



The Corporation of the Town of Tecumseh

Public Works & Engineering Services

To: Mayor and Members of Council

From: Phil Bartnik, Director Public Works & Engineering Services

Date to Council: February 8, 2022

Report Number: PWES-2022-08

Subject: Oldcastle Stormwater Master Plan
Filing the Notice of Study Completion

Recommendations

It is recommended:

That The Public Works & Engineering Services Report PWES-2022-08 Oldcastle Stormwater Master Plan, Filing the Notice of Study Completion **be received**;

And that the Notice of Study Completion **be advertised** in the local newspaper and the Town's social media accounts to initiate the mandatory 30-day public review record.

Background

At the December 12, 2017 Regular Council Meeting, Council approved the recommendations (Motion: RCM-441/17) of Report PWES No. 57/17 titled "2018-2022 Public Works & Environmental Services Capital Works Plan" that authorized Administration to proceed with the Oldcastle Stormwater Master Plan (OSMP). The OSMP is one of three Stormwater Master Plans for the Town, as outlined within the Town's Flood Mitigation Strategy (Report PWES-2018-17). The other two are the:

- (Tecumseh) Storm Drainage Master Plan (2019); and the
- Upper Little River Watershed Stormwater Master Plan (currently ongoing)

Comments

Oldcastle Hamlet has developed predominately with employment uses since the 1960's. Given the regional economic significance of the Oldcastle employment lands and the drainage issues that are known to exist in the area, an updated, holistic planning approach to stormwater management for both existing and developable lands was warranted.

The study area of Oldcastle Hamlet is located at the headwaters of three separate watersheds: Turkey Creek, Little River and Canard River. The study area and limits of each watershed are depicted on Attachments 1 & 2.

The main objectives of the OSMP were to:

- Inventory, assess and confirm the capacities of the existing stormwater drainage system;
- Identify and define local drainage issues and areas of concern;
- Review and assess the stormwater management needs for future development;
- Identify and assess potential drainage improvements; and
- Prepare a prioritized strategy for implementing the proposed drainage improvements.

Municipal Class Environmental Assessment

The *Ontario Environmental Assessment (EA) Act* recognized that certain municipal undertakings occur frequently, are small in scale, have a generally predictable range of effects or have relatively minor environmental significance. To ensure that a degree of standardization in the planning process is followed throughout the Province, the EA Act contemplated the use of the Class Environmental Assessment (Class EA) procedure for projects which require approval under the Act but which are not considered to be major environmental works. The Municipal Engineers Association (MEA) document titled *Municipal Class Environmental Assessment* (October 2000 as amended in 2007, 2011 and 2015), describes the procedure for undertaking a Class EA for municipal projects.

Projects undertaken by municipalities vary in their environmental impact, and are classified within the Class EA document in terms of Schedules:

- **Schedule A** projects are limited in scale, have minimal adverse environmental effects and include a number of municipal maintenance and operational activities. These projects are pre-approved and may proceed to implementation without following the full Class EA planning process. Schedule A projects generally include normal or emergency operational and maintenance activities.
- **Schedule A+** projects are similar to Schedule A projects in that they are considered pre-approved; however, the public is to be advised prior to project implementation.

- **Schedule B** projects have potential for some adverse environmental effects. The proponent is required to undertake a screening process, involving mandatory contact with directly affected public and relevant review agencies, to ensure that they are aware of the project and that their concerns are addressed. If there are no outstanding concerns, then the proponent may proceed to implementation. Schedule B projects generally include improvements and minor expansions to existing facilities.
- **Schedule C** projects have the potential for significant environmental effects and must proceed under the full planning and documentation procedures specified in the Municipal Class EA document. Schedule C projects require that an Environmental Study Report (ESR) be prepared and filed for review by the public and review agencies. Schedule C projects generally include the construction of new facilities and major expansions to existing facilities.

The main elements of the Class EA planning process are incorporated in the following five phases, and further depicted on Attachment 3:

Phase 1: Identify the problem or opportunity.

Phase 2: Identification and evaluation of alternative solutions to determine a preferred solution.

Phase 3: Examination of alternative methods of implementation of the preferred solution.

Phase 4: Documentation of the planning, design and consultation process.

Phase 5: Implementation and monitoring.

The Municipal Class EA process includes an appeal period of 30-days for the public to review the EA document once it has been completed. The proponent is encouraged to work in cooperation with any member of the public who may have a concern to determine the preferred means of addressing a problem. If the concerns of the project cannot be resolved through discussions with the proponent, the member of the public may request the Minister of the Environment to require the proponent to comply with Part II of the EA Act on Schedule B & C projects before proceeding with the proposed undertaking. If no request is received by the Minister or delegate, the proponent is free to proceed with the implementation and construction.

The Master Plan Process

Master Plans are long range plans which integrate infrastructure requirements for existing and future land use with environmental assessment planning principles. The plans examine an infrastructure system(s) or group of related projects to outline a framework for planning for subsequent projects and/or developments. At a minimum, Master Plans address Phase 1 (Identify Problem/Opportunity) and Phase 2 (Alternative Solutions) of the Municipal Class EA

process. Master Plans typically outline a set of specific projects across a geographic area that will be implemented over a period of time.

There are four different Approaches to undertaking a Master Plan. The OSMP was completed following Approach No. 2. to ensure that the level of investigation, consultation and documentation were sufficient to fulfil the requirements for Schedule B projects. A Master Plan Approach No. 2 includes:

- Preparation of a Master Plan document at the conclusion of Phases 1 and 2 of the Municipal Class EA process.
- Level of investigation, consultation and documentation are sufficient to fulfil the requirements for Schedule B projects.
- The public notice for the Master Plan becomes the Notice of Completion for the Schedule B projects within it.
- Schedule C projects would have to fulfil Phases 3 and 4 of the Municipal Class EA prior to filing an ESR for public review.
- The Master Plan would provide the basis for future investigations for specific Schedule C projects identified within it.

Stormwater Modelling Methods

Landmark Engineers Inc. created a detailed hydrologic and hydraulic model of the study area and its downstream receiving bodies in order to analyze and assess the performance of the existing (and future) drainage systems. The dual drainage model which incorporates both the minor drainage system (sewers, drains and culverts) and the major drainage system (overland flow) was calibrated based on actual field observations from five separate flow-monitoring locations during six separate rainfall events over the course of the study.

Recommended Solutions

The recommended improvements have been grouped together by drainage area and further separated into more manageable components that could be undertaken as individual projects. The recommended projects have also been listed in a priority sequence and labelled for ease of reference to the plans provided in Appendix H of the OSMP Report (see Attachment 4). For example, "W.1" represents the improvements within the Wolfe Drain sub-watershed that should be taken as the first priority project within that area.

The recommended improvements, as depicted in Attachment 4, are summarized as follows:

1) Wolfe Drain Sub-watershed

- W.1 Wolfe Drain Improvements
- W.2 Collins Drain Improvements

- W.3 New Storm Sewer along Fasan Drive
- W.4 New Storm Sewer along Blackacre Drive
- W.5 Replace Storm Sewer Outlets to Wolfe Drain

2) 6th Concession Drain Sub-watershed

- 6C.1 Replace Halford Drive Storm Outlet

3) 7th Concession Drain Sub-watershed

- 7C.1 New Storm Sewers along O'Neil Drive & Moynahan Street
- 7C.2 New Storm Sewers along Hennin Street

4) 8th Concession Drain Sub-watershed

- 8C.1 Demonte Drain Improvements

5) Hurley Relief Drain Sub-watershed

- H.1 Hurley Relief Branch Drain Improvements
- H.2 New Storm Sewer along Del Duca Drive
- H.3 New Storm Sewers along Ure Street
- H.4 Enlarge & Re-route Hurley Drain to Hurley Pond

6) 9th Concession Drain Sub-watershed

- 9C.1 Washbrook Drain Improvements
- 9C.2 Washbrook-Downing Pond
- 9C.3 New Storm Sewers on Oldcastle Road, Castlewood Court and O'Neil Drive
- 9C.4 Extension of Washbrook Drain Enclosure
- 9C.5* Oldcastle Heights Pond
- 9C.6* Downing Acres Pond
- 9C.7* 9th Concession Pond

**Ponds required for future development*

Recommended Solutions: Phasing & Cost Estimates

Estimated capital costs and implementation phasing for all of the recommended solutions are detailed within the Executive Summary (see Attachment 5). Irrespective of the timeframe for undertaking these improvements, it is recommended that the Town proceed as soon as possible to secure the lands and easements required for the recommended improvements. It is also important to note that the cost estimates are based on 2021 dollars and do not include allowances for easements and land acquisitions. The total costs are estimated at **\$32.0M** and are broken down in the following summary:

Short-Term Improvements: \$5.8 Million		
Project ID	Project Description	Preliminary Cost Estimate
W.1	Wolfe Drain Improvements	\$3,550,000
8C.1	Demonte Drain Improvements	\$100,000
H.1	Hurley Relief Branch Drain Improvements	\$50,000
H.2	New Storm Sewer along Del Duca Drive	\$1,000,000
H.3	New Storm Sewer along Ure Street	\$450,000
9C.1	Washbrook Drain Improvements	\$620,000

Medium-Term Improvements: \$11.2 Million		
Project ID	Project Description	Preliminary Cost Estimate
W.2	Collins Drain Improvements	\$1,130,000
W.3	New Storm Sewer along Fasan Drive	\$1,340,000
W.5	New Storm Sewer along Blackacre Drive	\$1,870,000
W.6	Replace Storm Outlets to Wolfe Drain	\$1,080,000
6C.1	Replace Halford Drive Storm Outlet	\$60,000
7C.1	New Storm Sewers along O'Neil Drive & Moynahan Street	\$230,000
H.4	Enlarge & Re-route Hurley Drain to Hurley Pond	\$3,320,000
9C.2	New Washbrook-Downing Pond	\$2,200,000

Long-Term Improvements: \$6.4 Million		
Project ID	Project Description	Preliminary Cost Estimate
7C.2	New Storm Sewer along Hennin Street	\$370,000
9C.3	New Storm Sewer along Oldcastle Road, Castlewood Court and O'Neil Drive	\$1,880,000
9C.4	Extension of Washbrook Drain Enclosure	\$4,170,000

Development-Driven Works: \$8.6 Million		
Project ID	Project Description	Preliminary Cost Estimate
9C.5	Oldcastle Heights Pond	\$1,310,000
9C.6	Downing Acres Pond	\$1,630,000
9C.7	9 th Concession Pond	\$5,660,000

Public Consultation

There was extensive public consultation throughout the Oldcastle Stormwater Master Plan process which included:

1. Notices and Mail-outs

The following Notices and/or mail-outs were sent to key project stakeholders, the public and First Nations to notify them of the Public Information Centres (PICs), update them of the project status and provide an opportunity to comment:

- Notice of Intent & Invitation to Comment (PIC No. 1) – October 7, 2019;
- Information Package 1 (Sent to all First Nations to offer consultation) – November 21, 2019;
- Invitation to Comment (PIC No. 2) – January 13, 2020;
- Invitation to Comment (PIC No. 2 - First Nations) – January 13, 2020;
- Invitation to Comment (PIC No. 2) – Potentially affected property owners – January 21, 2020;
- Information Package 2 (Sent to all First Nations to offer consultation) – February 25, 2020;

- Information Package 3 (Sent to all First Nations to offer consultation) – December 6, 2021;
- Notice of Study Completion – TBD.

Due to the size of the study area, billboards were set up for 2 weeks prior to each of the PICs on major arterial roads within Oldcastle Hamlet. The billboards included the name of the project, the date, time and location of the PIC as well as the town's website.

2. Public Information Centre (PIC) No. 1

The notice of PIC No. 1 was mailed to the study contact list on October 4, 2019, it was also published in the October 10, 2019 edition of the Essex Free Press and the October 11, 2019 edition of the Shoreline paper and placed on the Town's website and social media accounts.

PIC No. 1 was held on Thursday October 17, 2019 with two sessions from 2:00 p.m. – 5:00 p.m. and 6:00 p.m. – 9:00 p.m. at the Ciociaro Club. A total of 26 people attended PIC No. 1 and any comments received have been documented and addressed within the Master Plan document. The purpose of PIC No.1 was to present:

- Project need, including information on why surface flooding occurs;
- Problem areas identified in the storm sewer overland drainage systems; and
- Introduce alternative storm drainage solutions that will be considered in the next steps of the study

3. Public Information Centre (PIC) No. 2

The notice of PIC No. 2 was mailed to the study contact list on January 21, 2020, it was also published in the January 23, 2020 edition of the Essex Free Press and the January 24, 2020 edition of the Shoreline Paper and placed on the Town's website and social media accounts.

PIC No. 2 was held on Wednesday January 29, 2020 with two sessions from 3:00 p.m. – 5:00 p.m. and 6:00 p.m. – 8:00 p.m. at the Ciociaro Club. A total of 48 people attended PIC No. 2 and any comments received have been documented and addressed within the Master Plan document. The purpose of PIC No.2 was to present:

- Recommended solutions to reduce surface flooding for each problem area; and
- Information on recommended Schedule B projects

4. Indigenous Communities Consultation Engagement

The Indigenous Communities identified as potentially interested in the study included Aamjiwnaang First Nation, Caldwell First Nation, Chippewas of Kettle and Stoney Point First Nation, Chippewas of Thames First Nation, Delaware First Nation, Metis Nation of Ontario, Munsee-Delaware Nation, Oneida Nation of the Thames First Nation and Walpole Island First Nation. All project notices were sent to the Indigenous

Communities along with cover letters. During the study, correspondence was received from the Aamjiwnaang First Nation, Caldwell First Nation and Chippewas of the Thames First Nation and have been documented within the Master Plan.

5. Key Stakeholder and Direct Property Owner Consultations

A number of notices and meetings were held with key stakeholders and private property owners who would be directly affected by the recommended solutions. Additional meetings were also held with the Town of LaSalle and the Ministry of Transportation (MTO) and are further detailed within the Master Plan report.

February 8, 2022 SCM Presentation

The Town's consultant, Landmark Engineers Inc. will be in attendance at the February 8, 2022 Special Meeting of Council to make a presentation that summarizes the Oldcastle Stormwater Master Plan process, details the modelling results of the existing conditions, and identifies the preferred solutions and associated cost estimates.

Next Steps

The Notice of Completion will be published in the local newspaper and on the Town's website and social media accounts, and will also be mailed to landowners, Indigenous Communities, stakeholders and regulatory authorities on the contact list for the Master Plan.

A copy of the Notice of Completion will also be included as a communication item at the regularly scheduled meeting of council following its publication.

A hard copy of the Oldcastle Stormwater Master Plan will be made available at Town Hall through the Clerk's Office during the 30-day review period, along with a digital copy being made available on the Town's website.

Following the 30-day review period, and provided that all the comments received have been addressed and that no Part II Orders were submitted to the Minister of the Environment, Conservation and Parks, Administration will be forwarding a separate report to Council to have the Oldcastle Stormwater Master Plan formally adopted.

Consultations

Development Services
Financial Services
Landmark Engineers Inc.

Financial Implications

In 2019 the Town was successful in receiving approval from the federal National Disaster Mitigation Program (NDMP), Intake 5 for funding in the amount up to \$180,000 for the Oldcastle Stormwater Master Plan. In 2020, the Ministry of Municipal Affairs and Housing (MMAH) extended the NDMP program and increased the federal funding that would be available, which now totals \$200,000 (equating to 50% funding of eligible expenses).

(Note: The National Disaster Mitigation Program (NDMP) which is a federal program that provides funding support for flood mitigation projects. The Government of Canada administers the NDMP and provides NDMP funding to the Provincial and Territorial governments who may redistribute funding to eligible entities such as the Town of Tecumseh. In Ontario, the NDMP is administered by the Ministry of Municipal Affairs and Housing.)

The recommended solutions contained within the Oldcastle Stormwater Master Plan are estimated to cost **\$32.0M**.

This is in addition to the \$107M recommended within the (Tecumseh) Storm Drainage Master Plan (2019) for a combined total of \$139M in recommended stormwater projects.

Funding for these initiatives would come from the following sources:

- Lifecycle Stormwater Reserve (LC Storm)
- (New) Infrastructure Reserve (IR Reserve)
- OCIF Grant
- Other grant funding opportunities
- Long-term debt financing
- Contributions from landowners (applicable to Drainage Act), and
- Developers (with respect to storm ponds for new greenfield development)

The LC Storm Reserve has an estimated 2021 year-end deficit balance of \$(640,000) and a 2022 budget allocation of \$1,252,700.

The IR Reserve has an estimated 2021 year-end balance of \$10,950,000 and a 2022 budget allocation of \$1,750,000. The IR Reserve is also the funding source for other Town new infrastructure initiatives.

The Town's OCIF Reserve has an estimated 2021 year-end balance of \$1M with a 2022 allocation of \$2,322,000 (benefitting from a one-time doubling of our allocation for 2022).

The Town expects to incur \$15M in new long-term debt over the course of the next three years in connection with the St. Marks/Scully and PJ Cecile Stormwater Pump Station replacements. The Town's current long-term debt as at 2021 year-end is \$13M.

The vast difference between the cost of recommended stormwater projects and current available funding sources will likely lead to an extended timeframe to effectively implement these recommendations.

Administration has, and will continue to explore other grant funding opportunities for funding of the storm infrastructure projects, including future intakes of the Disaster Mitigation and Adaptation Fund (DMAF) and the Green Infrastructure Stream under the Investing in Canada Infrastructure Program (ICIP).

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
☐	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
☒	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
☐	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
☒	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
☒	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:

Dana Reid
Public Works & Engineering Services Assistant

Reviewed by:

John Henderson, P.Eng.
Manager Engineering Services

Reviewed by:

Tom Kitsos, CPA, CMA, BComm
Director Financial Services & Chief Financial Officer

Reviewed by:

Brian Hillman, MA, MCIP, RPP
Director Development Services

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Engineering Services

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

Attachment Number	Attachment Name
1	Figure A1: Study Area Location Map
2	Figure A5: Watershed & Sub-watershed Boundary Map
3	Municipal Class Environmental Assessment, Planning & Design Process
4	Figure H1 to H5: Proposed Improvements

Attachment Number	Attachment Name
5	Oldcastle Stormwater Master Plan: Executive Summary
6	February 8, 2022 Special Council Meeting – Consultant’s Presentation