



Administrative Report

Office of the Director, Infrastructure & Planning Services

To: Warden MacDonald and Members of Essex County Council

From: Allan Botham, P.Eng.
Director, Infrastructure & Planning Services

Date: Wednesday, August 16, 2023

Subject: Town of Essex Woodview Stormwater Management Facility Expansion

Report #: 2023-0816-IPS-R26-AB

Purpose

The purpose of the subject report is to provide the necessary information for County Council to make a decision regarding the expansion of the Woodview Stormwater Management Facility, which includes the installation of a new pond. The pond is proposed to be located at municipal address 360 Fairview Avenue, West, Essex, Ontario (Civic Centre property).

Background

Following severe weather events on August 11, 2014 and September 3, 2015, and reports of hundreds of homes in the Ward 1 area with flooded basements, the Town of Essex has undertaken studies and modelling of the stormwater drainage within the Community of Essex Centre. Background work and studies have culminated in the completion of an Environmental Assessment Report seeking a solution for improvements to the Ward 1 stormwater system.

The Town's Ward 1 has a number of drainage areas, including the Woodview area, comprising lands on Morton Avenue, Joan Flood Drive, Woodview Drive, the latest development east of Morton Avenue, and the Civic Centre Property. These lands drain westerly across and through the Civic Centre Property, under Highway 3 and into the Canaan Drain (please refer to Figure 1).

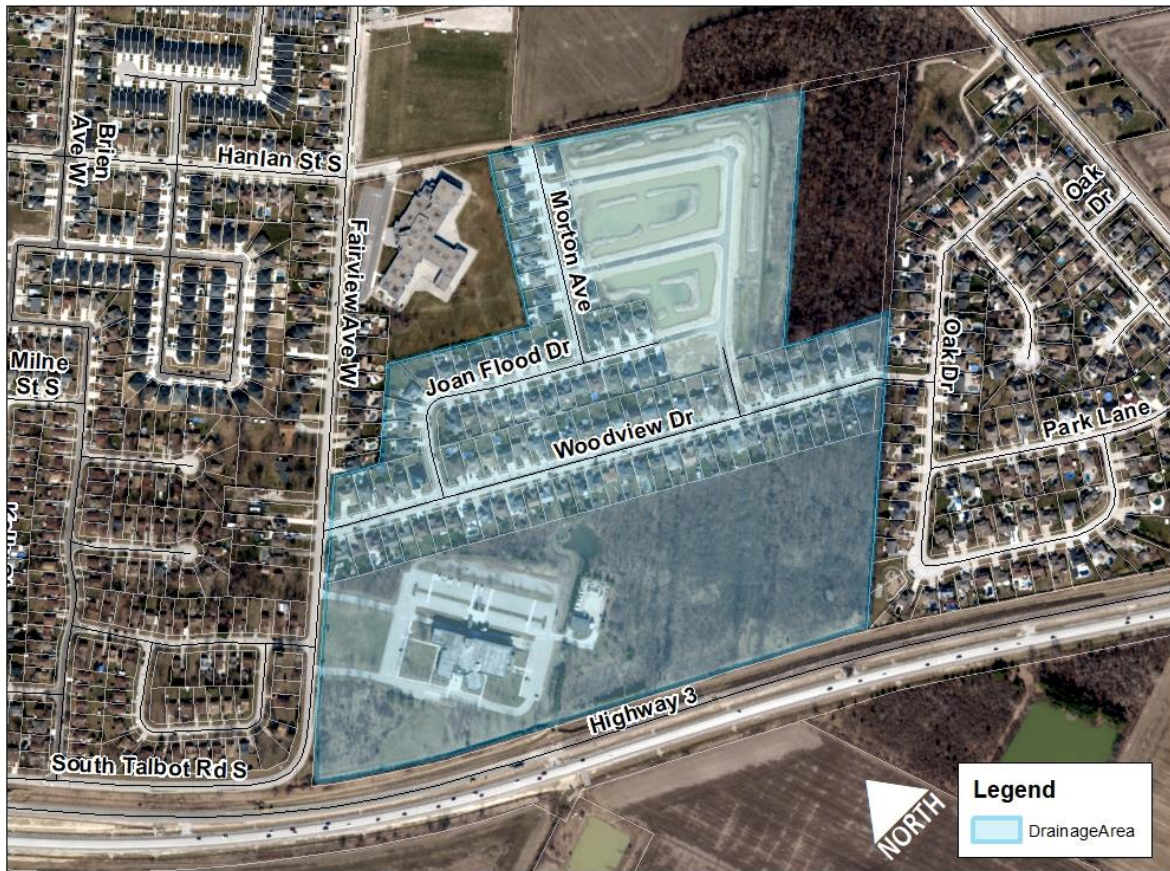


Figure 1

The Environmental Assessment (EA) process determined that the preferred solution to stormwater management in the Woodview drainage area includes:

- Expansion of the existing Woodview pond; and
- Local storm sewer cleaning and maintenance.

A recommendation to install a second, new Pond, came after the Town and their consultant reviewed a number of options to address the preferred solution of “expansion of the existing Woodview pond”, namely:

- Runoff reduction through low impact development and green infrastructure;
- Field inspection and maintenance of the existing storm sewers;
- Increasing the hydraulic capacity of existing storm sewers;
- Construction of stormwater management pond(s); and

- A combination of the above.

The Town of Essex is actively addressing stormwater issues in and around the Community of Essex Centre as evidenced by the recent reconstruction of the Brien Avenue storm sewer, and cleaning of the open drain and existing pond on the Civic Centre Property.

Figure 2 depicts the approximate location of the proposed pond to be situated between the existing Essex Region Conservation Authority (ERCA) building and Highway 3. Also note that the proposal requires the existing pond to remain in place and active.



Figure 2

Discussion

The purpose of expanding the system and installing the additional pond is to store and release runoff at a controlled rate. A properly engineered stormwater management pond can provide erosion and flood control while enhancing water quality. The preferred alternative, recommended by the EA, includes the construction of a new pond and/or expansion of the existing pond, along with improvements to existing storm sewers. After review of the site conditions, the new separate pond is being proposed.

In an effort to reduce the impact to the natural environment a Natural Heritage Review was carried out and focused on identifying natural heritage features. Species at Risk (SAR) and Species and Habitats of Conservation Concern (SOCC) were observed in the three predominant vegetation

communities at the site. During the design phase, the findings and recommendations of the Natural Heritage Review will be considered to determine: the precise shape and location of the proposed Pond to reduce the impact on SAR and SOCC, and compensation for any losses.

A version of the Pond that would be deeper with a smaller footprint, combined with a pumping station, was reviewed. The deeper version of the Pond would require an emergency generator and an access road for delivery and the related ongoing maintenance of an emergency generator. The consultant identified that this proposed version of the Pond would have a higher potential for noise and vibration impacts to the natural environment, the residents around the Civic Centre Property, and SAR and SOCC. It is however acknowledged that a generator could be located in an insulated building substantially reducing noise and vibration emissions. A generator would only run at very limited times during storm events. Further, this design would require significantly higher capital cost investment, along with a higher annual operating/maintenance cost.

Areas of Concern

There is little evidence of early participation in the Environmental Assessment process by the County. However, County Administration believes it would be appropriate to support any measures that mitigate flooding potential in the developed areas of the Community of Essex Centre. Also evident is that at some point in the past, the County supported construction of the existing pond in the System for the same or similar purpose.

Ongoing maintenance of the existing System by the Town has not occurred since construction of the existing System. The County's primary concern with proceeding to grant approval, of the new Pond, is that the existing System and new Pond are regularly maintained by the Town. However, it is believed that a Memorandum of Understanding, to be registered on title to the Civic Centre Property, will ensure that the rights and responsibilities of each of the Town and County are clearly laid out.

Land requirements and use of space on the Civic Centre Property for a permanent Pond, at first glance would seem to be a cause for concern about the County's potential future needs for the Civic Centre Property. However, this potential concern is lessened by the following factors:

- The proposed location of the Pond is not an area the County is likely to be able to develop or construct on;
- Should the County ever construct further parking or buildings on the Civic Centre Property, it is likely that the County would have to

improve its own stormwater management at that time. As such, having the Pond already installed, will assist the County; and

- Depending on the intensity of any future development on the Civic Centre Property, the proposed new Pond could be expanded to suit the County's needs.

Discussion with the Town has made it clear to the County that alternative solutions to the proposed Pond are not possible and/or are cost prohibitive. For example:

- Highway 3 is a constraint as it is provincial property with strict prohibitions;
- Expansion of the existing pond for the Canaan Drain on the south side of Highway 3, is not possible as it is already committed to relieve other stormwater management pressures;
- There is an MECP requirement for treatment of stormwater as well as volume control that must be considered. The existing pond is small and offers lower treatment as it was designed with older and much less stringent parameters; and
- A combination of hydraulics and topography eliminates the idea of a pond at the southeast side of the Property, away from the Civic Centre, as the land is generally flat and further from the existing outlet under Highway 3.

The area of the Civic Centre Property southeast of the ERCA building was created as a result of the development of Tulley Meadows Phase 1 and the bisection of Woodview Avenue through a large woodlot which is now in public ownership. To compensate for the loss of the woodlot and construction of the road and homes, the County supported restoration on the Civic Centre property which has been in succession for over twenty years. The County maintains that a comprehensive plan must be presented to address the vegetation and trees existing on the Civic Centre Property. There may be limits on further construction on the Civic Centre Property southeast of the ERCA building, because it is recognized as a natural heritage feature and identified as a significant woodland in the County and Town of Essex Official Plans. The County's Civic Centre property contains both an historic terrestrial heritage woodland and a successional woodland feature adjacent to the forest. ERCA did make it clear through the EA process that construction of a proposed stormwater management facility may be possible, subject to a recommended natural heritage inventory and associated mitigation plan.

Should County Council wish to proceed with approving the construction of the Pond on the Civic Centre Property, County Administration recommends that financial compensation be paid (either as cash or in-kind) from the Town to the County. Opportunities might include the construction of a walking trail on some of the Civic Centre Property, possibly in partnership with ERCA. Should that proceed, there will be separate Administrative Report provided to make recommendations to County of Council, and a Memorandum of Understanding will be entered into with the Town of Essex and ERCA about the roles and responsibilities related to maintenance.

In discussions with the Town to date, County Administration has made it clear that the use of the Civic Centre Property for the new proposed Pond should not be for the benefit of new development beyond that shown in Figure 1, but limited to benefit for existing development. New or additional development outside of the area shown in Figure 1 will require the construction of separate Stormwater Management controls.

Financial Implications

There should be no direct monetary implications to the County should construction of the Pond be approved. However, approval will result in the loss of usable land for the County's own needs, but which loss should be balanced out by the benefits from the County having access to the on-site stormwater management system and any other compensation (either cash or in-kind) as directed by County Council.

Consultations

In drafting this Report, I consulted with the County Solicitor, the County Planner and the County's Finance Department, along with Administration at the Town of Essex.

Recommendation

That Essex County Council agree in principle to construction related to any required improvement to the existing System and installation of a new Pond at the Civic Centre Property;

That Essex County Council direct County Administration to continue working with the Town on the final design of the Pond and the legal terms and conditions that will be required as part of the County's consent to construction of the Pond; and that

Essex County Council authorize the Warden and Clerk to execute any and all necessary agreements to allow for the construction of the Pond once the final design of the Pond and the related terms and conditions for construction have been agreed to between the Town and the County.

Approvals

Respectfully Submitted,

Allan Botham

Allan Botham, P.Eng., Director, Infrastructure and Planning Services

Concurred With,

Sandra Zwiers

Sandra Zwiers, MAcc, CPA, CA, Chief Administrative Officer and Director,
Financial Services/Treasurer

Appendix Number	Title
N/A	N/A