



Hamilton

OFFICE OF THE
AUDITOR GENERAL

Stormwater Asset Management – Investigation of Recent Sewage Leaks

Recommendations and Management Responses

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Introduction

As a result of the investigation completed by 30 Forensic Engineering on behalf of the Office of the Auditor General, opportunities for improvement were identified and five recommendations were made (as noted in Appendix “A” to Report AUD23010).

The Office of the Auditor General requested management responses from the Hamilton Water Division in the Public Works Department.

Recommendation 1

The approach prescribed in the Stantec report – which was in many respects already underway within Hamilton Water – be continued, namely:

- The Existing Sewer Lateral Cross-Connection Program.
- Existing passive monitoring and complaints-driven processes to identify and investigate suspected cross-connections and spills;
- Continue and expand the Risk-Based Proactive Pilot Program in the high-risk central Hamilton combined sewer system and use this as a launching pad for a permanent System-wide Unauthorized Discharges Removal and Inspection Program (SUDRIP); and
- Review and revise these programs over time to ensure they remain a good value from a risk-reward program as infrastructure is renewed, cross-connections are repaired, and high-risk areas are cleared.

Management Response

Agree.

Hamilton Water will continue to action the programs highlighted in recommendation one. Hamilton Water took a recommendation report to Public Works Committee on September 8, 2023, recommending the implementation of the System-wide Unauthorized Discharges Removal and Inspection Program (SUDRIP). The recommendations were approved by Council on September 13, (PW22088(b)).

Estimated Completion: Council approved the resources needed to implement the System-wide Unauthorized Discharges Removal and Inspection Program (SUDRIP) program. Hamilton Water is currently working to create the new

positions and begin recruiting. It is expected that the 11 positions will be posted in October or early November of 2023 with the intent to fill them in Q1 2024.

Hamilton Water’s quality management systems requires Hamilton Water to continually review its programs and make improvements.

Recommendation 2

Use and refine Hamilton Water’s risk-scaled communication and response (for as-yet-undiscovered leaks/cross-connections). As it is likely that residual risk exists that new leaks/spills may be uncovered; therefore, transparency and response planning remain important.

Management Response

Agree.

Council approved the Hamilton Water Sewage Spills Communications Guideline on February 22, 2023 (PW22088(a)). As a result, Hamilton Water created the procedure “PW-WW-P-012-018 - Sewage Spills Communication Plan” under Hamilton Water’s wastewater quality management system. Procedures are reviewed at a minimum every 3 years. Since this is a new procedure that is critical to ensuring effective and transparent communication with Council, the community, and the City’s partners this procedure is scheduled for a review in Q1 2024.

Estimated Completion: Complete/Ongoing. The new communications procedure is currently in use and will be reviewed in the first quarter of 2024 and at a minimum of every 3 years thereafter or earlier if required.

Recommendation 3

Continue with protocols for the validation and integration of asset management information across the IPS, WIMS, and SPIDER systems during design, construction, and maintenance activities. Long-term establishment of a unified asset management database should remain a priority to facilitate inter-divisional collaboration and communication which were a hallmark of the excellent response to the three identified spills.

Management Response

Agree.

The existing protocols that have been refined over time will continue to be followed for the verification and integration into the different systems noted in

recommendation three. Currently there is a Public Works project to implement an Enterprise Asset Management (EAM) system that will consolidate the various asset management systems used across Public Works. This system is expected to be operational for Hamilton Water by quarter one 2026.

Estimated Completion: EAM is being implemented across the various Divisions of Public Works in a phased approach and is expected to be operational for Hamilton Water by Q1 2026.

Recommendation 4

Consider the incorporation of risk-based inclusion of Hamilton Water and Hamilton ES expertise across divisions on design and construction projects at key milestones (e.g., pre-tender design reviews, pre-construction field surveys, CCTV inspections) to increase the frequency of personnel with optimal and timely expertise being part of projects, particularly those wastewater projects with higher risks of cross-connections, spills, or other community impacts.

Management Response

Agree.

The current Engineering Services Division capital delivery process incorporates cross divisional scope collection and design reviews at key milestones. These activities will continue to evolve as part of an overall effort and commitment to continuous improvement and quality management.

Action Items:

Develop and establish a process for Infor Public Sector (IPS) data collection standard so that all stakeholders undertaking CCTV sewer inspection capture and record the data in IPS.

1. Establish and formalize a process for data collection for CCTV sewer inspection and escalation.
2. Training – Ensure staff are being trained and updated on sewer inspection standards and methodologies.

Estimated Completion: Q4 2024. Lead Responsibility: Engineering Services Division with support from the Hamilton Water Division.

Recommendation 5

Continue to evaluate opportunities for improvement on a cost-benefit basis including costs to the natural environment and community, for policies associated with infrastructure investment and operation as they relate to stormwater management.

Management Response

Agree

The City will continue to look for and evaluate opportunities for improvement in the areas noted in recommendation five as they relate to stormwater management. This will be done in accordance with Hamilton Water’s Wastewater Quality Management System, the City’s Water, Wastewater and Stormwater Master Plan and industry best practices.

Estimated Completion: Ongoing.