

Meeting Date: April 22, 2025
Department: Engineering & Public Works
Report No.: EPW-2025-24
Prepared by: Steve Morriss, Drainage Superintendent
Submitted by: Mark Ortiz, Director, Engineering and Public Works
Approved by: Rob Browning, Chief Administrative Officer
SUBJECT: Request for Major Drain Improvement – Humphrey Drain 1999

RECOMMENDATION: THAT: Council receive Report EPW 2025-24 entitled “Request for Drain Improvement - Humphrey Drain 1999” for information.

BACKGROUND:

On March 3rd, 2025, Councillor Derbyshire brought [Notice of Motion 8.6](#) to Council directing staff to sign a Request for Major Drain Improvement for the Humphrey Drain 1999:

***THAT:** Staff be directed to sign a Request for Major Drain Improvement under Section 78(1.1)(sub 5 & 5.1) of the Drainage Act RSO 1990 for the purpose of extending the Humphrey Drain 1999 to a suitable downstream outlet.*

Council deferred the motion and instructed staff to prepare a report outlining the background of the Humphrey Drain and any potential implications for the Municipality in signing the Request for Major Drain Improvement.

COMMENTS:

Trout Creek Watershed

The natural watercourse known as Trout Creek is located in Strathroy-Caradoc, originating southwest of Scotchmere Drive and McEvoy Road. The creek flows downstream in a northwesterly direction around the urban limits of Strathroy, eventually discharging into the Sydenham River in Strathroy just north of Metcalfe Street West near Strathroy Cemetery.



Figure 1: Limits of Trout Creek

Trout Creek serves as the outlet for several municipal drains and receives significant upstream flows from a watershed accounting for over 4,000 acres of prime agricultural lands. In addition Trout Creek serves as the drainage outlet for eight (8) municipal roads, two (2) county roads, a small corridor of MTO Highway 402 and two (2) sections of railway corridor.

Landowners have previously advised Municipal staff that they believe Trout Creek is in poor condition and have frequently reported issues such as:

- Seasonal Flooding
- Beaver Dams
- Erosion
- Dead Tree Fall

It's difficult to assess the full impact that Trout Creek has on local lands without a detailed study, however it likely contributes to decreased crop yields, higher-than-normal water levels in several upstream municipal drains and poor functioning of private farm tiling systems.

Drainage Act

As a natural watercourse, Trout Creek is not subject to same laws as the Drainage Act. Unlike Municipal Drains, staff generally would not perform maintenance on natural watercourses located on private lands. If a natural watercourse travels through a landowner's property it is the landowner's responsibility to maintain and repair as necessary.

Several landowners along Trout Creek have advised Staff that they would support extending the Humphrey Drain 1999 downstream to a suitable outlet. Extending a municipal drain to a suitable outlet within a downstream natural watercourse would enable staff to effectively maintain the watercourse through Section 74 Requests for Drain Maintenance.

The process of extending a municipal drain to a suitable outlet within a downstream natural watercourse would take on the same procedural steps as any Section 78 Request for Major Drain Improvement. These steps include the following:

- Council accepts the Section 78 Request for Major Drain Improvement and appoints a drainage Engineer to conduct the required consultation with staff, land owners and environmental agencies.
- Engineer prepares preliminary design options and cost distributions and further engages affected land owners for input.
- Engineer completes detailed design and brings formal Report to Council for consideration, including hearing of public appeals and first and second readings of the By-Law.
- Council later holds Court of Revision to hear any public appeals related to the assessments and to give third reading and adoption of the By-Law.
- Upon passing of the By-Law the watercourse officially becomes a Municipal Drain and the Municipality can then proceed to construct the project and recover from benefitting land owners as per the assessment in the Engineer's Report.

There are inherent risks trying to extend a Municipal Drain to a suitable outlet within a natural watercourse. A drainage project could be dismissed due to a variety of reasons including Environmental Authority restrictions (ie. Fisheries and Oceans, MNR, etc.) or if construction costs exceed 133% of the Engineer's estimate.

Section 78 - Requests for Major Drain Improvement

Any land or road authority within the Humphrey Drain 1999 watershed has the right to request a major drainage improvement without Council involvement, however they must cover the upfront engineering costs.

If the project proceeds to construction, these engineering and construction costs would be pro-rated and distributed amongst all benefitting landowners in the watershed, with the initiating landowner being credited for their engineering expenses if necessary. If the benefitting landowners do not support the project, the initiating landowner would be responsible for the full cost of engineering without reimbursement.

Community Benefit

The agricultural community may benefit from the Municipality taking the lead on a project of this nature as it could result in direct financial impacts on a number of neighboring landowners. Some landowners may be hesitant to submit requests for maintenance as they can result in a neighbouring landowner being required to pay for unwanted improvements which could then affect personal relationships.

The Municipality may also benefit from improved relationships with some members of the agricultural community by taking both the lead and financial risk in actively coordinating a project of this nature which would generally improve agricultural conditions in the area.

However some landowners who oppose the project and any allocated costs they will be required to pay may ultimately disagree with this approach.

Municipal Authority to Request Major Drain Improvement

Municipalities have the authority to request major improvements to a municipal drain under Section 78 of the Drainage Act. Extending an existing Municipal Drain to an outlet or altering an existing Municipal Drain as would be the case here, would qualify as a major improvement. Council may direct staff to undertake projects of this nature in accordance with a new engineers report adopted by By-Law.

Municipalities would typically request Major Drain Improvements if there is a need to improve municipal infrastructure (ie. better drainage to roads, roadside ditches or municipally owned parklands that flood).

Landowners would typically submit a request for Major Drain Improvements when they would like to improve drainage on their private property by improving an existing drain or extending it further downstream to a suitable outlet.

Scope & Estimated Costs for Engineering / Construction

The initial costs associated with engineering are estimated to be in the range of \$5k-10k. This includes preliminary planning, public consultation, investigation, and a high-level conceptual design. This is the minimum expense the Municipality would have to incur.

After completion of a conceptual design, the Municipality would have a better understanding the scope of work and the estimated costs for detailed design and construction. The Municipality would then host an informal preliminary meeting with the affected lands and roads to review the proposed scope of work and likely costs to decide whether to proceed with further detailed design at an additional cost.

The full scope of work for detailed design and construction is not known at this time. Detailed design and construction costs may vary greatly depending on the full scope of work and limits of

construction. For a municipal drain of this length, detailed design would likely be approximately \$10-75k while construction would likely range from \$20k to \$400k and would be highly dependent on specific scope. Lands that benefit from the drainage works will be assessed for part of their cost of constructing and maintaining the drainage system as described in the assessment schedule of the final drain report.

In the event that a by-law is passed adopting a new Engineers Report and the project proceeds to construction, any lands or roads that benefit from this drainage system would be assessed a prorated share of the total project costs as described in the assessment schedule of the Engineer's final report. If construction does not proceed for any given reason (ie. environmental concerns etc.), the Municipality would be liable for all project costs up to the point in time where the project is terminated.

CONSULTATION:

This report was reviewed in consultation with:

- Manager of Public Works

FINANCIAL IMPLICATIONS:

The minimum expense the Municipality would be at risk of incurring for preliminary planning, public consultation, investigation and high-level conceptual design is between \$5-10k.

Detailed design costs are not known at this time however could range between \$10-75k depending on scope, if it proceeds.

STRATEGIC PLAN ALIGNMENT:

This matter is in accord with the following strategic priorities:

Households and businesses in Strathroy-Caradoc are supported by reliable, financially responsible and well-maintained infrastructure networks.

ATTACHMENTS:

- Trout Creek Location Mapping Figure
- Humphrey Drain 1999 – Engineers Report, Plan and Profile – Spriet Associates Ltd.
- Section 78 Request for Major Drain Improvement Process Flow Chart