



Town of Niagara-on-the-Lake

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REPORT #: OPS-25-011

COMMITTEE DATE: 2025-04-15

DUE IN COUNCIL: 2025-04-29

REPORT TO: COTW-General

SUBJECT: Proposed Inflow and Infiltration Study – St. Davids

1. RECOMMENDATION

It is respectfully recommended that:

- 1.1 Council approve the reallocation of funding from the 2022 Wastewater Capital Program to carry out an Inflow and Infiltration Investigation within the Queenston Area and to carry out an Inflow and Infiltration Investigation within the St. Davids Area;

2. EXECUTIVE SUMMARY

- This report is seeking Council approval to reallocate previously approved funding to carry out an Inflow and Infiltration Investigation for the St. Davids Area.
- Carrying out the investigation is a preliminary recommendation in the Town's Draft Pollution Prevention Control Plan and is supported by Regional Staff.
- The Niagara Region Combined Sewer Overflow (CSO) Control Program application process requires that Council demonstrate its commitment to the proposed project by appropriate Council resolution, budget confirmation, or Public Works/Committee Report with the application.

3. PURPOSE

The purpose of this report is to request Council approval to reallocate the funding, previously approved in 2022, originally designated for an Inflow and Infiltration Study in the Queenston Area, to instead conduct the study in the St. Davids area in 2025.

4. BACKGROUND

Niagara Region and local municipalities work together to reduce the amount of inflow and infiltration entering the sanitary system through the Combined Sewer Overflow (CSO) Control program. The CSO Control Program is a cost-share program which funds municipal projects to target inflow and infiltration to reduce basement flooding, overflows to the environment and reduce unnecessary demand on the system capacity.

The approved 2022 Wastewater Capital Program included a project in the amount of \$150,000 to carry out an Inflow and Infiltration Study for the Queenston Area (C01955), with 60% of that amount funded by the wastewater capital budget reserve and the remaining 40% funded through a CSO Control program grant (Region).

The approved 2022 Wastewater Capital Program also included a project in the amount of \$200,000 (C01956) with 50% of that amount funded by the wastewater capital budget reserve and the remaining 50% funded through a CSO Control program grant (Region) to carry out an update to the Town's previously completed Pollution Prevention Control Plan (2012).

Following the Town's approval and inclusion in the aforementioned project discussions with Regional Staff concerning the CSO Control program, it was advised that the Town should postpone the proposed Queenston Area Inflow and Infiltration Study. Instead, the focus should shift to completing the update to the 2012 Pollution Prevention Control Plan (PPCP), which would serve as the foundational support for future CSO Control Program project applications.

The Town is in the process of completing the update to the Pollution Prevention Control Plan (PPCP) with our consultant GEI Consultants Inc. and expects to complete that study for the Niagara-on-the-Lake sewer shed areas in 2025. Upon completion, the study will include an evaluation of alternatives to support the long-term sustainability and management of the wastewater systems.

5. DISCUSSION / ANALYSIS

As the update to the Pollution Prevention Control Plan progressed, the Town included Regional staff with specific relevant expertise who have provided assistance to the Town and other municipalities in the Niagara Region when undertaking updates to their respective Pollution Prevention Control Plans.

As the consultant has worked through the development and update to the plan with the Town and Region, they have begun to form several preliminary recommendations. In advance of the 2025 CSO Control Program Intake period, Regional staff suggested that the Town pursue a CSO Control Program application prior to the study being finalized. This is based on preliminary recommendations derived by the consultant undertaking the plan update.

Those preliminary recommendations from the consultant suggest that the Town focus firstly on areas impacted by direct inflows, which are sources of rapid impact when it rains. (i.e. pipe leaks, ponding on MH covers and misconconnections).

In their investigation, it was determined that the St. Davids area was rated as a higher priority for further investigation than the Queenston Area. This approach was also supported by Regional staff as it pertains to the impacts of Regional infrastructure.

The proposed Inflow and Infiltration Study will evaluate the potential sources of extraneous flow in the sanitary collection system and will create a remedial repair program. The repair program will ultimately reduce the potential risk of basement flooding in advance of considering costly capital pipe and storage infrastructure improvements, while at the same time, improve the overall system capacity to help accommodate development demands.

Due to the size of St. Davids, it is expected to be investigated in several smaller areas and consist of three stages for each area. The Stage 1 component entails completing the

investigation works, whereas the Stage 2 component would implement a remedial repair program to address those deficiencies that were identified through Stage 1, and Stage 3 would be a post-rehabilitation flow monitoring program to determine the success of the reduction in the system.

Each stage would be brought back in subsequent years for Council's consideration during Capital budget approvals.

As part of the CSO Control Program application process, the municipality is required to demonstrate Council's commitment to the proposed project by appropriate Council resolution, budget confirmation, or Public Works/Committee Report.

6. STRATEGIC PLAN

The content of this report supports the following Strategic Plan initiatives:

Pillar

3. Enrich Community Assets, Environment, & Infrastructure

Priority

3.1 Assets

Action

3.3 a) Infrastructure Investment (Physical & Green)

7. OPTIONS

- 7.1 **Option 1:** Council approves the reallocation of funding to carry out the St. Davids Inflow and Infiltration Study as recommended through the preliminary recommendations of the Draft Pollution Prevention Control Plan. **(Recommended)**
- 7.2 **Option 2:** Council does not approve the reallocation of funding to carry out the St. Davids Inflow and Infiltration Study and defers any investigations until the completion of the Pollution Prevention Control Plan. **(Not Recommended)**

8. FINANCIAL IMPLICATIONS

There are no increased financial implications for 2025 from this report's recommendation, as the previously approved funds would be reallocated to support the proposed project in the St. Davids area.

Capital Project C01955 was approved in 2022 for \$150,000 and has not had any spending to date. This project would be repurposed from Queenston to St. Davids. The Project is funded 40% by the Region and 60% by the Wastewater Capital Improvements reserve. There is an opportunity for up to 50% of the costs to be covered by the Region's CSO program from a successful application.

9. ENVIRONMENTAL IMPLICATIONS

Completion of the study and future identified remediation efforts will help reduce the potential of sewer overflow pollution to the natural environment and reduce flows being treated at the respective Wastewater Treatment Plant and associated treatment costs.

10. COMMUNICATIONS

Upon Council's approval of the report, the resolution will be used to support the Town's application to the Regional CSO Control Program.

11. CONCLUSION

Continuing with the Inflow and Infiltration Study in the St. Davids area, in accordance with the preliminary recommendations from the updated Pollution Prevention Control Plan, will enable the municipality to identify sources of extraneous flows. Addressing these sources will enhance system capacity and reduce the volume of wastewater needing treatment at the receiving treatment plant.

12. PREVIOUS REPORTS

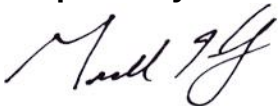
- N/A

13. APPENDICES

- N/A

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