



The Corporation of the Town of Tecumseh

Public Works & Environmental Services

To: Mayor and Members of Council

From: Sam Paglia, Drainage Superintendent/Engineering Technologist

Date to Council: March 26, 2019

Report Number: PWES-2019-14

Subject: Request for Repair and Improvements to Curtis Drain
Appointment of Drainage Engineer

Recommendations

It is recommended:

That R. Dobbin Engineering Inc. (Dobbin) **be appointed** Drainage Engineer to:

- (i) Make an examination of the Curtis Drain and drainage area as submitted by the Town in the “Notice of Request for Drain Improvement” dated September 25, 2018; and
- (ii) Prepare a Drainage Report in accordance with Section 78 of the *Drainage Act*, including provisions for future maintenance of the Drain.

Background

The Town of Tecumseh (Town) has received correspondence from landowners on the overgrown brush and overall performance on the Curtis Drain (Drain). In 2012, the County of Essex (County) sent a request for a bottom cleaning of the Drain due to flooding of their roadside outlets on the west side of County Road 9. The County performed works to alleviate this flooding and withdrew their request for the cleaning. Since then, the Town has been notified by landowners of drainage issues related to the performance of the Curtis Drain.

A desktop review of the Drain indicated that the last cleaning occurred in 1995. A repair and improvement report, drafted in 1973 by C. G. Russell Armstrong, recommended the cleaning and improvement of the Drain including the replacement of one culvert. Subsequently, in 1986, a repair and improvement report was drafted to address sediment buildup and existing culvert condition.

In August 2018, the Town conducted a walkthrough of the Drain to examine the condition and performance. The results from this walkthrough concluded that the Drain has considerable sediment build up, bank failures, and heavy brush that is ultimately affecting the performance of the Drain. Four additional culverts were found that are currently not part of the Drain By-Law. The Town has no authority to work on these culverts until such time that they are incorporated as part of the Curtis Drain.

Comments

Legislation

Section 78 of the *Drainage Act* requires Council by by-law or resolution to appoint an Engineer to make an examination of the areas requiring drainage as described in the Request and to prepare a Drainage Report. The report shall include:

- a) plans, profiles and specifications of the drainage works, including a description of the area requiring drainage;
- b) an estimate of the total cost thereof;
- c) an assessment of the amount or proportion of the cost of the works to be assessed against every parcel of land and road for benefit, outlet liability and injuring liability;
- d) allowances, if any, to be paid to the owners of land affected by the drainage works; and
- e) such other matters as are provided for under the *Act*.

Section 78(1) If a drainage works has been constructed under a by-law passed under this Act or any predecessor of this Act, and the council of the municipality that is responsible for maintaining and repairing the drainage works considers it appropriate to undertake one or more of the projects listed in subsection (1.1) for the better use, maintenance or repair of the drainage works or of lands or roads, the municipality may undertake and complete the project in accordance with the report of an engineer appointed by it without the petition required in section 4.

Section 78(1.1) the projects referred to in subsections (1) are:

1. Changing the course of the drainage works.
2. Making a new outlet for the whole or any part of the drainage works.
3. Construction a tile drain under the bed of the whole or any part of the drainage works.
4. Constructing, reconstructing or extending embankments, walls, dykes, dams, reservoirs, bridges, pumping stations or other protective works in connection with the drainage works.
5. Otherwise improving, extending to an outlet or altering the drainage works.
6. Covering all or part of the drainage works.
7. Consolidating two or more drainage works.

Section 78(1) of the Act states that where, for the better use, maintenance or repair of any drainage works constructed under a by-law passed under this Act or any predecessor of this Act or to otherwise improve, extend to an outlet or alter the drainage works or to cover the whole or any part of it, the Council of any municipality whose duty it is to maintain and repair

the drainage works or any part thereof may, on the report of an Engineer appointed by it, undertake and complete the drainage works as set forth in such Drainage Report.

All proceedings, including appeals, under Section 78 shall be the same as on a report for the construction of a drainage works (Section 78(4)).

Notice to conservation authority

[\(2\)](#) An engineer shall not be appointed under subsection (1) until thirty days after a notice advising of the proposed drainage works has been sent to the secretary-treasurer of each conservation authority that has jurisdiction over any of the lands that would be affected. R.S.O. 1990, c. D.17, s. 78 (2); 2010, c. 16, Sched. 1, s. 2 (28).

Powers and duties of engineer

[\(3\)](#) The engineer has all the powers and shall perform all the duties of an engineer appointed with respect to the construction of a drainage works under this Act. R.S.O. 1990, c. D.17, s. 78 (3).

Proceedings

[\(4\)](#) All proceedings, including appeals, under this section shall be the same as on a report for the construction of a drainage works. R.S.O. 1990, c. D.17, s. 78 (4).

Required approvals

On September 27, 2018, the Town sent notification to the Essex Region Conservation Authority (ERCA) that it received a request for the repair and improvement of the Drain. On October 2, 2018, ERCA sent notification of the receipt of the request, stating that they do not expect there will be any extraneous comments or concerns with respect to this project.

As outlined in Section 78(2) of the Act, the Engineer shall not be appointed until after the 30 day notification to the Conservation Authority who has regulation of the area. This administrative report is in line with those provisions and the 30 day period expired on October 27, 2018.

The proposed drainage works will need to be self-assessed through the Department of Fisheries and Oceans (DFO). In order to obtain a federal Authorization, it may be necessary to provide habitat compensation for loss of habitat for the proposed works. The resulting habitat impacts must be replaced with equivalent habitat features. If a Biologist is required, the cost of same becomes the responsibility of the proponent.

The Drain may contain significant species (aquatic species at risk (SAR) as well as plants, animals, habitat, etc.) that are protected under the provincial Endangered Species Act (ESA). The Town will use its SAR Mitigation Plan for Drainage Works under Section 23.9 of Ontario Regulation 242/08. The Town's registered municipal drainage works permitted under Section 23.9 of Ontario Reg. 242/08 will provide the MNRF with the Notice of Drainage Work Activity

Form annually and provide information on any encountered species and mitigation plan for same.

Appointment of Engineer

The Curtis Drain By-Laws are not currently usable with respect to performing the required maintenance on the Drain. Land severances and illegal culverts would require apportionment agreements and a culvert sharing cost agreement for all landowners in the watershed. Additionally, the condition of existing culverts is of concern. It is likely that multiple culverts will fail during cleaning which would result in replacement of large sections of the enclosed drain, whose cost assessments are not properly addressed in the current report.

As a result of this, it is recommended that R. Dobbin Engineering Inc. be appointed Drainage Engineer to the Curtis Drain. Currently, we are seeing significant times in receiving drainage reports due to a short of drainage engineers in our area. The Town has been made aware of Dobbin through another municipality which cited that they have been producing timely engineer's reports at reasonable costs. As this project is relatively small in size, this appointment will allow us to easily gauge Dobbin's quality of work, efficiency, and costs for future projects. If successful in this project, adding Dobbin into the Town's portfolio of drainage engineers would increase the Town's level of service to landowners additionally to diversifying ongoing projects.

For the benefit and conveyance of the water received by all affected lands within the watershed and adjacent to the Drain who depends on the Drain as their outlet for the water that they receive, it is recommended:

That R. Dobbin Engineering Inc. **be appointed** Drainage Engineer to:

- (i) Make an examination of the Curtis Drain and drainage area as submitted by the Town in the "Notice of Request for Drain Improvement" dated September 25, 2018; and
- (ii) Prepare a Drainage Report in accordance with Section 78 of the *Drainage Act*, including provisions for future maintenance of the Drain.

Consultations

Financial Services
Corporate Services & Clerk
R. Dobbin Engineering Inc.

Financial Implications

The Engineer's Report shall assess for Special Benefit, Benefit, Outlet and liability. A schedule of assessment is to be contained in the report which details in separate columns, the sums assessed for each parcel of land and the road authority's liability. It is not anticipated that the Town will not be assessed as the affected roads within the drainage area are County Roads.

Link to Strategic Priorities

Applicable	2017-18 Strategic Priorities
<input type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input checked="" type="checkbox"/>	Ensure that the Town of Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input type="checkbox"/>	Integrate the principles of health and wellness into all of the Town of Tecumseh's plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable

Website

Social Media

News Release

Local Newspaper

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

Cameron Hedges, E.I.T
Assistant Drainage Superintendent

Reviewed by:

Sam Paglia, P.Eng.
Drainage Superintendent/Engineering Technologist

Reviewed by:

John Henderson, P.Eng.
Manager Engineering Services

Reviewed by:

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Reviewed by:

Luc Gagnon, CPA, CA, BMath
Director Financial Services & Treasurer

Reviewed by:

Laura Moy, Dipl. M.M., CMMIII HR Professional
Director Corporate Services & Clerk

Recommended by:

Tony Haddad, MSA, CMO, CPFA
Chief Administrative Officer

Attachment Number	Attachment Name
1	Notice of Request for Drain Improvement, dated September 25, 2018
2	Curtis Drain Map