic as well as changes from the Water Security Agency (WSA), relating to water sample requirements, which took place at the end of May 2020, when the City's Permit to Operate a Waterworks was renewed. The water sampling changes are a regulatory requirement and will require additional resources to provide the current hydrant inspection service level.

As a result of inspections, on average, 102 major repairs and 36 replacements were completed per year on hydrants over the past 5 years.

FINANCIAL IMPLICATIONS

Administration will seek to add an additional 1.0 FTE as part of the 2022-2023 Budget and Business Plan submissions to support the new water sampling requirements from WSA and to have sufficient hydrant inspection resources available. The additional position would be funded by the Water Utility rates.

APPENDICES

1. Append 1 – Hydrants Inspected and Frozen Connections Per Year

Hydrant Inspection Report

Report Approval

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