



## 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:** November 22, 2022

**Report Number:** PWES-2022-41

**Subject:** Upper Little River Watershed Drainage and Master Plan Class  
Environmental Assessment  
Project Update & Notice of Study Completion

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### Recommendations

It is recommended:

**That** Council **endorse** the issuance of the Notice of Study Completion by the Essex Region Conservation Authority for the Upper Little River Watershed Drainage and Master Plan Class Environmental Assessment to commence the 30-day review period.

### Executive Summary

The Essex Region Conservation Authority (ERCA), in partnership with the City of Windsor and Town of Tecumseh, initiated a study in 2004 to document existing conditions within the Upper Little River watershed and to recommend stormwater management measures. Stantec Consulting Ltd. was retained to complete the Upper Little River Watershed Drainage and Stormwater Management Master Plan Class Environmental Assessment (ULREA).

In general, the primary objective of this study was to define the future stormwater management corridors that would be used to support future development of the Sandwich South lands in the City of Windsor and a portion of the Tecumseh and Oldcastle Hamlets in the Town of Tecumseh. It informs more complex servicing studies

for these areas, enabling sustainable growth for the City of Windsor and Town of Tecumseh.

The Final Report has been completed and ERCA will be issuing the Notice of Study Completion once Windsor and Tecumseh Councils have been made aware of the project status.

## **Background**

The Study Area includes 4,390 Ha located in the southeast part of the City of Windsor, the west part of the Tecumseh Hamlet and portions of the Oldcastle Hamlet. Refer to the Site Location Plan and the Tecumseh Watershed Areas map provided in Attachments 1 & 2.

While this study was initiated in 2004, several significant delays occurred as a result of other studies within the Upper Little River catchment area, which included:

- 2005 – Land Use Plan for the Sandwich South Employment Lands (City of Windsor)
- 2007-2014 – Lauzon Parkway Extension MCEA (Ministry of Transportation of Ontario, County of Essex, City of Windsor)

The project was reinitiated in 2010 with most of the work being completed between 2014 to 2017 after the completion of the Lauzon Parkway Extension and followed an Approach 2 Master Plan process of the Municipal Class Environmental Assessment (MCEA).

## **2017 ULREA Report**

The ULREA Study was completed in 2017 with [Public Works & Engineering Services Report No. 23/17](#) presented to Tecumseh Council on May 23, 2017 detailing the 2017 report, public consultation, alternatives and the recommended solution.

As part of the Class Environmental Assessment (Class EA) Process, it is important in the environmental review that all reasonable design alternatives be adequately considered. The problem statement for the ULREA, “to ensure that urbanization of the Upper Little River Watershed can occur in a fashion that will not lead to negative impacts on the receiving systems including increased flood risk, the impairment of natural watercourse features, and would allow for future enhancement of the watercourse, stream margins and wetlands”, provided the necessary background for the selection and evaluation of alternative solutions.

The six alternatives identified and evaluated through the MCEA requirements are detailed below:

- Alternative 1: The Do-Nothing Alternative
- Alternative 2: Water Quality and Erosion Control Only
- Alternative 3: Communal Stormwater Facilities
- Alternative 4: On-line Quantity Control with Local Quality and Erosion Controls
- Alternative 5: Off-line or Distributed Stormwater Management Controls
- Alternative 6: Grouped Stormwater Management (SWM) Facilities

A set of evaluation criteria/indicators was selected to reflect the issues, constraints and concerns considered most important when comparing the alternative alignments. The evaluation criteria to assess the various alternatives were grouped into four major categories: natural environment, economic environment, technical environment and the social/cultural environment. Based on the assessment of the evaluation criteria for each of the alternatives, Alternative 6 “Grouped Stormwater Management Facilities” was selected as the recommended solution.

The recommended solution provides all stormwater management controls before out letting to the downstream watercourses. Each facility would be required to provide water quality, water quantity, and erosion controls on a standalone basis. In this alternative the SWM facilities are grouped into stormwater management corridors to promote natural linkages, recreational trails, and greenways. The SWM facilities can provide controls for more than one property and will be located adjacent to other facilities and a watercourse. It is anticipated that facilities would be designed and constructed as development proceeds. The study area will be developed by multiple landowners and the preferred alternative supports the ability of individual landowners to proceed independently while minimizing the total number of SWM facilities.

Advantages of the recommended solution included the following:

- **Staging Flexibility** – minimizes the number of facilities, while providing flexibility with respect to their staging and construction.
- **Stormwater Pumping** – fewer facilities and grouped locations, with one pump for multiple properties should minimize the number of pump stations.
- **Recreational Opportunities** – the potential exists to create new trail networks through the SWM corridors.

## 2017 Notice of Study Completion

The Notice of Study Completion was filed in September 2017. However, due to the overall duration of the project, changes to the Class Environmental Assessment requirements over that time, and input from the Ministry of the Environment,

Conservation and Parks (MECP) during the review of a Part II Order appeal, **the ULREA was not finalized after the 30-day public review period.**

## Comments

### 2022 ULREA Report

After the filing of the 2017 Notice of Study Completion, additional meetings and discussions with the MECP, ERCA, the City of Windsor and Town of Tecumseh identified a revised approach to the Master Plan process under the MCEA. The final 2022 ULREA report addresses the necessary requirements and revisions identified by the MECP.

The ULREA is **now being completed** following **Approach 1** of the **Master Plan process**, which is a broader level of assessment. This change in approach results in the requirement for additional detailed investigations at the project-specific level to fulfill Class EA requirements for specific Schedule B and Schedule C projects. It is important to note that **no changes have been made to alternatives considered or general Master Plan recommendations since the filing of the initial Notice of Completion in 2017.**

The technical components of this study have remained unchanged since the filing of the original Notice of Study Completion in 2017. The work has more recently been focused on complying with the most current legislative requirements to satisfy the minimum MCEA requirements. **The change in approach does not lessen the technical merits of the study or lower the quality of the report recommendations.** Rather, it avoids the need to complete all related Schedule B and C projects prior to filing for a Notice of Study Completion. In taking this approach, the Master Plan can be completed with a list of applicable projects that can be completed individually to the appropriate level of detail.

A copy of the 2022 ULREA Executive Summary and a Summary of Master Plan Approaches 1 & 2 are enclosed within Attachments 3 & 4.

### 2022 Notice of Study Completion

In September 2022, the Essex Region Conservation Authority Board of Directors received report BD 20/22 on the status updates for the “Upper Little River Watershed Drainage and Stormwater Management Master Plan Class Environmental Assessment” and the “Little River Floodplain Mapping Project / Sandwich South Master Servicing Study” and is enclosed within Attachment 5.

The Board Report recommended:

“THAT ERCA Administration, in coordination with the City of Windsor and the Town of Tecumseh, circulate a Notice of Study Completion for the Upper Little River Municipal Class Environmental Assessment and Master Drainage Study upon finalizing the draft report.”

Tecumseh Administration is recommending the endorsement of ERCA filing the Notice of Study Commencement. The completion of the ULREA will serve as a 'parent' document to subsequent more detailed studies undertaken in the Upper Little River Watershed area. A number of these studies are currently ongoing and are being completed to a greater level of detail, which include:

- The Little River Floodplain Mapping, City of Windsor
  - Anticipated to be completed 2023.
- The Sandwich South Master Servicing Plan, City of Windsor
  - Anticipated to be completed 2023.
- Tecumseh Hamlet Secondary Plan, MCEA & Functional Servicing Report, Town of Tecumseh
  - Anticipated to be completed 2023.
- Oldcastle Stormwater Master Plan, Town of Tecumseh
  - Completed June 2022.

## Next Steps

Once the Notice of Study Completion is advertised it will be included as a communication item at the next regularly scheduled meeting of Council following its publication. The Town will also share the Notice on the Town's website and social media accounts.

An electronic copy of the ULREA Report will be made available on the Town's website.

Following the 30-day review period, and provided that all the comments received have been addressed, Administration will bring forward a separate report to Council to have the ULREA formally adopted.

## Consultations

Development Services  
Essex Region Conservation Authority

## Financial Implications

There are no financial implications associated with this report.

## Link to Strategic Priorities

Applicable	2019-22 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 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 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 checked="" 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:

Cheryl Curran, BES  
Project Technician

Reviewed by:

Brian Hillman, MA, MCIP, RPP  
Director Development Services

Reviewed by:

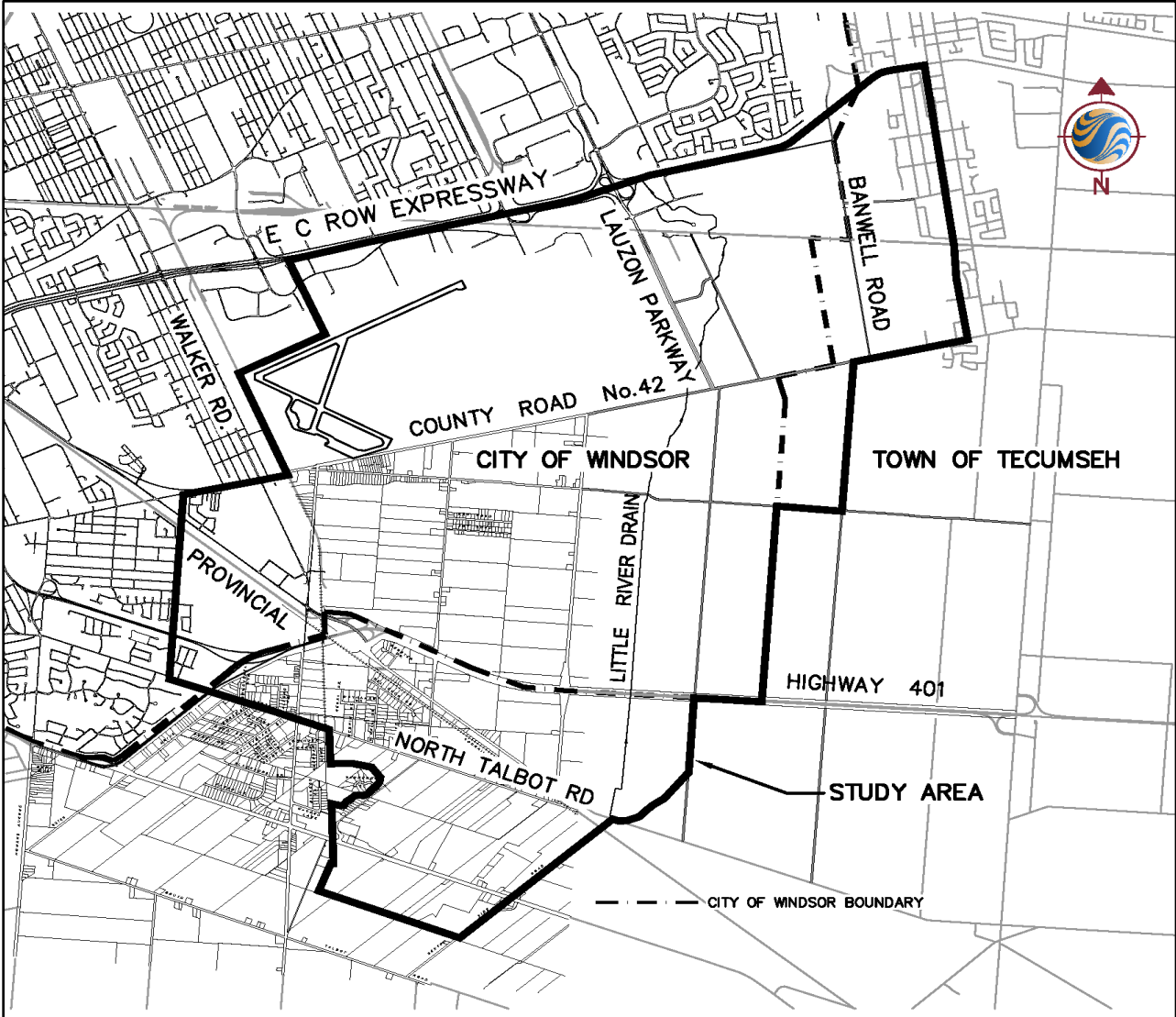
Phil Bartnik, P.Eng.  
Director Public Works & Engineering Services

Recommended by:

Margaret Misek-Evans, MCIP, RPP  
Chief Administrative Officer

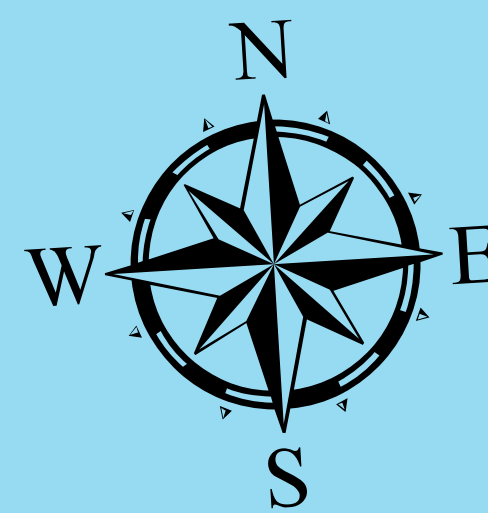
<b>Attachment Number</b>	<b>Attachment Name</b>
1	Site Location Plan
2	Tecumseh Watershed Areas
3	2022 ULREA Executive Summary
4	Master Plan Approaches 1 and 2
5	ERCA Board Report BD 20/22, August 29, 2022

### ULREA – Site Location Plan





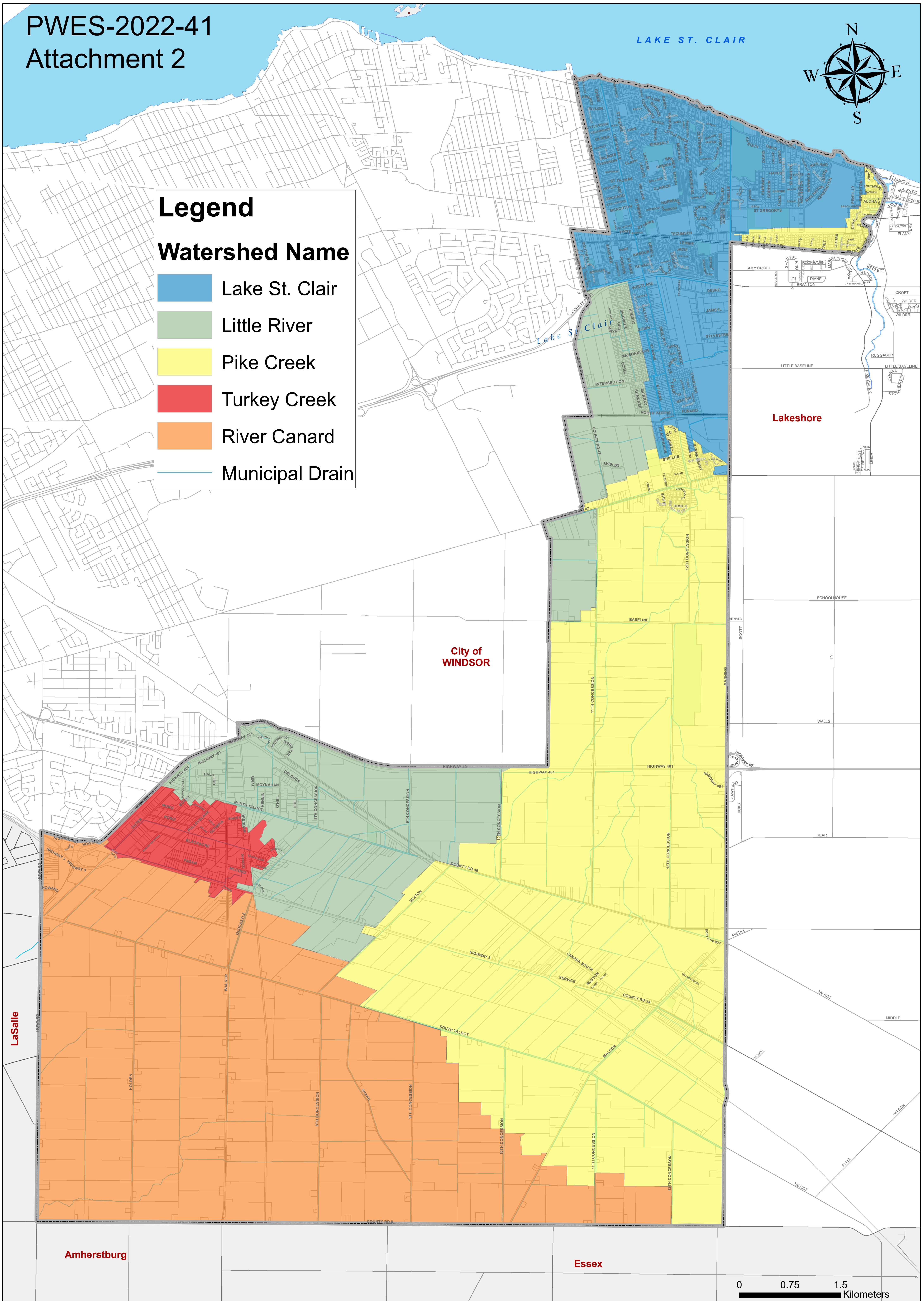
LAKE ST. CLAIR



**Legend**

**Watershed Name**

- Lake St. Clair
- Little River
- Pike Creek
- Turkey Creek
- River Canard
- Municipal Drain



Map Date: January 2022

Corporation of the Town of Tecumseh

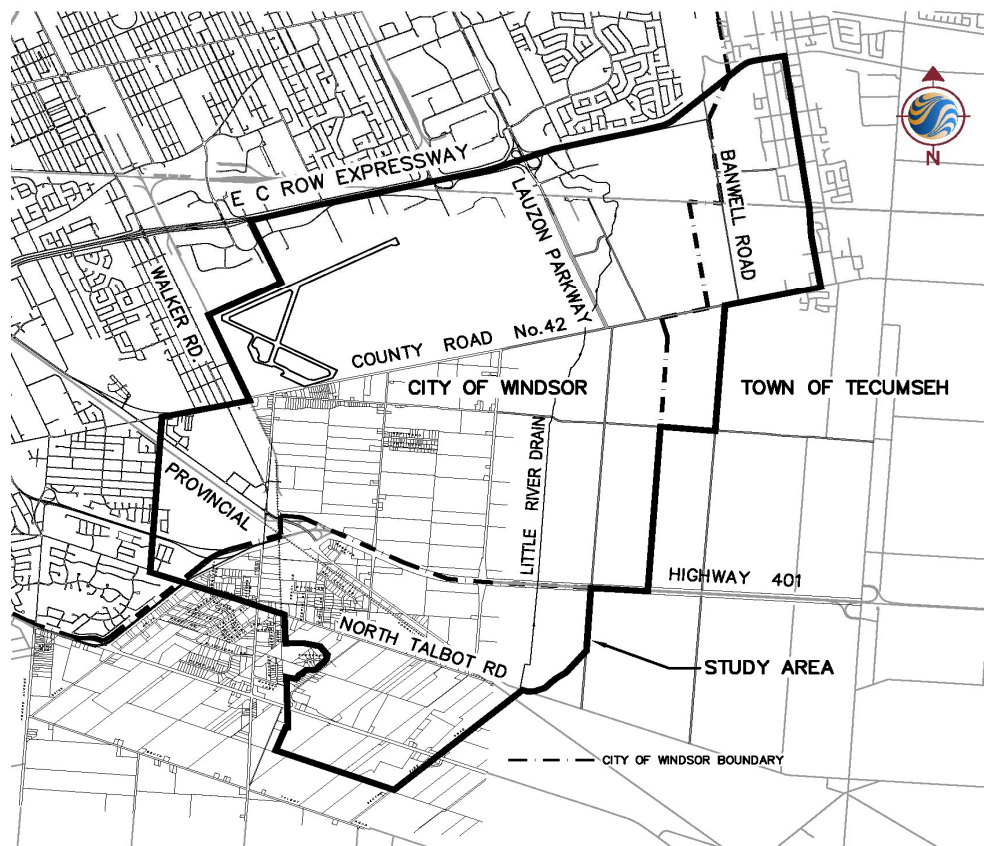
MUNICIPAL DRAINS & STORM WATER  
MANAGEMENT SYSTEM

**WATERSHED AREAS**



## Executive Summary

The Upper Little River watershed is located in the southeast part of the City of Windsor and the west part of the Town of Tecumseh, as shown on the Site Location Plan (Figure E1). The Main branch of Little River originates south of Highway 401 and generally flows north through a well-defined system of municipal drains and channels towards the Detroit River and Lake St. Clair. The drainage area contributing to Upper Little River upstream of the E.C. Row Expressway is approximately 45 km<sup>2</sup>.



**Figure E1: Site Location Plan**

The City of Windsor (City), the Town of Tecumseh (Town), and the Essex Region Conservation Authority (ERCA) commenced a study in 2004 to document existing conditions and to recommend stormwater management measures to protect existing resources as development continues in the upper reaches of Little River. In 2005, the City was in the process of completing a Land Use Plan for the Sandwich South Employment Lands, and the Study was put on hold until that process could be completed. The City of Windsor Council adopted a Preferred Concept Land Use Plan on October 23, 2006. The project was put on hold again in 2007 after the Ministry of Transportation (MTO) announced that it had plans for a new highway through the study area.



## UPPER LITTLE RIVER WATERSHED DRAINAGE AND STORMWATER MANAGEMENT MASTER PLAN CLASS ENVIRONMENTAL ASSESSMENT, WINDSOR AND TECUMSEH, ONTARIO

The project was reinitiated in 2010 at the same time as several adjacent projects. Land use planning, future arterial roadway locations (Lauzon Parkway, County Road 42, and a new East-West Arterial), and the proximity of the Windsor International Airport have all been taken into account in the development of the proposed stormwater management approach.

The Master Plan was originally undertaken following Approach 2 with a Notice of Study Completion filed in September 2017. However, due to the overall duration of the project, changes to the Class EA requirements over that time, and input from the Ministry of the Environment, Conservation and Parks during the review of a Part II Order appeal, the Master Plan was not finalized after the 30-day public review period. The Master Plan is now being completed following Approach 1, which is a broader level of assessment. This change in approach results in the requirement for additional detailed investigations at the project-specific level in order to fulfill Class EA requirements for specific Schedule B and Schedule C projects. Note that recent amendments to the *EA Act* have exempted Schedule A and A+ projects from the provisions of the *EA Act*. No changes have been made to alternatives considered or general Master Plan recommendations since the filing of the initial Notice of Completion in 2017. Correspondence associated with the previous Notice of Completion and Part II Order request can be found in Appendix E.

Stantec Consulting Ltd. is the lead consultant, in cooperation with Parrish Geomorphic Ltd., to complete a Master Plan under the Municipal Class Environmental Assessment process to determine a preferred approach to providing stormwater management control measures for the developing lands upstream of the E.C. Row Expressway and contributing to Upper Little River.

The Project Team, consisting of representatives from the City of Windsor, The Town of Tecumseh, the Essex Region Conservation Authority, and the Consultant Team, has examined a number of alternatives for stormwater management based on a combination of previous documentation and current information. In addition, two Public Open House Meetings (May 29, 2012 and October 22, 2012) have been held to receive input on the alternative options investigated.

A preferred option was developed as a result of an evaluation of alternatives and public/agency input, and is considered representative of the most financially and physically appropriate option to achieve the required controls, while maximizing opportunities to conserve existing natural conditions. Details of the study process, from conceptual development of alternative stormwater management strategies through to the identification of recommended projects, are summarized in the following Master Plan Report, which is to be considered for approval by the Councils of the City of Windsor and the Town of Tecumseh.

This project has been completed in accordance with Approach 1 as identified in Appendix 4 of the Municipal Engineers Association (MEA) Municipal Class Environmental Assessment (Class EA) (2000, as amended). In accordance with the MEA Class EA process, this Master Plan was filed on the Public Record for a period of thirty (30) days after adoption of the recommendations by the City of Windsor and the Town of Tecumseh through the issuance of a Notice of Completion. The Notice of Completion was advertised in the local newspaper, and copies of pertinent advertisements are included in the Appendices. It should be noted that the Master Plan Notice of Completion was previously filed in September 2017, but was subsequently re-issued on **DATE** to address the change in Master Plan methodology from Approach 2 to Approach 1.



The problem statement for this Master Plan Class EA is generally summarized as follows:

To ensure that urbanization of the Upper Little River Watershed can occur in a fashion that will not lead to negative impacts on the receiving systems including increased flood risk, the impairment of natural watercourse features, and would allow for future enhancement of the watercourse, stream margins and wetlands.

#### Alternatives and Evaluation

As part of the Class EA process, it is important that all reasonable and feasible solutions be considered. The following alternatives have been identified for further evaluation through this Master Plan Class EA:

##### Alternative 1 - The Do-Nothing Alternative

In this alternative, the Little River subwatershed area is developed but no stormwater management control measures are implemented for the watershed. The evaluation of this alternative is required by the EA process; however, ERCA has stated that lands downstream of the study area are currently impacted by flood waters and any increase in flows would require channel improvements with significant costs to ensure that flood levels/damages are not increased.

##### Alternative 2 - Water Quality and Erosion Control Only

In this alternative, the proposed development will have only water quality treatment and erosion control, and no water quantity or flooding controls. ERCA has stated that lands downstream of the study area are currently impacted by flood waters and any increase in flows would require channel improvements with significant costs to ensure that flood levels/damages are not increased.

##### Alternative 3 - Communal Stormwater Facilities

This alternative examines the potential to minimize the number of SWM facilities required to serve the study area by consolidating all water quality, erosion, and water quantity controls at a few locations throughout the watershed.

##### On-line

These large centralized SWM facilities would provide control for anywhere from 150 to 800 ha of development area. This option would retain the existing municipal drain alignments with large ponds at key locations. Multiple forebays could be used to consolidate drainage from different directions. Several of the municipal drains are considered to provide direct fish habitat. Since this alternative provides water quality control downstream of the fish habitat, this option would likely require a permit from the DFO. This alternative would also be classified as an on-line water quality facility (since it would be located on a watercourse). Recent projects attempting to employ this method have had difficulty obtaining approvals from MECP, MNRF, and DFO, primarily due to fisheries/natural heritage concerns. Due to the complications arising from the proximity of the airport and the online water quality controls, it would be difficult to obtain approvals for this alternative.



#### Off-line

This alternative is similar to the on-line version where a few large centralized SWMFs would be used to provide controls. This alternative differs in that the storm flows would drain through large storm sewers to the SWMFs whereas the on-line version uses the existing municipal drain network to transport flows. Due to flat grades throughout the site and required minimum slopes on storm sewers, flows in the storm sewers would need to be pumped before outletting to the downstream water courses. This option requires significant upfront capital costs for the storm sewers and land acquisition and does not lend itself well to staged construction.

#### Alternative 4 – On-line Quantity Control with Local Quality and Erosion Controls

This alternative examines the scenario where a few on-line water quantity or flood control facilities are centralized in key locations throughout the study area, but water quality and erosion controls are distributed across the watershed.

Large centralized SWMFs would be used to provide water quantity control for large rainfall events. These large facilities would be located generally in the same locations as for Alternative 3, except that they could be smaller, and they would not require a permanent body of water (although there would be some form of low flow channel). Recent projects employing on-line water quantity controls have been approved by the MNRF and MECP with some additional review time.

Smaller distributed SWMF's would be used to provide a Normal level of water quality control, which could take the form of a dry pond combined with a treatment train approach (i.e., pre-treatment), a wet pond, a wetland, or Low Impact Development methods. The minor system would drain to the small distributed SWMFs where water quality and erosion control would occur. Major flows would either bypass the small distributed SWMF or drain through them with minimal controls to the large downstream SWMFs.

#### Alternative 5 - Distributed Off-line SWM Controls

This alternative considers the potential for stormwater management controls to be distributed throughout the study area, and each facility would be required to provide water quality, erosion, and water quantity controls separately. It is anticipated that facilities would be designed and constructed as development proceeds on a site by site basis.

This form of SWM is typical of most developments where each development block would provide their own SWM controls (water quality, water quantity, and erosion control) before outletting to the drains. It would be the easiest alternative to receive approvals for due to its standard approach.

Similar to Alternative 4, water quality would be provided on a site-by site basis throughout the development area in end-of pipe facilities (i.e., dry pond combined with a treatment train approach, wetland, or wet pond). Flood control would occur above the water quality control volume (so that the water depth would be larger) or in adjacent mixed-use areas (e.g., sports field, woodlots, etc.). Under normal conditions they will operate similar to the Alternative 4 ponds and it is only under large rainfall events where there will be differences in operation.



### Alternative 6 - Grouped Off-line SWM Controls

This alternative considers the potential for all stormwater management controls to be provided before outletting to a watercourse. Each facility would be required to provide water quality, erosion, and water quantity controls similar to Alternative 5. In this alternative the SWM facilities are generally in the same area (co-located) and are congregated into SWM corridors.

This alternative is similar to Alternative 5, with the main differences being that the SWM facilities are intended to provide controls for more than one property and they are located adjacent to other facilities and a watercourse. Generally, there will be fewer and larger SWMFs compared to Alternative 5 and more and smaller SWMFs compared to Alternative 3.

### Evaluation of Alternatives

Throughout the Study process, the various alternatives were reviewed and discussed by the Project Team, the public, and agency representatives. It is obvious that each alternative will result in varying impacts on environmental features, lands available for development by local property owners and the downstream system. As would be expected, the objectives and needs of various groups are not always consistent, and so an appropriate evaluation process was applied by the Project Team to arrive at a preferred concept or recommended concept.

A set of evaluation criteria/indicators was selected to reflect the issues, constraints and concerns considered most important when comparing the alternative stormwater strategies against the different environmental components. The evaluation criteria used to assess the various alternatives were grouped into four major categories as outlined below:

- Natural Environment
  - Terrestrial Resources, Vegetation, and Wildlife Implications
  - Fisheries Resources and Aquatic Habitat Implications
  - Groundwater and Baseflow Implication
  - Surface Water Quality
- Economic Environment
  - Total Capital Cost
  - Total Maintenance Cost



## UPPER LITTLE RIVER WATERSHED DRAINAGE AND STORMWATER MANAGEMENT MASTER PLAN CLASS ENVIRONMENTAL ASSESSMENT, WINDSOR AND TECUMSEH, ONTARIO

- Technical Environment
  - Ability to Provide Required Flood Protection
  - Ease of Construction/ Implementation
  - Ability to Meet Agency Requirements
  
- Social/Cultural Environment
  - Aesthetics
  - Health and Safety
  - Recreational Opportunities
  - Archaeological Resources
  - Built Heritage Resources/Cultural Heritage Landscapes

For each evaluation criteria a relative preference rating was assigned to each alternative. That is, for each criterion a particular alternative was either highly preferred, moderately preferred, or was generally not preferred. This information was tabulated for all of the criteria. Based on the evaluation matrix Alternative 6 is the preferred option.

### Description of Preferred Alternative

The preliminary preferred alternative (Alternative 6) provides all stormwater management controls before outletting to the downstream watercourses. Each facility would be required to provide water quality, water quantity, and erosion controls on a standalone basis. In this alternative the SWM facilities are grouped into stormwater management corridors to promote natural linkages, recreational trails, and greenways. The SWM facilities can provide controls for more than one property and will be located adjacent to other facilities and a watercourse. It is anticipated that facilities would be designed and constructed as development proceeds. The study area will be developed by multiple landowners and the preferred alternative supports the ability of individual landowners to proceed independently while minimizing the total number of SWM facilities. Lands impacted by the SWM corridor will ultimately be owned by the Municipality. The Municipality will acquire the required property in accordance with the laws of the Province of Ontario.

The stormwater areas are proposed to be congregated into stormwater management corridors which can be combined with trail systems and amenity areas for the surrounding developments. The stormwater management corridor will be located beside watercourses which will accept drainage from the end-of-pipe facilities. Heavy vegetation adjacent to all water bodies and minimal open water will also be implemented in order to make water features less attractive to bird species, a specific request from the Windsor Airport. As part of this work, several of the existing municipal drains are proposed to be abandoned and several new channels will be created that align with the proposed development plan for the area. In addition, the work will include re-grading the stream channel banks to create benches or terraces, which will help dissipate energy and re-connect the bankfull channel to a floodplain area.

Advantages of the preferred alternative include the following:



## UPPER LITTLE RIVER WATERSHED DRAINAGE AND STORMWATER MANAGEMENT MASTER PLAN CLASS ENVIRONMENTAL ASSESSMENT, WINDSOR AND TECUMSEH, ONTARIO

- Staging Flexibility – This alternative minimizes the number of facilities while providing flexibility with respect to their staging and construction.
- Avian Habitat – The avian habitat area is relatively concentrated, which provides continuous linkages for predators, reduces the number of sites to be monitored, and provides more separation between nesting and foraging areas.
- Ease of Permitting – SWM facilities are located offline of each watercourse easing approval issues. Individual SWM facilities generally follow typical designs leading to easier approval.
- Stormwater Pumping – fewer facilities and grouped locations (with one pump for multiple properties) should lead to fewer pumping stations when compared to standard one facility per property strategies.
- Recreational Opportunities – The potential exists to create new trail networks through the corridors due to the continuity of the grouped SWM system.
- Fish Passage – The stormwater management areas are located offline of the existing watercourses and no additional barriers to fish movement are created. The conveyance system remains fish habitat similar to the existing municipal drain network.
- Erosion - re-grading the banks to create benches or terraces will re-connect the bankfull channel to a floodplain area, thereby reducing erosion and improving fish habitat.





<b>Municipal Class Environmental Assessment – Master Plan</b>	
<b>Master Plan Approach 1</b>	<b>Master Plan Approach 2</b>
<ul style="list-style-type: none"> <li>• Preparation of a Master Plan document at the conclusion of Phases 1 and 2 of the Municipal Class EA process.</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation of a Master Plan document at the conclusion of Phases 1 and 2 of the Municipal Class EA process.</li> </ul>
<ul style="list-style-type: none"> <li>• Broad level of assessment thereby requiring more detailed investigations at the project-specific level in order to fulfil the Municipal Class EA documentation requirements for the specific Schedule B and C projects identified within the Master Plan.</li> </ul>	<ul style="list-style-type: none"> <li>• Level of investigation, consultation and documentation are sufficient to fulfil the requirements for Schedule B projects.</li> </ul>
<ul style="list-style-type: none"> <li>• Schedule B projects would require filing of the Project File for public review.</li> </ul>	<ul style="list-style-type: none"> <li>• The public notice for the Master Plan becomes the Notice of Completion for the Schedule B projects within it.</li> </ul>
<ul style="list-style-type: none"> <li>• Schedule C projects would have to fulfil Phases 3 and 4 of the Municipal Class EA prior to filing an Environmental Study Report (ESR) for public review.</li> </ul>	<ul style="list-style-type: none"> <li>• Schedule C projects would have to fulfil Phases 3 and 4 of the Municipal Class EA prior to filing an ESR for public review.</li> </ul>
	<ul style="list-style-type: none"> <li>• The Master Plan would provide the basis for future investigations for specific Schedule C projects identified within it.</li> </ul>



## Essex Region Conservation Authority

### Board of Directors

BD 20/22

From: James Bryant, P.Eng., Director of Watershed Management Services

Date: Monday, August 29, 2022

**Subject: Little River Floodplain Mapping Project Status Updates**

Strategic Action: 2.1 Undertake modelling and assessments to update ERCA's flood line mapping.  
11.3 Continue to coordinate projects of regional interest with all municipal partners.

**Recommendation:** THAT ERCA Administration, in coordination with the City of Windsor and the Town of Tecumseh, circulate a Notice of Study Completion for the Upper Little River Municipal Class Environmental Assessment and Master Drainage Study upon finalizing the draft report.

### Summary

- ERCA continues to collaborate with the City of Windsor on two key projects within the Little River watershed; the *Upper Little River Watershed Drainage and Stormwater Management Master Plan Class EA (ULREA)* and the *Little River Flood Plain Mapping Project / Sandwich South Master Servicing Study*.
- The ULREA was initiated in 2004 and experienced several significant delays. Despite those delays, the project is nearing completion.
- The Little River Flood Plain Mapping Project, which is a component of the Sandwich South Master Servicing Study, uses the hydrologic information from the ULREA as the baseline for the flood mapping analysis and stormwater management recommendations. Modifications were made to this information to support current hydrology and hydraulics within the area to address the changes that occurred over the last several years.
- ERCA and the City intend to circulate a Notice of Study Completion for the ULREA first, followed by a Notice of Completion for the Little River Flood Plain Mapping Project once the Sandwich South Master Servicing Study has satisfied all of the necessary requirements as a Schedule B undertaking under the Municipal Class EA framework.

### Discussion

The Little River watershed is approximately 6272 hectares (62.72 square kilometres) and is subject to various ongoing studies to support floodplain management and sustainable development and growth

for the City of Windsor. This report is providing an update on two key studies which inform much of the natural hazard information, future municipal servicing, and recreational/naturalized corridors. The first of the two studies is known as the *Upper Little River Watershed Drainage and Stormwater Management Master Plan – Class Environmental Assessment*. The second and more recent study is the *Little River Flood Plain Mapping Project*, which is a component of the *Sandwich South Master Servicing Study*. For clarity, this administrative report has been separated to discuss each of the studies independently.

### **Upper Little River Watershed Drainage and Stormwater Management Master Plan – Class Environmental Assessment (ULREA)**

ERCA, in partnership with the City of Windsor and Town of Tecumseh, initiated a study in 2004 to document existing conditions within the Upper Little River watershed and to recommend stormwater management measures. The Study Area includes the 4390 hectares (43.9 square kilometres) of land that extends south of E.C. Row Expressway to the upper limit of the watershed south of King’s Highway No. 3. These stormwater management measures would be implemented to protect existing resources as development continues throughout the upper reaches of Little River. In general, the primary objective of this study was to define the future stormwater management corridors that would be used to support future development of the Sandwich South lands. It informs more complex servicing studies for this area, enabling sustainable growth for the City of Windsor and Town of Tecumseh. Unfortunately, this study has encountered numerous roadblocks and pauses since its initiation. A brief timeline is provided below that highlights several points where the Study started and stopped.

- 2004 – Study initiated in partnership with the City of Windsor and Town of Tecumseh.
- 2005 – The Study was paused to allow for the completion of the City’s Land Use Plan for the Sandwich South Employment Lands.
- 2006 – the Study was reinitiated after the City’s adoption of the Preferred Concept Land Use Plan for the Sandwich South Employment Lands.
- 2007 – The Study was paused as the Ministry of Transportation of Ontario (MTO) announced their renewed plans to construct a new highway through the study area. The Environmental Assessment for the proposed highway did not commence until 3 years later (the Lauzon Parkway Extension).
- 2010 to 2011 - The Lauzon Parkway Environmental Assessment was initiated and led by the MTO in partnership with the City of Windsor, County of Essex, and Town of Tecumseh. This large multi-stakeholder study was being undertaken to define the preferred roadway alignments and cross-sections for the future Lauzon Parkway Extension, the future East-West Arterial Roadway, and County Road 42. All of these roadways fall within the Upper Little River Study Area. The Notice of Completion for this project was filed in early 2014.
- 2015 to 2017 – The ULREA Study was nearly completed with a Notice of Study Completion filed in late 2017; however, due to the considerable time between the Study commencement and completion, several changes to the requirements for Municipal Class Environmental Assessments (MCEA) had occurred that were not included in the original scope of work.
- 2018 – The Ministry of Environment, Conservation and Parks (MECP) notified Project Team of additional requirements to be included in the final report. This included evaluations of potential impacts to cultural heritage and archaeological resources as well as Source Water Protection along with various other necessary edits to the final report.

- 2018 to 2022 – The Study was modified from an Approach 2 Master Plan under MCEA to Approach 1 under MCEA. The Study has progressed to include a draft final report that addresses the necessary requirements for this type of study, including all of those requested changes by the MECP.

The technical components of this study have remained unchanged since the filing of the original Notice of Study Completion in 2017. The work has more recently been focused on complying with the most current legislative requirements to satisfy the minimum MCEA requirements. As identified above, ERCA made a strategic recommendation to the stakeholders to modify the MCEA Master Plan Approach from Approach 2 to 1 to avoid any further conflicts and delays with various other studies. The change in approach does not lessen the technical merits of the study or lower the quality of the report recommendations. Rather, it avoids the need to complete all of the related Schedule B and C projects prior to filing for a Notice of Study Completion. In taking this approach, the Master Plan can be completed with a list of applicable projects that can be completed individually to the appropriate level of detail. A primary example of this is the *City of Windsor Sandwich South Master Servicing Study and Little River Flood Plain Mapping Project*. This project, along with various others, are listed within the ULREA as relevant Schedule B or C undertakings that will be informed by and comply with the more broadly scoped ULREA Master Drainage study.

The next steps with this project are to finalize the review of the draft report, circulate the report to the municipal stakeholders for approval and issue a Notice of Study Completion. This administrative report is seeking approval by the Board for ERCA administration to release the Notice of Study Completion upon the City's and the Town's satisfactory review of the draft final report. The completion of this study is vital to continued sustainable growth within the Sandwich South lands, and necessary to allow for the final completion of the *City of Windsor Sandwich South Master Servicing Study and Little River Flood Plain Mapping Project*.

### **Little River Flood Plain Mapping Project (LRFMP)**

The LRFMP is a component of the City's *Sandwich South Master Servicing Study* currently underway. These two undertakings are being completed in parallel as the long-term servicing needs (roads, sewers, etc.) are informed by the existing conditions floodplain extents. These combined efforts were informed by the nearly complete ULREA that was described earlier in the report. More specifically, the hydrologic information from the ULREA formed the baseline for the hydrologic analysis in the LRFMP, with refinements made to catchment areas using updated municipal drainage reports. Further to this, the hydraulic analysis and floodplain mapping, which is in the final stages of review by ERCA staff, incorporated future development scenarios to ensure no negative impacts to the existing conditions modelled floodplain. At the completion of this project, ERCA will have updated regulatory maps that will be used to administer Section 28 of the Conservation Authorities Act, and to regulate development through Planning Act processes. Additionally, the City will have the necessary documentation to support their servicing and growth strategies for the Sandwich South lands.

ERCA staff and Dillon Consulting Limited hosted a virtual Public Information Centre (PIC) in late 2021 to inform the public of the preliminary flood mapping results and potential changes to the regulatory boundaries based on the updated information. A link to the PIC slides and other related information is

provided under the Attachments heading of this report for reference. Since that meeting, substantial work has been completed by the project team to refine the model to meet the applicable federal and provincial modelling and mapping standards. Draft flood maps are currently under review by ERCA staff. Next steps for this project include the following:

- Complete a review and finalize the project deliverables (reports and flood maps).
- Present the final report and flood maps to the ERCA Board of Directors.
- Present the final report and flood maps to the City of Windsor Council.
- Issue a Notice of Study Completion.
- Implement the findings through Section 28 of the Conservation Authorities Act, ERCA Board Approved Policies, and Planning Act processes.

### **Next Steps**

ERCA and the City of Windsor will continue to collaboratively work towards completion of these two important projects. It is anticipated that the Notice of Study Completion for the ULREA will be circulated in advance of that for the Sandwich South Master Servicing Study and Flood Plain Mapping Project.

### **Approved By:**



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Tim Byrne  
CAO/Secretary Treasurer

### **Attachments:**

- [Sandwich South Master Servicing Plan \(citywindsor.ca\)](http://citywindsor.ca)