



**Union Sanitary Servicing
Municipal Class Environmental
Assessment**

Project File Report

December 15 2021

Prepared for:

Municipality of Central Elgin
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Executive Summary

Introduction

Union is one of six Urban Settlement Areas within the Municipality. These settlement areas are a primary focus for future growth and development as outlined within the Central Elgin Official Plan (2013). However, prior to any new development within the Union settlement area, municipal piped sanitary services are required.

The Municipality of Central Elgin (Municipality) initiated the planning process to promote the sustainable and orderly development of lands within the Union settlement area. The study assessed alternative strategies for the provision of sanitary servicing within the settlement area. The project is being carried out within the requirements of a Schedule B project under the terms of the Municipal Engineers Association Municipal Class Environmental Assessment (Class EA) process, as per the *Environmental Assessment Act*.

Study Area

The study area encompasses the Union settlement area, which is generally located in the southwest area of the Municipality. The settlement area is generally centered around the Sparta Line and Sunset Drive intersection. There are two waterbodies within the study area located north of Sparta Line – Union Pond which is on the east side of Sunset Road and Stone Church Road; and an unnamed waterbody located on the west side of Sunset Road. Refer to **Figure E.1** for an illustration of the study area.

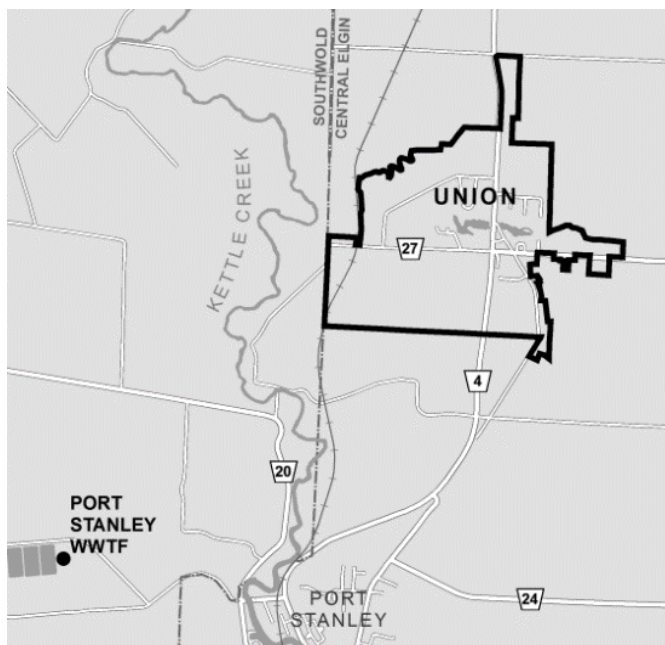


Figure E.1



Existing Infrastructure

Municipal water supply to the hamlet of Union is provided via the Port Stanley Secondary Distribution System. Sanitary servicing is currently provided by means of private septic systems. There are no municipal sanitary sewers within Union.

Class EA Approach

The intent of the Union Sanitary Servicing Schedule B Class EA is to address public, agency, and First Nations community requirements and concerns and to ensure all feasible alternatives and opportunities are fairly assessed and reviewed in a public forum before being finalized and carried forward for implementation.

The first step in the Class EA process is to identify the problem or opportunity that has led to the undertaking of the Class EA. The Problem and Opportunity statement for the Union Sanitary Servicing Municipal Class EA is as follows:

Union is one of the six Urban Settlement Areas within the Municipality. These areas are a primary focus for future growth and development as outlined within the Central Elgin Official Plan (2013). Before new development can occur within the settlement area, municipal piped sanitary services are required.

This Class EA is being undertaken to promote the sustainable and orderly development of lands within the Union settlement area. The study will assess alternative strategies for the provision of sanitary servicing within the settlement area. This will include alternative locations for a sanitary pumping station, and alternative forcemain routes to the Port Stanley Wastewater Treatment Facility (WWTF) on Scotch Line. Alternatives will be considered based on their impacts to the social, cultural, natural, technical, and economic environments.

Consultation

Members of the public were notified of project commencement and were invited to attend a Public Consultation Centre (PCC) by way of notices published in three local area newspapers and on the Municipality's website. An Indigenous Consultation Log was completed for this project to document the consultation process with Indigenous communities contacted as part of the Class EA process. Agencies and stakeholders were also notified throughout the planning process and a separate consultation log was completed to document any comments received and responses.

Union Wastewater Servicing Alternatives

After the problem opportunity statement was established and justification for the project was determined, alternative solutions to address the problem/opportunity were generated. The following descriptions provide a general overview of the solutions reviewed as part of this study for each key system.

The following wastewater treatment alternatives were developed to address the Port Stanley WWTP:

Alternative 1: Do Nothing



Alternative 2: Limit Community Growth

Alternative 3: Individual Services for Future Development

Alternative 4: Collect and Pump Flows to Port Stanley Wastewater Treatment Plant

Alternative 5: Collect and Treat Flows within Union via new WWTP

Alternative 4 “*Collect and Pump Flows to Port Stanley Wastewater Treatment Plant*” was selected as the preferred alternative.

Pump Station, Forcemain, and Conveyance Solutions

Based on the identification of Alternative 4 as the preferred servicing solution, additional review was undertaken to confirm the specific conveyance and pump station details. In general, the refinement of Alternative 4 considered the following as order of priority:

- Location of the pump station site(s) based on available topographic information, which also defines the upstream conveyance system needs.
- Forcemain route from Union, and ultimately to the Port Stanley WWTP to confirm priority/sequencing of pump station sites, where more than one site is necessary.

Locations for the proposed pumping station(s) were considered based on a number of factors including land availability, location within Union, elevation, and ability to mitigate environmental impacts. Two pump station locations were identified:

- Location 1 – located near the southwest corner of Sparta Line and Sunset Drive.
- Location 2 – located near the northwest corner of Sparta Line and Bostwick Road.

In order to establish the need and priority/sequencing of these two pump stations, the preferred forcemain routing/conveyance of flows from Union and ultimately to the Port Stanley WWTP was reviewed in further detail. Separate forcemain alignments were developed based on the pump station locations (Location 1 versus Location 2). The following provides a summary of the alternatives considered:

- Location 1, Route A – Sunset Drive to Warren Road to Lake Line
- Location 1, Route B – Sunset Drive to Roberts Line to Union Road to Lake Line
- Location 1, Route C – Sunset Drive to Roberts Line to Thomas Road through Unopened Road Allowance
- Location 2, Route A – Sparta Line to Union Road to Lake Line
- Location 2, Route B – Sparta Line to Thomas Road through Unopened Road Allowance



While all forcemain routes are technically feasible, **Location 1 Route A** is preferred because it is significantly shorter than the other routes, resulting in lower capital, operations and maintenance costs. This alternative is also anticipated to have less environmental impact, given that it can be completely captured within the road allowance and will not involve any significant vegetation removal. Potential adverse impacts related to disruptions to traffic flow and access can be mitigated using traffic management plans, staging plans and other tools (trenchless methods if feasible or otherwise location of the forcemain within the shoulder to reduce traffic impacts during construction). Accordingly, this route prioritizes the pump station sequencing, with **Location 1** being the main pump station that collects all sewage with gravity or other pump station(s) and conveying flows ultimately to the Port Stanley system.

To provide further input into the requirements for the pump stations, primarily depth of incoming sewers, a general conveyance strategy was developed. In general, a variety of alternatives were evaluated including:

- Option 1 - Full gravity conveyance system with one primary pump station.
- Option 2 - Combination of gravity and forcemains with multiple stations.

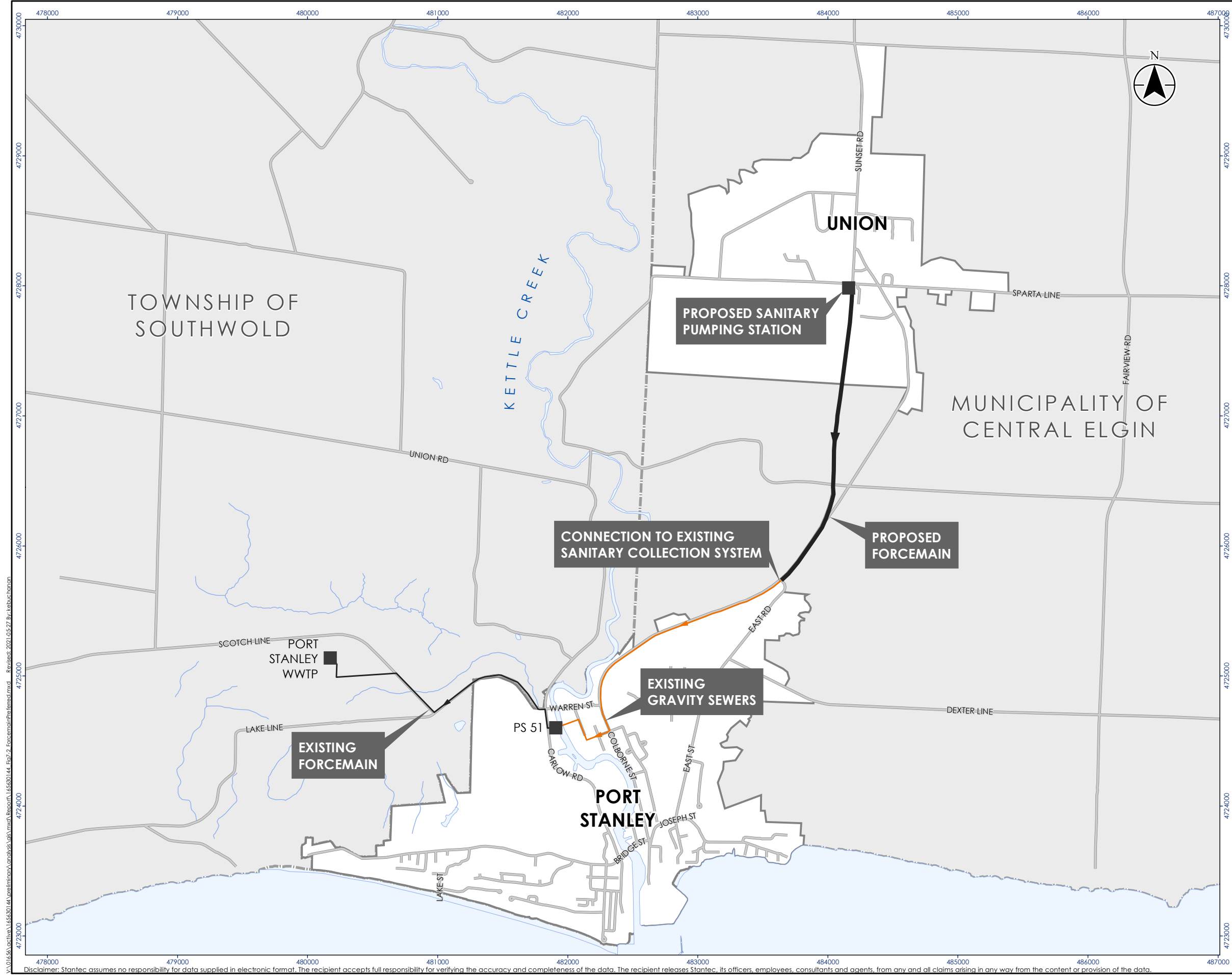
Option 1 could not be easily accomplished without a significantly deeper sewer and deep wet well at the pump station site (exceeding 15m depth to invert). Option 2 was reviewed in greater detail and two alternative servicing strategies were developed:

- Conveyance Alternative 1 assumes that the gravity sewer along Sunset Drive can be installed above the existing culvert at the Union Pond crossing.
- Conveyance Alternative 2 assumes a trenchless crossing of Union Pond which would require a third pump station, this one located on Sunset Drive north of Union Pond.

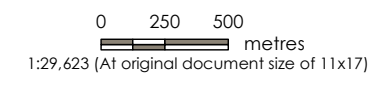
Conveyance Alternative 1 was selected as the preferred conveyance solution as it eliminates the need for an additional pump station and the risk associated with the proposed trenchless crossing.

Refer to **Figures E.2** and **Figure E.3** which depicts the preferred forcemain alignment and conveyance strategy.

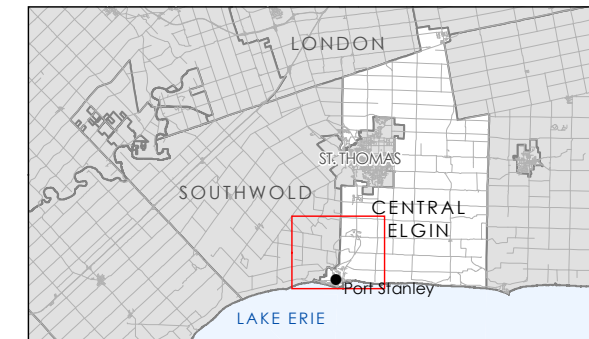




- Legend
- Settlement
 - Proposed Forcemain
 - Existing Sewer
 - Existing Forcemain



- Notes
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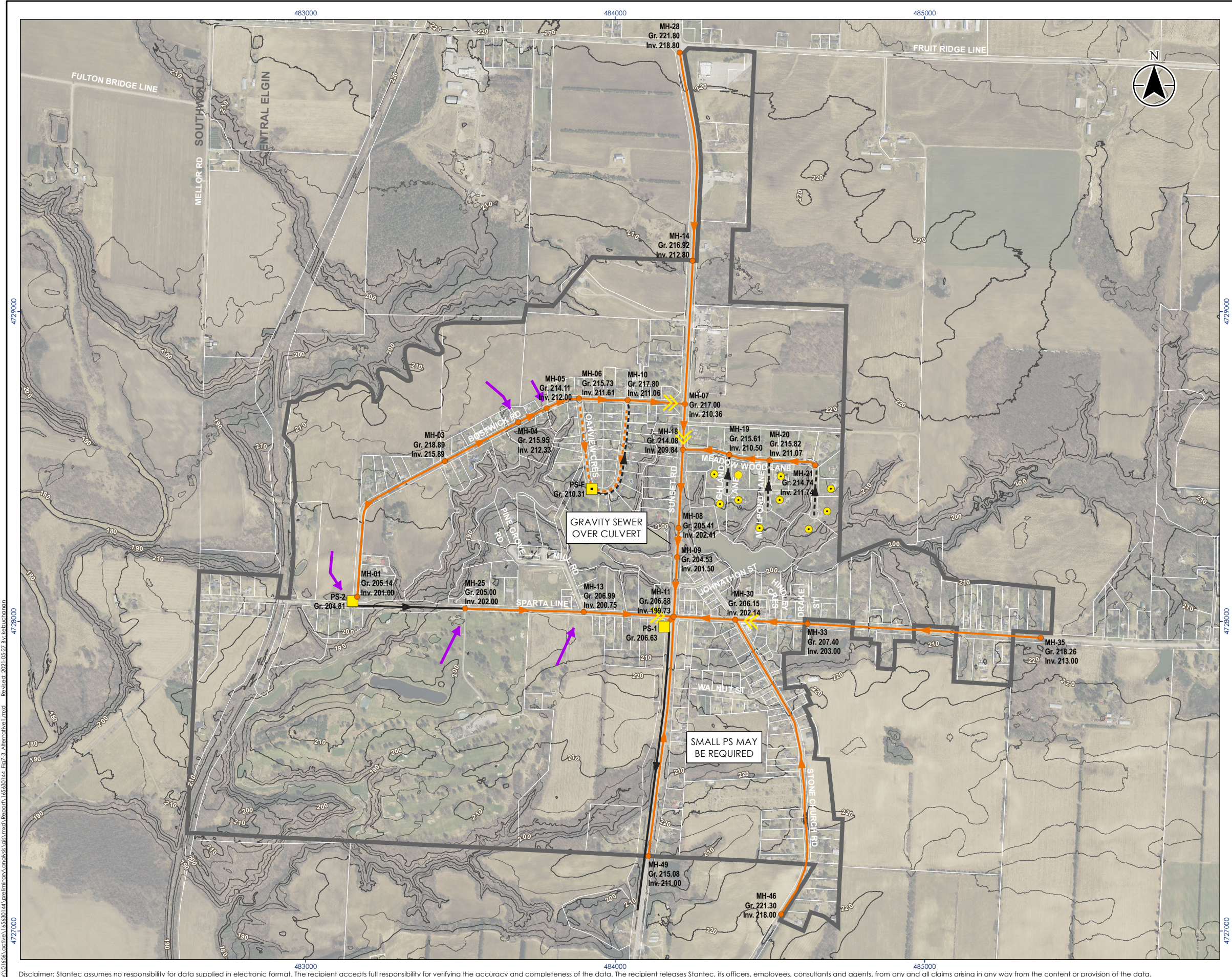


Project Location: Municipality of Central Elgin
165630144 REVA
Prepared by KDB on 2021-05-27
Technical Review by NO on 2021-05-27

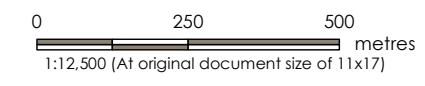
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MUNICIPALITY OF CENTRAL ELGIN
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Figure No.
E.2

Title
Preferred Forcemain Route



- Legend
- Settlement Area
 - Proposed Key MH
 - Invert-Determining Sewer
 - Proposed Municipal PS
 - Proposed Municipal PS - Future
 - Proposed Private PS - Future
 - Proposed Forcemain
 - Proposed Forcemain - Future
 - Proposed Gravity Sewer
 - Proposed Gravity Sewer - Future
 - Development Flows
 - Elevation Contour (10 m)
 - Elevation Contour (5 m)



- Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
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Project Location
Municipality of
Central Elgin

165630144 REVA
Prepared by KDB on 2021-05-27

Client/Project
MUNICIPALITY OF CENTRAL ELGIN
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Figure No.
E.3

Title
Alternative 1 Conveyance Layout

Cost Estimate

An Order of Magnitude Class D estimate was prepared for the proposed servicing solution and are provided in **Table E-1**.

Table E-1 Preliminary Cost Estimate

Item	Cost
Sanitary Pump Station (SPS 1 at Sparta Line and Sunset Drive)	\$1,650,000.00
Sanitary Pump Station (SPS 2 at Sparta Line and Bostwick Line)	\$975,000.00
Forcemain (SPS at Location 1 to gravity sewer on Sunset Drive north of Warren Street)	\$1,225,000.00
Conveyance	
Bostwick Road (West)	\$1,005,000.00
Bostwick Road (East)	\$1,115,000.00
Sparta Line (West)	\$895,000.00
Sparta Line (East)	\$1,510,000.00
Meadow Wood Lane	\$575,000.00
Stone Church Road	\$1,550,000.00
Sunset Drive (North)	\$2,300,000.00
Sunset Drive (South)	\$1,000,000.00
Notes:	
Property acquisition costs are not included in cost estimate.	
Order of Magnitude Estimate, to be confirmed during detailed design.	

Initial phasing of works will require, at minimum, construction of SPS 1 and the forcemain to connect to the Port Stanley sanitary system on Sunset Drive. The actual extent of conveyance works within Union will depend on the area of development which will define the specific needs.



Abbreviations

ADF	Average Daily Flow
ANSI	Area of Natural and Scientific Interest Earth Science
C	Hazen-Williams Friction Factor
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
COSSARO	Committee on the Status of Species at Risk in Ontario
CWA	Clean Water Act 2006
DFO	Department of Fisheries and Oceans Canada
EA Act	Environmental Assessment Act
EASR	Environmental Activity and Sector Registr
ECA	Environmental Compliance Approval
ERTH	Erie Thames Powerlines Power
ESA	Endangered Species Act
ESR	Environmental Study Report
ha	Hectares
HADD	Harmful Alteration, Disruption or Destruction
IPZ	Intake Protection Zone
KCCA	Kettle Creek Conservation Authority
L/cap/d	Litres per capita per day
LESPR	Lake Erie Source Protection Region
L/s	Litres/second



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MBCA	Migratory Birds Convention Act, 1995
MCEA	Municipal Class Environmental Assessment
MEA	Municipal Engineers Association
MECP	Ministry of the Environment, Conservation and Parks
MHSTCI	Ministry of Heritage, Sport, Tourism and Culture Industries
MOE	Ministry of the Environment (now MECP)
PCC	Public Consultation Centre
PPS	Provincial Policy Statement, 2020
PS	Pump Station
PSW	Provincially Significant Wetlands
PTTW	Permit to Take Water
RMO	Risk Management Officer
SAR	Species at Risk
SARA	Species at Risk Act
SARO	Species at Risk in Ontario
SPP	Source Protection Plan
SPS	Sewage Pump Station
VFD	Variable Frequency Drive
WHPA	Wellhead Protection Area
WWTP	Wastewater Treatment Plant

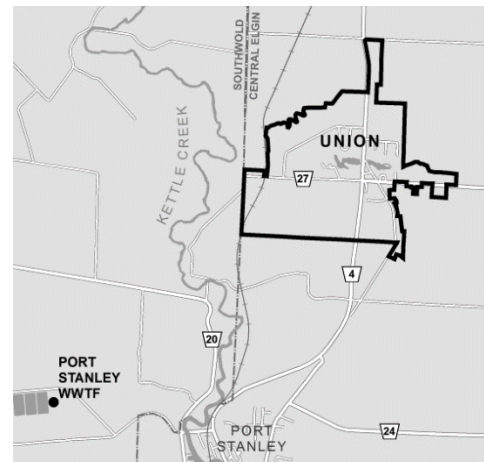


1.0 INTRODUCTION

1.1 BACKGROUND

The Municipality of Central Elgin (Municipality), through its consultant Stantec Consulting Ltd., (Stantec) has completed the Union Sanitary Servicing Municipal Class Environmental Assessment (Class EA). Union is one of six Urban Settlement Areas within the Municipality. These settlement areas are a primary focus for future growth and development as outlined within the Central Elgin Official Plan (2013). However, prior to any new development within the Union settlement area, municipal piped sanitary services are required.

The Municipality completed this Class EA to promote the sustainable and orderly development of lands within the Union settlement area. The study assessed alternative strategies for the provision of sanitary servicing within the settlement area.



1.2 STUDY PURPOSE

The intent of this Class EA is to identify and address public, review agency, and Indigenous community interests and concerns, and to ensure that a range of reasonable alternative solutions were assessed and opportunities are fairly assessed and reviewed in a public forum before being finalized and carried forward for implementation. The study was planned and undertaken as a Schedule B Municipal Class EA under the Municipal Engineers Association Municipal Class Environmental Assessment Process (MEA, 2000, as amended 2007, 2011, 2015). The Class EA generally includes:

- Identification of the problem and/or opportunity;
- Background review and identification of key issues;
- Natural environment review;
- Technical review of existing sanitary infrastructure within Union and surrounding communities;
- Identification and evaluation of alternative solutions to address the problem/opportunities based on a set of criteria that address key issues as well as the social, natural, technical, and economic environmental factors;
- Development of a Project File which documents the decision-making process and study recommendations;
- Public, Indigenous Community, agency, and stakeholder consultation; and
- Preparation and Filing of the Project File for the mandatory public review period.



1.3 STUDY AREA

The study area encompasses the Union settlement area, which is generally located in the southwest area of the Municipality. The settlement area is generally centered around the Sparta Line and Sunset Drive intersection. There are two waterbodies within the study area located north of Sparta Line – Union Pond which is on the east side of Sunset Road and Stone Church Road; and an unnamed waterbody located on the west side of Sunset Road. Refer to **Figure 1-1** for an illustration of the study area.

1.4 MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT PROCESS

1.4.1 Overview

All municipalities in Ontario, including the Municipality of Central Elgin, are subject to the provisions of the *Environmental Assessment Act (EA Act)* and its requirements to prepare an Environmental Assessment (EA) for applicable public works projects.

The Municipal Class EA document (October 2000, as amended in 2007, 2011, 2015, 2020) outlines a streamlined, proponent driven, comprehensive planning process under which municipal road, sewage, and water infrastructure undertakings are approved. The undertakings are considered approved provided the mandatory environmental planning process as set out in the MCEA document are completed.

The MCEA document provides municipalities with a five-phase planning process approved under the EA Act to plan and undertake all municipal infrastructure projects in a manner that protects the environment. Key components of the MCEA planning process include:

- Consultation with potentially interested parties early and throughout the process;
- Consideration for a reasonable range of alternative solutions;
- Systematic evaluation of alternatives;
- Clear and transparent documentation; and
- Traceable decision-making.

Figure 1-2 illustrates the process followed in the planning and design of projects covered by a Municipal Class EA. The figure incorporates steps considered essential for compliance with the requirements of the *EA Act* discussed below.

Five-Phase Planning Process

- **Phase 1** - Identify the problem (deficiency) or opportunity, which may include public consultation to confirm/review the problem or opportunity.
- **Phase 2** - Identify a reasonable range of alternative solutions to address the problem or opportunity. This Phase also includes an inventory of the existing environment in order to identify



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potential mitigation measures, and to assist in the evaluation of alternatives in terms of the identified evaluation criteria. A preferred solution is chosen based on the results of the evaluation and considers input from the public, review agencies, and Indigenous Communities. It is at this point that the appropriate Schedule (B or C) is chosen for the undertaking. If Schedule B is chosen, the process and decisions are then documented in a Project File. Schedule C projects proceed through the following additional phases.

- **Phase 3** (Schedule C projects only) - Examine the alternative methods for implementing the preferred solution, which typically involve design alternatives. A detailed inventory of the natural, social, economic, and technical environments are undertaken in order to assess the impacts of the alternative designs, in an attempt to minimize negative effects and maximize positive effects.
- **Phase 4** (Schedule C projects only) - Document the Class EA Process followed in an Environmental Study Report (ESR), which includes a summary of the rationale and the planning, design, and consultation process followed for the project and make the documentation available for consideration by the public, review agencies, Indigenous Communities, and the public through a mandatory 30-day review period.
- **Phase 5** - Complete contract drawings and documents and proceed to construction and operation with monitoring to ensure adherence to environmental provisions and commitments.

The Municipal Class EA process and associated documentation serves as a public statement of the decision-making process followed by municipalities for the planning and implementation of necessary infrastructure.

1.4.2 Identifying the Municipal Class EA Schedule

The Municipal Class EA document provides a framework by which projects are classified as Schedule A, A+, B, or C. Classification of a project is based on a variety of factors including the general complexity of the project and level of investigation required, and the potential impacts on the natural and social environment that may occur. It is the responsibility of the proponent to identify the appropriate schedule for a given project, and to review the applicability of the chosen schedule at various stages throughout the project. Each of the schedules requires a different level of documentation and review to satisfy the requirements of the Class EA, and thus comply with the *EA Act* as noted below.

Schedule A projects are limited in scale, have minimal adverse impacts on the natural and social environments, and include the majority of municipal sewage, stormwater management, water operations, and maintenance activities. These projects are pre-approved and may be implemented without following the procedures outlined in the Class EA planning process. Examples of Schedule A projects include watermain and sewer extensions where all such facilities are located within the municipal road allowance or an existing utility corridor. As such, these projects are pre-approved and subsequently do not require any further planning and public consultation.

Schedule A+ projects are similarly pre-approved under the Municipal Class EA but require that potentially affected parties be notified prior to implementation. The public has a right to comment to



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municipal officials or their council on the project; however, considering that the projects are pre-approved, there is no appeal process to the Minister of the Environment, Conservation and Parks on these projects (Part II Order Requests as discussed in Section 1.4.4).

Schedule B projects have the potential for some adverse environmental and social effects. The proponent is required to undertake a screening process involving mandatory contact with potentially affected members of the public, Indigenous Communities, and relevant review agencies to ensure that they are aware of the project and that their concerns are addressed.

Schedule B projects require that Phases 1 and 2 of the Municipal Class EA planning process be followed and a Project File report be prepared and filed for a mandatory 30-day review by the public, agencies, and Indigenous Communities. If all comments or concerns received within this 30-day review period can be addressed, the proponent may proceed to project implementation (Phase 5). If concerns are raised that cannot be resolved, then the Part II Order procedure may be invoked. Projects generally include watermain and sewer extensions where all such facilities are located outside of the municipal road allowance or an existing utility corridor.

Schedule C projects have the potential for significant environmental impacts and must follow the full planning and documentation procedures specified in the Class EA document (Phases 1 to 4). An Environmental Study Report (ESR) must be prepared and filed for review by the public, review agencies and Indigenous Communities. If concerns are raised that cannot be resolved, then the Part II Order procedure may be invoked. Projects generally include the construction of new facilities and major expansions to existing facilities.

1.4.3 Class EA Project Classification

This Class EA followed a Schedule B Municipal Class EA planning process as per the MEA, Municipal Class EA document (October 2000, as amended in 2007, 2011 and 2015). Appendix 1 within the Municipal Class EA policy document designates Municipal Water and Wastewater projects as Schedule B activities. More specifically, wastewater management projects that “establish, extend or enlarge a sewage collection system and all works necessary to connect the system to an existing sewage outlet where such facilities are not in an existing road allowance or an existing utility corridor” is classified as a Schedule B activity, which the Union Sanitary Servicing Class EA would fall under.

1.4.4 Comments and Request for Higher Level of Study

Interested persons may provide written comments to Municipality of Central Elgin for a response using the following contact information:

Lloyd Perrin
Director of Asset Management/Development Services
Project Manager
Municipality of Central Elgin
450 Sunset Drive, St. Thomas, ON N5R 5V1
Phone: 519-631-4860 ext. 277
Email: lperrin@centralelgin.org



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In addition, a request may be made to the Ministry of the Environment, Conservation and Parks for an order requiring a higher level of study (i.e. requiring an individual/comprehensive EA approval before being able to proceed), or that conditions be imposed (e.g. require further studies), only on the grounds that the requested order may prevent, mitigate or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. Requests on other grounds will not be considered. Requests should include the requester contact information and full name for the ministry.

Requests should specify what kind of order is being requested (request for additional conditions or a request for an individual/comprehensive environmental assessment), how an order may prevent, mitigate or remedy those potential adverse impacts, and any information in support of the statements in the request. This will ensure that the ministry is able to efficiently begin reviewing the request. The request should be sent in writing by mail or by email to:

Minister of the Environment, Conservation and Parks
Ministry of Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto ON M7A 2J3
minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto ON, M4V 1P5
EABDirector@ontario.ca

Requests should also be sent to Municipality of Central Elgin by mail or by email:

Lloyd Perrin
Director of Asset Management/Development Services
Project Manager
Municipality of Central Elgin
450 Sunset Drive, St. Thomas, ON N5R 5V1
Phone: 519-631-4860 ext. 277
Email: lperrin@centralelgin.org



1.5 COMMUNICATIONS AND CONSULTATION PLAN

Consultation is a vital part of the Class EA process. Active engagement with all potentially affected parties including government agencies, community members, special interest groups, and Indigenous communities ensures a transparent and responsible planning process.

At the initiation of the project, a contact list was created which includes relevant Federal and Provincial government agencies, local government officials, and First Nations Communities throughout Southern Ontario, special interest groups, land owners and developers (A.1). Those who expressed interest in the Union Sanitary Class EA were also included on the project mailing list. All project notifications were mailed to the entire study contact list, delivered to all properties within the Union Settlement Area, and posted on the Municipality's website (<https://www.centralelgin.org/en/index.aspx>).

One Public Consultation Centre (PCC) was held on October 2nd, 2019 at the Union Sports Community Centre at 6068 Bell Street, Union, Ontario. The PCC was held in an open house format, with staff members from the Municipality of Central Elgin and Stantec Consulting Inc. in attendance to answer questions. All presentation materials and comments received have been included in Appendix A.3 and A.4. The MEA document outlines specific mandatory public and agency consultation requirements for each planning schedule. As this project following the Schedule B planning process, the following table provides an overview of the key points of contact:

<i>Point of Contact</i>	<i>Method of Communication</i>
<i>Notice of Commencement introducing project</i>	Mailed to all stakeholders (January 7, 2019) Delivered to all properties within the Union Settlement Area (January 7, 2019) Published on the Municipality's website (www.centralelgin.org)
<i>Public Consultation Centre October 2nd, 2019, 5:00PM - 7:30PM Union Sports Community Centre, 6068 Bell Street, Union, ON</i>	Notice mailed to all stakeholders (September 18, 2019) Delivered to all properties within the Hamlet Settlement Area (September 18, 2019) Notice published in the Aylmer Express, St. Thomas Times Journal, and the Echo (Sept 17-Sept 27) PIC display material posted to the Municipality's website (www.centralelgin.org).
<i>Notice of Completion to provide an overview of study recommendations, public review period, and Part II Order process. 30-day review period – June 30, 2021- July 30, 2021</i>	Notice mailed to all stakeholders June 30, 2021 Published in the Aylmer Express, and St. Thomas Times Journal (June 30, 2021) Report made available on the Municipality's website (www.centralelgin.org) and on the Municipality's GetInvolved website (https://www.letstalkcentralelgin.ca/union-sanitary-sewer-environmental-assessment)



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1.6 INDIGENOUS CONSULTATION

Indigenous Communities throughout Southern Ontario were contacted over the duration of the study based on correspondence with the Ontario Ministry of Indigenous Affairs and Reconciliation, location of traditional territory, and known interests. Project notices were mailed to communities and follow up calls were made to discuss the project components and determine the best method of consultation. All points of contact are documented in the TRACER table found in Appendix A.5. Early in the study, the Chippewas of the Thames First Nation notified the project team that they had received the Notification of Commencement letter. No concerns were identified by this community or any other; however, the study team continued to provide notification throughout the study. See Appendix A.5 for the Indigenous Community TRACER Table, and other communications.

Communities contacted include:

- Aamjiwnaang First Nation
- Bkejwanong Territory
- Caldwell First Nation
- Chippewas of the Thames
- Chippewas of Kettle and Stony First Point Nation
- Delaware Nation
- Munsee-Delaware Nation
- Metis Nation of Ontario
- Oneida Nation of the Thames

The first point of contact for this project was the Notice of Study Commencement, which was mailed to the above communities on January 10, 2019.

All public material has been forwarded to the above communities, and follow-up emails were completed to ensure that communities had sufficient information to determine consultation interests. All interested parties were notified and invited to all PICs and given the opportunity to express concerns and provide feedback through an invitation to meet.

The Indigenous Community Communication Log, notification materials provided to Indigenous Communities and correspondence from Indigenous Communities is provided in **Appendix A**.

1.7 PUBLIC CONSULTATION

A key component of the MCEA process is public consultation. For this study, the main points of public consultation are:

- To notify the public that the study was commencing;
- To review and receive public input regarding the problem being addressed and discuss issues related to the project including alternative solutions, environmental considerations, conceptual corridors, and evaluation criteria;



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- To review and receive public input regarding the design alternatives, evaluation of design alternatives, and preliminary preferred alternative;
- To review and receive feedback on the preliminary preferred alternative including proposed mitigation measures;
- To review the Project File upon filing on record.

A significant component to the MCEA process is the documentation of how public input has influenced project planning, and how issues have been managed. The Project Team acknowledged all submitted comments and provided responses on how these stakeholder comments, questions and/or issues have been considered in the MCEA study. All questions and comments from PICs, electronic comments and those received directly via phone, mail or email have been documented.

1.8 AGENCY CONSULTATION

Agencies and developers invited to participate in the study are listed below.

Provincial

Ministry of Natural Resources and Forestry
Ministry of the Environment, Conservation and Parks
Ministry of Heritage, Sport, Tourism, Culture Industries
Infrastructure Ontario
Department of Fisheries and Oceans Canada

Local

City of St. Thomas
Township of Southwold
Elgin County
Kettle Creek Conservation Authority
Southwestern Public Health Unit
St. Thomas Police Service
Erie Thames Powerlines (ERTH Power)
Hydro One
Rogers Cable Systems Utilities Coordinating Committee
Bell Canada
Union Gas
St. Thomas Golf and Country Club

Developers/Consultants

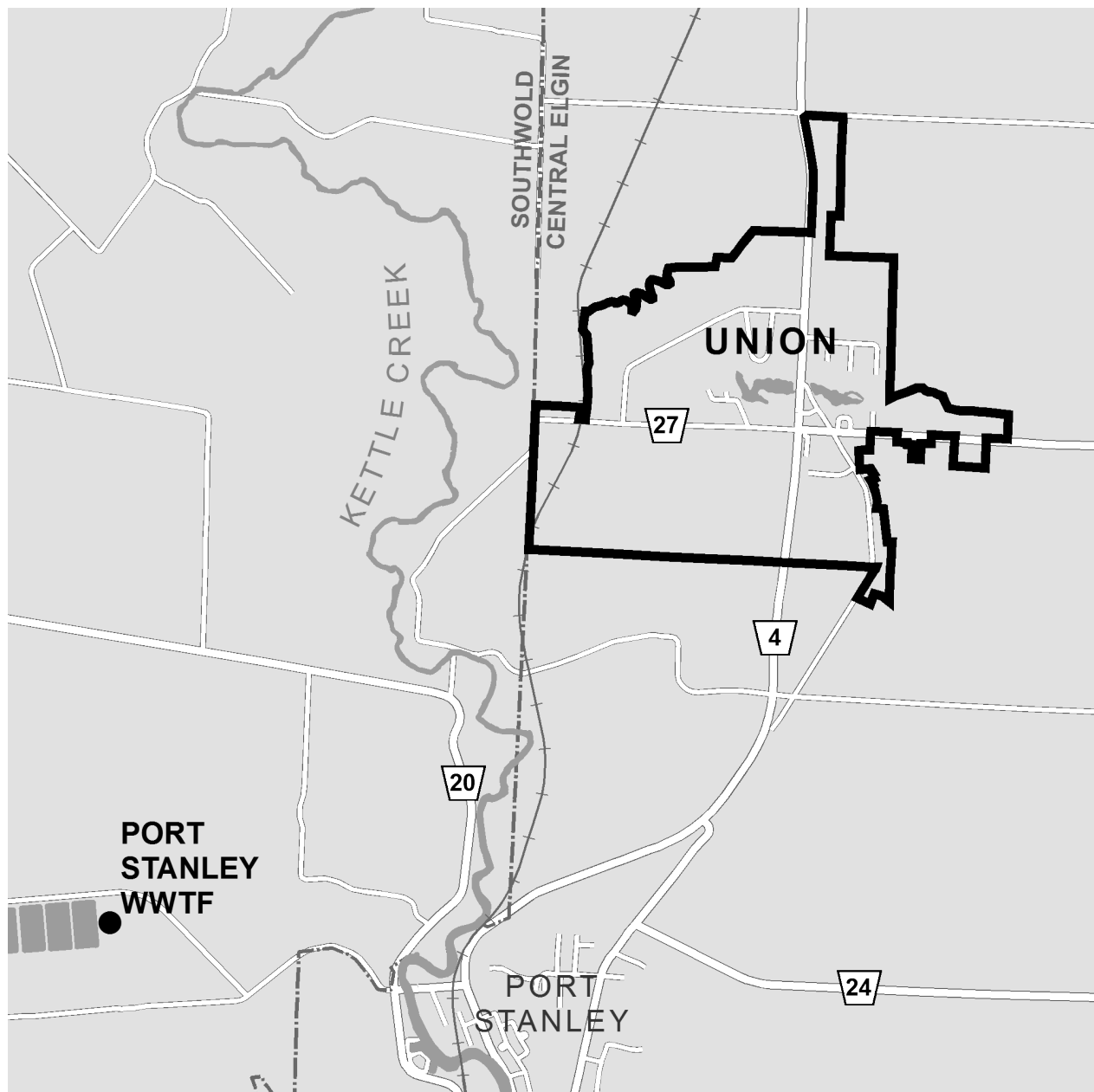
Doug Tarry Homes
Tribe Homes
Hayhoe Homes
CJDL Consulting Engineers



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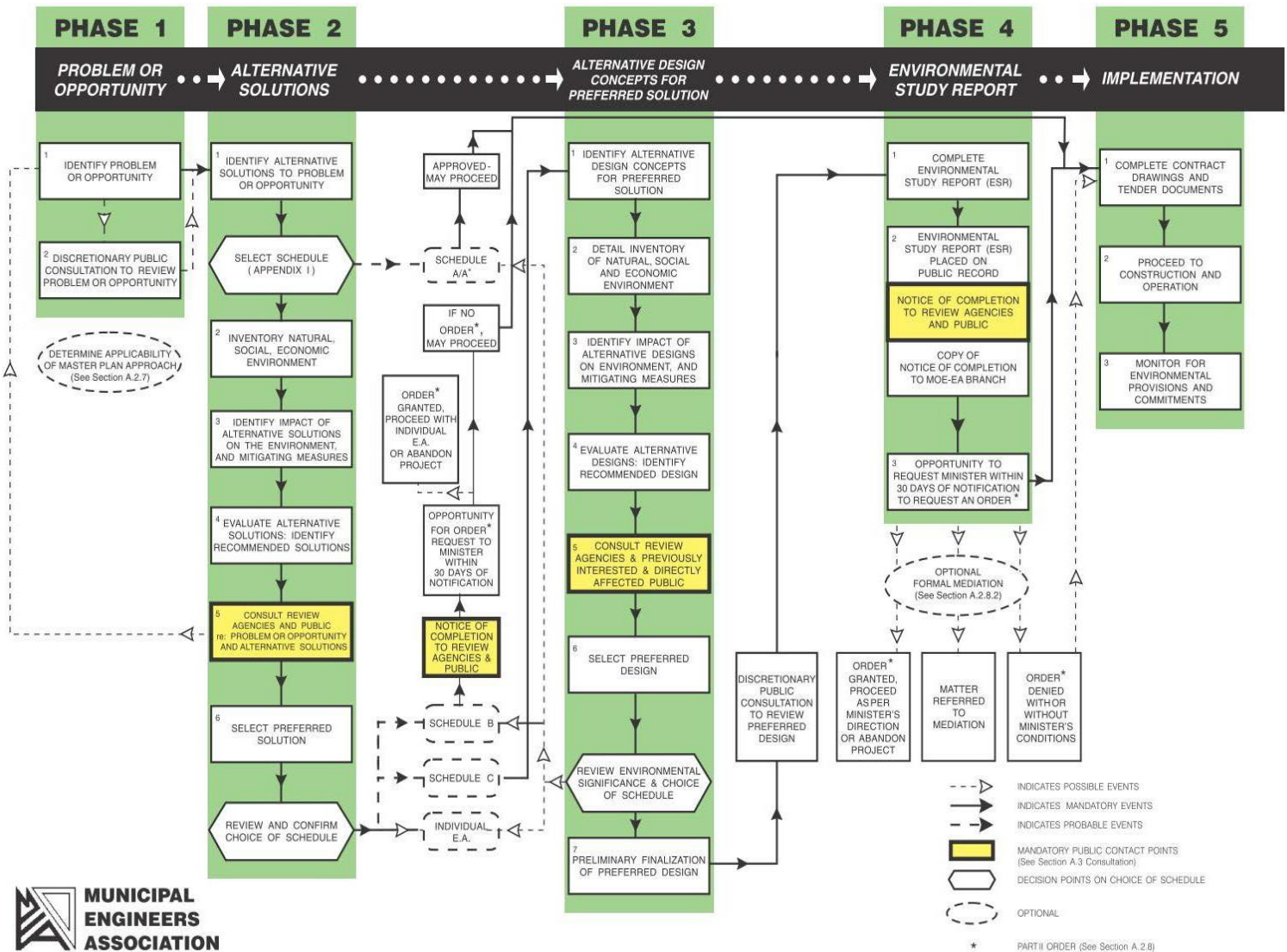
Figure 1-1 Study Area



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Figure 1-2 Overview of the Municipal Class EA Planning Process



2.0 PHASE 1: PROBLEM AND OPPORTUNITY STATEMENT

The first step in the Class EA process is to identify the problem or opportunity that has led to the undertaking of the Class EA. The Problem and Opportunity statement for the Union Sanitary Servicing Municipal Class EA is as follows:

Union is one of six Urban Settlement Areas within the Municipality of Central Elgin. Urban Settlement Areas are a primary focus for future growth and development. Based on the policies within the Central Elgin Official Plan, new development cannot occur outside of the existing built area until full municipal services (i.e. sanitary and water) are available.

This study is being completed to identify a sanitary servicing strategy for these major areas of future development within the Union Settlement Area. While the recommended solution is focused on areas of future development, it should not preclude the connection of existing developments within the community at some point in the future, should the need arise due to widescale environmental concerns.



3.0 POLICY, PLANNING AND DESIGN DOCUMENTS

3.1 PLANNING AND POLICY CONSIDERATIONS

Below is a summary of relevant planning and policy considerations.

3.2 FEDERAL LEGISLATION

3.2.1 Canadian Environmental Assessment Act

The *Canadian Environmental Assessment Act* (2012) focuses federal environmental review on projects which have the potential to cause significant adverse environmental effects in areas of federal jurisdiction. For the *Act* to apply, the proposed project must be designated under the “Regulations Designating Physical Activities” and specifically be listed in the “Schedule for Physical Activities”. Review of the Schedule for Physical Activities shows there is no physical activity that matches the work proposed for the construction of pumping stations and sewers. Therefore, meeting the requirements of the *Canadian Environmental Assessment Act* will not be necessary for this project.

3.2.2 Fisheries Act

The Government of Canada is responsible for the management of fisheries resources in Canada through the *Fisheries Act*, administered primarily by DFO. The *Fisheries Act* addresses national interests in marine and fresh waters. On June 21, 2019, changes to the *Act* (Bill C68) received royal assent and became law. On August 28, 2019 provisions of the new *Fisheries Act* came into force.

The *Fisheries Act* includes prohibitions against the death of fish and the harmful alteration, disruption or destruction (HADD) of fish habitat. It extends protection to all fish and fish habitat. When the death of fish or HADD cannot be avoided or mitigated, a *Fisheries Act* Authorization is required.

3.2.3 Migratory Birds Act

The federal *Migratory Birds Convention Act*, 1995 (MBCA) protects migratory birds and their nests (S.4). Section 6 of the Migratory Bird Regulations (C.R.C., c. 1035) prohibits the disturbance, destruction or taking of a nest, egg, or nest shelter of a migratory bird. Nest disturbance during vegetation clearing may be considered as “incidental take” and is a contravention of the MBCA. To avoid damaging or disturbing bird nests and contravening the MBCA, the timing of any vegetation clearing should occur outside of the primary nesting period (i.e., the period when the percent of total nesting species is greater than 10% based on Environment Canada’s Nesting Calendars and the period for which due diligence mitigation measures are generally recommended).



3.2.4 Species at Risk Act

The *Species at Risk Act* (SARA) identifies wildlife species considered to be at risk in Canada and designates them as threatened, endangered, extirpated or of special concern. Species at Risk (SAR) are identified and assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), which is an independent committee of wildlife experts and scientists that makes recommendations to the federal government regarding the status of wildlife species in Canada.

The purpose of SARA is to prevent wildlife species from being extirpated or becoming extinct, to provide for the recovery of wildlife species that are extirpated, endangered or threatened as a result of human activity and to manage species of special concern to prevent them from becoming endangered or threatened.

The protection and conservation measures afforded by SARA apply to those species identified on Schedule 1 of the *Act*. Other species identified by COSEWIC as SAR that required further assessment in accordance with current assessment criteria are identified on Schedule 2 (Endangered and Threatened) and Schedule 3 (Special Concern) of the *Act*. All listed (Schedule 1) aquatic species and migratory birds in Canada are protected by SARA. Remaining listed species (plants, mammals, reptiles, amphibians) are only protected where they occur on federal lands (i.e. National Parks, First Nations Reserves).

Any activity affecting a listed species, or its critical habitat requires the prior issuance of a permit from the applicable agency, either Environment Canada or Department of Fisheries and Oceans Canada (DFO). Permits may only be issued for scientific research relating to the conservation of the species, where activities are required to benefit a species or to enhance its chances of survival or for incidental impacts. Efforts to avoid, reduce, or minimize impacts must first be employed and activities will not be permitted if they would jeopardize the survival or recovery of the species.

3.3 PROVINCIAL POLICIES AND LEGISLATION

3.3.1 The Planning Act

The *Planning Act* (2005) sets the framework for land use planning in Ontario. According to the provisions within the *Act*, the Province of Ontario is the primary authority for planning matters in Ontario, and the *Act* enables the Province to delegate some of its planning authority to the upper-tier municipalities (i.e. counties and regional/district municipalities, and planning boards) while retaining control through the approval process. Municipalities must conform to approved policies of the Provincial government and its agencies. Provincial ministries, municipal councils, planners, and other stakeholders implement the *Act* when they undertake certain actions, including:

- Preparing Official Plans and planning policies that guide future development considering provincial interests, such as protecting and managing natural resources;
- Regulating and controlling land uses through zoning by-laws and minor variances; and



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- Dividing land into separate lots for sale or development through Plans of Subdivision or a Land Severance.

This study considers development applications approved under the *Planning Act* and associated conditions of approval along with lands designated for future development within the Municipality of Central Elgin.

3.3.2 Provincial Policy Statement

The *Provincial Policy Statement* (PPS) (2020), issued under Section 3 of the *Planning Act* (2005), sets a policy foundation for regulating the development and use of land. It provides direction on matters of provincial interest and supports the enhancement of the quality of life for all citizens of Ontario, while still maintaining environmental integrity. In accordance with Section 3 of the *Planning Act*, decisions affecting planning matters shall have regard for the PPS. The PPS establishes a framework to build strong communities while ensuring development patterns are efficient and optimize the use of land, resources, and public investment in infrastructure.

Policies relevant to wastewater infrastructure include the requirement for infrastructure to be provided in a coordinated, efficient, and cost-effective manner that considers impacts from climate change while accommodating projected needs (Policy 1.6.1). These systems are meant to be sustainable, feasible, financially viable, in compliance with all regulatory requirements, and integrated with land use considerations across all stages of the planning process (Policy 1.6.6). The preferred alternatives and supporting recommendations will meet the objectives of the PPS by providing for infrastructure that is appropriate to address projected needs, protects the natural environment and protects public health and safety.

3.3.3 Endangered Species Act

The *Endangered Species Act* (ESA) (2007) replaces the original (1971) to provide broader protection for species at risk and their habitats, a stronger commitment to recovery of species, greater flexibility, increased fines and more effective enforcement, as well as greater accountability through government reporting requirements.

The ESA identifies wildlife species considered to be at risk in Ontario and designates them as threatened, endangered, extirpated or of special concern. Provincial species at risk are identified and assessed by the Committee on the Status of Species at Risk in Ontario (COSSARO) which is a committee of wildlife experts and scientists, as well as those who provide Indigenous traditional knowledge, that classify species according to their degree of risk based on the best available scientific information, community knowledge and Indigenous traditional knowledge. When COSSARO classifies a species at risk, that classification applies throughout Ontario, unless otherwise noted.

The *Endangered Species Act* protects species at risk and their habitats by prohibiting anyone from killing, harming, harassing or possessing protected species, as well as prohibiting any damage or destruction to the habitat of species identified on the Species at Risk in Ontario (SARO) list. All species on the SARO list are provided with general habitat protections under the *Endangered Species Act*, which protect areas



that species depend on to carry out their life processes, such as reproduction, rearing, hibernation, migration, or feeding.

Any activity that may impact a protected species or its habitat requires the prior issuance of a permit from the MNRF. Such permits may only be issued under certain circumstances, which are limited to activities required to protect human health and safety, activities that will assist in the protection or recovery of the species, activities that will result in an overall benefit to the species or activities that may provide significant social or economic benefit without jeopardizing the survival or recovery of the species in Ontario.

Recent changes to the *Endangered Species Act* allow for specific infrastructure projects to proceed without the prior issuance of a permit. For these activities the work must be registered, and certain rules and guidelines adhered to. Consultation with the ministry is recommended prior to the works starting in order to ensure compliance with the *Endangered Species Act*.

3.3.4 The Clean Water Act

The *Clean Water Act* was passed in 2006 and mandates the protection of drinking water resources focusing water before it gets to our drinking water treatment system through Source Water Protection Plans. As part of the *Act*, a committee was formed which identifies existing and future risks to drinking water resources. Review of the 2014 Kettle Creek Source Protection Area Approved Assessment Report identifies the Union Settlement Area within a significant groundwater recharge area with a vulnerability score of 4. Considering this vulnerability score, the Assessment Report identifies that no activities will be classified as significant threats. Likewise, there are no Wellhead Protection Areas (WHPAs) or Intake Protection Zones (IPZs) located within the study area, and as such Source Protection Policies do not apply.

3.3.5 Climate Change

The MECP's guide, *Consideration of Climate Change in the Environmental Assessment Process*, outlines two approaches for considering and addressing climate change in project planning, including:

- Reducing a project's impact on climate change (climate change mitigation measures)
- Increasing the project's and local ecosystem's resilience to climate change (climate change adaptation)

As part of this study, the objectives of the climate change document have been considered and incorporated into the generation and evaluation of alternatives and mitigation measures.

3.3.6 Conservation Authorities Act

The study area is located within the jurisdiction of the Kettle Creek Conservation Authority (KCCA). The KCCA is responsible for approval of development or site alteration within hazardous areas adjacent to shorelines, watercourses and wetlands. These areas, known as the "Regulation Limit", are detailed in Ontario Regulation 97/04: Development, Interference with Wetlands and Alterations to Shorelines and



Watercourses, and its accompanying mapping. The purpose of the regulations is to protect life and property from flooding, erosion and unstable slopes.

3.3.7 MOE Guideline D-2: Compatibility between Sewage Treatment and Sensitive Land Use

Guideline D-2 applies to all Certificate of Approval applications for new and expanding municipal and private sewage treatment facilities. The Guideline includes recommended separation distances and other control measures to minimize the impacts of noise and odours on “sensitive land uses” adjacent to municipal and private sewage treatment facilities.

Procedure D-1-3 defines “sensitive land uses” as a part of the natural or built environment which would experience one or more adverse effects from contaminant discharges generated by a nearby facility. This includes residences or facilities where people sleep, institutions, outdoor recreational uses, certain agricultural operations and bird/wildlife habitats or sanctuaries.

Guideline D-2 requires a separation distance of 100 meters from sensitive land uses for sewage treatment plants with a capacity of 500 m³/d to 25,000 m³/d. The recommended distance is 150 meters, measured from the periphery of the noise/odour-producing source/structure, to the property/lot line of the sensitive land use.

3.4 MUNICIPAL PLANNING POLICIES

3.4.1 Municipality of Central Elgin Official Plan

The Municipality of Central Elgin Official Plan (2012) was established to encourage sustainability through promoting land use change by directing where and how Central Elgin will accommodate population and employment growth, by ensuring the protection of the Municipality’s agricultural resources, environment and natural heritage features, and public health and safety over the planning horizon. Central Elgin encompasses Urban Settlement Areas, Rural Settlement Areas, Employment Settlement Areas, Agricultural Areas and Rural Development Areas within the Municipality boundaries.

Schedule A2 (refer to **Figure B-1 in Appendix B**) of the Official Plan identifies the areas around Union Pond and the unnamed pond on the west side of Sunset Road, north of Sparta Line. The areas surrounding watercourses are identified as wooded areas. There is also a large portion of the western area of the settlement area identified as an Area of Natural and Scientific Interest Earth Science (ANSI). Any infrastructure proposed as part of this project should avoid ANSI lands as well as any other significant natural features where possible.

Schedule A3 (refer to **Figure B-2 in Appendix B**) of the Official Plan identifies the southeast quadrant and a portion of the southern area of the settlement area as an area of potential aggregate resource.

Schedule F (refer to **Figure B-3 in Appendix B**) of the Municipality of Central Elgin’s Official Plan, Office Consolidation March 2013, identifies land use designations within the Union settlement area as mainly residential with some local commercial areas, natural hazard and natural heritage. Refer to **Figure 3-1** for



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an overview of significant natural features in the Study Area. Schedule F also illustrates watercourses and waterbodies, one of which is Union Pond. Areas surrounding the settlement area are mainly agriculture, natural heritage, natural hazard and community facility. There are rural development areas located to the north and east of the settlement area.

Through consultation with the Official Plan, the Municipality of Central Elgin has designated areas to the north, west and south of the Union Built Area for future development. Refer to **Figure 3-2** for an overview of the developable areas within the Union Settlement Area. **Section 3.7** provides a detailed description of the available lands and servicing options available.

Schedule F1 (refer to **Figure 3-4**) of the Official Plan classifies a majority of the roads as local roads. Sparta Line and Sunset Road are both classified as county road and Stone Church Road is a collector road. There is also a railway that traverses the southwest area of the settlement area.

Section 4.6.5.1 (c) of the Official Plan states that within the Built Area, development and/or redevelopment on partial or private services may be permitted if the proposed density is consistent and compatible with existing development, and the proponent enters a development agreement to include provisions requiring connections for municipal services when they become available. Section 4.6.5.1(d) of the Official Plan identifies that no new development may occur outside of the Built Area (identified on Schedule F) until full municipal water and wastewater services are available.

3.5 NATURAL ENVIRONMENT

The information contained in this section describes the natural environment features, functions and context in proximity to the Community of Union based on a review of existing information and refinement of current conditions based on the field investigation and consultation with agency staff.

3.5.1 Kettle Creek Conservation Authority

The Community of Union is located within the Kettle Creek Conservation Authority and is subject to the regulation policies related to upper bank and distance separation.

3.5.2 Elgin County Official Plan

The Elgin County Official Plan identifies a variety of natural environmental features within the Community of Union. Schedule A identifies Union as a Tier 2 Settlement Area within the County Official Plan. A Tier 2 Settlement Area is generally smaller in population and is located on partial services. Development on partial services is permitted to allow for infilling and rounding out of existing development provided that: a) the proposed development is within the reserve sewage system capacity and reserve water system capacity; and b) site conditions are suitable for long-term provision of such services. As this project is looking to assess alternative strategies for the provision of sanitary servicing within the Union settlement area, these policies are important to note during implementation. Schedule C of the Official Plan identifies most of the community as being within a “Aggregate Resource Area”, which requires the protection of known deposits of aggregate resources and areas of potential mineral aggregate resources for potential future extraction. This designation requires extended setbacks for new adjacent developments; however,



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it is the job of the local Official Plan and Zoning by-law to implement locally specific policies regarding aggregate resource areas and it is these local policies that will need to be considered during the assessment of alternative strategies for sanitary servicing.

Finally, **Figure 3-1** identifies Natural Heritage Features and Areas of Significance within the Community. The western quarter of Union is identified as an Area of Natural and Scientific Interest, with other areas in and around the waterbodies within Union being designated as Woodlands and Provincially Significant Wetlands (PSW).

3.5.3 Elgin County Natural Heritage Study

Elgin County is in the process of completing an up-to-date assessment of existing natural heritage features and functions within the County, including all areas of natural and scientific interest, wetlands, woodlands, valleylands, meadows and thickets and young tree plantations, and natural heritage systems. Portions of land within the community of Union, specifically adjacent to the waterbodies within the community, are identified as areas of Natural Heritage Significance which meet at least one Group Criteria to be considered 'ecologically important'. An estimated completion date for the study is not provided, however, this will have to be closely monitored as it directly impacts the Natural Heritage Areas existing within Union and the associated permitted uses.

3.5.4 Municipality of Central Elgin Official Plan

The Central Elgin Official Plan is the local planning policies that assists in implementing the County's planning vision. The Central Elgin Official Plan designates Union with a variety of land use and natural heritage designations. Schedule 1 designates the community as an Urban Settlement Area, with the central portion further being designated as Natural Heritage and Natural Hazard and the remainder of the Community being designated Residential and Local Commercial within Schedule F.

Schedule A, A2, and A3 regulates environmental features within the municipality and within Union specifically. Areas within Union are designated as Natural Heritage and Natural Hazard, as well as being designated as a Provincially Significant Wetland and an Area of Natural and Scientific Interest – Earth Science, as per Schedule A and A2. Lastly, schedule A3 designates most of Union as an area of potential aggregate resources, similar to the designation provided by the County Official Plan.

3.5.5 Land Information Ontario Records Map

The LIO Map was created in August 2019 using publicly accessible, provincially provided Natural Heritage Data. The map details the location of Provincially Significant Wetlands, other evaluated wetlands, and watercourses found within and adjacent to the Union Settlement Area. The map also provides information on thermal regimes and areas that are of Natural and Scientific Interest – Earth Science.

The Union Settlement Area, and study area, is located within the Kettle Creek watershed. Kettle Creek occupies roughly a 520 square kilometer drainage basin, of mostly agricultural and urban lands, before entering Lake Erie at Port Stanley. A waterbody is located within the Union Settlement Area; the Union



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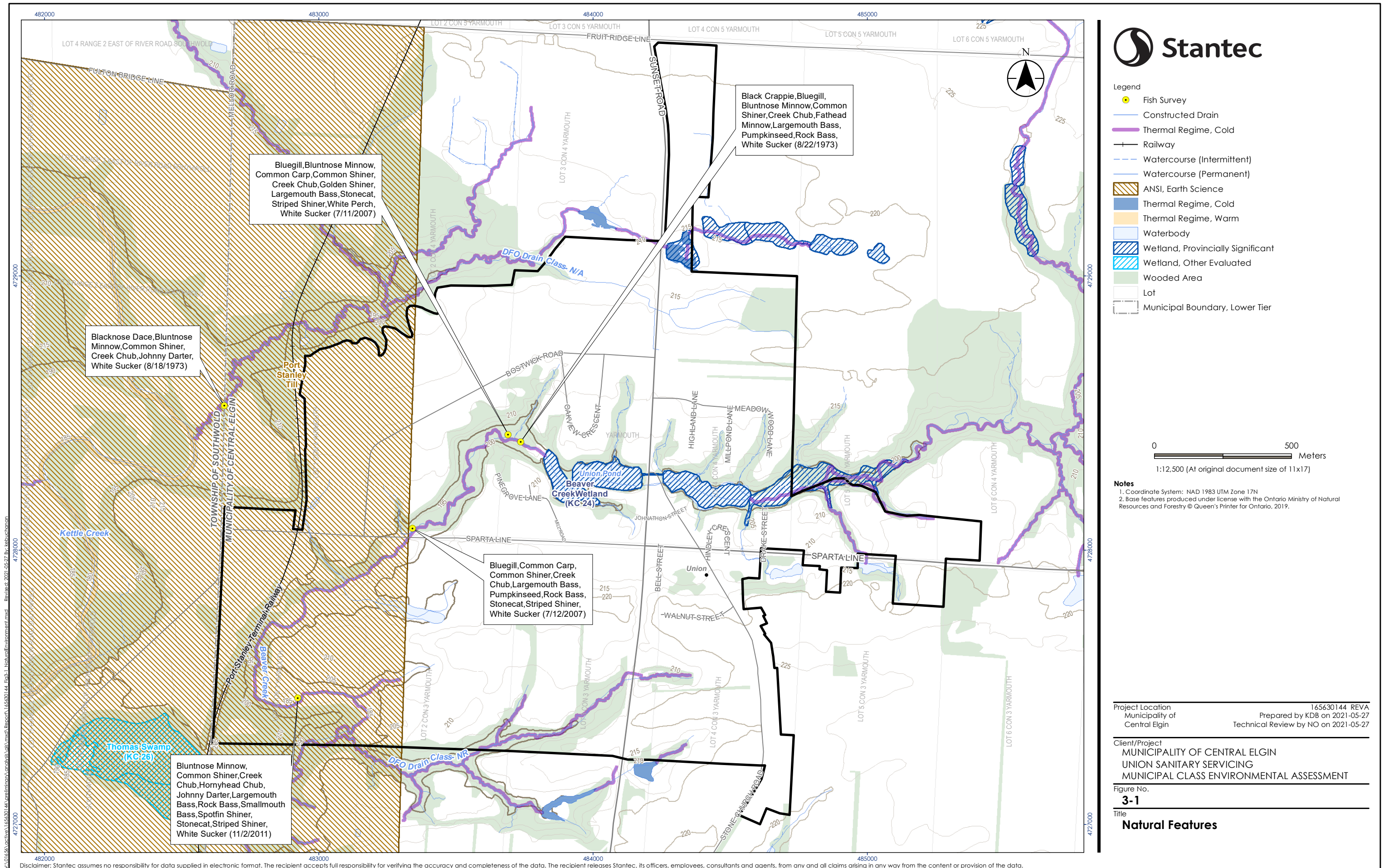
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Pond, which extends both east and west of Sunset Drive. The main tributaries within Union include Beaver Creek, which flows southwest from Union Pond towards Lake Erie, and two DFO Drains, Class – T and Class – NR.

Furthermore, the western portion of the Union Settlement Area is also located above the Port Stanley Till, which is an Earth Science related Area of Natural and Scientific Interest, which forms the Tillsonburg, Norwich, St. Thomas and Ingersoll moraines. Provincially significant Earth Science ANSI's are considered a part of the Natural Heritage fabric of the Municipality, but due to their geographically expansive and restrictive nature, they are treated as overlays in which the underlying land use designation applies.

Development and site alteration are not permitted in a significant ANSI unless it has been demonstrated that there will be no negative impacts on the feature or its ecological functions.





3.5.6 Species at Risk

A search of the biodiversity atlases and NHIC Explorer was conducted for Species at Risk (SAR) records within the past 30 years (from 1989-present) within the 10 subject site 1 km squares that cover the entire community of Union (UTM ID: 17TMH8227; 17TMH8228; 17TMH8327; 17TMH8328; 17TMH8329; 17TMH8427; 17TMH8428; 17TMH8429; 17TMH8527; and, 17TMH8528). Review of the database identified the following SAR with the potential to occur within the study area. Based on habitat requirements and the potential impact of proposed alternatives, permanent or temporary impacts to SAR and their habitat is unlikely. Full NHIC records are included in Appendix B.

Table 3-1 Terrestrial Species at Risk

Species	COSSARO/Species at Risk in Ontario List Ranking and Habitat Protection	Habitat Considerations
Eastern False Rue Anemone (<i>Enemion biternatum</i>)	Threatened General Habitat Protection - June 30, 2013	Grows in deciduous forests and thickets with rich, moist soil, often in valleys, floodplains and ravine bottoms. This species is frequently found close to watercourses within mature forests with lots of maple and beech trees. The species was observed in various areas within the western half of the community.

Techniques to mitigate potential impacts to the species will be used, as specified in Section 9.4.

3.5.7 Drinking Water Source Protection

Drinking Water Source Protection represents the first barrier in the protection of drinking water. Protecting surface and ground water from contamination ensures a sufficient supply of clean, safe drinking water. The *Clean Water Act* 2006 (CWA) is intended to protect existing and future sources of drinking water as part of the government's overall commitment to protecting human health and the environment. The CWA sets out a framework for source protection planning on a watershed basis, with Source Protection Areas established based on the watershed boundaries of Ontario's 36 Conservation Authorities.

The community of Union is located within the Lake Erie Source Protection Region (LESPR). The KCCA also has a Source Protection Plan (SPP) that regulates Vulnerable Areas, Wellhead Protection Areas (WHPAs) and drinking water threats; however, none of these areas and/or threats have been identified within the Community of Union and therefore these policies do not apply.



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In the event that a vulnerable area is identified in the future, policies may come into effect which mandate the management and in some cases prohibition of certain land use activities including but not limited to fuel storage, pesticide use and storage, agricultural activities, creation/operation of municipal infrastructure. Municipalities and/or Conservation Authorities are responsible for implementing Source Protection Policies through Official Plan and Zoning Bylaw updates, Risk Management Plans, the appointment of a Risk Management Officer (RMO), and through prescribed instruments (such as an Environmental Compliance Approval (ECA) issued by the MECP for municipal infrastructure activities). RMOs are responsible for reviewing new development applications, planning, or building permits that may impact SWP areas, and for establishing legally binding Risk Management Plans with individuals who engage in activities identified as significant threat activities. The MECP implements the policies of the SPP by requiring supplementary source protection reporting and design and operational requirements as part of an ECA.

As part of the 2015 amendments to the MEA Class EA document, proponents must have regard for the CWA and the policies set out in the approved Source Protection Plans. Impacts or changes to the SPP policies in place shall be identified during the evaluation of alternatives being considered.

3.5.8 Climate Change

The probability of a climate change related event occurring is increasing, and infrastructure needs to be better adapted to build resilience to the impacts of climate change now, and into the future. There are many climate change related parameters with the potential to impact water and wastewater infrastructure, such as precipitation, and temperature, which puts strain on the infrastructure system. The design of the wastewater treatment infrastructure must integrate climate resiliency to reduce vulnerability to extreme events. The Government of Canada recognizes that changing rainfall patterns, more extreme storms, rapid snow melt and rising sea levels due to climate change can increase the risk of flooding across Canada. Flooding occurs as a result of heavy precipitation overwhelming the water treatment and sewage systems, a risk that can be mitigated through providing capacity and reliable infrastructure. As important as it is to implement resilient infrastructure to reduce vulnerability to climate change, it is also crucial that the systems reduce their overall impact on the environment. The infrastructure will consider the natural heritage features, wildlife, emissions, and additional impacts it may have on the environment when determining the recommended solution.

The follow PPS Policies addressing climate change are relevant to this study:

- 3.1.3 Planning authorities shall prepare for the impacts of a changing climate that may increase the risk associated with natural hazards.

Additionally, the Ministry of Environment and Climate Change has developed a guide for the consideration of the impacts of a project on climate change, the impacts of climate change on a project, and various means of identifying and minimizing negative impacts during project implementation. This guide was used to plan in a manner that takes into account future changes in climate and the impacts a changing climate could have on a project.



3.6 CULTURAL HERITAGE

3.6.1 Archaeology

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Typical variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography and the general topographic variability of the area.

Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. Finally, extensive land disturbance can eradicate archaeological potential (Government of Ontario 2011).

Beaver Creek is located within the subject area. Additional ancient and/or relic tributaries of other primary and secondary water sources may have existed but are not identifiable today and are not indicated on historic mapping. Soil texture can be an important determinant of past settlement, usually in combination with other factors such as topography. The study area soils consist of Fox sandy loam, which is a well-drained soil and is suitable for agriculture.

Subject to the confirmation of the preferred sanitary servicing solution, further archaeological assessment may be required and clearance obtained from the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI).

3.6.2 Built Cultural Heritage/Cultural Heritage Landscapes

The following resources were consulted in identifying cultural heritage resources within the study area:

- The Municipality of Central Elgin inventory of Designated Heritage Resources;
- The Directory of Federal Heritage Designations (http://www.pc.gc.ca/apps/dfhd/default_eng.aspx);
- The Ontario Heritage Trust Online Plaque Guide (<http://www.heritagetrust.on.ca/>); and,
- Canadian Cemeteries Project (<http://cemetery.canadagenweb.org/map/>).

Based on review of available heritage resources, there is one Designated Heritage Property within the study area and one cemetery identified by the Canadian Cemeteries Project.

The Designated Heritage Property is a yellow brick home located at 6289 Sunset Road, just north of Union Pond. Referred to as The Solomon V Wilson Home, the heritage house was built in 1890 and its bay windows, steep roof, and gingerbread trim are a good example of late Victorian period architecture.



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Policy, Planning and Design Documents

The cemetery identified as part of the Canadian Cemeteries Project is the Union United Church Cemetery. The cemetery is situated on Stone Church Road (formerly Colborn Road), one half mile south of the Village of Union, Elgin County, Ontario. It is owned by the Union United Church, and presents an impressive sight with its tall, stately maple and spruce, and well-maintained appearance.

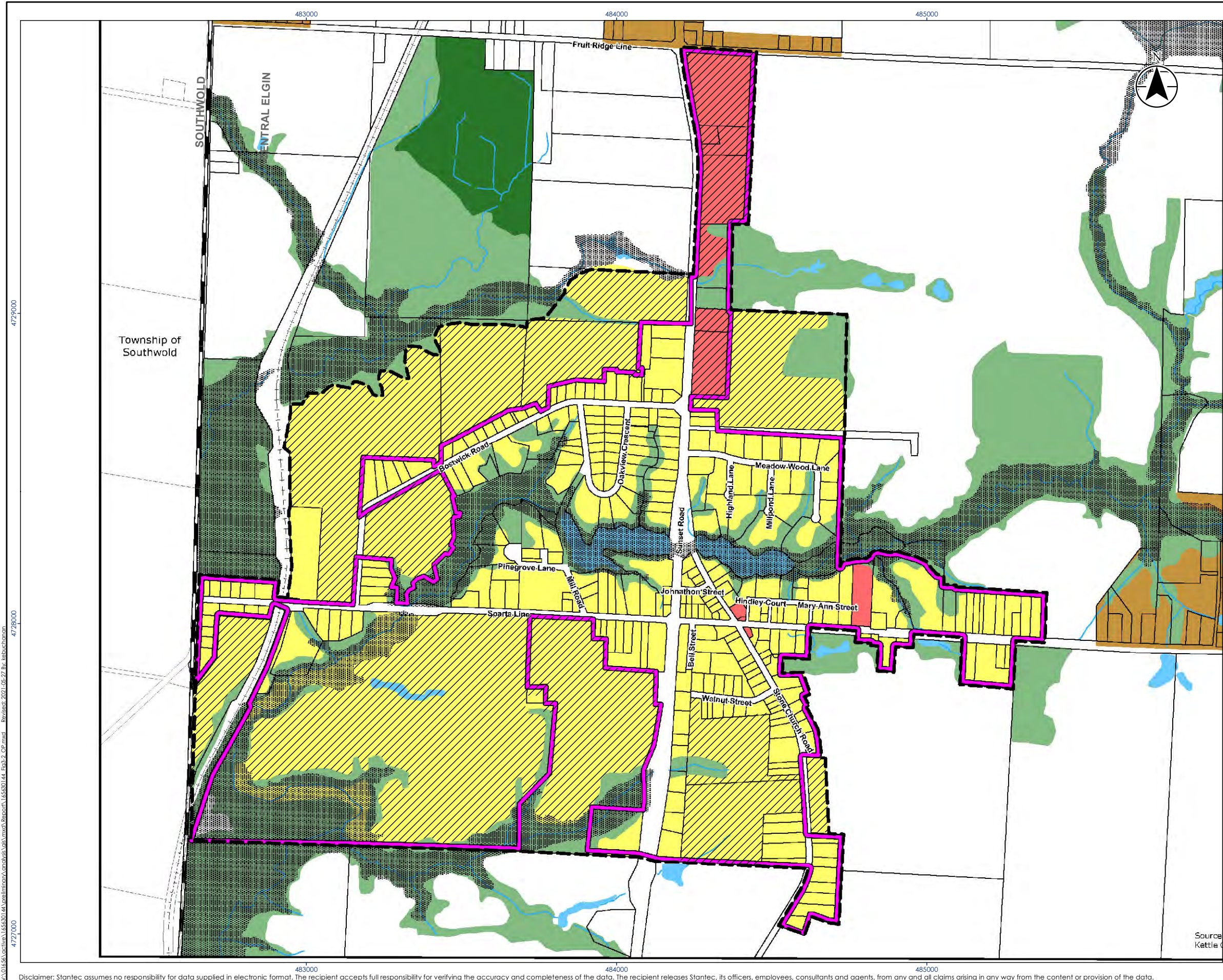
The proposed sanitary sewers will run along Sunset Road and Stone Church Road, in front of both the designated house and the cemetery. Mitigation efforts will be put in place to ensure there is no impact to these properties prior to, during, or after construction of the proposed sanitary sewers.

3.7 SOCIO-ECONOMIC

The future servicing area for the Union Sanitary Servicing consists of both existing development and lands designated for future development. Future developable land uses within the study area are shown in **Figure 3-2**. Most of the developable land is in the north-western and south-western portions of Union's settlement area. An overview of the developable lands is provided below.

Undeveloped Lands: There are currently undeveloped lands designated as Residential located north and west of Bostwick Road and south of Sparta Line. No applications have been submitted to the Municipality to-date.





Legend

/// Potential Development Overlay

Official Plan Legend - Schedule "F"

- Agricultural
- Residential
- Local Commercial
- Community Facility
- Natural Heritage
- Rural Development Area
- Natural Hazard
- Urban Settlement Area
- Built Area Limits
- Municipal Boundary
- Railway
- Watercourses
- Waterbodies

0 250 500 metres
1:12,500 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Background map from Municipality of Central Elgin Official Plan Schedule "F" - Community of Union Land Use Plan.

Project Location 165630144 REVA
Municipality of Central Elgin Prepared by KDB on 2021-05-27

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Figure No.

3-2

Title

Official Plan Mapping and Potential Development Area

3.8 DESIGN GUIDELINES

3.8.1 MECP Design Guidelines for Sewage Works (2008)

This document is a reference for those who are responsible for designing wastewater works, ministry engineers responsible for reviewing and approving the designs of such works, and municipalities/owners of the wastewater works. There are specific guidelines and procedures related to wastewater works affecting design and which take precedence over these design guidelines. This document provides design guidance related to established technologies, and use of newer or other technologies would have to be approved in accordance with proven operational reliability and effectiveness.

3.8.1.1 Design Considerations for Pumping Stations and Conveyance

Chapter 7 of the MECP Design Guidelines for Sewage Works (2008) outlines design considerations as they relate to sanitary pump stations and forcemains. The following provides a general overview of key items as it relates to main components:

- Pump stations should be able to pump the design peak instantaneous sewage;
- Sewage pump stations should be designed to allow for upgrading to address peak flows associated with the ultimate tributary area;
- Segmented wet wells should be considered to address operational issues (i.e., grit removal), particularly where firm capacities exceed 100 L/s;
- Multiple pumps should be provided with firm capacity to be met with one unit out-of-service. Pumps should be capable of handling the 10-year design peak hourly flow;
- Pump station designs should consider the range of system-head conditions based on liquid level and Hazen-Williams friction factor (C) as per the following:
 - Low sewage level in the wet well with $C = 120$
 - Median sewage level in the wet well with $C = 130$
 - Overflow sewage level in the wet well with $C = 140$
- Design fill time and minimum pump-cycle time should be considered in sizing the wet well, and the effective volume of the wet well should be based on the design average daily flow and filling time not to exceed 30 minutes unless flow equalization is provided;
- For pump stations equipped with 50 kW (67 hp) or smaller pumps, wet well should be sized to allow for minimum cycle time of 10 minutes per pump. Where a 2 pump system is proposed, volume between pump start and pump stop should be 0.15 times pump rate of one pump (in L/s);



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Policy, Planning and Design Documents

- For two-speed pumps, pumps on variable frequency drives (VFDs), pumps over 50 kW (67 hp) in size, or for other number of pumps, the manufacturer's duty cycle recommendations should be utilized;
- Pump suction lines should be sized such that velocities are within 0.8 to 2.0 m/s;
- Pump discharge lines should be sized such that velocities are within 0.8 to 4.0 m/s;
- Emergency pumping capability should be provided and should include standby power, with an additional rapid connection to the forcemain with valving;
- For forcemains, a cleansing velocity of at least 0.6 m/s should be maintained, with maximum velocity to be limited to 3.0 m/s.

3.8.2 Municipality of Central Elgin Design Guidelines

The *Infrastructure Design Guidelines and Construction Standards for the Municipality of Central Elgin (2004)* provides for the standardization of the design and construction sanitary and storm sewers, watermains and roads in the Municipality of Central Elgin. These standards are to be used in the design and construction of the above-mentioned services and any deviations are only accepted under unusual circumstances and approved in writing by the Director of Physical Services.

In accordance with the design guidelines, the following pertinent information as it relates to sanitary servicing is noted:

- Design population for estimating sewage flows, unless otherwise stated, is based on a density of 3.5 people per unit;
- Average daily domestic flow, exclusive of extraneous flows, shall be 400 L/cap/d;
- Infiltration rate into sewers shall be based on 0.2 L/s/ha for residential, commercial and industrial lands;
- Peak domestic sewage flows shall be based on the following equation:

$$Q(d) = (PqM / 86.4) + IA$$

Where $Q(d)$ = peak domestic flow (L/s)

P = design population (in thousands)

q = average daily per capita domestic flow (L/cap/d)

M = peaking factor derived from Harmon Formula

$$M = 1 + (14 / (4 + P^{0.5}))$$

I = unit peak extraneous flow (L/ha/s)

A = gross tributary area (ha)



4.0 EXISTING INFRASTRUCTURE AND PREVIOUS STUDIES

4.1.1 Existing Municipal Servicing in Union

Municipal water supply to the hamlet of Union is provided via the Port Stanley Secondary Distribution System. Sanitary servicing is currently provided by means of private septic systems. There are no municipal sanitary sewers within Union.

4.1.2 Port Stanley Sanitary Servicing

4.1.2.1 Port Stanley WWTP Class Environmental Assessment

The community of Port Stanley was previously serviced by facultative lagoons for their sanitary treatment. Through the Port Stanley WWTP Schedule C Class Environmental Assessment (Stantec, 2016), it was identified that the Port Stanley Wastewater Treatment Plant (WWTP) was nearing its operational capacity and measures were required to ensure adequate capacity for existing development and for future growth within the service area.

To increase the capacity of the sanitary servicing system on the west side of Kettle Creek and to improve the safety and security of the two upstream Pumping Stations (PS) and the WWTP, the recommended preferred solution was to upgrade the WWTP to a mechanical treatment facility (utilizing extended aeration) with retrofitting of the existing lagoons to provide additional storage to address peak inflows. Additional recommendations included capacity expansion of Pump Station 51 (PS 51) and a new Pump Station 52 (PS 52).

In order to establish an estimated capacity for the upgraded WWTP beyond the current service area, the Class EA considered:

- Residential development and infilling;
- Extension of municipal sanitary servicing to existing developments within Port Stanley (currently on septic systems);
- Potential for servicing of outside communities, most notably Union; and
- Tourism related needs.

In terms of estimated capacity allocation, the servicing of Union per Table 6.1 of the Port Stanley WWTP Class EA was based on an assumed estimated serviced population of 1,804 based on approximately 694 lots assuming 2.6 persons/lot and 300 L/cap/day for a total Average Daily Flow (ADF) of 541 m³/day. At that time, the projection of sanitary flows was based on per capita values and densities consistent with existing development within the current Port Stanley servicing area. It should be noted that this value differed from design criteria but was considered representative to mitigate potential oversizing of treatment which could otherwise result in increased cost and operational issues.



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Existing Infrastructure and Previous Studies

4.1.2.2 Port Stanley Collection System

The Port Stanley wastewater collection system collects raw sewage from the hamlet of Port Stanley, which is primarily a residential community, with some commercial retailers and a few industrial contributors. There are approximately 1,700 sanitary connections. The system generally consists of a combination of gravity sewers and forcemains along with six sanitary pumping stations (PS) as noted below:

- PS 51 - located between 367 Carlow Road and 369 Carlow Road, constructed in the early 1970s, all flows from Port Stanley are conveyed to this pumping station, flows are then pumped directly to the lagoon. This pump station was upgraded as part of the WWTP upgrades to increase capacity.
- PS 52 – co-located at the new tourism center site at the southeast corner of Bridge Street and Carlow Road and constructed in 2018 to replace the former pump station located on the northeast corner. This pump station receives all flows from the west side of the village.
- PS 53 - located at 302 Bridge Street, constructed in the early 1970s and rebuilt in 2012.
- PS 54 - located at 508 Edith Cavell Boulevard, constructed in the early 1970s.
- PS 55 - located on the northwest corner of Harrison Place and Brayside Street, constructed in the early 1970s.
- PS 56 - located across from 592 George Street, constructed in 2000.



5.0 PROJECTED GROWTH AND DEMANDS

5.1 PROPOSED POTENTIAL DEVELOPMENT AREAS AND FLOW PROJECTIONS

In accordance with the Problem and Opportunity statement, as an Urban Settlement Area, Union has been identified as a primary area for future growth and development. As noted in Section 3, the Municipality of Central Elgin has designated areas to the north, west and south of the Union Built Area for future development. In general, these development lands (excluding natural hazard and natural heritage features) are primarily designated as residential with some local commercial areas.

While the current settlement boundary and zoning data provides an opportunity to develop a built-out estimate in relation to potential wastewater servicing needs, existing undeveloped areas were evaluated based on development potential. It is noted that any reference to development potential should not be interpreted as an exact sequencing of development approval permitted within Union, but rather the likelihood of areas proceeding for development based on the following:

- Known development interests.
- Proximity to existing development.
- Current land use.
- Natural environment constraints.

Table 5.1 provides a summary of the existing development and potential development areas excluding anticipated natural environment constraints, along with the estimated number of lots and average daily flow based on the Central Elgin Design Guidelines. For general planning purposes, the estimated lots for proposed residential development is based on a low-density classification (22 units/ha based on Section 4.2.2 of the Official Plan). Figure 5-1 provides an overview of proposed and potential development areas within Union which coincides with the area descriptions noted in Table 5-1.

Table 5-1: Wastewater Flow Projections

Area	General Description	No. of Lots ¹	Est. Flow (m ³ /d) ²
1	Zoned residential – located northeast of Bostwick Road and north of Sparta Line (Area = 6.76 ha)	149	
2	Zoned residential – located north of Bostwick Road and west of Sunset Drive (Area = 7.70 ha)	169	236.6



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Projected Growth and Demands

Area	General Description	No. of Lots ¹	Est. Flow (m ³ /d) ²
3	Zoned residential – access off Sunset Drive and north of Meadow Wood Lane (Area = 11.55 ha)	254	355.6
4	Zoned residential – fronting off Sunset Drive and north of Bostwick Road (Area = 5.35 ha)	118	165.2
5	Zoned residential – located west of Bostwick Road and north of Sparta Line (Area = 8.48 ha)	187	261.8
6	Zoned residential – located west of Bostwick Road and north of Sparta Line (Area = 19.84 ha)	436	610.4
7	Zoned residential – south of Sparta Line and west of Sunset Drive, east of golf course (Area = 18.28 ha)	402	562.8
8	Zoned residential – west of Bostwick Road, south side of Sparta Line ³	1	1.4
9	Zoned residential – current golf course south of Sparta Line, west of Sunset Drive (Area = 43.28 ha)	952	1332.8
10	Zoned residential – south of Walnut Street and north of cemetery ³	1	1.4
11	Zoned residential - existing Cemetery	0	0
12	Zoned residential – east of Stone Church Road and south of Sparta Line (Area = 1.41 ha)	31	43.4
101, 102, 103, 104, 105, 106	Zoned local commercial – east of Sunset Drive and south of Fruit Ridge Line (Area = 11.67 ha) ⁴	327	457.5
107	Existing Residential	294	411.6
Total		3,321	4,649.1

Notes:

1. Assumed low-density development for residential land use based on 22 units/ha.
2. Based on residential population of 3.5 people/unit and per capita flow of 400 L/cap/day.
3. Single family home located on this parcel. No further development assumed.
4. Based on 98 people/ha. Lots refers to equivalent residential units based on 3.5 people/unit.



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Projected Growth and Demands

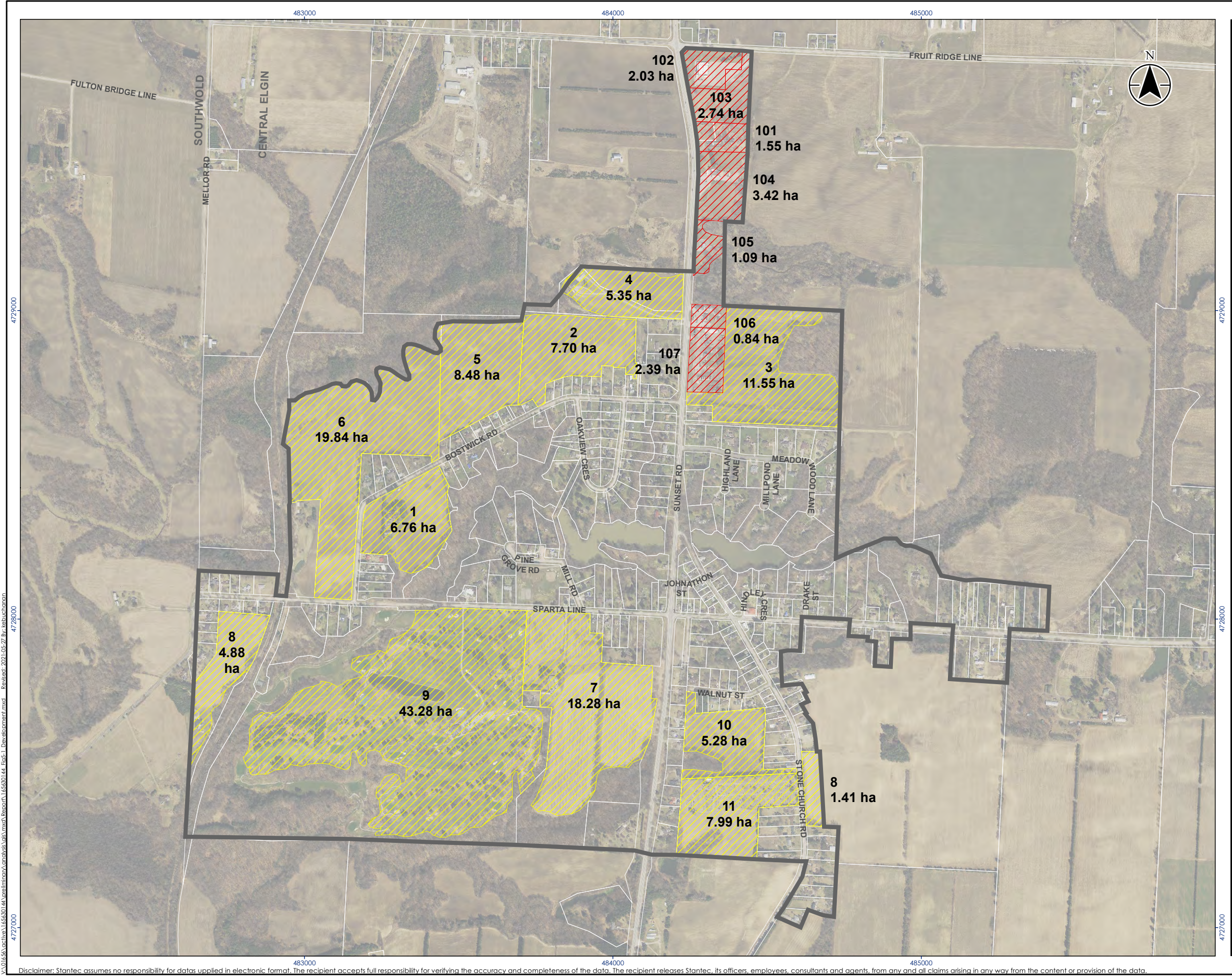
While the above noted table provides a general understanding of population and flow potential for the Union area, the staging of potential works needs to consider the following:

- Anticipated rate of development growth within Union based on the housing market and overall growth strategy for Central Elgin.
- Available downstream wastewater conveyance and treatment capacity.

Potential rate of development is important to ensure that the initial works are appropriately sized to meet reasonable growth rates, without being oversized (unless strategically planned to mitigate future expansion difficulties) to impact operations.

As noted in Section 4, the previous Port Stanley WWTP Class EA assumed a serviced population of 1,804 based on approximately 694 lots and 2.6 persons/lot and 300 L/cap/day for a total Average Daily Flow (ADF) of 541 m³/day. Based on the current Central Elgin Guidelines, an ADF of 541 m³/day would equate to approximately 386 residential units. As it is anticipated that the potential phasing of sanitary servicing will be driven by new development needs, it is anticipated that at minimum there are 386 residential units of growth based on the WWTP allocation. Based on a 10-year target period (typically considered a minimum when designing/staging major infrastructure such as pump stations and treatment facilities), this would imply approximately 39 units per year.





- Legend
- Settlement Area
 - Potential Development Area
 - Commercial
 - Residential

0 250 500 metres
1:12,500 (At original document size of 11x17)

- Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
 2. Contains information licensed under the Open Government Licence – Ontario.
 3. 2015 orthoimagery © Municipality of Central Elgin.

Project Location 165630144 REVA
Municipality of Central Elgin Prepared by KDB on 2021-05-27

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Figure No.

5-1

Title

Potential Development and Land Areas

6.0 PHASE 2: ALTERNATIVE SOLUTIONS

6.1 IDENTIFICATION OF ALTERNATIVE SOLUTIONS

As part of Phase 2 of the Class EA process, reasonable and feasible alternative solutions to the Problem and Opportunity Statement are identified. The framework and criteria for assessing the alternatives are also identified in order to determine the advantages and disadvantages with respect to the Social/Cultural, Natural, Technical, and Economic environments. Based on this evaluation, recommendations are identified and confirmed based on public, agency, and Indigenous community consultation. Mitigation measures are identified to offset any potential environmental impacts of the recommendations.

The following sections describe the potential alternative solutions that were considered and provides an overview of the evaluation process for each key issue.

6.1.1 Alternative 1 - Do Nothing

No servicing strategy would be identified in this alternative. The Central Elgin Official Plan states that all future growth outside the Built Area must connect to municipal services. Because no municipal services currently exist, no future development would be permitted. This alternative does not support the policies of the Official Plan, as it doesn't foster future growth. However, this alternative will be carried forward as part of the Class EA process as a baseline for comparison of all other options.

6.1.2 Alternative 2 - Limit Community Growth

In this alternative, development would be limited to infilling and redevelopment of existing properties within the Urban Boundary. No expansion beyond the Urban Boundary would be permitted. This alternative does not support the policies of the Official Plan because it does not provide land for designated population growth.

6.1.3 Alternative 3 - Individual Services for Future Development

Private and/or communal sanitary services (i.e., septic systems) would be utilized to remove and treat wastewater from future development before releasing it to the natural environment. This alternative does not meet Provincial Policy Statement or Official Plan policies and could pose a greater risk of impacting the natural environment.

6.1.4 Alternative 4 - Collect and Pump Flows to Port Stanley Wastewater Treatment Plant

This alternative would coincide with the servicing option for Union that was noted in the Port Stanley Class EA. Under this alternative, a gravity collection system would be constructed within the settlement area, which may include pump stations and forcemains. Flows from Union would be conveyed to the Port



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Phase 2: Alternative Solutions

Stanley WWTP for treatment. The Port Stanley WWTP was recently upgraded and has capacity to accommodate additional flows from the Union area based on the allocations as generally set out in the previous Port Stanley WWTP Class EA. Likewise, this alternative provides an appropriate and sustainable means of servicing future development within Union in a fashion that meets provincial and municipal Official Plan policies.

As part of this alternative scenario, forcemain routing and potential locations of new pump stations were considered at a broad level in order to inform the alternative evaluation process. This included reassessing routing options considered in the previous Port Stanley WWTP Class EA.

6.1.5 Alternative 5 - Collect and Treat Flows within Union via new WWTP

This alternative would include the collection and treatment of wastewater flows within Union via a new wastewater treatment facility. This option would require a combination of gravity sewers and pump stations with forcemains depending on the site of the new WWTP. This alternative would require an effluent outfall into a receiving water course with assimilative capacity to suit proposed wastewater servicing needs for Union.

Given the increased impact to the natural environment associated with the outfall, buffer zone considerations for odour related issues, increased socio-cultural impacts, increased technical complexity, and higher capital and operating costs, this alternative solution was screened out during the initial high-level solution development process and will not be carried further through the evaluation process.



7.0 EVALUATION OF ALTERNATIVE SOLUTIONS

7.1 EVALUATION FRAMEWORK AND CRITERIA

A qualitative evaluation process is used to determine the relative suitability of each alternative in accordance with a specific set of evaluation criteria. The criteria were developed to identify impacts to the Social/Cultural, Natural, Technical, and Economic Environments to satisfy the requirements under the EA Act. The criteria developed to assess the Water Supply Alternatives are identified in **Table 7-1 Evaluation Criteria**.

Table 7-1 Evaluation Criteria

Environmental Component	Criteria	Discussion
Social/Cultural Environment	Public Health and Safety	Change in quality of life (e.g., impacts to recreational/open space uses). Other impacts to public health and safety.
	Local Community	Amount and duration of disruption (e.g., noise, vibration, traffic management, access, detours) to existing residences, businesses (e.g., agricultural operations) and community features.
	Archaeological/Cultural Heritage Resources	Impacts to areas of archaeological potential. Impacts to identified built cultural heritage resources or cultural heritage landscapes.
	Approved/Planned Land Use	Compliance with Official Plan
	First Nations/Treaty Rights	Impacts to First Nations treaty rights.
Natural Environment	Water Quality	Impacts to surface and groundwater features.
	Terrestrial Resources	Impacts to significant terrestrial features such as significant woodlands, wetlands, ESAs, ANSIs and Species at Risk.
	Aquatic Habitat and Fish Passage	Impacts to significant water resources such as fisheries/aquatic habitat (e.g., stream crossings), Species at Risk, wetlands, floodplains.
Technical/Economic	Servicing for Development	Ability to provide water capacity for future developments according to policies within the Central Elgin Official Plan.
	Long-Term Operations/Maintenance Requirements	Ability to provide both short term and long-term servicing requirements.



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Evaluation of Alternative Solutions

Environmental Component	Criteria	Discussion
	Constructability	Location, depth of excavation, soil conditions, rock removal, groundwater control, creek crossing methods, traffic management, construction duration.
	Impacts to Existing Utilities/Infrastructure	Number and type of potential conflicts.
	Capital Costs	Initial up-front costs for infrastructure
	Long-term Operational Costs	Impacts to ongoing costs including municipal sanitary collection costs (e.g., billing costs) and maintenance costs.

7.2 EVALUATION OF ALTERNATIVE SERVICING SOLUTIONS

The evaluation of the preferred sanitary servicing alternative with respect to the evaluation criteria discussed above is available in **Table 7-2 Evaluation of Servicing Alternatives**.



Union Sanitary Servicing – Evaluation of Alternatives

Union Sanitary Servicing Municipal Class EA

Table 7.2 Union Sanitary Servicing Evaluation

Criteria		Alternative			
		Alternative 1 – Do Nothing	Alternative 2 – Limit Growth	Alternative 3 – Individual Sanitary Services	Alternative 4 – Pump Flows to Port Stanley WWTP
Socio-cultural	Public Safety	Deterioration of private services may create concern for public safety and health associated with ineffective treatment of sewage and rising nitrogen concentrations.	Deterioration of private services may create concern for public safety and health associated with ineffective treatment of sewage and rising nitrogen concentrations.	Deterioration of private services may create concern for public safety and health associated with ineffective treatment of sewage and rising nitrogen concentrations.	No significant impacts to public safety are anticipated.
	Local Community	No impacts to the local community are anticipated.	Limited growth may result in higher density development within the current Built Area and detract from the community’s sense of place.	No impacts to the local community are anticipated.	Proposed sanitary sewers and the pump station have a moderate to high potential to impact mobility, noise/dust/vibration and land use in Lawton Park. Mitigation measures related to traffic management and noise/dust/vibration will be implemented to reduce these impacts.
	Cultural Heritage	No impacts to heritage properties or viewscales are anticipated.	No impacts to cultural heritage or viewscales are anticipated.	Moderate potential to impact the heritage Union United Cemetery along Stone Church Road, as it is adjacent to lands identified for future development. Mitigation measures including appropriate setbacks will be required to reduce potential for adverse impacts.	There is a low to moderate potential for the project to impact the heritage property at 6289 Sunset Drive and the Union United Cemetery, associated with construction and operation of the proposed sanitary sewers which will run along Sunset Drive and Stone Church Road. Mitigation measures will be implemented to reduce adverse impacts.
	Archaeology	No change to potential archaeological resources.	Impacts to archaeological resources would be minor, given that development would be limited to infilling or re-development of existing sites.	The archaeological potential of the Study Area is unknown. A Phase 1-2 archaeological assessment is required to determine the potential impact. Potential for adverse impact is likely significantly higher than Alternative 4, given that additional excavation is required.	The archaeological potential of the Study Area is unknown. A Phase 1-2 archaeological assessment is required to determine the potential impact. Potential for adverse impact is likely lower than Alternative 3, given that less excavation is required.
	Approved/Planned Land Use	Does not allow for future development outside of the Built Area.	This alternative does not comply with OP policies which designate lands for future population growth.	This alternative not fully comply with PPS or OP policies, which dictate future development should occur on municipal services.	Complies with PPS and OP policies, as municipal services would be provided to new development.
	First Nations Interests	No concerns identified by First Nations communities.	No concerns identified by First Nations communities.	Environmental mitigation and restoration to be undertaken within any disturbed areas to address interests identified by First Nations communities (wildlife protection, habitat restoration, etc).	Environmental mitigation and restoration to be undertaken within any disturbed areas to address interests identified by First Nations communities (wildlife protection, habitat restoration, etc).
Socio-cultural Summary		Alternative does not address the project’s problem and opportunity statement.	This alternative is anticipated have little significant impact on project’s problem and opportunity	Alternative does not appropriately address the project’s problem and opportunity statement.	This alternative is anticipated to have little significant, long-term impact on sociocultural criteria. Significant impacts related to cultural heritage, noise, traffic disturbance and land use in Lawton Park can be mitigated. This alternative addresses the project’s problem and opportunity statement.

Union Sanitary Servicing – Evaluation of Alternatives

Union Sanitary Servicing Municipal Class EA

Table 7.2A Union Sanitary Servicing Evaluation

Criteria		Alternative			
		Alternative 1 – Do Nothing	Alternative 2 – Limit Growth	Alternative 3 – Individual Sanitary Services	Alternative 4 – Pump Flows to Port Stanley WWTP
Natural Environment	Water Quality	<p>Deterioration of private sanitary services may adversely impact water quality due to inefficient treatment and accumulation of nitrate.</p> <p>This option is comparable to Alternative 2.</p>	<p>Deterioration of private sanitary services may adversely impact water quality due to inefficient treatment of sewage and accumulation of nitrate.</p> <p>This option is comparable to Alternative 1.</p>	<p>Deterioration of private sanitary services may adversely impact water quality due to inefficient treatment.</p> <p>This option has the highest potential to adversely impact water quality when compared to the other alternatives, given that additional private sanitary servicing increases sanitary flows and nitrate concentrations into the surrounding environment.</p> <p>This option may cause the release of sediment during construction. Sediment protection measures and monitoring to be undertaken during construction.</p>	<p>This option may cause the release of sediment during construction. Sediment protection measures and monitoring to be undertaken during construction.</p> <p>This option has a low potential to adversely impact water quality, give that sanitary flows will be conveyed to the wastewater treatment facility for full treatment.</p>
	Aquatic Habitat and Fish Passage	<p>Existing waterbodies and rivers in the Union Settlement Area provide habitat for aquatic species.</p> <p>Union Pond is designated as the Beaver Creek Provincially Significant Wetland. Limited impacts to the Beaver Creek PSW are expected should use of private sanitary systems continue.</p>	<p>Existing waterbodies and rivers in the Union Settlement Area provide habitat for aquatic species.</p> <p>Union Pond is designated as the Beaver Creek Provincially Significant Wetland. Limited impacts to the Beaver Creek PSW are expected should use of existing private sanitary systems continue.</p>	<p>Existing waterbodies and rivers in the Union Settlement Area provide habitat for aquatic species.</p> <p>Union Pond is designated as the Beaver Creek Provincially Significant Wetland. Limited impacts to the Beaver Creek PSW are expected should use of private sanitary services continue.</p>	<p>Existing waterbodies and rivers in the Union Settlement Area provide habitat for aquatic species. Crossing Union Pond has moderate to high potential to impact aquatic habitat and fish passage due to additional obstruction of the waterway and potential spills. Use of the existing culvert will minimize this impact.</p> <p>Potential for release of sediment during construction. Sediment protection measures and monitoring to be undertaken during construction.</p>
	Terrestrial Resources	<p>Union Pond is designated as the Beaver Creek Provincially Significant Wetland. Limited impacts to the Beaver Creek PSW are expected should use of private sanitary systems continue.</p> <p>This option is comparable to Alternative 2.</p>	<p>Union Pond is designated as the Beaver Creek Provincially Significant Wetland. Limited impacts to the Beaver Creek PSW are expected should use of private sanitary systems continue.</p> <p>This option is comparable to Alternative 1.</p>	<p>Union Pond is designated as the Beaver Creek Provincially Significant Wetland. Limited impacts to the Beaver Creek PSW are expected should use of private sanitary systems continue.</p>	<p>High potential to impact vegetation given that vegetation removal will be required in the footprint of the pumping station and construction of the proposed sanitary sewers.</p> <p>Construction should avoid all significant features including the Carolinian Arboretum tree plantings in Lawton Park.</p> <p>Potential for release of sediment during construction. Sediment protection measures and monitoring to be undertaken during construction.</p>
	Species at Risk	<p>NHIC mapping indicates that there are no SAR located within the study area. Existing private sanitary services are not expected to impact any SAR.</p> <p>This option is comparable to Alternative 2.</p>	<p>NHIC mapping indicates that there are no SAR located within the study area. Existing private sanitary services are not expected to impact any SAR.</p> <p>This option is comparable to Alternative 1.</p>	<p>NHIC mapping indicates that there are no SAR located within the study area. Use of private sanitary services for future development are not expected to impact any SAR. However, site-specific environmental reviews should be conducted prior to detailed design and construction to confirm the presence/absence of significant habitats and resources, including SAR.</p>	<p>NHIC mapping indicates that there are no SAR located within the study area. No impacts on SAR are anticipated. However, site-specific environmental reviews should be conducted prior to detailed design and construction to confirm the presence/absence of significant habitats and resources, including SAR.</p>

Union Sanitary Servicing – Evaluation of Alternatives

Union Sanitary Servicing Municipal Class EA

Table 7.2 Union Sanitary Servicing Evaluation

Criteria		Alternative			
		Alternative 1 – Do Nothing	Alternative 2 – Limit Growth	Alternative 3 – Individual Sanitary Services	Alternative 4 – Pump Flows to Port Stanley WWTP
	Climate Change	Climate change will likely impact flood flows and stream velocities. There is a greater risk of negative impacts on private sanitary services if flood-proofing is not implemented.	Climate change will likely impact flood flows and stream velocities. There is a greater risk of negative impacts on private sanitary services if flood-proofing is not implemented.	Climate change will likely impact flood flows and stream velocities. There is a greater risk of negative impacts on private sanitary services if flood-proofing is not implemented. Impact will be more significant than Alternatives 1 or 2, given more private sanitary systems will exist.	Climate change is not anticipated to have a significant impact on proposed sanitary sewers. The proposed pumping station will be resistant to extreme weather events.
Natural Environment Summary		Alternative does not address the project's problem and opportunity statement.	This alternative is anticipated have low potential to significantly impact the natural environment when compared to Alternative 3 or 4. However, this alternative does not address the project's problem and opportunity statement.	This alternative is anticipated to have a moderate potential to impact the natural environment compared to Alternative 2, due to potential to adversely impact water quality and flood risk. This alternative does not address the project's problem and opportunity statement.	This alternative is anticipated to have a higher impact on terrestrial resources when compared to Alternative 2 or 3. However, potential impacts can be mitigated, and this alternative offers an opportunity to better protect water quality. This option appropriately addresses the project's problem and opportunity statement.
Technical/Economic	Long-term Operations/Maintenance Requirements	No long-term maintenance or operations requirements.	No long-term maintenance or operations requirements.	Long-term operations and maintenance costs of private sanitary systems to be borne by individual property owners.	Operations and maintenance of pump station infrastructure and sanitary sewers required.
	Long-term Operations Costs	No operations costs will be accrued as no alternative will be implemented.	No operations costs will be accrued as no infrastructure will be constructed.	Operations costs to be borne by the individual property owner.	Highest operations costs of the proposed alternatives, to be borne by the municipality.
	Servicing for Existing/Future Developments	Municipal services for existing developments are not available and no services for future development would be provided. No future development would be permitted, in accordance with the Official Plan.	Municipal services for existing developments are not available. Future infill and/or re-development within the Built Area must justify use of private services.	Municipal services for existing developments are not available and no services for future development would be provided. No future development would be permitted, in accordance with the Official Plan.	Existing development will not be impacted by construction of municipal services. All future development outside of the Built Area will be required to connect to municipal services.
	Approvals/Permitting	No approvals or permitting required as no infrastructure will be constructed.	No approvals or permitting will be required as no infrastructure will be constructed.	An ECA may be required for communal sanitary systems (10 000L/day or higher). Use of individual sanitary systems for new development would not be supported by the municipality.	Approvals from the MECP under section 53 of the <i>Ontario Water Resources Act</i> . An ECA will also be required for the pump station, forcemain, and any downstream upgrades.
	Constructability	No construction will be required as no servicing alternative will be implemented.	No construction will be required as no servicing alternative will be implemented. Feasibility and variety of future development within the Built Area will be highly impacted.	Lots must be sized appropriately to ensure adequate treatment of sanitary flows and to protect water quality and public health. Sanitary systems must abide by the minimum separation distance from buildings and private wells, in accordance with the Ontario <i>Building Code</i> .	No issues with constructability are anticipated. Construction to occur during periods which minimize impact to surrounding land uses and the environment.
	Impacts to Utilities/Infrastructure	No impacts to utilities or infrastructure as no construction will occur.	No impacts to utilities or infrastructure are anticipated as no construction will occur.	No impacts to utilities or infrastructure anticipated as private services will be installed on individual lots.	Moderate potential to impact existing utilities during construction. A forcemain route should be selected which minimizes potential impacts.
	Capital Cost (Design, Construction and Contract Admin)	No capital costs associated with this alternative because no solution will be implemented.	No capital costs associated with this alternative because no new infrastructure will be constructed.	Capital costs to be borne by the developer and/or individual property owner.	Highest capital costs of the proposed alternatives, to be borne by the municipality. Costs to be recovered through development charges.
Technical/Economic Summary		Alternative does not address the project's problem and opportunity statement.	Alternative does not address the project's problem and opportunity statement.	Construction, operation/maintenance and associated costs would be borne by individual property owners or land	This alternative has the highest anticipated costs and operations/maintenance requirements. However, this alternative

Union Sanitary Servicing – Evaluation of Alternatives

Union Sanitary Servicing Municipal Class EA

Table 7.2 Union Sanitary Servicing Evaluation

Criteria	Alternative			
	Alternative 1 – Do Nothing	Alternative 2 – Limit Growth	Alternative 3 – Individual Sanitary Services	Alternative 4 – Pump Flows to Port Stanley WWTP
			developers; however, this alternative does not address the project’s problem and opportunity statement.	appropriately addresses the project’s problem and opportunity statement.
Overall	Not recommended – alternative used as a baseline for comparison.	Not recommended – alternative is not supported by municipal planning documents and does not appropriately address the current conditions.	Not recommended – alternative is not supported by provincial or municipal planning documents and does not appropriately address the current conditions. Potential environmental impacts are more difficult to mitigate than Alternative 4, as they occur on private property.	Recommended – alternative appropriately addresses current conditions and is supported by municipal planning documents. Potential socio-cultural and environmental impacts can be mitigated. Refer to Table 7.2B for further review.

UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Evaluation of Alternative Solutions

7.2.1 Preferred Servicing Solution

Based on the framework and criteria, **Alternative 4** which consists of the collection and conveyance of sanitary flows to the Port Stanley Wastewater Treatment Plant was identified as the preferred servicing alternative because:

- It has the lowest potential impact to natural and cultural environments.
- In comparison to Alternative 5, it has a lower impact to adjacent residents.
- It satisfies the problem and opportunity statement or rationale for this study which is to address growth needs in accordance with the Official Plan and Provincial Policy Statement.

While this alternative will have a higher capital cost and operations and maintenance requirements in comparison to Alternatives 1 to 3, those alternatives do not address the problem and opportunity statement as noted in Section 2.0. Likewise, this alternative addresses planning direction set out by the provincial government and in Central Elgin's Official Plan. While Alternative 5 would appear to provide a solution that may not be as dependent on downstream capacity within the Port Stanley collection system or the WWTP, it is the highest cost alternative both from a capital and operation and maintenance perspective, anticipated highest socio-cultural and natural environment impacts, and potentially restricted based on receiving water assimilative capacity.

7.3 PREFERRED SOLUTION CONVEYANCE AND PUMP STATION ALTERNATIVES

Based on the identification of Alternative 4 as the preferred servicing solution, additional review was undertaken to confirm the specific conveyance and pump station details. In general, the refinement of Alternative 4 considered the following as order of priority:

- Location of the pump station site(s) based on available topographic information, which also defines the upstream conveyance system needs.
- Forcemain route from Union, and ultimately to the Port Stanley WWTP to confirm priority/sequencing of pump station sites, where more than one site is necessary.

7.3.1 Pump Station Site(s)

Locations for the proposed pumping station(s) were considered, based on the following criteria:

- The location should be centralized within the Settlement Area to lessen the complexity/depth of the collection system.
- The location should be at a suitable elevation to collect most community flows via gravity, if possible.
- Preference is given to lands which are municipally owned.



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Evaluation of Alternative Solutions

- The location should be outside of the natural heritage system and natural hazard lands.
- The location should minimize impact to Lawton Park and the Carolinian Arboretum.

Given the topography of the study area, the criteria above and the footprint of existing development, a limited number of sites were evaluated to determine the preferred location for the proposed pump station(s). This evaluation was completed in conjunction with an assessment of the collection system needs. It was determined through this exercise that a single pump station could not easily address the servicing needs of the proposed development without resulting in significantly deep sewers and pump station wet well, particularly as a result of a water crossing east of Sparta Line and Bostwick Road which would drive a gravity sewer further down. Two pump station locations were identified:

- Location 1 – located near the southwest corner of Sparta Line and Sunset Drive.
- Location 2 – located near the northwest corner of Sparta Line and Bostwick Road.

In general, the two pump stations would be interconnected, with one facility discharging ultimately to a sewer that would flow into the other pump station. This second pump station would convey all flows ultimately to the Port Stanley WWTP.

The need and priority/sequencing of these two pump stations would be based on the preferred forcemain routing out of Union and the upstream conveyance solution which is described in the following sections.

7.3.2 Alternative Forcemain Routes

Five alternative force main routes were considered in order to convey flows from new development in Union to Port Stanley's WWTP. These alternatives have previously been identified through the 2016 Schedule 'C' Municipal Class Environmental Assessment conducted by Stantec Consulting Ltd for the Port Stanley WWTP upgrades. All alternative routes fall within the right of ways of existing roads or unopened road allowance to improve ease of access and reduce impacts to the environment. Of the five alternatives, three (3) are based on Location 1 being the primary pump station within Union, with the remaining two (2) options assuming Location 2 as the primary facility. The five alternatives are shown in **Figure 7-1 Alternative Forcemain Routes** and described below, each numbered according to the pump station location:

7.3.2.1 Location 1, Route A – Sunset Drive to Warren Road to Lake Line

Route 1A would involve a new forcemain to convey flows from the proposed PS at Sunset Drive and Sparta Line south along Sunset Drive. The forcemain will connect to a gravity sewer extension that is proposed as part of future development in Port Stanley. The proposed gravity sewer will connect to an existing gravity sewer on Sunset Drive north of Warren Street, and flows will be conveyed to the Port Stanley WWTP via Lake Line. This alternative provides the shortest route and avoids most significant environmental features, as it occurs within the roadway. However, this route poses a higher impact to traffic than the other alternatives, as the corridor is well travelled and requires a water crossing of Kettle Creek.



7.3.2.2 Location 1, Route B – Sunset Drive to Roberts Line to Union Road to Lake Line

Route 1B involves a new forcemain from the proposed pump station at Sunset Drive and Sparta Line. The forcemain will run south along Sunset Drive before turning west and travelling along Roberts Line. At the intersection of Roberts Line and Sparta Line, the forcemain will turn south and follow Union Road south to Lake Line. At Lake Line, the proposed forcemain will connect to an existing forcemain, and wastewater flows will be conveyed to the Port Stanley WWTP. This option will likely have higher associated costs due to the length of the route, and connection to the primary forcemain from Port Stanley Pump Station 51 may result in more complex hydraulic and operational considerations. However, impacts on traffic flows may not be as significant, given that the proposed route is less heavily travelled than alternative 1A.

7.3.2.3 Location 1, Route C – Sunset Drive to Roberts Line to Thomas Road through Unopened Road Allowance

Route 1C involves a new forcemain from the proposed pump station at Sunset Drive and Sparta Line, which runs south along Sunset Drive before turning west at Roberts Line. The forcemain will run south at the intersection of Roberts Line and Sparta Line, and then travel west along Union Road to Thomas Road. The forcemain will travel south along Thomas Road, through an unopened road allowance, and to the Port Stanley WWTP. This option will likely have higher associated costs due to the length of the route. Likewise, more significant environmental impacts are anticipated related to vegetation removal in the unopened road allowance. As with option 1B, this option would result in more complex hydraulic/operational considerations if connecting to the existing forcemain. Extending the forcemain directly to the WWTP would further increase costs.

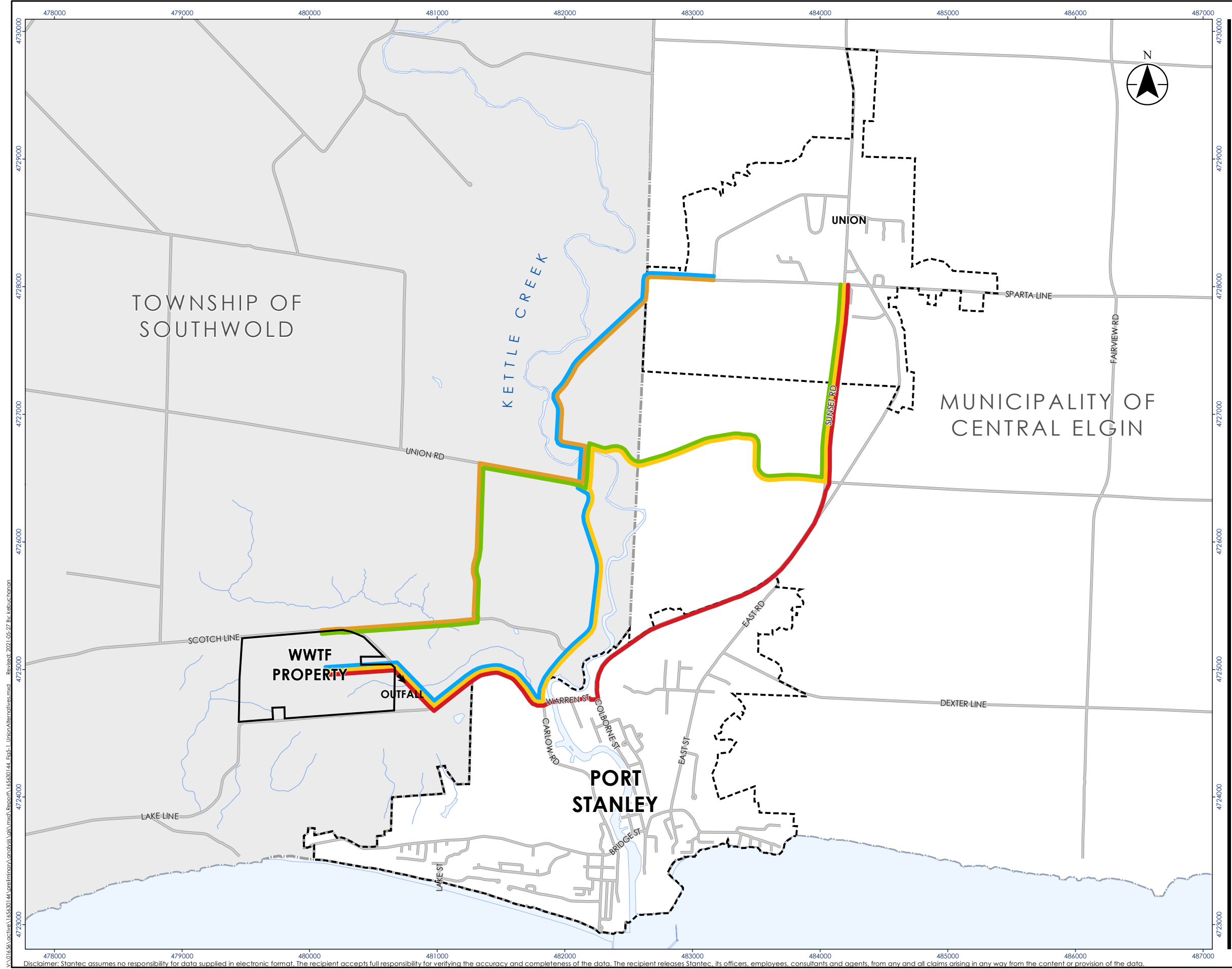
7.3.2.4 Location 2, Route A – Sparta Line to Union Road to Lake Line

Route 2A will involve a new forcemain which collects flows at the intersection of Sparta Line and Bostwick Road and travels west along Sparta Line until it reaches Union Road. At the intersection, the forcemain will turn south and follow Union Road to Lake Line, where it will head west again and connect to the existing forcemain. This option will likely have higher associated costs due to the length of the route; however, impacts on traffic flows may not be as significant, given that the proposed route is less heavily travelled than alternative 1A.

7.3.2.5 Location 2, Route B – Sparta Line to Thomas Road through Unopened Road Allowance

Route 2B will involve a forcemain which collects flows at the intersection of Sparta Line and Bostwick Road and travels west along Sparta Line and Union Road. The forcemain will convey flows south along Thomas Road, through the unopened road allowance, and to the Port Stanley WWTP. This option will likely have higher associated costs due to the length of the route. Likewise, more significant environmental impacts are anticipated related to vegetation removal in the unopened road allowance.





Legend

WWTF Property

Settlement Area

Forcemain Route Options from Union

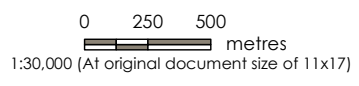
1A: Sunset - Warren - Lake

1B: Sunset - Roberts - Union - Lake

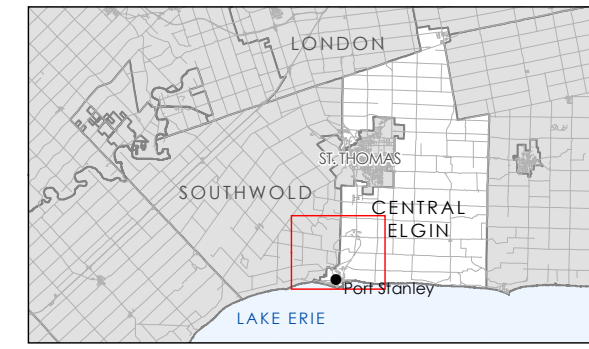
1C: Sunset - Roberts - Thomas - Road Allowance

2A: Sparta - Union - Lake

2B: Sparta - Thomas - Road Allowance



- Notes**
- 1. Coordinate System: NAD 1983 UTM Zone 17N
 - 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2018.
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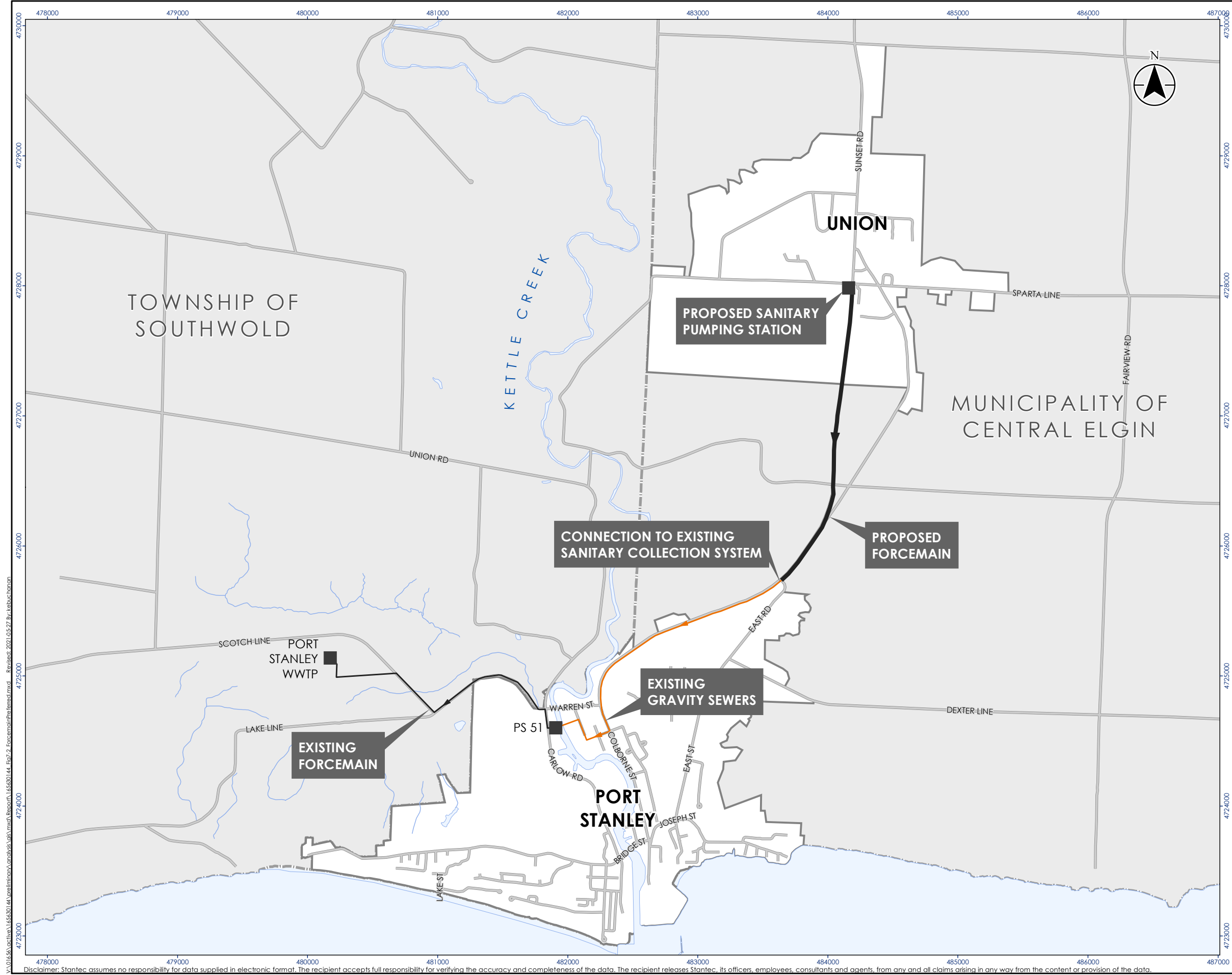
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Figure No.

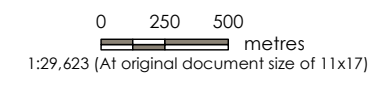
7-1

Title

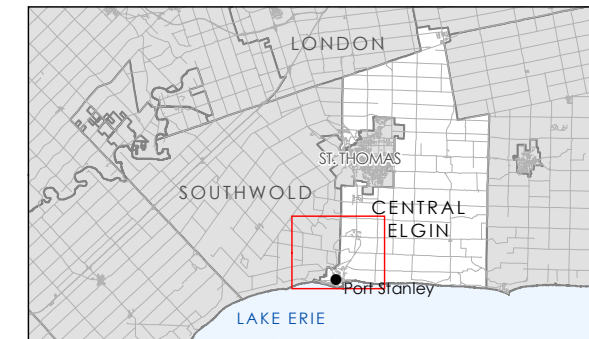
Alternative Force Main Routes



- Legend
- Settlement
 - Proposed Forcemain
 - Existing Sewer
 - Existing Forcemain



- Notes
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Figure No.
7-2

Title
Preferred Forcemain Route

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Evaluation of Alternative Solutions

7.3.3 Conveyance System

In order to identify and evaluate pump station locations, a general conveyance strategy was developed. It is recognized that through detailed design the final strategy may be altered to suit additional topographic information and development plans. In general, a variety of alternatives were evaluated including:

- Option 1 - Full gravity conveyance system with one primary pump station.
- Option 2 - Combination of gravity and forcemains with multiple stations.

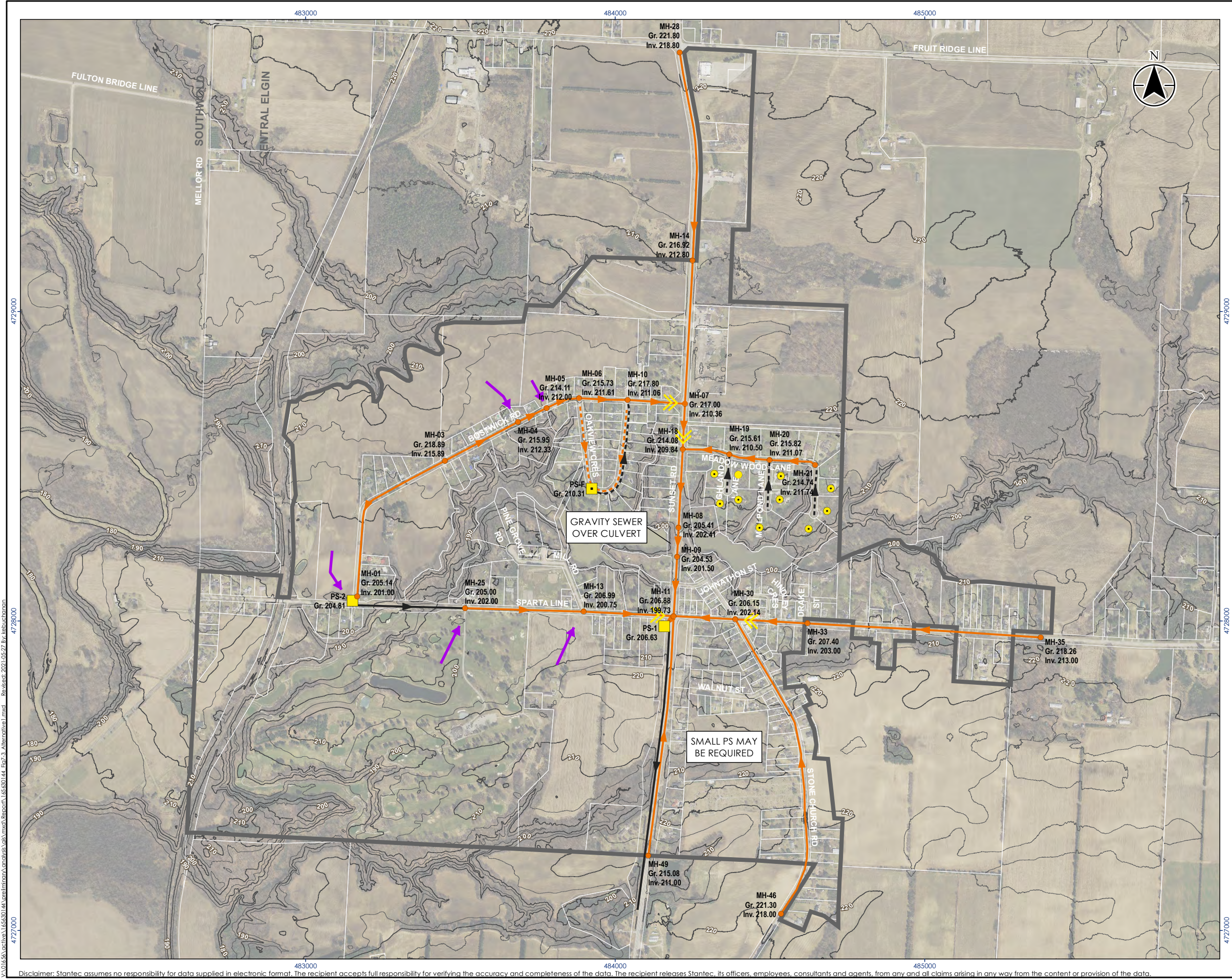
A review of orthoimagery indicated that Option 1 could not be easily accomplished without a significantly deeper sewer and deep wet well at the pump station site (exceeding 15m depth to invert). The primary driver for the deeper sewers would be to service the existing residential properties along Oakview Crescent, Highland Lane, and Mill Pond Lane due to the lower topography of these lands. Given the increased capital cost and potential longer-term operational challenges (deeper sewers for maintenance and increased risk of I/I impacts), this option was not considered further.

Option 2 was reviewed in greater detail and two alternative servicing strategies were developed. Conveyance Alternative 1 assumes that the gravity sewer along Sunset Drive can be installed above the existing culvert at the Union Pond crossing. Previous discussions with the County suggested that this would be acceptable pending further design details. The second alternative (Conveyance Alternative 2) assumed a trenchless crossing of Union Pond which would require a third pump station, this one located on Sunset Drive north of Union Pond. Refer to **Figure 7-3 Alternative 1 Conveyance Layout** and **Figure 7-4 Alternative 2 Conveyance Layout** which depicts each option.

Under Option 2 alternatives, it was assumed that areas along Oakview Crescent, Highland Lane, and/or Mill Pond would be serviced by future smaller pump stations in order to reduce the overall depth of sewers, and potential complications during construction as a result of dewatering needs.

Table 7-3 provides an evaluation of each conveyance option.





Legend

- Settlement Area
- Proposed Key MH
- Invert-Determining Sewer
- Proposed Municipal PS
- Proposed Municipal PS - Future
- Proposed Private PS - Future
- Proposed Forcemain
- Proposed Forcemain - Future
- Proposed Gravity Sewer
- Proposed Gravity Sewer - Future
- Development Flows
- Elevation Contour (10 m)
- Elevation Contour (5 m)

0 250 500 metres

1:12,500 (At original document size of 11x17)

Notes

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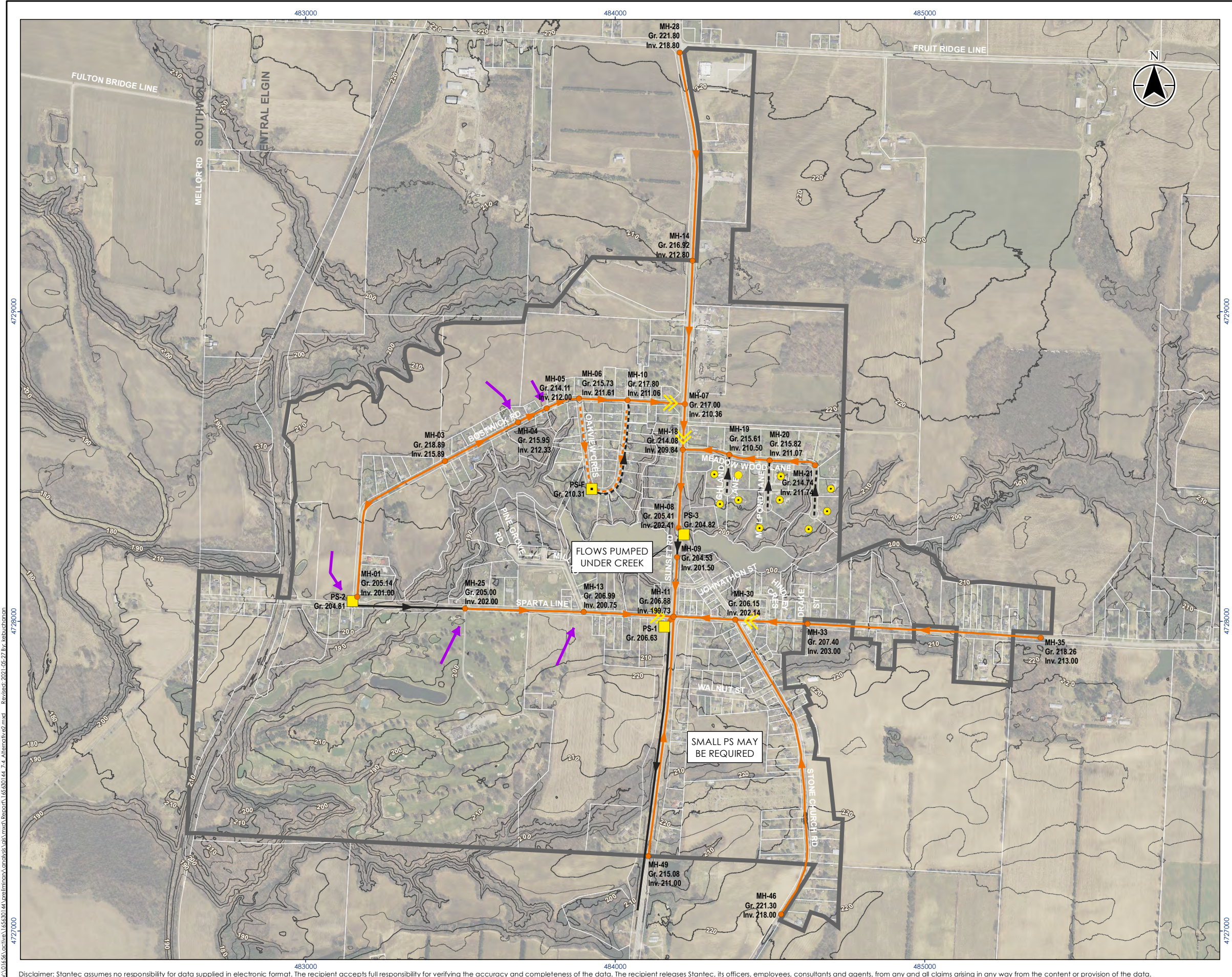
Figure No.

7-3

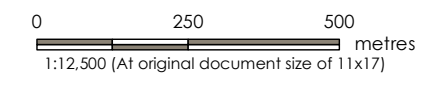
Title

Alternative 1 Conveyance Layout

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- Legend
- Settlement Area
 - Proposed Key MH
 - Invert-Determining Sewer
 - Proposed Municipal PS
 - Proposed Municipal PS - Future
 - Proposed Private PS - Future
 - Proposed Forcemain
 - Proposed Forcemain - Future
 - Proposed Gravity Sewer
 - Proposed Gravity Sewer - Future
 - Development Flows
 - Elevation Contour (10 m)
 - Elevation Contour (5 m)



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Figure No.
7-4

Title
Alternative 2 Conveyance Layout

Union Sanitary Servicing – Evaluation of Alternatives

Union Sanitary Servicing Municipal Class EA

Table 7-3 Union Sanitary Servicing Evaluation

<div>✖ Overall negative impact – Does not address the project’s Problem and Opportunity Statement.</div>			<div>⚪ Neutral – Potential for some impacts, but can be adequately addressed through subsequent project stages and appropriate mitigation.</div>		<div>✔ Positive – Can address the project’s Problem and Opportunity Statement, with no significant impacts.</div>	
			Flow Modification			
	Criteria	Do Nothing	Conveyance Alternative 1 – Two Pump Stations and One Mini Pump Station (Over-creek Option)		Conveyance Alternative 2 – Two Pump Stations and One Mini Pump Station (Under-creek Option)	
Social/ Cultural	Public Safety	Deterioration of private sanitary services may create concern for public safety.	Public Safety is not considered a concern.		Public Safety is not considered a concern.	
	Cultural Heritage	It is anticipated that there will be no impacts to heritage properties or viewscales.	One designated property exists within Union; however, it is anticipated that there will be no impacts to heritage properties or viewscales.		One designated property exists within Union; however, it is anticipated that there will be no impacts to heritage properties or viewscales.	
	Archaeology	No change in potential for archaeological resources.	Unknown impact to archaeological resources as it is unknown what archaeological resources exist in the area – an archaeological assessment will be required to determine this.		Unknown impact to archaeological resources as it is unknown what archaeological resources exist in the area – an archaeological assessment will be required to determine this.	
	Aesthetics	No change to aesthetics.	Limited impacts to aesthetics.		Limited impacts to aesthetics.	
	First Nations Interests	No concerns identified from First Nations communities.	Environmental mitigation and restoration to be undertaken within any disturbed areas to address interests identified by First Nations communities (wildlife protection, habitat restoration).		Environmental mitigation and restoration to be undertaken within any disturbed areas to address interests identified by First Nations communities (wildlife protection, habitat restoration).	
Social/Cultural Overview		✖ Overall negative impact – Does not address the project’s Problem and Opportunity Statement.	✔ Positive – Can address the project’s Problem and Opportunity Statement, with no significant impacts.		✔ Positive – Can address the project’s Problem and Opportunity Statement, with no significant impacts.	
Natural	Water Quality	Deterioration of private sanitary services may impact water quality.	Potential for release of sediment during construction. Sediment protection measures and monitoring to be undertaken during construction.		Potential for release of sediment during construction. Sediment protection measures and monitoring to be undertaken during construction.	
	Aquatic Habitat and Fish Passage	Existing waterbodies and rivers in the Union urban settlement area provide habitat for a range of aquatic species.	As Conveyance Alternative 1 flows over the drain for Union Pond, this Alternative has less of a possibility to impact aquatic habitat than Conveyance Alternative 2.		As Conveyance Alternative 2 flows under the drain for Union Pond, this Alternative has a higher possibility to impact aquatic habitat than Conveyance Alternative 1.	
	Terrestrial Habitats	Union Pond is designated as the Beaver Creek Provincially Significant Wetland. Limited impacts to the Beaver Creek PSW are expected should private sanitary continue.	As Conveyance Alternative 1 proposes the sanitary sewer be constructed over the Union Pond Creek, there is less of a possibility for disruption to be caused to the PSW than Conveyance Alternative 2.		As Conveyance Alternative 2 proposes pumping sanitary under the Union Pond Creek, which requires extensive construction, there is a higher possibility for disruption to be caused to the PSW than Conveyance Alternative 1.	
	Species at Risk	NHIC mapping indicates that there are no Species at Risk located within the Study Area. Existing private sanitary services are not expected to impact any SAR’s.	NHIC mapping indicates that there are no Species at Risk located within the Study Area – no impacts to Species at Risk are anticipated.		NHIC mapping indicates that there are no Species at Risk located within the Study Area – no impacts to Species at Risk are anticipated.	
	Climate Change	With changes in flood flows and stream velocities due to climate change, there is a greater risk of negative impacts to private sanitary if flood proofing isn’t implemented.	Proposed sanitary sewers can have flood proofing installed to provide additional protection that can reduce vulnerability to flooding caused by Climate Change.		Proposed sanitary sewers can have flood proofing installed to provide additional protection that can reduce vulnerability to flooding caused by Climate Change.	
Natural Environment Overview		✖ Overall negative impact – Does not address the project’s Problem and Opportunity Statement.	✔ Positive – Can address the project’s Problem and Opportunity Statement, with no significant impacts.		⚪ Neutral – Potential for some impacts but can be adequately addressed through subsequent project stages and appropriate mitigation.	

Union Sanitary Servicing – Evaluation of Alternatives Union Sanitary Servicing Municipal Class EA

Table 7-3 Union Sanitary Servicing Evaluation

			Flow Modification	
	Criteria	Do Nothing	Conveyance Alternative 1 – Two Pump Stations and One Mini Pump Station (Over-creek Option)	Conveyance Alternative 2 – Two Pump Stations and One Mini Pump Station (Under-creek Option)
Technical/ Economic	Long term operations and maintenance requirements	N/A	As there is one less pump station proposed in Conveyance Alternative 1, there <u>less</u> infrastructure needing maintenance and long-term care for smooth operations than Conveyance Alternative 2	As there is one more pump station proposed in Conveyance Alternative 2, there is <u>more</u> infrastructure needing maintenance and long-term care for smooth operations than Conveyance Alternative 1
	Servicing for Existing Developments	Servicing for existing developments is not available. No future development would be permitted.	Conveyance Alternative 1 provides servicing for existing and proposed future developments.	Conveyance Alternative 2 provides servicing for existing and proposed future developments.
	Approvals/ Permitting	N/A	As Conveyance Alternative 1 is proposing to run over the drain for Union Pond, it is anticipated that there would be less impact on the adjacent PSW than Conveyance Alternative 2 and less approvals/permitting would be required.	As Conveyance Alternative 2 is proposing to run under the drain for Union Pond, it is anticipated that there would be a greater risk of impact to the PSW, and approvals would be required for construction.
	Constructability	N/A	As Alternative 1 is proposing to run the sewer over the drain for Union Pond, constructability will be less intensive than Conveyance Alternative 2.	As Conveyance Alternative 2 is proposing to run a forcemain under the drain for Union Pond, constructability will be more intensive than Conveyance Alternative 1.
	Capital Cost (includes design, construction and contract admin)	N/A	The cost of construction for Conveyance Alternative 1 will be less than Conveyance Alternative 2 as it includes one less pump station and proposes to run the sewer over the drain for Union Pond.	The cost of construction for the Conveyance Alternative 2 will be higher than Conveyance Alternative 1 as significant groundwork will be required to build third pump station and run forcemain under the drain for Union Pond.
Technical/Economic Overview		✗ Overall negative impact – Does not address the project’s Problem and Opportunity Statement.	✓ Positive – Can address the project’s Problem and Opportunity Statement, with no significant impacts.	✓ Positive – Can address the project’s Problem and Opportunity Statement, with no significant impacts.
Overall		Not recommended – used as a baseline for comparison.	Lesser cost – lower risk to PSW and Aquatic habitat	Higher cost – higher risk to PSW and Aquatic habitat

7.3.4 Alternative 4 Summary of Major Servicing Elements

7.3.4.1 Preferred Pump Station Location

Two preferred locations were identified for pumping stations. Each location generally met the criteria outlined in Section 7.3.1. The preferred location for the primary pump station is at the intersection of Sparta Line and Sunset Drive (SPS 1), while the preferred location for the secondary pump station (SPS 2) is at the intersection of Bostwick Road and Sparta Line.

7.3.4.2 Preferred Forcemain Route

While all forcemain routes are technically feasible, Location 1 Route A is preferred because it is significantly shorter than the other routes, resulting in lower capital, operations and maintenance costs. This alternative is also anticipated to have less environmental impact, given that it can be completely captured within the road allowance and will not involve any significant vegetation removal. Potential adverse impacts related to disruptions to traffic flow and access can be mitigated using traffic management plans, staging plans and other tools (trenchless methods if feasible or otherwise location of the forcemain within the shoulder to reduce traffic impacts during construction).

7.3.4.3 Preferred Conveyance Solution

Conveyance Alternative 1 resulted in the preferred servicing approach, and is based on a gravity sewer along Sunset Drive to be installed above the existing culvert at the Union Pond crossing. This conveyance solution would eliminate the need for an additional pump station and the risk associated with the proposed trenchless crossing. As previously noted with both Option 2 alternatives, this solution does assume that areas along Oakview Crescent, Highland Lane, and/or Mill Pond would be serviced by future smaller pump stations in order to reduce the overall depth of the sewers and related construction risks.

7.4 PRELIMINARY DESIGN CONSIDERATIONS

A conceptual site layout for SPS 1 was developed to establish potential land use requirements (refer to Figure 7-5). It should be noted that this layout is for information only and should not be interpreted as an exact representation of the final pump station design, but merely to define key process components and potential site impacts/needs to inform the Class EA process.

Given the potential full build-out condition as per Table 5-1, it is not feasible to construct the ultimate facility at this time given cost, operational issues, and downstream capacity restrictions that would otherwise limit the system. Rather, a staged implementation is anticipated in recognition of the potential rate of growth and treatment capacity at the Port Stanley WWTP.

Wet Well:

- Rectangular wet well or equivalent subdivided into two (2) interconnected basins receiving influent through a common inlet sewer, complete with slide gate to allow for cell isolation for maintenance.



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Evaluation of Alternative Solutions

- Estimated depth to invert of incoming sewer is approximately 7m, with additional depth required to accommodate wet well storage.
- Wet well to be sized to allow for expansion. Exact sizing to be confirmed during detailed design.
- Given the elevated groundwater in the area, design of the wet well should consider potential for long-term inflow and infiltration concerns.

Pumping:

- Pump station to be designed for initial capacity of approximately 6.3 L/s (ADF based on 541 m³/day treatment allocation), with a peak flow of approximately 26.7 L/s based on:
 - Serviced population of 1,351 derived from 386 units and 3.5 people/unit.
 - Peak factor of 3.71.
 - Infiltration rate of 0.2 L/s/ha and area of 17.5 ha based on density of 22 units/ha.
- Given the potential range in flows as a result of development phasing, a jockey pump should be considered to improve overall efficiency and lessen high flow impacts to the downstream collection system.
- A minimum three (3) pump configuration is recommended to provide firm capacity. Further review during detailed design should be undertaken to confirm opportunities for improved efficiency in operation.

Flow and Isolation Chamber:

- Valve chamber housing flow meter(s) and isolation valving, pressure gauges, drain line to wet well, pump out, and other related appurtenances.
- Detailed design to consider potential for future twinning of the forcemain.

Control Building:

- The proposed pump station will include a separate on-site building to house the electrical and controls panel including ATS.
- Emergency (standby power) generator to be located outside the control building.
- Proposed facility to be sized to account for potential electrical and controls requirements for the future expansion of system capacity.

Forcemain:

- Detailed design to confirm optimal sizing for the forcemain to permit for minimum scour velocity of 0.6 m/s.



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

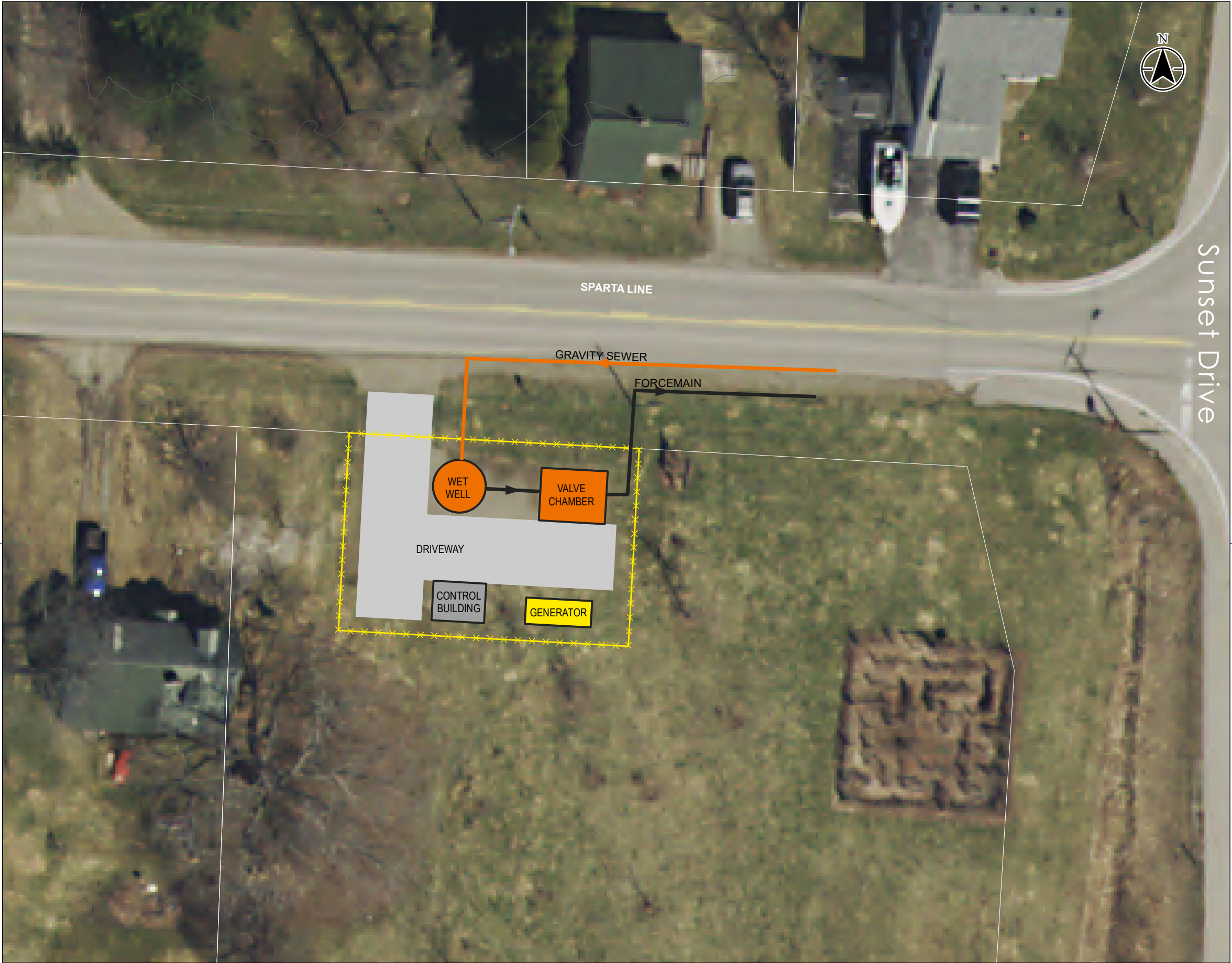
Evaluation of Alternative Solutions

- Anticipated that pump station will require a flushing process to address lower initial flows and need to strategically oversize forcemain beyond initial facility capacity.
- Minimum diameter of approximately 250mm would provide less than 0.6 m/s unless peak flow pump is increased.

Further review of the downstream conveyance system should be completed, however a review of available as-built data suggests that the initial run of new gravity sewer is sufficiently sized for the initial phase of development within Union, however further downstream (proximity of Sunset Drive and Warren Street), there appears to be capacity issues that restricts total capacity to approximately 28.6 L/s. Localized sewer replacements may be required to accommodate Union development as well as potential development in Port Stanley in along Sunset Drive.



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Revised: 2019-09-30 By: kbuchanan



Legend



- Notes**
1. Coordinate System: NAD 1983 UTM Zone 17N
 2. Contains information licensed under the Open Government Licence – Ontario.
 3. 2015 orthomagery © Municipality of Central Elgin.

Project Location
Municipality of
Central Elgin

165630144 REVA
Prepared by KDB on 2019-09-30

Client/Project
MUNICIPALITY OF CENTRAL ELGIN
UNION SANITARY SERVICING
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Figure No.

7-5

Title

**Proposed Central Pumping Station
Conceptual Layout**

8.0 PHASE 2 ENGAGEMENT

As part of Phase 2 of the Class EA process, a Public Consultation Centre (PCC) was held on Wednesday October 2nd, 2019 at the Union Sport Community Centre to allow stakeholders and members of the public to provide feedback on the identified alternative solutions and give preference to any of the alternative solutions. In total, 84 people attended and/or provided input on the proposed alternatives and this input was gathered, transcribed, and analyzed to guide the development of municipal servicing within Union. Input gathered as part of the Phase 2 Engagement event focused on four (4) key topics: finances, taxation, nature, and growth.

The following provides an overall summary of the key concerns raised during the PCC, subsequent correspondence received, and the Central Elgin response:

- Concern that existing residents would be required to connect to this new system and essentially double-pay for those that recently replaced their septic systems only to be expected to connect and pay for municipal servicing.
 - Central Elgin Response: Existing residents will not be required to connect to the new system, though the opportunity will be available if residents please. All new development will be required to connect to the system, and only those utilizing the services will be required to pay for their usage.
- Concern that this project was specifically focused on the need for municipal sanitary servicing for existing development, which is not being requested by residents. Many comments received suggested that if the purpose of the study was to address new development, then developers should bear the cost of implementing the necessary servicing.
 - Central Elgin Response: Central Elgin is excited for the opportunity of growth within the Municipality. Per the Official Plan, development and/or redevelopment is only permitted outside of the existing Built Area when full municipal water and wastewater services are available. This is the responsibility of the Municipality.
- Concern of lack of transparency in relation to costs to date to complete studies, availability of findings, and information on planned growth/number of lots.
 - Central Elgin Response: The Project File Report includes the details in relation to costs and findings. Information regarding development is the responsibility of private Developers to disclose, and is outside the scope of this study.
- Concern in relation to impact to surrounding natural environment and species, with requests for the Municipality to implement protective policies beyond minimum regulation from the Province.



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Phase 2 Engagement

- Central Elgin Response: The Municipality is committed to protecting the natural environment. Please refer to section 9.4, highlighting Potential Impacts and Recommended Mitigation Measures for this study.
- Concern in relation to increase of growth, notably from residents stating that reason to move to Union was that it was not a large settlement area. Residents also were concerned in relation to increased traffic impacts and perception that growth could reduce property value particularly if more natural areas or sightlines are disturbed.
 - Central Elgin Response: The Official Plan identifies the area as an Urban Settlement Area. These development lands (excluding natural hazard and natural heritage features) are primarily designated as residential with some local commercial areas.

8.1.1 Indigenous Consultation

Throughout the EA process, information packages including proposed pumping station locations and force main/sewer route mapping were mailed to Indigenous Community contacts to provide an update on the project and the alternatives being considered (see Appendix A.5 for information package). Subsequent to the PCC, the presentation material was emailed to all Indigenous contacts, inviting communities to respond with any questions or concerns. All consultation with Indigenous communities has been documented in the TRACER Table included Appendix A.5.

To date, no comments or concerns have been expressed from Indigenous communities in response to the information presented at the PCC or the progression of the project thus far. The Draft Project File will be updated to reflect future comments or concerns expressed.



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Costs and Project Implementation

9.0 COSTS AND PROJECT IMPLEMENTATION

9.1 LEVELS OF COST OPINIONS

The cost opinions provided in this report are considered Class D estimates (-20% to +30% generally considered preliminary or predesign estimates). Stantec does not guarantee the accuracy of this opinion of probable cost. The actual final cost of the project will be determined through the bidding and construction process.

The estimated costs to implement the Class EA recommendations are summarized in Table 9-1..

Table 9-1 Preliminary Cost Estimate

Item	Cost
Sanitary Pump Station (SPS 1 at Sparta Line and Sunset Drive)	\$1,650,000.00
Sanitary Pump Station (SPS 2 at Sparta Line and Bostwick Line)	\$975,000.00
Forcemain (SPS at Location 1 to gravity sewer on Sunset Drive north of Warren Street)	\$1,225,000.00
Conveyance	
Bostwick Road (West)	\$1,005,000.00
Bostwick Road (East)	\$1,115,000.00
Sparta Line (West)	\$895,000.00
Sparta Line (East)	\$1,510,000.00
Meadow Wood Lane	\$575,000.00
Stone Church Road	\$1,550,000.00
Sunset Drive (North)	\$2,300,000.00
Sunset Drive (South)	\$1,000,000.00
Notes:	
Property acquisition costs are not included in cost estimate.	
See Appendix for detailed cost opinion.	
Order of Magnitude Estimate, to be confirmed during detailed design.	

Note:

1. Excludes engineering, and inspection and testing services.
2. Excludes project contingency.

It should be noted that the conveyance system as described above has been separated to generally align with the proposed conveyance strategy which assumes:



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Costs and Project Implementation

- Gravity sewer to be installed above the existing culvert on Sunset Drive immediately south of the Stone Church Road intersection which will eliminate the need for a deeper sewer crossing/deeper wet well or upstream secondary pump station.
- Actual extent of conveyance upgrades to suit proposed development. For example, development of Area 9 per Table 5-1 will require the gravity sewer along Sparta Line (west) and the primary pump station, while development of Area 6 will require all these works in addition to SPS 2 and Bostwick Road (west) conveyance.

9.2 PROPERTY REQUIREMENTS

9.2.1 Temporary or Permanent Easements

A permanent easement may be required for portions of the collection system located along County roads.

9.2.2 Acquisition

The proposed site for the primary pump station (SPS 1) is owned by the Municipality and therefore no property acquisition is required. The proposed site for SPS 2 is within proposed development lands as it is required to service those lands. It is anticipated that the developer will work with the Municipality to determine the required land size, access, and service needs and ultimately enter into an agreement to transfer land to the Municipality (who will own and operate the system).

The proposed conveyance system within Union and the forcemain from Union into Port Stanley is anticipated to be within the right-of-way and therefore no property acquisition is anticipated.

9.3 PERMITS AND APPROVALS

In addition to the Provincial EA requirement as satisfied by the completion of the Class EA, implementation of the recommendations identified in this report are subject to the requirements of the *Environmental Protection Act*. The MECP administers the EPA and requires a formal application to obtain an Environmental Compliance Approval (ECA) for the construction and operation of municipal sewage works that will be required to include the firm capacity, pumping and wet well configuration, and standby power and emergency operational strategy.

Portions of the proposed collection system will require crossing of a water course and therefore will require a permit under Section 28 of the Conservation Authorities Act from the Kettle Creek Conservation Authority. Separate approval from the County of Elgin will also be required for roads under their jurisdiction, and specifically for the proposed culvert crossing along Sunset Drive north of Sparta Line.

The construction of the new pumping stations may be subject to the Municipality of Central Elgin Site Plan Approval Process and Ontario Building Code depending on the size of the structure.



9.4 POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

As part of the Class EA process, measures should be identified to offset potential environmental impacts of the proposed undertaking. These measures have been identified based on the scope of work undertaken for this study in relation to the inventory of environmental conditions and should be consulted and updated during preliminary and detailed design based on updated site-specific information.

The study recommendations were developed to minimize negative impacts to the natural environment and significant features identified within the study area; however, during nearly any construction project the potential exists for some environmental impacts. Best Management Practices with respect to design and construction should be employed to minimize the potential for short-term and long-term impacts, as well as direct and indirect impacts of projects associated with the study recommendations. The measures identified below should be consulted and updating during design and construction to reflect site-specific information.

Table 9-2 Mitigation and Enhancement Measures

Potential Impact	Mitigation
Socio-Economic Impacts	
Archaeological Resources	<ul style="list-style-type: none"> A Stage 1-2 Archaeological Assessment was conducted to identify assess archaeological potential at the proposed site for SPS 1. Based on the findings, a Stage 3 Archaeological Assessment is required. It is anticipated that through the Site Plan Approval process any requirements for Stage 1 or more extensive Archaeological Assessments will be completed by the developer for the proposed site for SPS 2.
Cultural Heritage	<p>The Ministry of Heritage, Sport, Tourism and Culture Industry's (MHSTCI) <i>Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes</i> checklist and associated review of existing cultural heritage conditions in the area was completed to determine if any protected and/or properties having cultural heritage potential area are present within the study area.</p> <p>As part of this review, historic and topographic mapping for the area was reviewed. Results indicated that there is one Designated Heritage Property within the study area and one cemetery identified by the Canadian Cemeteries Project.</p>



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Costs and Project Implementation

Potential Impact	Mitigation
	<p>The Designated Heritage Property is a yellow brick home located at 6289 Sunset Road, just north of Union Pond. Referred to as The Solomon V Wilson Home, the heritage house was built in 1890.</p> <p>The cemetery identified as part of the Canadian Cemeteries Project is the Union United Church Cemetery. The cemetery is situated on Stone Church Road (formerly Colborn Road), one half mile south of the Village of Union, Elgin County, Ontario.</p> <p>The proposed sanitary sewers will run along Sunset Road and Stone Church Road, in front of both the designated house and the cemetery. Mitigation efforts will need to be put in place to ensure there is no impact to these properties prior to, during, or after construction of the proposed sanitary sewers.</p> <p>Further mitigative measures should be confirmed during the design phase.</p>
Disturbance from Noise/Dust/Vibration	<ul style="list-style-type: none"> • Construction to occur during the day shift. • Low noise equipment will be used during construction where possible. • Construction activities to adhere to Central Elgin Noise By-Laws. • Acoustic impacts associated with the pump station(s) to be consider during design, notably issues related to pumps and standby generators. • Best management practices to mitigate any air quality impacts caused by dust should be applied during construction. MECP recommends non-chloride dust suppressants be applied during construction.
Traffic Management and Access	<ul style="list-style-type: none"> • Traffic management plans, including staging plans will be prepared during the detailed design stage. • Proponent will co-ordinate with the County as required regarding potential for short-term road closures and detours per standard construction practices.
Natural Environment	
Trees/Vegetation	<ul style="list-style-type: none"> • The pump station construction shall avoid all Carolinian Arboretum tree plantings in Lawton Park.



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Costs and Project Implementation

Potential Impact	Mitigation
	<ul style="list-style-type: none"> • Work will involve the use of construction barrier/sediment fencing to delineate work areas until areas are revegetated. • All disturbed areas will be revegetated using suitable seed following construction. • Tree removal will be avoided during the breeding bird window (May 1 to July 31). • An avian biologist will be retained to complete comprehensive breeding bird surveys if vegetation clearing is required during the breeding bird window. • Prior to conducting work in natural areas, an assessment will be conducted to determine if there is potential for False Rue-anemone to occur by review existing records and suitability of habitat. If there is potential of False Rue-anemone to occur in a work area and suitable habitat will be disturbed such as deciduous forest, shaded stream banks and/or thickets, a pre-screening survey will be conducted to determine if the species is present. The survey will be conducted during the growing season when the species is identifiable. If the species is found, authorization requirements under the Endangered Species Act, 2007 will be determined in consultation with the MECP via submission of an Information Gathering Form (IGF). Mitigation strategies will prioritize protection of existing plants to the extent possible, and may also include restoration of any habitat disturbance, salvage/relocation of plants that cannot be protected, and other overall benefit measures determined in consultation with MECP. • All excess construction soil and materials will be handled according to the regulation <i>On-Site and Excess Soil Management</i> (O. Reg 406/19) under the Environmental Protection Act, and the guidance document <i>Management of Excess Soil – A Guide for Best Management Practices</i>.
Water Crossing	<ul style="list-style-type: none"> • Based on the proposed collection system layout, a gravity sewer will be located above the existing culvert that crosses Union Pond to minimize impact. • It is anticipated that the crossing of Union Pond on Sparta Line will be by trenchless methods to mitigate impacts. • Erosion and sediment control plans will need to be developed for any water crossing. • Equipment shall be refueled 30 meters away from the waterbody.



UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Costs and Project Implementation

Potential Impact	Mitigation
	<ul style="list-style-type: none">• A trenchless crossing plan should be prepared to detail the methodology and response to potential spills/frac-out.
Groundwater	<ul style="list-style-type: none">• A hydrogeological investigation will be required to determine the extent of dewatering during construction of the pump stations and conveyance system, and to support application for an Environmental Activity and Sector Registry (EASR) or Permit to Take Water (PTTW).• The impact to any nearby wells may need to be considered as part of these investigations to assess remedial actions, if any.
Climate Change	
	<ul style="list-style-type: none">• Detailed design phase to consider opportunities for onsite stormwater management to mitigate impacts associated with increased impervious areas.• Design to consider and accommodate changes in climate parameters (i.e., increased episodes of flooding, increased flood levels, etc.).• Pump selection to consider opportunities for improved energy efficiency/management.• Water crossings to consider impacts associated with higher flows which may increase scour over time, in order to confirm cover depth from water bottom.



10.0 EA DOCUMENTATION FILING

This Project File fulfills the documentation requirements for the Schedule B Class EA planning process. The filing of the Project File for public review completes the planning stage of the project.

This Project File is available for public review and comment for a period of 30 calendar days starting on June 30, 2021 and ending on July 30, 2021. A Notice of Completion was published in the local newspaper to inform the general public, interested stakeholders, review agencies and Indigenous communities of the mandatory review period. In light of the COVID-19 pandemic, the Project File Report will only be available for review online, on the Municipality of Central Elgin website:
<https://www.centralelgin.org/en/municipal-office/union-sanitary-environmental-assessment.aspx#>.



APPENDIX A

Consultation

A.1 CONTACT LIST

Union Sanitary Servicing
Municipal Class Environmental Assessment
Stakeholder List

Interest	Agency	Title	First Name	Last Name	Department	Title	Address	City	Pr	Postal	Phone	Email	
Government Contacts													
Federal	Fisheries and Oceans Canada	Ms. Sara	Eddy		Fisheries Protection Program	Senior Fisheries Protection Biologist	867 Lakeshore Road	Burlington	ON	L7R 4A6	905-336-4535	sara.eddy@dfo-mpo.gc.ca	
Federal	Fisheries and Oceans Canada	Ms. Debbie	Ming		DFO Arctic Region	Regional Director, Aquatic Ecosystems	867 Lakeshore Road	Burlington	ON	N5E 2V2	905-336-4592	debbie.ming@dfo-mpo.gc.ca	
Provincial	Infrastructure Ontario	Mr. Tate	Kelly		Developmental Planning	Planner	1 Dundas St. W. Suite 2000	Toronto	ON	M5G 2L5	416-264-3815	tate.kelly@infrastructureontario.ca	
Provincial	Ministry of Natural Resources and Forestry	Ms. Karina	Cerniavskaja		Aylmer District	District Planner	615 John Street North	Aylmer	ON	N5H 2S8	519-200-2276	karina.cerniavskaja@ontario.ca	
Provincial	Ministry of the Environment, Parks and Conservation	Mr. Barb	Slattery		Project Review	Environmental Resource Planner & EA Coordinator					365-366-8185	barbara.slattery@ontario.ca	
Provincial	Ministry of the Environment, Parks and Conservation	Mark	Badali		Project Review	Environmental Resource Planner & EA Coordinator						mark.badali1@ontario.ca	
Provincial	Ministry of the Environment, Parks and Conservation				Environmental Assessment & Approvals Branch		135 St. Clair Avenue West, 1st Floor	Toronto	ON	M4V 1P5		eanotification.svr@ontario.ca	Email only completion notice
Provincial	Ministry of Tourism, Culture and Sport	Ms. Laura	Hatcher		Culture Services Unit	Manager	401 Bay Street, Suite 1700	Toronto	ON	M7A 0A7			
Municipal Government/Staff													
Local	City of St. Thomas	Mr. Justin	Lawrence		Environmental Services & City Engineer	Director	40359 Bush Line	St. Thomas	ON	N5P 3S9	519-631-1680 ext. 4165	lawrence@stthomas.ca	
Local Contacts													
Local	Township of Southwold	Mr. Paul	Van Vaerenbergh		Public Works	Superintendent	35663 Fingal Line	Fingal	ON	N0L 1K0		roads@southwold.ca	
Local	Elgin County	Mr. Brian	Lima		Engineering Services	Director	450 Sunset Drive	St. Thomas	ON	N5R 5V1		blima@elgin.ca	
CA	Kettle Creek Conservation Authority	Mr. Joe	Gordon		Supervisor of Planning & Conservation	Assistant Manager	44015 Ferguson Line	St. Thomas	ON	N5P 3T3	519-631-1270	joe@kettlecreekconservation.on.ca	
	Southwestern Public Health Unit	Mr.			Healthy Environments		50 King Street	London	ON	N6A 5L7	T: 519.663.5317 ext.2316 F: 519.663.92	info@swpublichealth.ca	
St. Thomas	St. Thomas Police Service	Scott	Barnes		Administration	Inspector of Police	45 Casa Crossing	St. Thomas	ON	N5R 0G3	519-631-1224 ext. 4227	sbarnes@stps.on.ca	
Utilities	Erie Thames Powerlines	Josh	Smith		Director	Director of Engineering and Operations	PO Box 157 143 Bell Street	Ingersoll	ON	N5C 3K5		josh.smith@erthepower.com	
Utilities	Hydro One				Corporate Head Office - Real Estate		483 Bay Street, South Tower, 8th Floor	Toronto	ON	M5G 2P4	416-354-5000		secondarylanduse@hydroone.com
Utilities	Rogers Cable Systems Utilities Coordinating Committee	Mr. Ted	Feeney				800 York St.	London	ON	N5W 2S1	T: 519.660.7527 F: 519.672.0199	swor_permits@rcr.rogers.com	
Utilities	Bell Canada	Mr. Jeff	Holmes		Access Network Facilities		100 Dundas Street, 4th Floor	London	ON	N6A 4L6	T: 519.663.6105 F: 519.663.1188	jeff.holmes@bell.ca	
Utilities	Union Gas	Mr. Taylor	Jones			Construction Project Manager	108 Commissioners Road West	London	ON	N6A 4P1	T: 519.667.4142 F: 519.667.4115	TLJones3@uniongas.com	
Local	St. Thomas Golf and Country Club	Mr. Rob	Mason			General Manager	42325 Sparta Line	Union	ON	N0L 2L0	519-631-4800 ext. 23	rob@stthomaspcc.com	
Indigenous Communities													
Local	Chippewas of the Thames	Chief Jacqueline	French			Chief	320 Chippewa Road RR1	Muncey	ON	N0L 1Y0	519-289-5555	jfrench@cottfn.com	
Local	Chippewas of the Thames	Ms. Fallon	Burch		Lands and Resources	Consultation Coordinator	320 Chippewa Road RR1	Muncey	ON	N0L 1Y1	T: 519.289.2662 ext 209	fburch@cottfn.com	
Local	Oneida Nation of the Thames	Chief Adrian	Chrisjohn				2212 Elm Avenue	Southwold	ON	N0L 2G0	519-318-4598	adrian.chrisjohn@oneida.on.ca	
Local	Oneida Nation of the Thames	Ms. Angie	George			Political Chief Assistant	2212 Elm Avenue	Southwold	ON	N0L 2G0	519-652-6161	council@oneida.on.ca	
Local	Munsee-Delaware Nation	Chief Mark	Peters				289 Jubilee Road	Muncey	ON	N0L 1Y0	519-289-5396 ext 226	mark@munsee.ca	chief.peters@munsee.ca
Local	Munsee-Delaware Nation					reception	289 Jubilee Road	Muncey	ON	N0L 1Y0		reception@munsee.ca	
Local	Delaware Nation (Moravian of the Thames)	Chief Denise	Stonfish			-	14760 School House Line RR #3	Thamesville	ON	N0P 2K0	519-692-3936	denise.stonfish@delawarenation.on.ca	
Local	Delaware Nation (Moravian of the Thames)	Mr. Justin	Logan		Lands & Resources	Consultation Assistant	14760 School House Line	Thamesville	ON	N0P 2K0	T: 519.692.3936 F: 519.692.5522	logan@delawarenation.on.ca	
Local	Bkejwanong Territory (Walpole Island)	Chief Dan	Miskokomon			-	117 Tahgahoning Road RR #3	Wallaceburg	ON	N8A 4K9	519-627-1481	drskoke@wifn.org	
Local	Bkejwanong Territory (Walpole Island)	Ms. Janet	Macbeth			Project Review Coordinator	117 Tahgahoning Road RR #3	Wallaceburg	ON	N8A 4K9	T: 519.627.1475 Ext. 108	janet.macbeth@wifn.org	
Local	Caldwell First Nation	Coun Robyn	Perkins				14 Orange St	Leamington	ON	N8H 1P4	T: 519-322-1766	council@perkins3caldwellfirstnation.ca	
Local	Caldwell First Nation	Ms. Nikki	Van Oirschot			Director of Operations	P.O. Box 388	Leamington	ON	N8H 1P4	T: 519-322-1766	nikki@caldwellfirstnation.ca	
Local	Chippewas of Kettle and Stony Point First Nation	Chief Jason	Henry				6247 Indian Lane	Forest	ON	N0N 1J0	T: 519-786-2125	jason.henry@kettlpoint.org	
Local	Chippewas of Kettle and Stony Point First Nation	Ms.				reception	6247 Indian Lane RR#2	Forest	ON	N0N 1J0	T: 519.786.2125 F: 519.786.2109	kdesk@kettlpoint.org	
Local	Aamjiwnaang First Nation	Chief Chris	Plain			-	978 Tashmoo Avenue	Sarnia	ON	N7T 7H5	519-336-8410	chief@amjiwnaang.ca	
Local	Aamjiwnaang First Nation	Ms. Sharilyn	Johnston			Environment Coordinator	978 Tashmoo Avenue	Sarnia	ON	N7T 7H5	T: 519.336.8410 ext. 245 F: 519.336.038	sjohnston@amjiwnaang.ca	
	Metis Nation of Ontario					Consultation Coordinator	311-75 Sherbourne Street	Toronto	ON	M5A 2P4	613-798-1488	consultation@metisnation.org	

A.2 NOTICE OF COMMENCEMENT

Union Sanitary Servicing Municipal Class Environmental Assessment Notice of Commencement

The Municipality of Central Elgin is undertaking a Municipal Class Environmental Assessment to investigate options for sanitary servicing within the Urban Settlement Area of Union. The study is being undertaken in accordance with the Municipal Engineers Association Municipal Class Environmental Assessment (Class EA) process for Schedule B Projects (2000, as amended in 2007, 2011, and 2015).

Why are we undertaking the study?

Union is one of the six Urban Settlement Areas within the Municipality. These areas are a primary focus for future growth and development as outlined within the Central Elgin Official Plan (2013). Before new development can occur within the settlement area, municipal piped sanitary services are required.

This Class EA is being undertaken to promote the sustainable and orderly development of lands within the Union settlement area. The study will assess alternative strategies for the provision of sanitary servicing within the settlement area. This will include alternative locations for a sanitary pumping station, and alternative forcemain routes to the Port Stanley Waste Water Treatment Facility (WWTF) on Scotch Line.

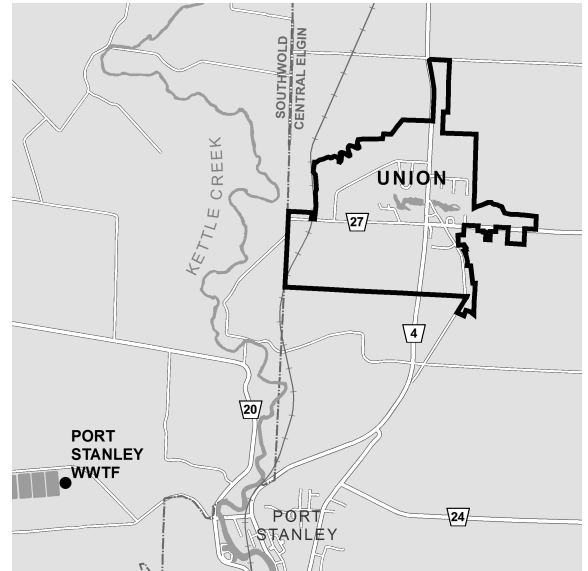
Alternatives will be considered based on their impacts to the social, cultural, natural, technical, and economic environments.

How can I participate in the study?

The study team encourages you to provide input for consideration in the study. To be added to the study contact list, or provide information on existing conditions within the area, please contact a member of the study team listed below. A Public Information Centre (PIC) will be held in the spring of 2019 to present more information on the study and alternatives considered.

Information on the study will be made available on the Central Elgin website:

<https://www.centralelgin.org/en/index.aspx>.



Lloyd Perrin
Director of Physical Services
Municipality of Central Elgin
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LPerrin@centralelgin.org

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
(519) 675-6614
stephanie.bergman@stantec.com

This notice was first issued on January 10, 2019

Alternate formats of project information are available upon request.

All correspondence received with respect to this study will be kept on file for use during the decision making process, and will become part of the public record. Under the Municipal Freedom of Information and Protection of Privacy Act, and the Environmental Assessment Act, unless otherwise stated in the submission, personal information such as name, address, telephone number, and property location included in a submission may become part of the public record, and will be released, if requested, to any person.

Mr. Rob Dobos
Manager, Environmental Protection
Fisheries and Oceans Canada
867 Lakeshore Road, 5th Fl Office L509
Burlington, ON L7S 1A1

Mr. Peter Reed
Planning
Infrastructure Ontario
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Toronto, ON M5G 2L5

Ms. Kathryn Markham
District Planner, Aylmer District
Ministry of Natural Resources and Forestry
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Aylmer, ON N5H 2S8

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Regional Environmental Assessment Coordinator, Southwestern
Region
Ministry of the Environment, Parks and Conservation
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Director, Environmental Assessment & Approvals Branch
Ministry of the Environment, Parks and Conservation
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Manager, Culture Services Unit
Ministry of Tourism, Culture and Sport
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7

Mr. Justin Lawrence
Director, Environmental Services & City Engineer
City of St. Thomas
40359 Bush Line
St. Thomas, ON N5P 3S9

Mr. Jake McKillop
Superintendent, Public Works
Township of Southwold
35663 Fingal Line
Fingal, ON N0L 1K0

Mr. Brian Lima
Director, Engineering Services
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Mr. Joe Gordon
Assistant Manager, Supervisor of Planning & Conservation Areas
Kettle Creek Conservation Authority
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St. Thomas, ON N5P 3T3

Mr. Peter Haywood
Director, Healthy Environments
Southwestern Public Health Unit
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London, ON N6A 5L7

Scott Barnes
Inspector of Police, Administration
St. Thomas Police Service
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St. Thomas, ON N5R 0G7

Erie Thames Powerlines
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Ingersoll, ON N5C 3K5

Corporate Head Office - Real Estate
Hydro One
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Toronto, ON M5G 2P5

Mr. Ted Feeney
Rogers Cable Systems Utilities Coordinating Committee
800 York St.
London, ON N5W 2S9

Mr. Jeff Holmes
Access Network Facilities
Bell Canada
100 Dundas Street, 4th Floor
London, ON N6A 4L6

Mr. Taylor Jones
Construction Project Manager,
Union Gas
108 Commissioners Road West
London, ON N6A 4P1

Mr. Rob Mason
General Manager,
St. Thomas Golf and Country Club
42325 Sparta Line
Union, ON N0L 2L0

Chief Henry Myeengun
Chief,
Chippewas of the Thames
320 Chippewa Road RR1
Muncey, ON N0L 1Y0

Ms. Fallon Burch
Consultation Coordinator, Lands and Resources
Chippewas of the Thames
320 Chippewa Road RR1
Muncey, ON N0L 1Y1

Chief Jessica Hill
Oneida Nation of the Thames
2212 Elm Avenue
Southwold, ON N0L 2G0

Ms. Catherine Cornelius
Political Chief Assistant,
Oneida Nation of the Thames
2212 Elm Avenue
Southwold, ON N0L 2G0

Chief Roger Thomas
Munsee-Delaware Nation
289 Jubilee Road
Muncey, ON N0L 1Y0

Mr. Glenn Forrest
Director of Operations,
Munsee-Delaware Nation
289 Jubilee Road
Muncey, ON N0L 1Y0

Chief Denise Stonefish
Delaware Nation (Moravian of the Thames)
14760 School House Line RR #3
Thamesville, ON N0P 2K0

Mr. Justin Logan
Consultation Assistant, Lands & Resources
Delaware Nation (Moravian of the Thames)
14760 School House Line
Thamesville, ON N0P 2K0

Chief Dan Miskokomon
Bkejwanong Territory (Walpole Island)
117 Tahgahoning Road RR #3
Wallaceburg, ON N8A 4K9

Ms. Janet Macbeth
Project Review Coordinator,
Bkejwanong Territory (Walpole Island)
117 Tahgahoning Road RR #3
Wallaceburg, ON N8A 4K9

Nikki Orosz
Executive Administrator
Policy Analyst/Communications Officer
Caldwell First Nation
14 Orange Street
Leamington | ON | N8H 1P5

Ms. Valerie George
Consultation Coordinator,
Chippewas of Kettle and Stony Point First Nation
6247 Indian Lane
RR#2
Forest, ON N0N 1J0

Ms. Sharilyn Johnston
Environment Coordinator,
Aamjiwnaang First Nation
978 Tashmoo Avenue
Sarnia, ON N7T 7H5

Chief Tom Bressette
Chippewas of Kettle and Stony Point First Nation
6247 Indian Lane
Forest, ON N0N 1J0

Chief Chris Plain
Aamjiwnaang First Nation
978 Tashmoo Avenue
Sarnia, ON N7T 7H5

Mr. Doug Tarry
Doug Tarry Homes
358 Elm Street
St. Thomas, ON N5R 1K1

A.3 PUBLIC INFORMATION CENTRES

Union Sanitary Servicing Municipal Class Environmental Assessment Notice of Public Information Centre # 1

The Municipality of Central Elgin is undertaking a Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. The study is being undertaken in accordance with the Municipal Engineers Association Municipal Class EA process for Schedule B Projects (2000, as amended in 2007, 2011, and 2015).

Union is one of the six Urban Settlement Areas within the Municipality. These areas are a primary focus for future growth and development as outlined within the Central Elgin Official Plan (2013). Before new development can occur within the settlement area, municipal piped sanitary services are required.

This Class EA is being undertaken to promote the sustainable and orderly development of lands within the Union settlement area. Preliminary recommendations for sanitary servicing, including a sanitary pumping station and a forcemain route to the Port Stanley WWTF have been developed.

Get Involved: A Public Information Centre (PIC) is scheduled to present background information on the study, alternative sanitary servicing strategies and preliminary recommendations for public review and comment. The study team encourages all those interested to review the information and provide their feedback.

The PIC will be held in Open House format and all presentation materials will be made available on the Central Elgin website following the PIC:

www.centralelgin.org

Date: Wednesday October 2, 2019

Time: 5:00pm to 7:30pm

Location: Union Sports Community Centre,
6068 Bell Street, Union, ON

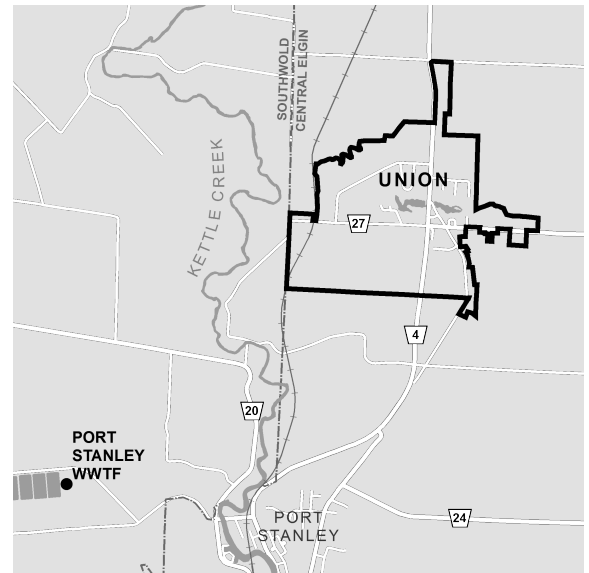
For more information or to be included on the project mailing list, please contact one of the following project team members below:

Lloyd Perrin
Director of Physical Services
Municipality of Central Elgin
(519) 631-4860 ext. 277
LPerrin@centralelgin.org

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
(519) 675-6614
stephanie.bergman@stantec.com

This notice was first issued on Thursday September 16, 2019.

All correspondence received with respect to this study will be kept on file for use during the decision making process and will become part of the public record. Under the Municipal Freedom of Information and Protection of Privacy Act, and the Environmental Assessment Act, unless otherwise stated in the submission, personal information such as name, address, telephone number, and property location included in a submission may become part of the public record, and will be released, if requested, to any person. Alternate formats of project information are available upon request.



Union Sanitary Servicing Municipal Class Environmental Assessment



The following representatives would be happy to answer any questions:

Welcome to the Public Information Centre (PIC) for the **Union Sanitary Servicing Municipal Class Environmental Assessment** (Class EA).

The purpose of tonight's PIC is to provide you with:

- An overview of the Class EA study;
- An overview of the Municipal Class EA process;
- The problem/opportunity statement;
- A description of the alternative solutions considered and preliminary recommendations; and
- An overview of the evaluation and decision-making process.

Your input is important to the study.

Please **sign-in**. After reviewing the information, complete a **comment form** and place it in the box provided, or forward to the address on the form by **Friday October 18, 2019**.

Why are we completing the study?

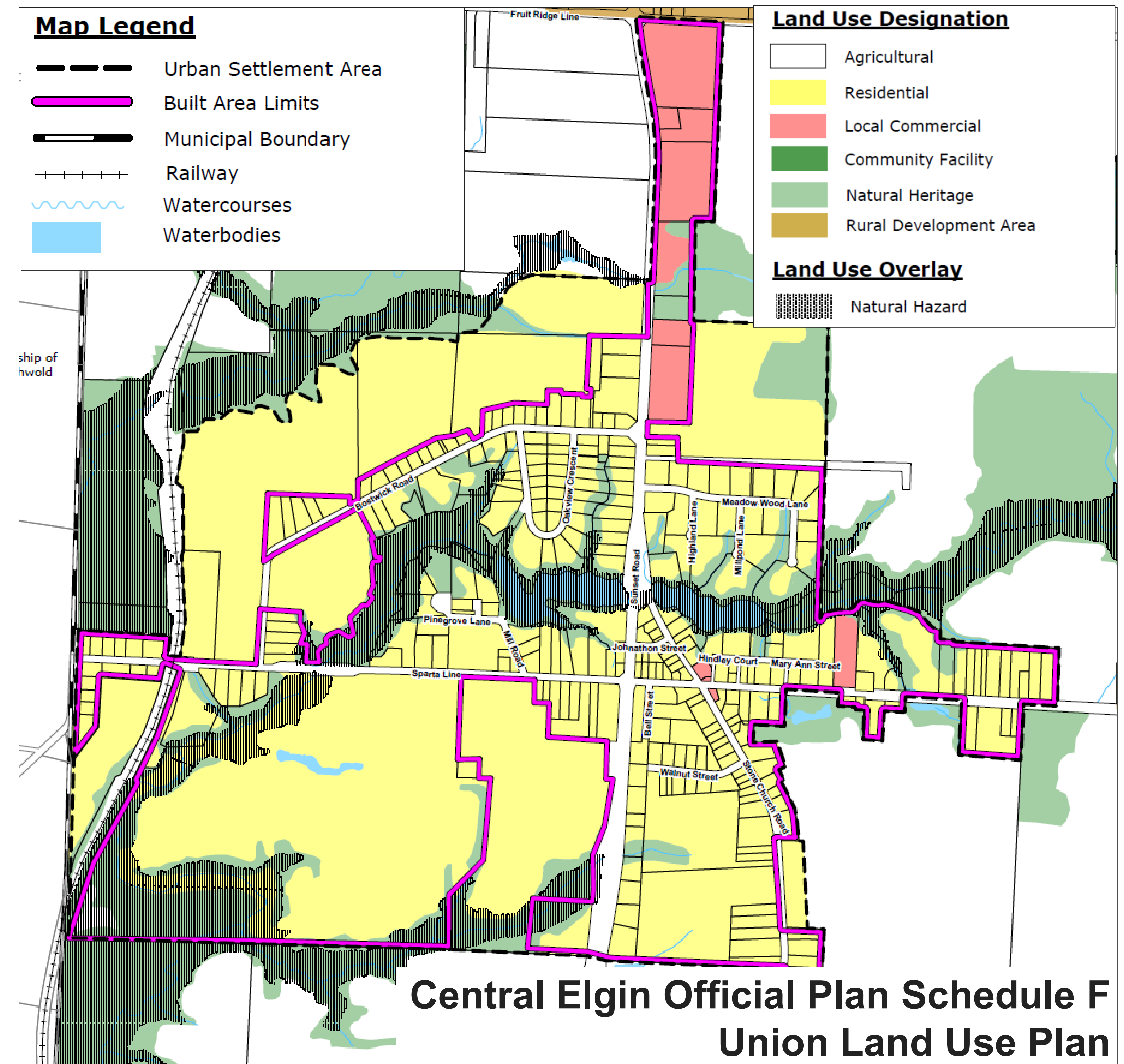
Union is one of six Urban Settlement Areas within Central Elgin.

Urban Settlement Areas are a primary focus for future growth and development.

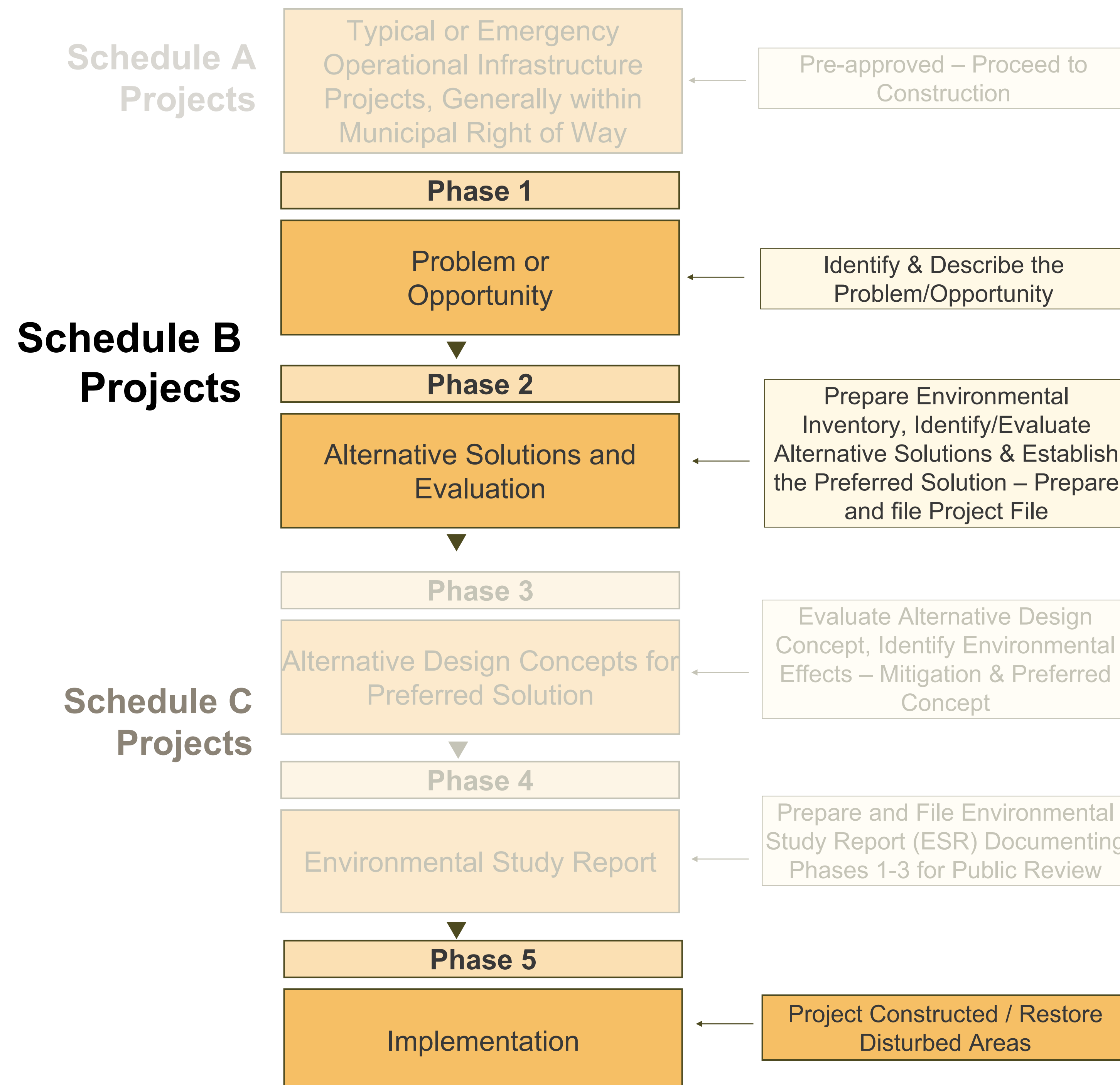
Based on policies within the Central Elgin Official Plan, new development cannot occur outside of the existing built area until full municipal services (sanitary and water) are available.

This study is being completed to identify a sanitary servicing strategy for these **major areas of future development** within the Union Settlement Area.

Investment in municipal servicing does not necessarily mean that existing residences in Union will be required to immediately connect once they are built.



What is a Municipal Class EA?



- Prior to undertaking any major infrastructure projects, municipalities are required to undertake a Municipal Class Environmental Assessment, under the *Ontario Environmental Assessment Act*.
- The Class EA planning process includes:
 - Identifying a reasonable range of alternative solutions to the **problems and opportunities** identified;
 - Considering advantages and disadvantages, and impacts to the socio-economic, cultural, technical, and economic environments;
 - **Stakeholder** consultation – this includes First Nations, the general public, agencies, and other stakeholders;
 - Documenting the decision-making process for stakeholder review.
- The study will:
 - Follow requirements for Schedule “B” projects by completing **Phases 1 & 2**.
 - Document the decision-making process in a Project File to be filed for a 30-calendar day **public review period**.

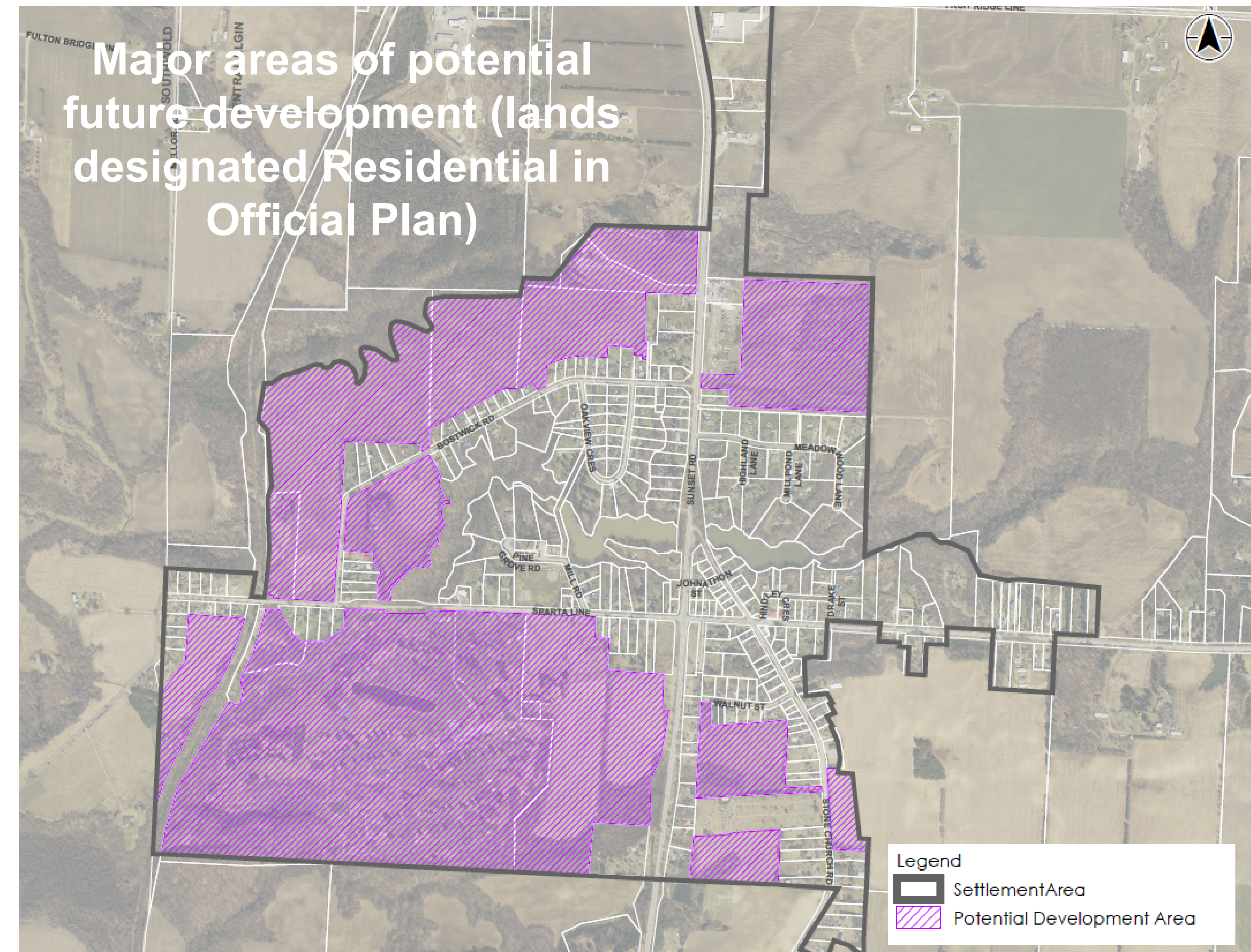
Problem/Opportunity Statement

The Union Sanitary Servicing Municipal Class EA is being completed to investigate and assess alternative strategies for the provision of sanitary servicing within the Urban Settlement Area of Union.

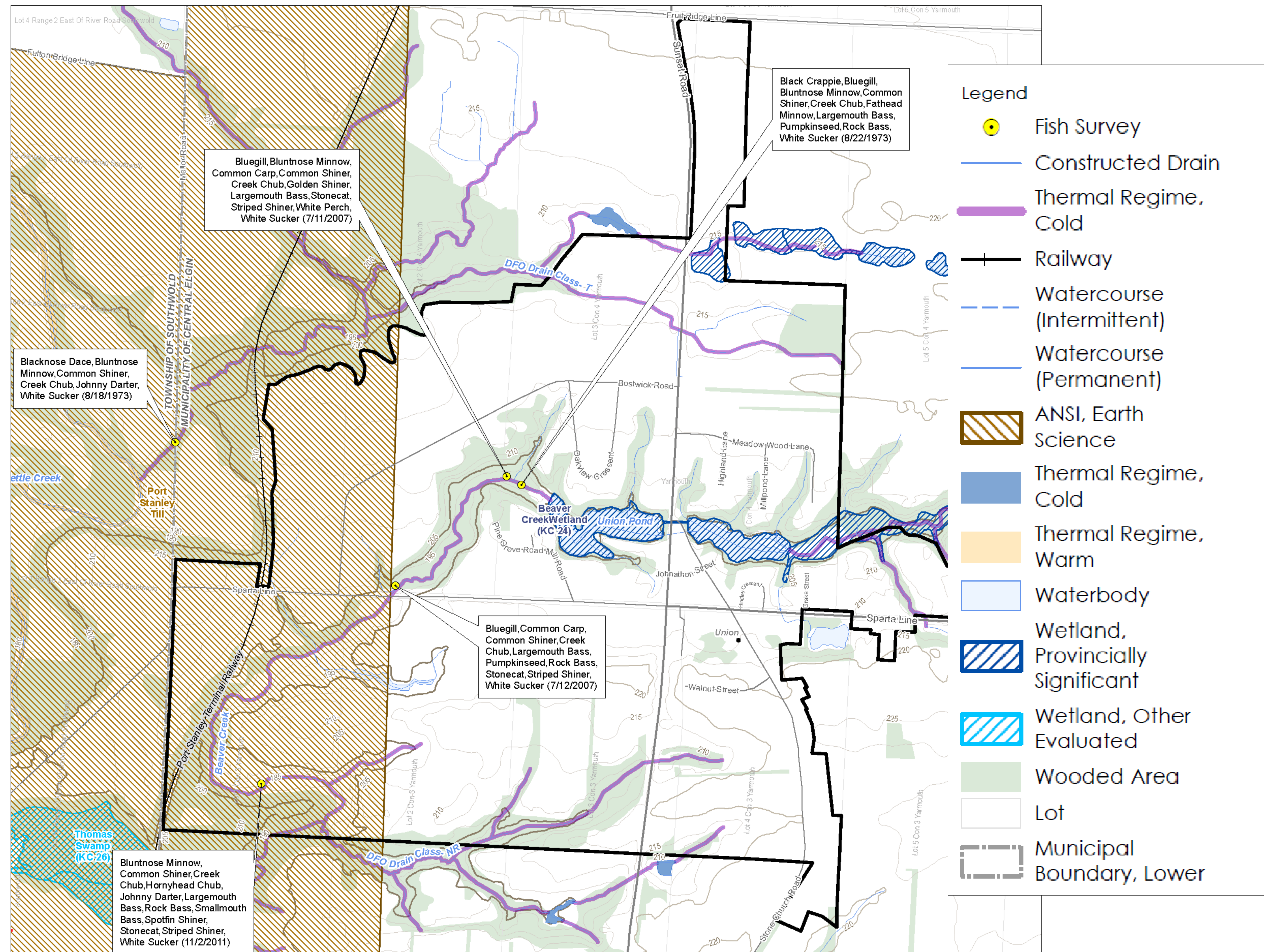
Strategies should address areas of future development in the short term but should not preclude servicing existing developments in the long term.

Community of Union:

- Union is currently serviced by piped municipal water or private wells and private on-site sanitary services (septic systems).
- Sanitary flows from Union were considered as part of the recent upgrades at the Port Stanley Wastewater Treatment Plant (WWTP).
- Based on policies within the Provincial Policy Statement (PPS 2014) and the Central Elgin Official Plan, future development should be serviced by municipal services to promote the efficient use of infrastructure and sustainable development patterns.



Existing Conditions Natural Environment



There are a number of Natural Heritage features within the Community of Union:

- Union Pond – Provincially Significant Wetland
- Wooded areas
- Creeks and Streams
- Aquatic and terrestrial Species at Risk

The Class EA will have regard for impacts to natural heritage features within the study area and will identify mitigation measures for the protection of the natural environment.

Alternative Solutions

Do Nothing

No servicing strategy would be identified.

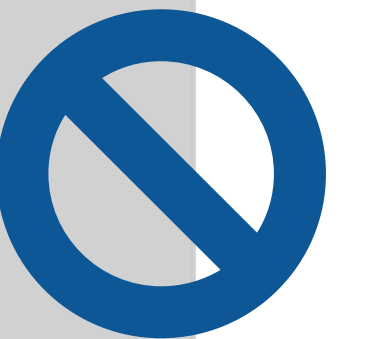
- Does not support the policies of the Official Plan by planning for future growth.



Limit Community Growth

Future development would be limited to minor infill development.

- Does not support the policies of the Official Plan by providing land for designated population growth.



Individual Sewage Services for Future Development

Private/communal sanitary services would be identified for future development

- Does not fully meet the policies of the Provincial Policy Statement or Official Plan
- Greater potential for long term environmental impact
- Not an efficient use of existing municipal infrastructure



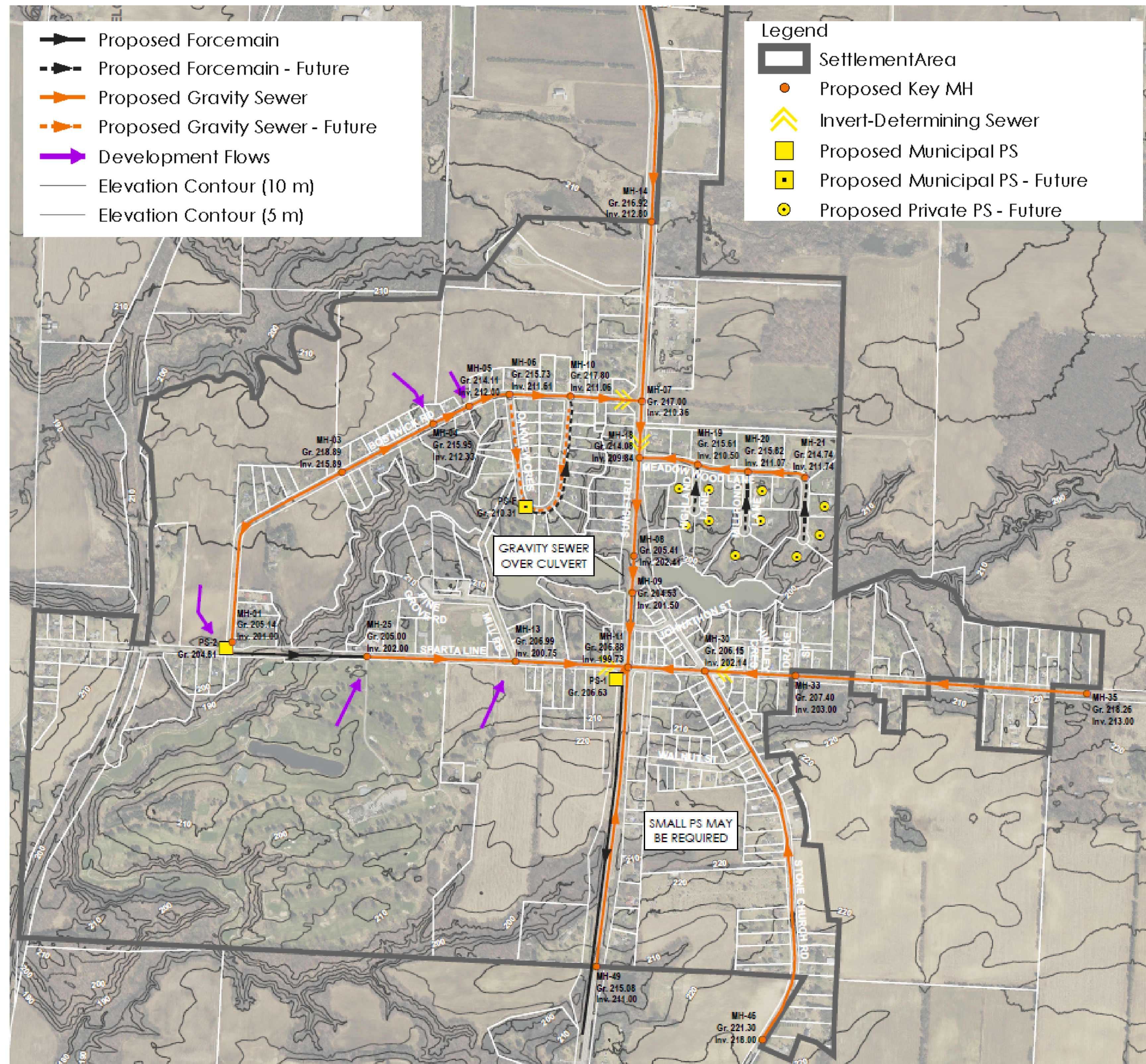
Collect and pump flows to Port Stanley Wastewater Treatment Plant

A gravity collection system would be identified, along with pumping station locations and forcemain route.

- Sanitary flows have been accounted for in recent upgrades at the Port Stanley WWTP
- Provides an appropriate and sustainable means of servicing future development within Union to meet provincial and Official Plan policies



Sanitary Servicing Strategy



To develop a servicing strategy for lands within the Union Settlement Area, we reviewed:

- Municipality of Central Elgin Design Guidelines
- Topographic information;
- Existing development plans;
- As-built information for roads and culvert crossings;
- Environmental constraints
- Existing municipal-owned property

The recommended strategy includes:

- Municipal pumping station (approx. 21 L/s to 20-year est. servicing and expandable) located at the intersection of Sparta Line and Sunset drive to collect flows via gravity sewers
- Secondary pump station located at Sparta Line and Bostwick Road to collect flows from lands in the west, to pump under creek crossing (~11 L/s peak flow). To be located on future development lands
- Gravity sewer will cross Union Pond over existing culvert on Sunset Drive.

Sanitary Servicing Strategy – Pump Station Location



Proposed Pump Station
Footprint and Sample
Building*

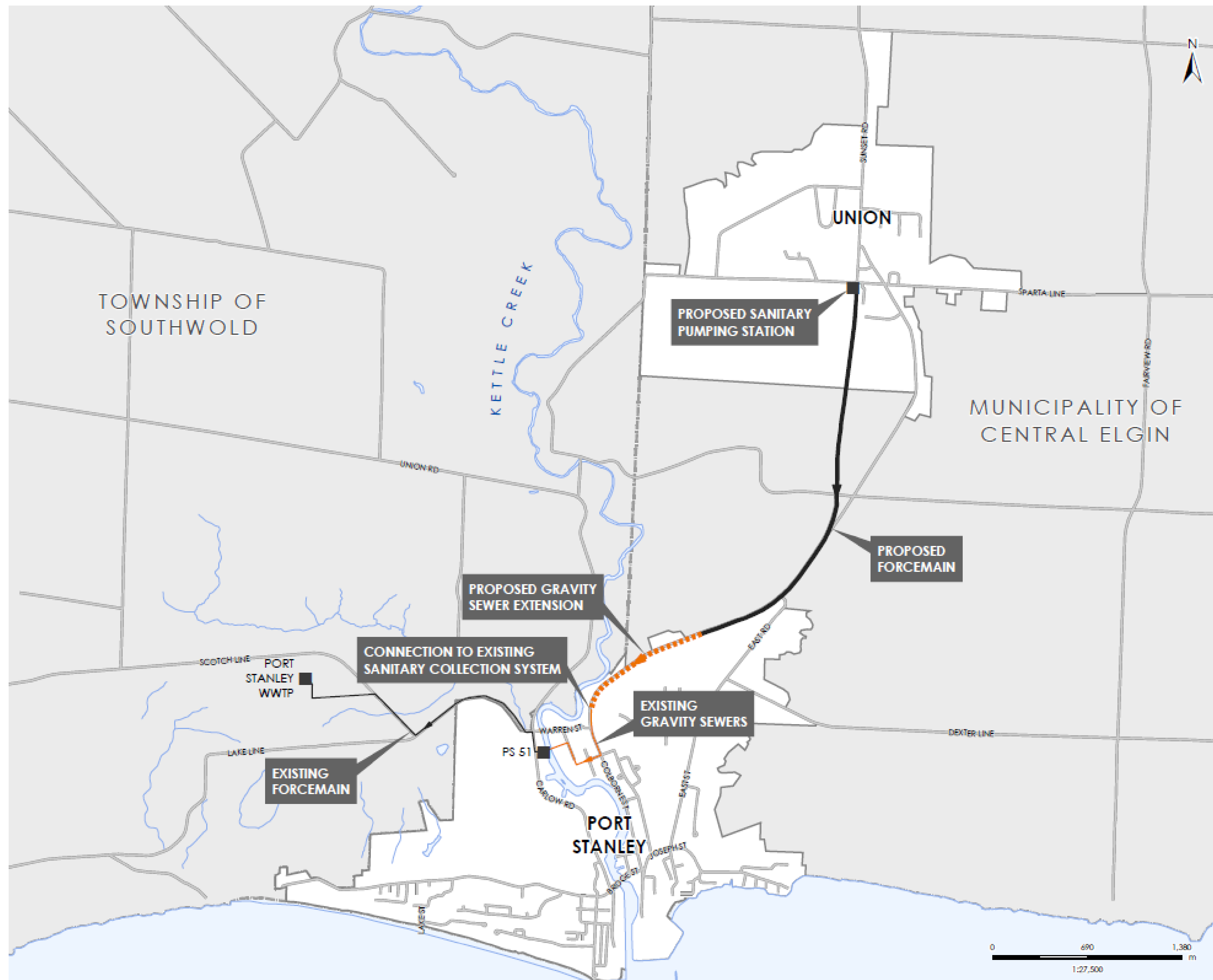


*The location and configuration
may change during detailed
design

A number of Pump Station locations were considered based on the following criteria:

- Should be located at a centralized location within the settlement area
- Should be located at a suitable elevation to collect the majority of community flows via gravity
- Preferably municipal-owned land
- Located outside of the natural heritage system and natural hazard lands
- Minimize impact to Lawton Park and the Carolinian Arboretum.

Forcemain Connection to the Port Stanley WWTP



Flows will be conveyed from the new central pump station south within the Sunset Drive right of way into the planned sanitary sewer extension.

It will connect with the existing gravity sewer just north of Warren Street, and to the Port Stanley Wastewater Treatment Plant via the existing Pump Station 51.

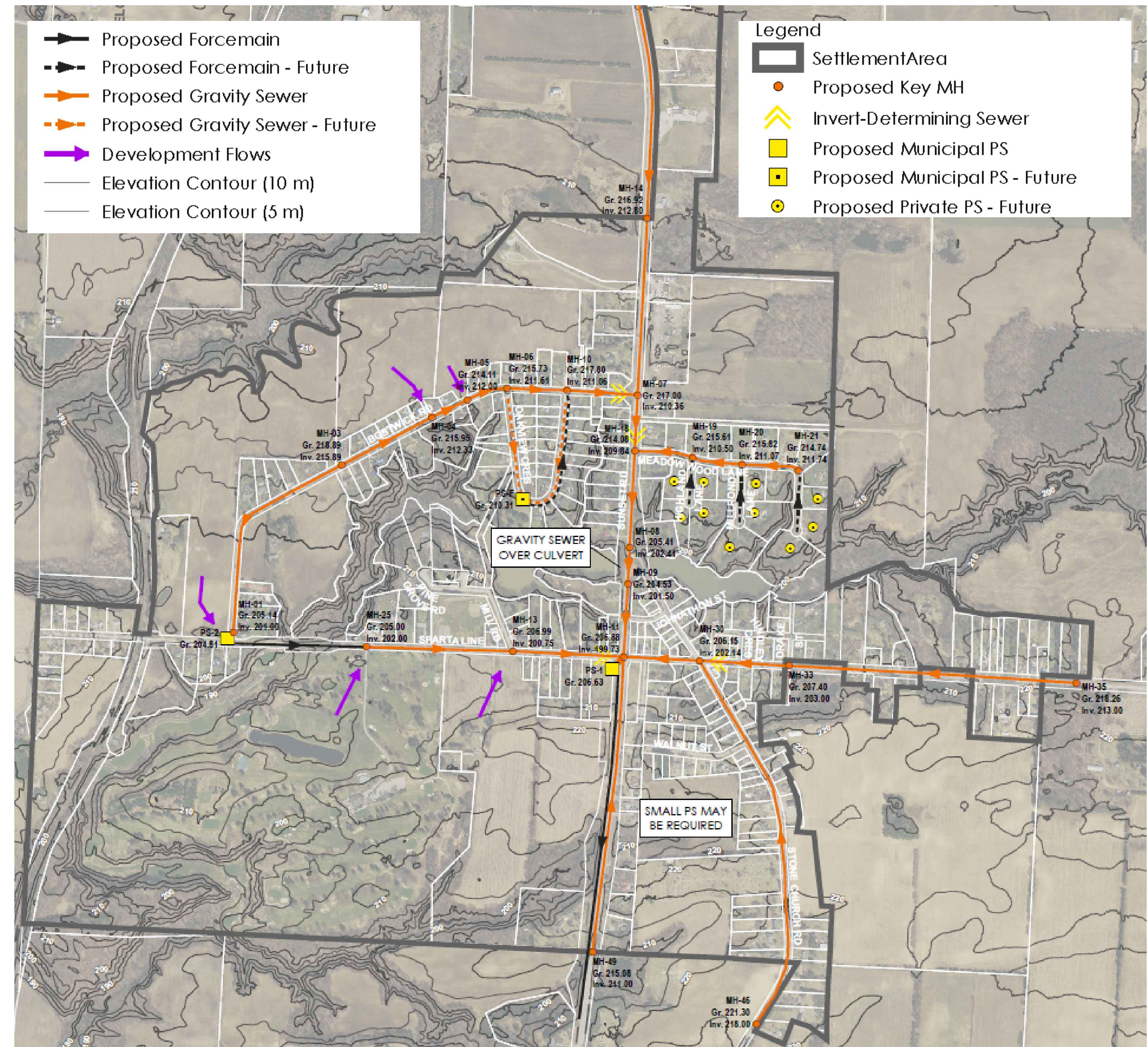
Implementation

Phasing:

- Phase 1: Construction of Pump Station at Sparta Line and Sunset Drive, as well as forcemain to connect with existing gravity sewers.
- Phase 2: Coordination with planned development to identify upstream sewer requirements. Dependent on progress of future development lands.

Funding:

- The majority of capital costs will be funded through Development Charges.



Mitigation Measures

WATER CROSSINGS

- Crossing of Union Pond to occur over existing culvert to minimize impact
- Develop erosion and sedimentation control plan
- Equipment shall be refueled 30m from waterbody

NOISE/DUST/VIBRATION

- Construction to occur during day shift
- Use of low noise equipment during construction, where possible
- Pre-construction condition surveys of buildings

TREES AND VEGETATION

- Pump station construction shall avoid Carolinian Arboretum tree plantings in Lawton Park
- Use of construction barrier/sediment fencing to delineate work areas and maintained until areas are revegetated
- Revegetation of all disturbed substrates using

suitable seed following construction

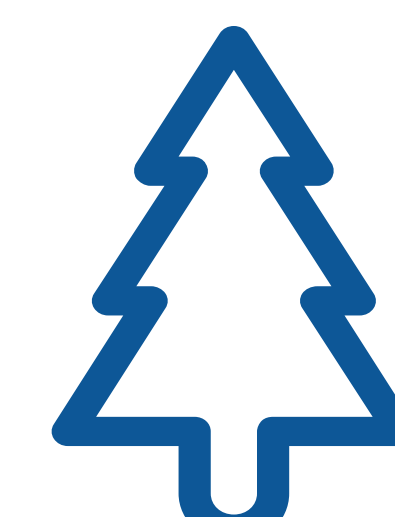
- Breeding Birds – Avoid any tree removal during the breeding bird window (May 1 to July 31)
- If vegetation clearing is required during the breeding bird window, retain an avian biologist to complete comprehensive breeding bird surveys

TRAFFIC MANAGEMENT AND ACCESS

- Traffic management plans including staging plans will be prepared during detailed design.
- Potential for short term road closures and detours per standard construction practices. Coordination with the County required.

ARCHAEOLOGY

- A Stage 1-2 archaeological assessment shall be conducted to identify areas of archaeological potential.



Next Steps

Review public, stakeholder, and First Nations input.
Fill out a comment sheet!

Confirm recommendations, impacts and mitigation measures.
Prepare Project File

File Project File for 30-day review period. Address concerns during the public review period.*

If no Part II Order requests are received, the project is complete and the Municipality may proceed to design and implementation.

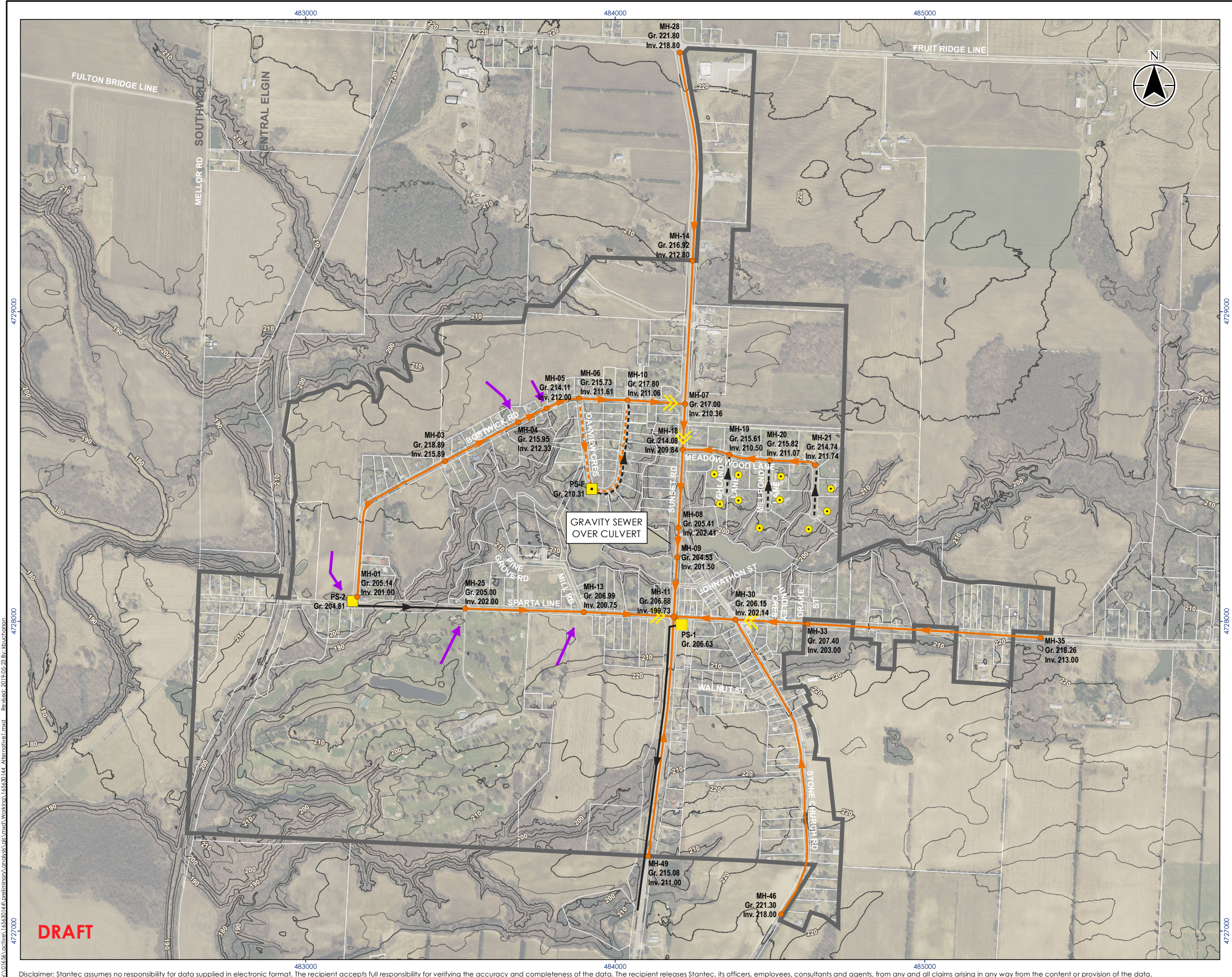
*Any member of the public with outstanding concerns may submit a request to the Minister of the Environment, Conservation Parks to issue an order to comply with Part II of the *Environmental Assessment Act*, requiring the proponent to undertake a greater level of assessment.


Thank You!

- Please fill out a comment sheet today and leave it with our representatives or forward to project team by October 18, 2019.
- Further information is available on the project website at <https://www.centralelgin.org/>
- All comments collected throughout the project will be considered in finalizing the preferred sanitary servicing strategy.
- Comments and requests to be added to the project mailing list can be sent to one of the following project team members:

Lloyd Perrin
Director of Assessment Management and Development Services
Municipality of Central Elgin
450 Sunset Drive
St. Thomas, Ontario N5R 5V1
(519) 631-4860 ext. 277
Lperrin@centralelgin.org

Stephanie Bergman, MA, ENV SP Planner
Stantec Consulting Ltd.
600-171 Queens Avenue
London, Ontario N6A 5J7
(519) 675-6614
Stephanie.bergman@stantec.com





Stantec

Legend

- Settlement Area
- Proposed Key MH
- Invert-Determining Sewer
- Proposed Municipal PS
- Proposed Municipal PS - Future
- Proposed Private PS - Future
- Proposed Forcemain
- Proposed Forcemain - Future
- Proposed Gravity Sewer
- Proposed Gravity Sewer - Future
- Development Flows
- Elevation Contour (10 m)
- Elevation Contour (5 m)

0 250 500 metres

1:12,500 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Contains information licensed under the Open Government Licence – Ontario.
3. 2015 orthoimagery © Municipality of Central Elgin.

Project Location
Municipality of
Central Elgin

165630144 REVA
Prepared by KDB on 2019-05-23

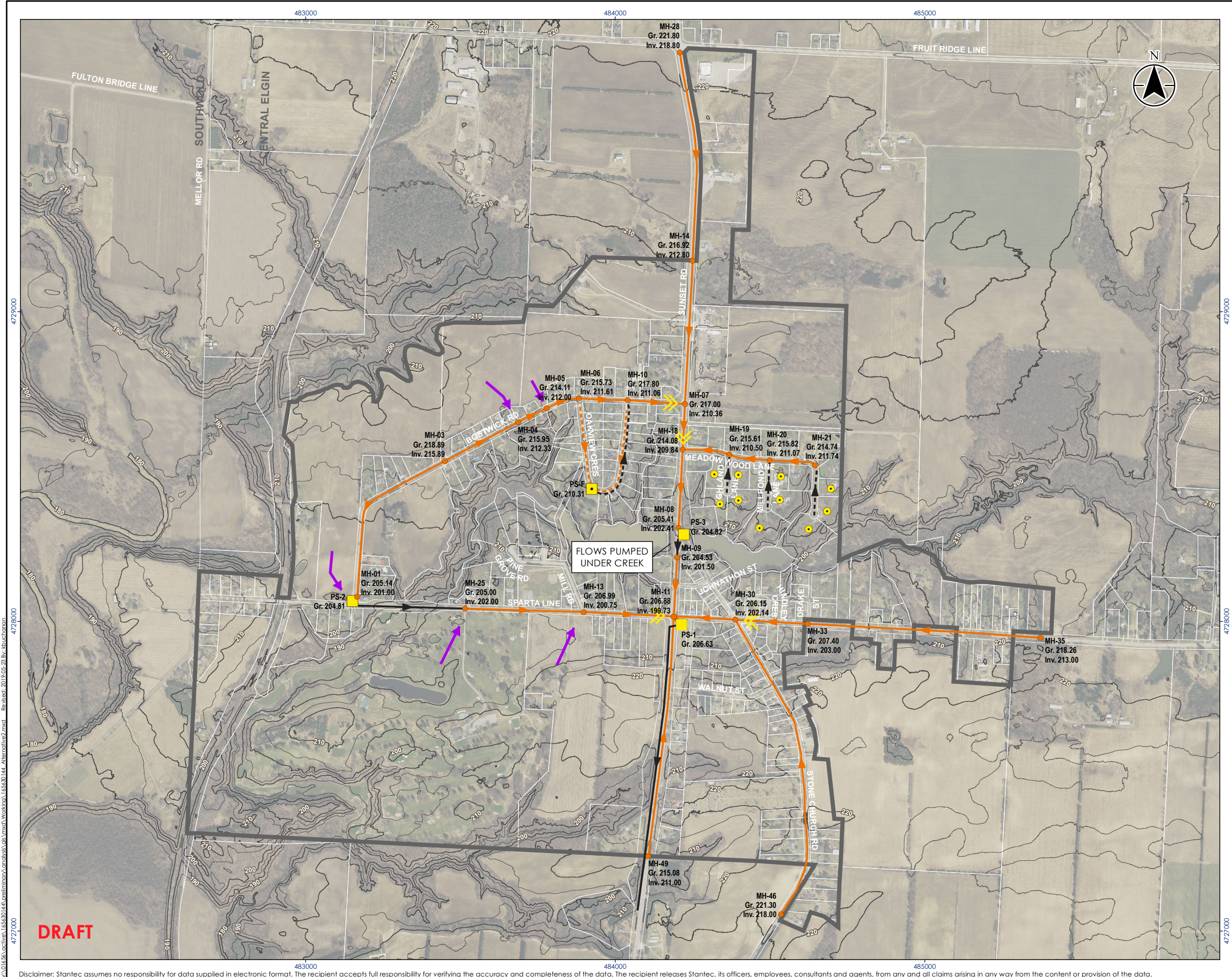
Client/Project
MUNICIPALITY OF CENTRAL ELGIN
UNION SANITARY SERVICING
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Figure No.
1

DRAFT

Title

**Union Sanitary Collection System
Alternative 1 - Two Pumping Stations**



Legend

- Settlement Area
- Proposed Key MH
- Invert-Determining Sewer
- Proposed Municipal PS
- Proposed Municipal PS - Future
- Proposed Private PS - Future
- Proposed Forcemain
- Proposed Forcemain - Future
- Proposed Gravity Sewer
- Proposed Gravity Sewer - Future
- Development Flows
- Elevation Contour (10 m)
- Elevation Contour (5 m)

0 250 500 metres

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Project Location
Municipality of
Central Elgin

165630144 REVA
Prepared by KDB on 2019-05-23

Client/Project
MUNICIPALITY OF CENTRAL ELGIN
UNION SANITARY SERVICING
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Figure No.
2

DRAFT

Title
**Union Sanitary Collection System
Alternative 2 - Three Pumping Stations**

From: [Bergman, Stephanie](#)
To: [Bergman, Stephanie](#)
Bcc:

Subject: Union Settlement Area Sanitary Servicing Class EA
Date: Thursday, September 19, 2019 7:22:00 PM
Attachments: [Union EA PIC 1 Notice 20190913.pdf](#)

Hi there,

Please find attached the Notice of Public Information Centre for the Union Settlement Area Sanitary Servicing Municipal Class Environmental Assessment, being held on Wednesday October 2nd, 5:00pm to 7:30pm at the Union Community Centre, 6068 Bell Street, Union. It will be held as a drop-in session, so please feel free to join us anytime between 5:00pm and 7:30pm. Following the PIC, the study materials will be made available online at: <https://www.centralelgin.org/en/municipal-office/union-sanitary-environmental-assessment.aspx>.

Thank you,

Stephanie L. Bergman MA, ENV SP
Planner

Direct: 519-675-6614
Mobile: 519-852-8945
Fax: 519-645-6575
stephanie.bergman@stantec.com

Stantec



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**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

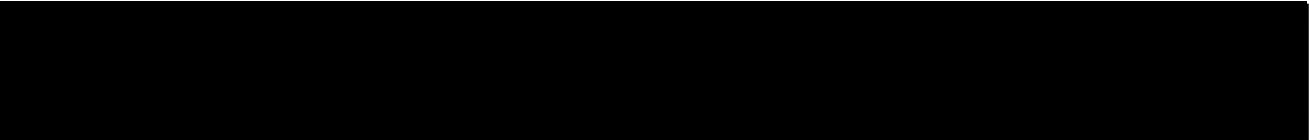
COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	Property owner
Comments:	<p>We are very happy with our well and septic system and are not interested in a sanitary connection. Developers can pay for the service installation and connect their developments to it. We are ok with progress, just don't need to spend money on something we don't need.</p>

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

Information will be collected in accordance with Ontario's Municipal Freedom of Information and Protection of Privacy Act. All comments submitted will become part of the public record.

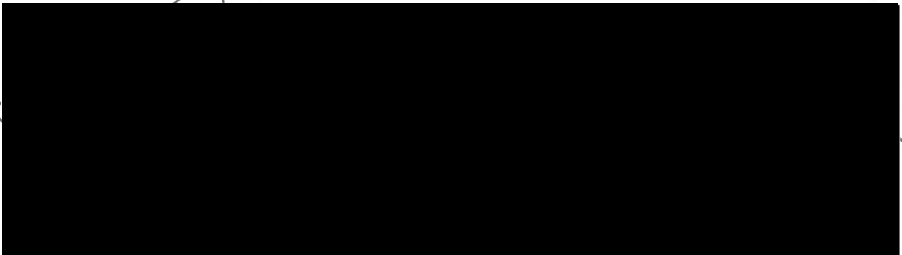


WE HAVE AN EXCELLENT SEWAGE
DRAINAGE AND WATER SYSTEM.

WE DO NOT FEEL THE NEED TO
HOOK UP TO THE SEWER OR WATER.

IF THE LINES DO GO IN.

WE DO NOT WANT TO BE CHARGED
ANY MONIES.





**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	property owner.
Comments:	<p>We do not want to pay any fees until we decide if we choose to connect Has the agricultural lands behind [REDACTED] Spoke line. To connect to residential - subdivision? If so how many units are proposed (lots). If developer wants this they can pay for it.</p>

**Please place comments in the comment
box provided or submit comments to the
following by October 18, 2019:**

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

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**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	PROPERTY OWNER
Comments:	<ul style="list-style-type: none">- WILL NOT PAY ANY OF IT. SHOULD BE ALL COVERED BY DEVELOPMENT FEES INCLUDING ANY FUTURE HOOKUPS.- DO NOT WANT TO BE FORCED TO CONNECT AT ALL.- WILL NOT PAY MORE TAXES FOR THIS DEVELOPMENT.- HOW MANY LOTS BEHIND 42531 SPARTA LINE??- WILL THERE BE OPTIONS FOR SEWER HOOKUP ONLY??

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
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**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	Property Owners
Comments:	<p>- Definitely not interested in municipal services for existing Built areas that do not want or need the water or sewer.</p> <p>- Any development Servicing lines going by existing houses should investigate off setting costs to those individuals through Development Charges.</p> <p>- Council needs to Ensure ESR is transparent and Covers all costs and projected plan of development of all subdivisions</p>

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

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**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	property owner
Comments:	<p>→ we deeply feel we should not be paying since Port Stanley doesn't pay and Belmont as well!</p> <p>→ how much is this going to affect taxes? If not prove it!</p> <p>→ we bought to be in the country not the city!</p> <p>→ are you going to make it available to just hook up to sewer only & use wells. Bring out the cost of sewage & water</p> <p>→ we need more facts & figures at this point.</p>

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

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[Comment SHEETS]

Ran out 1.1.1. [REDACTED]

THE WHOLE PROGRESS of NEW SUBDIVISION IS A VOLATILE AREA.

BUILDING TO SUIT DEVELOPERS AND DESTROYING VALUABLE FARM LAND IS ALWAYS QUESTIONABLE AND NEVER REVERSED.

TONIGHT THERE ARE VAGUE PROMISES THAT IT WILL NOT EFFECT THOSE LIVING HERE FINANCIALLY BUT THE OBSERVATIONS of WHAT HAPPENS IN OTHER COMMUNITIES LEAVES A LOT OF DOUBT.

IT IS BAD ENOUGH TO HAVE OUR COMMUNITY DESTROYED BY HIGH IMPACT BUILDING AND MORE TRAFFIC AND TO POTENTIALLY HAVE TO PUT UP WITH MORE TAXES FOR A POTENTIAL HOOK UP IS ENOUGH TO MAKE MOST RESIDENTS SCARED.

MORE & LARGER VILLAGES IS NOT ~~THE~~ CREATING A DECENT LIVING SPACE. THIS IS NOT PROGRESSIVE BUT A RETARDED MENTALITY TO DESTROY FARM LAND AND AN AMBIENCE THAT CANNOT BE REPLACED!

ALSO THE COMMENT RE NOT DOING THINGS DURING BIRD BREEDING IS ERRONEOUS!

BIRD NEST LONG BEFORE MAY 1 AND AFTER JULY 31. THIS NEEDS CORRECTION NO MATTER WHAT REGULATIONS STATE!

[REDACTED] [REDACTED]



**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	Home OWNER
Comments:	<p>- We do NOT WANT TO HAVE TO PAY FEES UNTIL WE DECIDE TO CONNECT?</p> <p>- HAS THIS AGRICULTURAL PROPERTY BEHIND [REDACTED] SPARTA LOTS BEEN REZONED TO RESIDENTIAL / SUBDIVISION?</p> <p>- WILL WE EVEN BE FORCED TO CONNECT?</p> <p>- HOW MANY LOTS ARE BEING PROPOSED BEHIND OUR PROPERTY.</p>

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

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Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name: [REDACTED]

Mailing Address: [REDACTED]

Email Address: [REDACTED]

Interest (i.e. property owner, agency): owner

Comments: I quite like my well water and septic. I am not against development, but would appreciate not being forced to pay.

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

Information will be collected in accordance with Ontario's Municipal Freedom of Information and Protection of Privacy Act. All comments submitted will become part of the public record.



**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	
Comments:	
	not interested in sewers
	or hook-up
	please abandon idea
	[REDACTED]

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

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**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	Property owners
Comments:	Opposed to sensors We moved to Union because there are <u>no</u> sensors, sidewalks and street lights. New development would take away from the neighborhood and the reasons we bought in the community Our property taxes are high enough - we are not interested in additional costs and once again OPPOSE this proposal.

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

The presentation / information
was not very insightful -
very vague

Timing
\$

> the important
information we
want - NOT
vagueness

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**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	
Comments:	<p>I'm looking very opposed to city water & sewers coming down Bostwick Rd. It will up my taxes. Disrupt my family and work. Make my house not worth less when the field behind me gets developed (I will lose my view behind my house, and it's very important to me) I AM OPPOSED TO WATER SEWERS, AND DEVELOPEMENT IN THE SMALL TOWN OF CARLTON VILLAGE</p>

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

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**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	property owner.
Comments:	<p>We are opposed the the proposed expansion of Union. We've moved to Union for the quiet feel of the area. No streetlights, curbs, gutters & busy was the draw towards buying in Union.</p> <p>The cost alone to be burdened on the homeowner will greatly influence the need and desire to stay in the area.</p> <p>Any development should be at the cost of the developer that wants to build, not the people who have chosen to live in the quiet community.</p>

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

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**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	
Mailing Address:	
Email Address:	
Interest (i.e. property owner, agency):	
Comments:	
	- WHY WERE THERE NO INTRODUCTIONS
	NO NAME TAGS ON REPRESENTATIVES NO IDEA WHO
	TO TALK TO
	- NO MENTION OF COSTS ?
	- HOW MUCH WAS THE ENGINEER STUDY ?
	- NOT VERY INFORMATIVE
	- HOW MUCH ARE DEVELOPERS REQUIRED TO PAY ?

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

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**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	property owner
Comments:	<p>I feel that the developer should sustain the cost of building all sewer + water services instead of using existing land owners to help lower his costs. We are doing well with septic + wells and this is the reason we moved here!</p>

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

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**Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House**



Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bell Street, Union, ON

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	[REDACTED]
Interest (i.e. property owner, agency):	PROPERTY OWNER
Comments:	CONCERNS: WILL HOMEOWNERS BE FORCED TO CONNECT EVER IN THE FUTURE? WHY FOR NOT DEVELOP SEWERS/WATERMAINS ON FOR NEW DEVELOPMENT AND MAKE DEVELOPERS NOT PAY

**Please place comments in the comment
box provided or submit comments to the
following by October 18, 2019:**

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

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Municipality of Central Elgin
Union Sanitary Servicing Municipal Class EA
Public Information Open House

Wednesday October 2, 2019 – 5:00pm to 7:30pm
Union Sports Community Centre, 6068 Bel Street, Union, ON

RECEIVED Stantec
OCT 10 2019

COMMENT FORM

Name:	[REDACTED]
Mailing Address:	[REDACTED]
Email Address:	g
Interest (i.e. property owner, agency):	property owners
Comments:	<p>My husband and I attended the P.I.C at the Union Hall. After more than a half hour we left with no information. The hall was over-crowded and extremely noisy. He could not get near the visual aids or the presenters. I looked on the Central Elgin website and the presentation materials were not there. As this is an important and costly topic we feel frustrated.</p> <p>Sincerely,</p> <p>[REDACTED]</p>

Please place comments in the comment box provided or submit comments to the following by October 18, 2019:

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600-171 Queens Ave,
London, ON N6A 5J7
stephanie.bergman@stantec.com

Copy sent to Lloyd Perrin
Director of Physical Services
Municipality of Central Elgin

A.4 COMMENTS RECEIVED FROM AGENCIES

From: [Newton, Craig \(MECP\)](#)
To: lperrin@centralelgin.org
Cc: [Bergman, Stephanie](#); [Wrigley, Rob \(MECP\)](#); [Smith, Mark \(MECP\)](#)
Subject: MECP Response To Notice of Commencement Union Sanitary Servicing Municipal Class EA
Date: Monday, February 4, 2019 9:40:54 AM
Attachments: [MECP Response To Notice of Commencement Union Sanitary Servicing Municipal Class EA.pdf](#)

Dear Mr. Perrin:

Please find attached the MOECC's response to the Notice of Commencement for the above noted project. Please note that this serves as the ministry's formal correspondence and will only be delivered via this e-mail.

Yours truly,

Craig Newton
Regional Environmental Planner / Regional EA Coordinator
Ministry of the Environment, Conservation and Parks
Southwestern Region
733 Exeter Road
London, Ontario
N6E 1L3

Telephone: (519) 873-5014
E-mail: craig.newton@ontario.ca

733 Exeter Road
London ON N6E 1L3
Tel: 519 873-5000
Fax: 519 873-5020

733, rue Exeter
London ON N6E 1L3
Tél.: 519 873-5000
Fax: 519 873-5020

February 4th, 2019

Municipality of Central Elgin
Elgin County Administrative Building
450 Sunset Drive
St. Thomas, Ontario
N5R 5V1

Attention: Mr. Lloyd Perrin, Director of Physical Services

Re: Notice of Commencement Union Sanitary Servicing Municipal Class EA

Dear Mr. Perrin:

This letter acknowledges the Ministry of Environment, Conservation and Parks (MECP) receipt, with thanks, of the Notice of Commencement for the Union Sanitary Servicing Municipal Class EA.

As you know, the Municipality of Central Elgin is undertaking a Municipal Class EA to investigate the options for sanitary servicing within the Urban Settlement Area of Union.

Based on the information submitted, the MECP have identified the following key project details with respect to the proposed undertaking:

Aboriginal Consultation

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before the Municipality of Central Elgin may proceed with this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of consultation to project proponents while retaining oversight of the process.

The Municipality of Central Elgin's proposed project may have the potential to affect Aboriginal or treaty rights protected under section 35 of Canada's *Constitution Act 1982*. Where the Crown's duty to consult is triggered in relation to the Municipality's proposed project, the MECP is delegating the procedural aspects of rights-based consultation to the Municipality of Central Elgin through this letter. The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on the limited information you have provided to date and the Crown's preliminary assessment the Municipality of Central Elgin is required to consult with the following communities who have been identified as potentially affected by your proposed project:

Nation	Contact Information	Nearby Town/City
Chippewas of the Thames First Nation	<p>Chippewas of the Thames First Nation 320 Chippewa Rd., Muncey, ON N0L 1Y0 519-289-5555 Chief Myeengun Henry myeengun@cottfn.com <u>Other Contacts:</u> Kelly Riley, Acting Director - Lands & Environment kriley@cottfn.com Consultation Manager : Fallon Burch (Notices should be sent to Chief with an email copy to consultation@cottfn.com) Consultation email: consultation@cottfn.com</p>	Muncey, ON
Caldwell First Nation	<p>Caldwell First Nation 14 Orange St. Leamington, ON N8H 3W3 519-322-1766 or 1-800-206-7522 Executive Administrator Nikki Orosz nikki.orosz@caldwellfirstnation.ca</p>	Leamington, ON
Oneida Nation of the Thames ONYOTA'A:KA	<p>Oneida Nation of the Thames 2212 Elm Ave. Southwold, ON N0L 2G0 519-652-3244 Chief Jessica Hill jessica.hill@oneida.on.ca Other Contact: Political Office Manager Email: cherilyn.hill@oneida.on.ca Tel: (519) 318-4593</p>	London, ON
Munsee-Delaware Nation	<p>Munsee-Delaware Nation 289 Jubilee Rd R.R.#1 Muncey, ON N0L 1Y0 519-289-5396 Chief Roger Thomas chief@munsee.ca Other Contact: Glenn Forrest, Band Manager glenn@munsee.ca</p>	London, ON

Please be aware that the above guidance may change as new information becomes available on project impacts and/or communities' areas of interest.

Steps that you may need to take in relation to Aboriginal consultation for your proposed project are outlined in the "Code of Practice for Consultation in Ontario's Environmental Assessment Process" which can be found at the following link:

<https://www.ontario.ca/document/consultation-ontarios-environmental-assessment-process>

Additional information related to Ontario's *Environmental Assessment Act* is available online at:

www.ontario.ca/environmentalassessments

You must contact the Director of Environmental Assessment and Permissions Branch (Director) under the following circumstances subsequent to initial discussions with the communities identified by MOECC:

- Aboriginal or treaty rights impacts are identified to you by the communities;
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right;
- Consultation has reached an impasse;
- A Part II Order request or elevation request is expected.

The Director can be notified either by email, mail or fax using the information provided below:

Email:	MOECCpermissions@ontario.ca Subject: Potential Duty to Consult
Fax:	416-314-8452
Address:	Environmental Assessment and Permissions Branch 135 St. Clair Avenue West, 1 st Floor Toronto, ON, M4V 1P5

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role the Municipality of Central Elgin will be asked to play should additional steps and activities be required.

Source Water Protection

As per the recent amendments to the Municipal Engineers Association (MEA) Class Environmental Assessment parent document approved October 2015, proponents undertaking a Municipal Class EA project must identify early in the process whether a project is occurring within a source water protection vulnerable area. This must be clearly documented in an ESR. If the project is occurring in a vulnerable area, then there may be policies in the local Source Protection Plan (SPP) that need to be addressed (requirements under the Clean Water Act). The proponent should contact and consult with the appropriate Conservation Authority/Source Protection Authority (CA/SPA) to discuss potential considerations and policies in the SPP that apply to the project.

Please include a section in the report on Source Water Protection. Specifically, it should discuss whether or not the project is located in a vulnerable area or changes or creates new vulnerable areas, and provide applicable details about the area. If located in a vulnerable area, proponents should document whether any project activities are a prescribed drinking water threat and thus pose a risk to drinking water (this should be consulted on with the appropriate CA/SPA). Where an activity poses a risk to drinking water, the proponent must document and discuss in the Project File Report/ESR how

the project adheres to or has regard to applicable policies in the local SPP. If creating or changing a vulnerable area, proponents should document whether any existing uses or activities may potentially be affected by the implementation of source protection policies. This section should then be used to inform and should be reflected in other sections of the report, such as the identification of net positive/ negative effects of alternatives, mitigation measures, evaluation of alternatives etc. As a note, even if the project activities in a vulnerable area are deemed not to be a drinking water risk, there may be other policies that apply and so consultation with the local CA/SPA is important.

Climate Change

The Municipality of Central Elgin is strongly encouraged to include climate change in this EA. Climate change should be considered in the context of mitigation and the context of adaptation. The Ministry has recently released a guidance document to support proponents in including climate change in environmental assessments. The guide can be found online: <https://www.ontario.ca/page/considering-climate-change-environmental-assessment-process>. It should be noted that Climatic Features is identified in Appendix 2 of the Municipal Class EA page 2-7 (2015).

Part II Order Request Form

Please note that as of July 1, 2018, a Part II Order Request Form must be used to request a Part II Order as per O. Reg. 152/18. Accordingly, please include those details when conveying information regarding the Part II Order process such as on the Notice of Completion. The following sample text would cover this requirement in the Notice of Completion for this project:

"As of July 1, 2018, a Part II Order Request Form must be used to request a Part II Order in accordance with O. Reg. 152/18. The Part II Order Request Form is available online on the Forms Repository website (<http://www.forms.ssb.gov.on.ca/>) by searching "Part II Order" or "012-2206E" (the form ID number)."

Conclusion

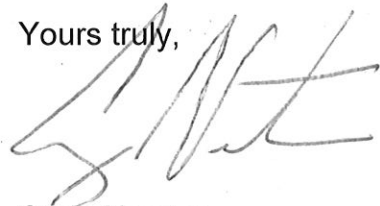
Thank you for the opportunity to comment on this project. Please keep this office fully informed of the status of this project as it proceeds through the Class EA process. All future correspondence with respect to this project should be sent to my attention, as I am this ministry's one window contact for this project, Craig Newton, Regional Environmental Planner / Regional EA Coordinator at (519) 873-5014 or by email at craig.newton@ontario.ca

A draft copy of the Environmental Study Report (ESR) should be sent to the appropriate MOECC regional office before the Municipality of Central Elgin issues its notice of completion of the final report. Allow a minimum of 30 days for MECP's technical reviewers to provide comments on the draft ESR.

When the ESR is finalized, please send the Notice of Completion and final documentation to me.

Should you or any members of your project team have any questions regarding the material above, please contact me directly.

Yours truly,

A handwritten signature in black ink, appearing to read 'C. Newton', written over the closing 'Yours truly,'.

Craig Newton
Regional Environmental Planner / Regional EA Coordinator
Ministry of Environment, Conservation and Parks
733 Exeter Road
London ON, N6E 1L3
519-873-5014

cc Mr. Rob Wrigley, District Manager, MECP London District
Mr. Mark Smith, Supervisor, Drinking Water, MECP London
Ms. Stephanie Bergman, Planner, Stantec Consulting Ltd., London

From: [Bergman, Stephanie](#)
To: [Kirzati, Katherine \(MTCS\)](#)
Subject: RE: Union Sanitary Servicing -PIC 1 Display Boards
Date: Wednesday, January 15, 2020 10:09:00 AM
Attachments: [pic1_display_boards_20190905_fnl_red.pdf](#)

Hi there Katherine,

Apologies for the delay. Please find attached the PIC boards for the Union Sanitary Servicing Class EA. Let me know if you have any questions.

Stephanie Bergman
519-852-8945

From: Kirzati, Katherine (MTCS) <Katherine.Kirzati@ontario.ca>
Sent: Friday, November 29, 2019 3:21 PM
To: Bergman, Stephanie <Stephanie.Bergman@stantec.com>
Subject: Union Sanitary Servicing -PIC 1 Display Boards

Good Afternoon Stephanie:

Would it be possible to get a copy of the display boards for the PIC that was held on Oct 2, 2019?

Also, can you provide a general timeframe as to when the EA report will be ready for circulation?

Regards, Katherine

Katherine Kirzati
Heritage Planner

Ministry of Heritage, Sport, Tourism and Culture Industries

Heritage Planning Unit Programs and Services Branch
401 Bay St, Suite 1700 Toronto, ON M7A 2R9
416.314.7643 katherine.kirzati@ontario.ca

From: [Buchanan, Kent](#)
To: joe@kettlecreekconservation.on.ca
Cc: [Bergman, Stephanie](#)
Subject: Union Sanitary Servicing EA
Date: Tuesday, January 08, 2019 1:44:34 PM
Attachments: [Union EA Commencement 20190104.pdf](#)

Hello Joe,

I wanted to follow up on yesterday's voicemail – Stantec is working with Central Elgin to conduct an environmental assessment for providing sanitary servicing to the community of Union. I've attached a copy of the Notice of Commencement which will be issued soon.

Is it possible to obtain flood elevations, flood mapping, and/or regulated area mapping that may help establish location options for a potential pumping station?

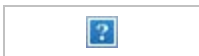
Let me know if you have any questions or would like to discuss further.

Thanks,
Kent

Kent Buchanan HBSc, ENV SP
GIS Analyst

Direct: 519 675-6647
Kent.Buchanan@stantec.com

Stantec
600-171 Queens Avenue
London ON N6A 5J7



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Hydro One Networks Inc
483 Bay St
Toronto, ON

November 07, 2019

Re: Union Sanitary Servicing Municipal Class Environmental Assessment

Attention:
Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.

Following our preliminary assessment, we confirm there are no existing Hydro One Transmission assets in the subject area. Please be advised that this is only a preliminary assessment based on current information. we confirm there are no existing Hydro One Transmission assets in the subject area. to the current information.

However, if plans for the undertaking change or the study area expands beyond that shown, please contact Hydro One to assess impacts of existing or future planned electricity infrastructure.

Any future communications are sent to Secondarylanduse@hydroone.com.

Sent on behalf of,

***Secondary Land Use
Asset Optimization
Strategy & Integrated Planning
Hydro One Networks Inc.***

From:
To:
Subject:
Date:

From: Buchanan, Kent <Kent.Buchanan@stantec.com>
Sent: Thursday, January 10, 2019 10:52 AM
To: Joe Gordon <joe@kettlecreekconservation.on.ca>
Cc: Bergman, Stephanie <Stephanie.Bergman@stantec.com>
Subject: RE: Union Sanitary Servicing EA

Thank-you Joe!

From: Joe Gordon <joe@kettlecreekconservation.on.ca>
Sent: Thursday, January 10, 2019 10:47 AM
To: Buchanan, Kent <Kent.Buchanan@stantec.com>
Cc: Bergman, Stephanie <Stephanie.Bergman@stantec.com>
Subject: RE: Union Sanitary Servicing EA

Hi Kent,

My apologies for the late response. Please see attached PDF of KCCA's Regulation Limit for the area of Union within the Municipality of Central Elgin.

Please do not hesitate to contact me if I can be any further assistance.

Thank you,

Joe Gordon

Assistant Manager
Supervisor of Planning & Conservation Areas
Kettle Creek Conservation Authority

From: Buchanan, Kent [<mailto:Kent.Buchanan@stantec.com>]
Sent: January 8, 2019 1:45 PM
To: Joe Gordon <joe@kettlecreekconservation.on.ca>
Cc: Bergman, Stephanie <Stephanie.Bergman@stantec.com>
Subject: Union Sanitary Servicing EA

Hello Joe,

I wanted to follow up on yesterday's voicemail – Stantec is working with Central Elgin to conduct an environmental assessment for providing sanitary servicing to the community of Union. I've attached a copy of the Notice of Commencement which will be issued soon.

Is it possible to obtain flood elevations, flood mapping, and/or regulated area mapping that may help establish location options for a potential pumping station?

Let me know if you have any questions or would like to discuss further.

Thanks,
Kent

Kent Buchanan HBSc, ENV SP
GIS Analyst

Direct: 519 675-6647
Kent.Buchanan@stantec.com

Stantec
600-171 Queens Avenue
London ON N6A 5J7



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[E.F.A. Project](#), and is believed to be clean.

October 01, 2019

Dennis Crevitz.
Ward 2 Councillor
Municipality of Central Elgin

Sally Martyn
Mayor
Municipality of Central Elgin

Hello Sally and Dennis.

The following comments are provided forthwith for council consideration as the Municipality moves forward with a Schedule "B" Class EA for providing Municipal Sanitary/Water services to the Community of Union. As with all class EA's of this nature, it is likely that one of the options that will be considered in the forthcoming Environmental Study Report will be the option of providing full servicing to the "Built Area" of the Community.

It is my understanding that this EA is being driven by interest in developing the lands on and around Sparta Line near the St. Thomas Golf Course. It is also my understanding that the lands within the growth boundary or Union are predominately owned by individuals/corporations that have historically been involved in land development. It is reasonable to assume that once full servicing is provided, coupled with the healthy housing market currently being experienced in St. Thomas/Elgin, that these lands will be subject to housing development in a very short period of time. The concern is that development of full servicing that includes servicing into the built area of the community will basically subsidize growth (to the benefit of the profit margin of the developers) as the cost is spread out within the entire community for something that the existing community does not need and may not want. Furthermore, the costs that will likely be imposed will represent a substantial financial investment that would likely affect the living standard of many within the community.

These comments are provided as a resident of the Community of Union and are presented with the hope that the process plays out in a transparent manner and that Council has had an opportunity to consider all aspects of servicing. Residents then can make informed decisions and provide Council with appropriate input as to the need/demand for installation of full servicing to the built area of the community. As most, if not all, Municipalities utilize the EA process as the primary component for public input into any given project, I urge that all the points below should be considered/incorporated in any forthcoming Environmental Study Report and completed EA process.

1. Central Elgin Official Plan - Provincial Policy Statement – Ministry of the Environment Conservation and Parks D- 5 Series guidelines (planning for Water and Sewage Services) .

The Central Elgin Official Plan identifies Union as a Urban Growth Area and identified for residential development, The Provincial Policy statement states that municipalities shall make efforts to provide full servicing as the preferred option. This optimizes management of water and land use space and is required where Human Health or Environmental impact will or may be realized. Furthermore the

MECP Policy document D- 5 Series guidelines (planning for Water and Sewage Services) identifies that a Municipality shall work toward providing servicing where Human health or environmental impact has been identified.

Neither the MECP nor the Health Unit has identified the existing built area of Union as a community that is a concern for environmental impact or has concerns with respect to Human Health. Union has relatively large lots providing for several options for private sanitary servicing technologies . The wells are generally considered to be good both for supply and quality and are well maintained

The Central Elgin Official Plan identifies full servicing of sanitary and water as the preferred hierarchy option for servicing in Urban Settlement Areas. (section 2.8.1). The Official Plan then goes to further clarify that Servicing. Section 4.6.5.1 recognizes that infilling/redevelopment within the built area of Union may be undertaken with partial or private servicing. This point acknowledges that there is no identified Human health or environmental impact associated with current private servicing within the community – Further to this , the Special Policies section for Union makes no mention of identifying the existing built area for provision of full servicing. The policy only makes reference to providing full servicing to new development noting “*The Community of Union has been designated as an urban settlement area and a target for planned future growth to be serviced with municipal water supply and sanitary sewage*”.

2. Costing.

Currently there is no Sanitary Servicing trunk line to Port Stanley. Any future development to Union would involve the installation of a forcemain line from Union to The Port Stanley Waste Water Treatment Plant. A water line currently services Sunset Drive, Oakview Subdivision and a small reach of Sparta line to the Fire hall.

All roads within the existing community would need to be partially to fully excavated/removed to provide for water and sanitary lines and the roads rebuilt. Furthermore, there would need to be consideration about upgrading/installing stormwater management lines and possibly sidewalks – all adding to the cost. Typically servicing per lot on this scale usually runs \$20,000 to \$40,000. Since any option involving the built up area would entail removal of existing infrastructure, it is reasonable to assume that that the cost would be closer to the upper range.

Full costs need to be itemized

- Cost of Running the Forcemain to Union.
- Cost of installation of service lines down each road including road repair
- Cost of potential upgrade of servicing such as storm servicing, sidewalks...
- Projected cost of hook up and discussion with respect to costs associated with disconnection of private servicing.
- Cost of water meters installation

- Projected “average” monthly water use rates based on existing Central Elgin servicing for other communities and utilizing the “Central Elgin Water and Wastewater rate Study (2018)”

Projected final costs per lot

Full cost needs to be identified, itemized and explained on a per lot basis. this would include meters, individual hook up and disconnection of private works and all other costs that would be levied for cost recovery. The Municipality should also outline municipal debentures and options for repayment to the Municipality from the benefitting lots (e.g one time payment, payback put against municipal property tax – including projected interest)

3. Public Input.

Should the Municipality consider providing full servicing to the Built Area of the community, ultimately it will be the people who live on these lines that will bare the cost of the servicing. This is a considerable cost to the ratepayers and they should have an opportunity to provide input and consensus for servicing that is not demanded (as the current wells and private sanitary servicing have not been identified as a potential hazard by MECP or health Unit) . Dillon Consulting undertook a *Union Area Water Supply Study* on behalf of the municipality in August 2002. **The report notes that 93% of the people who participated in a survey were opposed to a water line - Citing existing good well supplies and resentment that they could be forced to hook up to a system that the rest of Union does not need** (Pages 9, 10 of the report). Given the previous opposition to a water line, I cannot stress the importance of revisiting the opportunity of polling the community to determine whether such opposition to municipal servicing remains.

Summary

In summary, as part of the EA process , I support Central Elgin Council in providing the residents of Union with all relevant information as to the implications of full water/sanitary servicing for the built area of the community. Subsequent to that, the Municipality should poll the community as to what interest exists within the built area to support full servicing to their lots. Should the majority of the community show interest in full servicing to the built area, then the Council could consider providing full servicing to the urban designation boundary of Union as a preferred option.

I thank you for you time in considering this information.

[REDACTED]
[REDACTED].

From: [Bergman, Stephanie](#)
To: [REDACTED]
Date: [REDACTED] Servicing
Tuesday, February 4, 2020 7:45:41 AM

[REDACTED]
Sent: Wednesday, October 9, 2019 8:48 AM
To: Lloyd Perrin <LPerrin@centralelgin.org>
Cc: Bergman, Stephanie <Stephanie.Bergman@stantec.com>
Subject: Re: Union Sanitary Servicing

Thank You

[REDACTED]

On Wed, Oct 9, 2019 at 8:25 AM Lloyd Perrin <LPerrin@centralelgin.org> wrote:

[REDACTED]

Please find attached the story boards that were at the open house last week. Any questions, feel free to contact me.

Thanks

Lloyd J. Perrin

Director of Asset Management and Development

Corporation of the Municipality of Central Elgin

450 Sunset Drive, St. Thomas, ON N5R 5V1

Phone: (519) 631 4860 ext 277

Fax: (519) 631 4036

lperrin@centralelgin.org



MunCentralElgin



Municipality of Central Elgin



From: [REDACTED]

Sent: Wednesday, October 9, 2019 7:37 AM

To: Lloyd Perrin <LPerrin@centralelgin.org>; stephanie.bergman@stantec.com

Subject: Union Sanitary Servicing

[REDACTED]

[REDACTED]. I was unable to attend the open house on Oct. 2. I was hoping you could email me the presentation or send me the link to where it is on the website.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

1. **Subject:** **Regional Sanitary Services**
2. **Client:** **Central Elgin**
3. **Project:** **Sanitary Services**
4. **Location:** **Central Elgin**
5. **Phase:** **Initial**
6. **Start Date:** **2019-01-10**
7. **End Date:** **2019-01-10**
8. **Project Manager:** **Stephanie Bergman**
9. **Project Lead:** **Stephanie Bergman**
10. **Project Team:** **Stephanie Bergman, Lloyd Perrin**
11. **Project Status:** **Initial**
12. **Project Description:** **Sanitary Services**
13. **Project Objectives:** **Sanitary Services**
14. **Project Deliverables:** **Sanitary Services**
15. **Project Risks:** **Sanitary Services**
16. **Project Budget:** **Sanitary Services**
17. **Project Timeline:** **Sanitary Services**
18. **Project Milestones:** **Sanitary Services**
19. **Project Stakeholders:** **Sanitary Services**
20. **Project Contacts:** **Sanitary Services**

Union Sanitary Servicing Municipal Class Environmental Assessment Notice of Commencement

The Municipality of Central Elgin is undertaking a Municipal Class Environmental Assessment to investigate options for sanitary servicing within the Urban Settlement Area of Union. The study is being undertaken in accordance with the Municipal Engineers Association Municipal Class Environmental Assessment (Class EA) process for Schedule B Projects (2000, as amended in 2007, 2011, and 2015).

Why are we undertaking the study?

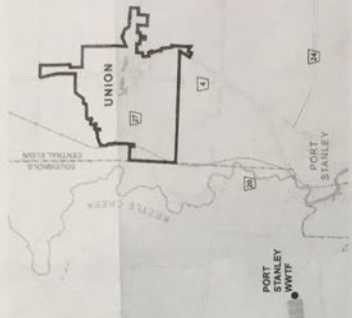
Union is one of the six Urban Settlement Areas within the Municipality. These areas are a primary focus for future growth and development as outlined within the Central Elgin Official Plan (2013). Before new development can occur within the settlement area, municipal piped sanitary services are required.

This Class EA is being undertaken to promote the sustainable and orderly development of lands within the Union settlement area. The study will assess alternative strategies for the provision of sanitary servicing within the settlement area. This will include alternative locations for a sanitary pumping station, and alternative forermain routes to the Port Stanley Waste Water Treatment Facility (WWTF) on Scotch Line. Alternatives will be considered based on their impacts to the social, cultural, natural, technical, and economic environments.

How can I participate in the study?

The study team encourages you to provide input for consideration in the study. To be added to the study contact list, or provide information on existing conditions within the area, please contact a member of the study team listed below. A Public Information Centre (PIC) will be held in the spring of 2019 to present more information on the study and alternatives considered. Information on the study will be made available on the Central Elgin website:

<https://www.centralelgin.org/en/index.aspx>.



Lloyd Perrin
Director of Physical Services
Municipality of Central Elgin
(519) 631-4860 ext. 277
LPerrin@centralelgin.org

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
(519) 675-6614
stephanie.bergman@stantec.com

This notice was first issued on January 10, 2019

Alternate formats of project information are available upon request.

All correspondence received with respect to this study will be kept on file for use during the decision making process, and will become part of the public record. Under the Municipal Freedom of Information and Protection of Privacy Act, and the Environmental Assessment Act, unless otherwise stated in the submission, personal information such as name, address, telephone number, and property location included in a submission may become part of the public record, and will be released, if requested, to any person.

October 01, 2019

Dennis Crevitz.
Ward 2 Councillor
Municipality of Central Elgin

Sally Martyn
Mayor
Municipality of Central Elgin

Hello Sally and Dennis.

The following comments are provided forthwith for council consideration as the Municipality moves forward with a Schedule "B" Class EA for providing Municipal Sanitary/Water services to the Community of Union. As with all class EA's of this nature, it is likely that one of the options that will be considered in the forthcoming Environmental Study Report will be the option of providing full servicing to the "Built Area" of the Community.

It is my understanding that this EA is being driven by interest in developing the lands on and around Sparta Line near the St. Thomas Golf Course. It is also my understanding that the lands within the growth boundary or Union are predominately owned by individuals/corporations that have historically been involved in land development. It is reasonable to assume that once full servicing is provided, coupled with the healthy housing market currently being experienced in St. Thomas/Elgin, that these lands will be subject to housing development in a very short period of time. The concern is that development of full servicing that includes servicing into the built area of the community will basically subsidize growth (to the benefit of the profit margin of the developers) as the cost is spread out within the entire community for something that the existing community does not need and may not want. Furthermore, the costs that will likely be imposed will represent a substantial financial investment that would likely affect the living standard of many within the community.

These comments are provided as a resident of the Community of Union and are presented with the hope that the process plays out in a transparent manner and that Council has had an opportunity to consider all aspects of servicing. Residents then can make informed decisions and provide Council with appropriate input as to the need/demand for installation of full servicing to the built area of the community. As most, if not all, Municipalities utilize the EA process as the primary component for public input into any given project, I urge that all the points below should be considered/incorporated in any forthcoming Environmental Study Report and completed EA process.

1. Central Elgin Official Plan - Provincial Policy Statement – Ministry of the Environment Conservation and Parks D- 5 Series guidelines (planning for Water and Sewage Services) .

The Central Elgin Official Plan identifies Union as a Urban Growth Area and identified for residential development, The Provincial Policy statement states that municipalities shall make efforts to provide full servicing as the preferred option. This optimizes management of water and land use space and is required where Human Health or Environmental impact will or may be realized. Furthermore the

MECP Policy document D- 5 Series guidelines (planning for Water and Sewage Services) identifies that a Municipality shall work toward providing servicing where Human health or environmental impact has been identified.

Neither the MECP nor the Health Unit has identified the existing built area of Union as a community that is a concern for environmental impact or has concerns with respect to Human Health. Union has relatively large lots providing for several options for private sanitary servicing technologies . The wells are generally considered to be good both for supply and quality and are well maintained

The Central Elgin Official Plan identifies full servicing of sanitary and water as the preferred hierarchy option for servicing in Urban Settlement Areas. (section 2.8.1). The Official Plan then goes to further clarify that Servicing. Section 4.6.5.1 recognizes that infilling/redevelopment within the built area of Union may be undertaken with partial or private servicing. This point acknowledges that there is no identified Human health or environmental impact associated with current private servicing within the community – Further to this , the Special Policies section for Union makes no mention of identifying the existing built area for provision of full servicing. The policy only makes reference to providing full servicing to new development noting “*The Community of Union has been designated as an urban settlement area and a target for planned future growth to be serviced with municipal water supply and sanitary sewage*”.

2. Costing.

Currently there is no Sanitary Servicing trunk line to Port Stanley. Any future development to Union would involve the installation of a forcemain line from Union to The Port Stanley Waste Water Treatment Plant. A water line currently services Sunset Drive, Oakview Subdivision and a small reach of Sparta line to the Fire hall.

All roads within the existing community would need to be partially to fully excavated/removed to provide for water and sanitary lines and the roads rebuilt. Furthermore, there would need to be consideration about upgrading/installing stormwater management lines and possibly sidewalks – all adding to the cost. Typically servicing per lot on this scale usually runs \$20,000 to \$40,000. Since any option involving the built up area would entail removal of existing infrastructure, it is reasonable to assume that the cost would be closer to the upper range.

Full costs need to be itemized

- Cost of Running the Forcemain to Union.
- Cost of installation of service lines down each road including road repair
- Cost of potential upgrade of servicing such as storm servicing, sidewalks...
- Projected cost of hook up and discussion with respect to costs associated with disconnection of private servicing.
- Cost of water meters installation

- Projected “average” monthly water use rates based on existing Central Elgin servicing for other communities and utilizing the “Central Elgin Water and Wastewater rate Study (2018)”

Projected final costs per lot

Full cost needs to be identified, itemized and explained on a per lot basis. this would include meters, individual hook up and disconnection of private works and all other costs that would be levied for cost recovery. The Municipality should also outline municipal debentures and options for repayment to the Municipality from the benefitting lots (e.g one time payment, payback put against municipal property tax – including projected interest)

3. Public Input.

Should the Municipality consider providing full servicing to the Built Area of the community, ultimately it will be the people who live on these lines that will bare the cost of the servicing. This is a considerable cost to the ratepayers and they should have an opportunity to provide input and consensus for servicing that is not demanded (as the current wells and private sanitary servicing have not been identified as a potential hazard by MECP or health Unit) . Dillon Consulting undertook a *Union Area Water Supply Study* on behalf of the municipality in August 2002. **The report notes that 93% of the people who participated in a survey were opposed to a water line - Citing existing good well supplies and resentment that they could be forced to hook up to a system that the rest of Union does not need** (Pages 9, 10 of the report). Given the previous opposition to a water line, I cannot stress the importance of revisiting the opportunity of polling the community to determine whether such opposition to municipal servicing remains.

Summary

In summary, as part of the EA process , I support Central Elgin Council in providing the residents of Union with all relevant information as to the implications of full water/sanitary servicing for the built area of the community. Subsequent to that, the Municipality should poll the community as to what interest exists within the built area to support full servicing to their lots. Should the majority of the community show interest in full servicing to the built area, then the Council could consider providing full servicing to the urban designation boundary of Union as a preferred option.

I thank you for you time in considering this information.

[REDACTED]

A.5 INDIGENOUS CONSULTATION

A.5 Indigenous Consultation

Union Sanitary Servicing Municipal Class Environmental Assessment Notice of Public Information Centre # 1

The Municipality of Central Elgin is undertaking a Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. The study is being undertaken in accordance with the Municipal Engineers Association Municipal Class EA process for Schedule B Projects (2000, as amended in 2007, 2011, and 2015).

Union is one of the six Urban Settlement Areas within the Municipality. These areas are a primary focus for future growth and development as outlined within the Central Elgin Official Plan (2013). Before new development can occur within the settlement area, municipal piped sanitary services are required.

This Class EA is being undertaken to promote the sustainable and orderly development of lands within the Union settlement area. Preliminary recommendations for sanitary servicing, including a sanitary pumping station and a forcemain route to the Port Stanley WWTF have been developed.

Get Involved: A Public Information Centre (PIC) is scheduled to present background information on the study, alternative sanitary servicing strategies and preliminary recommendations for public review and comment. The study team encourages all those interested to review the information and provide their feedback.

The PIC will be held in Open House format and all presentation materials will be made available on the Central Elgin website following the PIC:

www.centralelgin.org

Date: Wednesday October 2, 2019

Time: 5:00pm to 7:30pm

Location: Union Sports Community Centre,
6068 Bell Street, Union, ON

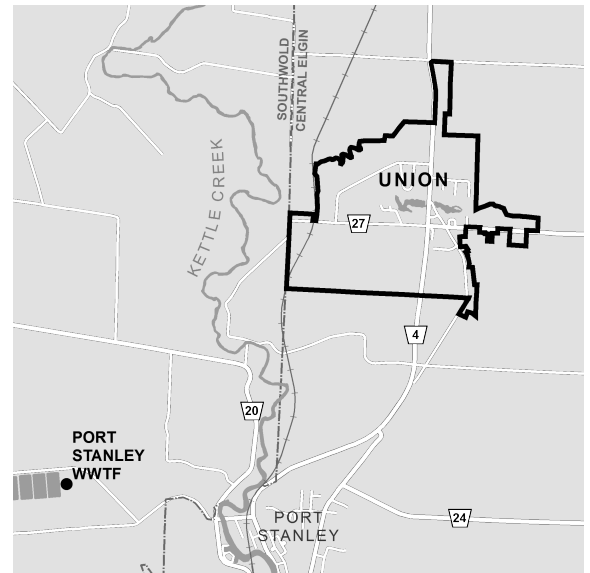
For more information or to be included on the project mailing list, please contact one of the following project team members below:

Lloyd Perrin
Director of Physical Services
Municipality of Central Elgin
(519) 631-4860 ext. 277
LPerrin@centralelgin.org

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
(519) 675-6614
stephanie.bergman@stantec.com

This notice was first issued on Thursday September 16, 2019.

All correspondence received with respect to this study will be kept on file for use during the decision making process and will become part of the public record. Under the Municipal Freedom of Information and Protection of Privacy Act, and the Environmental Assessment Act, unless otherwise stated in the submission, personal information such as name, address, telephone number, and property location included in a submission may become part of the public record, and will be released, if requested, to any person. Alternate formats of project information are available upon request.



Union Sanitary Servicing
Municipal Class Environmental Assessment

Contact Information	Date/Method of Communication	Comment/Concern	Response/Commitment to Carry Forward
<p>Chippewas of the Thames Chief Jacqueline French 320 Chippewa Road, RR1 Muncey, ON N0L 1Y0 519-289-5241 jfrench@cottfn.com</p> <p>Consultation Coordinator Fallon Burch consultation@cottfn.com fburch@cottfn.com</p> <p>Chief Turnover July 27, 2019 Old Chief Myeengun Henry Email: myeegun@cottfn.com</p>	<p>Notice of Commencement Letter sent via Canada Post January 10, 2019.</p>	<p>Response Letter Received January 21, 2019, Acknowledgement of the NOC. Project located within treaty territory, but minimal concerns.</p>	<p>Continue to update as the study progresses. Future communications to be sent via consultation@cottfn.com</p>
	<p>Notice of PIC#1 Letter sent via Canada Post September 16, 2019</p>	<p>No comments received</p>	<p>N/A</p>
	<p>Follow Up Email was sent to chief October 16, 2019 and to consultation coordinator October 29, 2019</p> <p>Follow Up message included PIC#1 Notice and PIC#1 Presentation</p>	<p>No comments received</p>	<p>N/A</p>
	<p>Notice of Completion</p> <p>Left voicemail May 26, 2021, ahead of Notice of Completion to make them aware of upcoming report.</p> <p>Email sent August 26, 2021 notifying of 30-day review.</p>	<p>No comments received</p>	
<p>Oneida Nation of the Thames Chief Chrisjohn 2212 Elm Avenue RR #2 Southwold, ON N0L 2G0 519-318-4598 adrian.chrisjohn@oneida.on.ca</p> <p>Chief Turnover 2020: Old Chief Jessica Hill 519-318-4585 Jessica.hill@oneida.on.ca</p>	<p>Notice of Commencement Letter Received January 10, 2019.</p>	<p>No comments received</p>	<p>N/A</p>
	<p>Notice of PIC#1 Letter sent via Canada Post September 16, 2019</p>	<p>No comments received</p>	<p>N/A</p>
	<p>Follow Up Email was sent to chief October 16, 2019</p> <p>Follow Up message included PIC#1 Notice and PIC#1 Presentation</p>	<p>No comments received</p>	<p>N/A</p>
	<p>Notice of Completion</p> <p>Left voicemail May 26, 2021, ahead of Notice of Completion to make them aware of upcoming report.</p> <p>Email sent August 26, 2021 notifying of 30-day review.</p>	<p>No comments received</p>	
<p>Munsee-Delaware Nation Chief Roger Thomas</p>	<p>Notice of Commencement Letter sent via Canada Post January 10, 2019.</p>	<p>No comments received</p>	<p>N/A</p>



Union Sanitary Servicing
Municipal Class Environmental Assessment

289 Jubilee Road Muncey, ON N0L 1Y0 519-289-5396 ext 226 chief@munsee.ca *Note change in email address	Notice of PIC#1 Letter sent via Canada Post September 16, 2019	No comments received	N/A
	Follow Up Email was sent to chief October 16, 2019 Follow Up message included PIC#1 Notice and PIC#1 Presentation	No comments received	N/A
	Notice of Completion Left voicemail May 26, 2021, ahead of Notice of Completion to make them aware of upcoming report. Email sent August 26, 2021 notifying of 30-day review.	No comments received	
Delaware Nation Chief Denise Stonefish 14760 School House Line RR #3 Thamesville, ON N0P 2K0 519-692-3936 Denise.stonefish@delawarenation.org	Notice of Commencement Letter sent via Canada Post January 10, 2019.	No comments received	N/A
	Notice of PIC#1 Letter sent via Canada Post September 16, 2019	No comments received	N/A
	Follow Up Email was sent to chief October 16, 2019 Follow Up message included PIC#1 Notice and PIC#1 Presentation	No comments received	N/A
	Notice of Completion Left voicemail May 26, 2021, ahead of Notice of Completion to make them aware of upcoming report. Email sent August 26, 2021 notifying of 30-day review.	No comments received	
Bkejwanong Territory (Walpole Island) Chief Dan Miskokomon 117 Tahgahoning Road RR #3 Wallaceburg, ON N8A 4K9 519-627-1481 drskoke@wifn.org	Notice of Commencement Letter sent via Canada Post January 10, 2019.	No comments received	N/A
	Notice of PIC#1 Letter sent via Canada Post September 16, 2019	No comments received	N/A
	Follow Up Email was sent to chief October 16, 2019	No comments received	N/A



Union Sanitary Servicing
Municipal Class Environmental Assessment

<p>Consultation Manager Dean Jacobs dean.jacobs@wifn.org</p>	Follow Up message included PIC#1 Notice and PIC#1 Presentation		
	<p>Notice of Completion</p> <p>Email sent August 26, 2021 notifying of 30-day review. Left voicemail May 26, 2021, ahead of Notice of Completion to make them aware of upcoming report.</p>	No comments received	
<p>Caldwell First Nation Chief Mary Duckworth 14 Orange Street (P.O. Box 388) Leamington, ON N8H 3W3 519-322-1766 chief@caldwellfirstnation.ca</p> <p>Environmental & Consultation Coordinator Brianna Sands ext. 1243 ecc@caldwellfirstnation.ca</p>	<p>Notice of Commencement Letter Received January 10, 2019.</p>	No comments received	N/A
	<p>Notice of PIC#1 Letter Received September 16, 2019</p>	No comments received	N/A
	<p>Follow Up Email was sent to chief October 16, 2019</p>	No comments received	N/A
	<p>Follow Up message included PIC#1 Notice and PIC#1 Presentation</p>		
	<p>Notice of Completion</p> <p>Left voicemail May 26, 2021, ahead of Notice of Completion to make them aware of upcoming report.</p> <p>Email sent August 26, 2021 notifying of 30-day review.</p>	No comments received	
<p>Chippewas of Kettle and Stony Point First Nation Chief Jason Henry 6247 Indian Lane RR #2 Forest, ON N0n 1J0 519-786-2125 jason.henry@kettlepoint.org</p>	<p>Notice of Commencement Letter sent via Canada Post January 10, 2019.</p>	No comments received	N/A
	<p>Notice of PIC#1 Letter sent via Canada Post September 16, 2019</p>	No comments received	N/A
	<p>Follow Up Email was sent to reception email address provided on website October 16, 2019</p>	No comments received	N/A
	<p>Follow Up message included PIC#1 Notice and PIC#1 Presentation</p>		
	<p>Notice of Completion</p> <p>Called May 26, 2021 – directed to send an email to the Chief instead of voicemail.</p>	No comments received	



Union Sanitary Servicing
Municipal Class Environmental Assessment

	Email sent August 26, 2021 notifying of 30-day review.		
Aamjiwnaang First Nation Chief Chris Plain 978 Tashmoo Avenue Sarnia, ON N7T 7H5 519-336-8410 chief.plain@aamjiwnaang.ca * *note email address change Environment Coordinator Sharilyn Johnston 519-383-0404 ext. 245	Notice of Commencement Letter sent via Canada Post January 10, 2019.	No comments received	N/A
	Notice of PIC#1 Letter sent via Canada Post September 16, 2019	No comments received	N/A
	Follow Up Email was sent to chief October 16, 2019	No comments received	N/A
	Follow Up message included PIC#1 Notice and PIC#1 Presentation		
	Notice of Completion Left voicemail May 26, 2021, ahead of Notice of Completion to make them aware of upcoming report. Email sent August 26, 2021 notifying of 30-day review.	No comments received	
Metis Nation of Ontario Margaret Froh, President 311-75 Sherbourne Street Toronto, ON M5A 2P9 margaretF@metisnation.org consultation@metisnation.org	Notice of Commencement Letter sent via Canada Post January 10, 2019.	No comments received	N/A
	Notice of PIC#1 Letter sent via Canada Post September 16, 2019	No comments received	N/A
	Follow Up Email was sent to Margaret Froh October 16, 2019	No comments received	N/A
	Follow Up message included PIC#1 Notice and PIC#1 Presentation		
	Notice of Completion Email sent August 26, 2021 notifying of 30-day review.	No comments received	





CHIPPEWAS OF THE THAMES FIRST NATION

January 21, 2019

VIA EMAIL

Lloyd Perrin
Director of Physical Services
Municipality of Central Elgin

RE: Union Sanitary Servicing Municipal Class Environmental Assessment

Dear Mr. Perrin,

We have received the *Notice of Study Commencement* for the aforementioned project. The proposed project falls within the McKee Treaty Area (1790) to which Chippewas of the Thames First Nation (COTTfN) is a signatory, it is also located within the Big Bear Creek Additions to Reserve (ATR) land selection area, as well as COTTfN Traditional Territory.

Our review of your project has determined there is not enough information to determine if there are any concerns associated with the project. We request that an electronic copy of each Notice or Report be sent to COTTfN via e-mail at consultation@cottfn.com. We also ask that if there are any changes to this Study that are of a substantive nature that you keep us informed.

We look forward to continuing this open line of communication. To implement meaningful consultation, COTTfN has developed its own protocol – a document and a process that will guide positive working relationships. We would be happy to meet with you to review COTTfN's Consultation Protocol. For your convenience the protocol is available at www.cottfn.com/consultation.

Please do hesitate to contact me if you need further clarification of this letter.

Sincerely,

A handwritten signature in red ink, appearing to read "Fallon Burch", is written over a faint, larger signature in blue ink.

Fallon Burch
Consultation Coordinator
Chippewas of the Thames First Nation
(519) 289-5555 Ext. 251

c: Stephanie Bergman, MA, ENV SP, Planner, Stantec Consulting Ltd.

From: [Bergman, Stephanie](#)
To: [Davidson, Moira](#)
Subject: FW: Union Sanitary Servicing Municipal Class Environmental Assessment
Date: Tuesday, October 1, 2019 11:29:50 AM
Attachments: [image001.png](#)
[LTR_Consultation_Union Sanitary Servicing CEA_2019-01-21.pdf](#)
[INV-1-007-19.pdf](#)
[image003.png](#)

From: Fallon Burch <fburch@cottfn.com>
Sent: Monday, January 21, 2019 12:01 PM
To: lperrin@centralelgin.org
Cc: Bergman, Stephanie <Stephanie.Bergman@stantec.com>
Subject: Union Sanitary Servicing Municipal Class Environmental Assessment

Good afternoon Mr. Perrin,

I have attached a letter of response on behalf of the Chippewas of the Thames First Nation in regards to the aforementioned project. As part of the Wiindimaagewin Fee Schedule, I have attached Invoice # 1-007-19. If you have any questions, please do not hesitate to contact me.

Thanks,

Fallon Burch
Consultation Coordinator, Chippewas of the Thames First Nation
320 Chippewa Rd Muncey, ON N0L 1Y0 | 519-289-5555 |
www.cottfn.com/consultation

This email or documents accompanying this email contain information belonging to the Chippewas of the Thames First Nation. Which may be confidential and/or legally privileged. The information is intended only for the addressed recipients(s). If you are not an intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this email. Is strictly prohibited. If you have received this email in error, please advise my office and delete it from your system.

From: [Davidson, Moira](#)
To: margaretF@metisnation.org
Cc: [Bergman, Stephanie](#)
Subject: FW: Union Sanitary Servicing Municipal Class Environmental Assessment
Date: Wednesday, October 16, 2019 10:00:00 AM
Attachments: [pic1_display_boards_20190905_fnl_red.pdf](#)
[Union EA PIC 1 Notice 20190913.pdf](#)

Hello,

The Municipality of Central Elgin is currently in the process of undertaking a Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. A Public Information Centre (PIC) was held the evening of October 2nd, 2019 to present background information on the study, alternatives for sanitary servicing, and preliminary recommendations for public review.

On behalf of the Municipality of Central Elgin, please find attached the Class EA Notice of PIC and the PIC Display Boards for your review. Should you have any comments and/or concerns regarding information mention in the attached or regarding the project in general, we are open to discussing these with you.

Best regards,

Moira Davidson BES

Urban Planner

Direct: 519 585-7295

Mobile: 226 203-0040

Moira.Davidson@stantec.com

Stantec

100-300 Hagey Boulevard

Waterloo ON N2L 0A4



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Please consider the environment before printing this email.

From: [Davidson, Moira](#)
To: chief.plain@aamjiwnaang.ca
Cc: [Bergman, Stephanie](#)
Subject: Union Sanitary Servicing Municipal Class Environmental Assessment
Date: Wednesday, October 16, 2019 9:55:00 AM
Attachments: [pic1_display_boards_20190905_fnl_red.pdf](#)
[Union EA PIC 1 Notice 20190913.pdf](#)

Hello Chief Chris Plain,

The Municipality of Central Elgin is currently in the process of undertaking a Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. A Public Information Centre (PIC) was held the evening of October 2nd, 2019 to present background information on the study, alternatives for sanitary servicing, and preliminary recommendations for public review.

On behalf of the Municipality of Central Elgin, please find attached the Class EA Notice of PIC and the PIC Display Boards for your review. Should you have any comments and/or concerns regarding information mention in the attached or regarding the project in general, we are open to discussing these with you.

Best regards,

Moira Davidson BES

Urban Planner

Direct: 519 585-7295

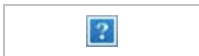
Mobile: 226 203-0040

Moira.Davidson@stantec.com

Stantec

100-300 Hagey Boulevard

Waterloo ON N2L 0A4



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From: [Davidson, Moira](#)
To: chief@caldwellfirstnation.ca
Cc: [Bergman, Stephanie](#)
Subject: Union Sanitary Servicing Municipal Class Environmental Assessment
Date: Wednesday, October 16, 2019 9:44:00 AM
Attachments: [pic1_display_boards_20190905_fnl_red.pdf](#)
[Union EA PIC 1 Notice 20190913.pdf](#)

Hello Chief Mary Duckworth,

The Municipality of Central Elgin is currently in the process of undertaking a Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. A Public Information Centre (PIC) was held the evening of October 2nd, 2019 to present background information on the study, alternatives for sanitary servicing, and preliminary recommendations for public review.

On behalf of the Municipality of Central Elgin, please find attached the Class EA Notice of PIC and the PIC Display Boards for your review. Should you have any comments and/or concerns regarding information mention in the attached or regarding the project in general, we are open to discussing these with you.

Best regards,

Moira Davidson BES

Urban Planner

Direct: 519 585-7295

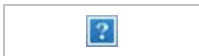
Mobile: 226 203-0040

Moira.Davidson@stantec.com

Stantec

100-300 Hagey Boulevard

Waterloo ON N2L 0A4



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From: [Davidson, Moira](#)
To: fdesk@kettlepoint.org
Cc: [Bergman, Stephanie](#)
Subject: Union Sanitary Servicing Municipal Class Environmental Assessment
Date: Wednesday, October 16, 2019 9:49:00 AM
Attachments: [pic1_display_boards_20190905_fnl_red.pdf](#)
[Union EA PIC 1 Notice 20190913.pdf](#)

Hello,

The Municipality of Central Elgin is currently in the process of undertaking a Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. A Public Information Centre (PIC) was held the evening of October 2nd, 2019 to present background information on the study, alternatives for sanitary servicing, and preliminary recommendations for public review.

On behalf of the Municipality of Central Elgin, please find attached the Class EA Notice of PIC and the PIC Display Boards for your review. Should you have any comments and/or concerns regarding information mention in the attached or regarding the project in general, we are open to discussing these with you.

Best regards,

Moira Davidson BES

Urban Planner

Direct: 519 585-7295

Mobile: 226 203-0040

Moira.Davidson@stantec.com

Stantec

100-300 Hagey Boulevard

Waterloo ON N2L 0A4



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From: [Davidson, Moira](#)
To: ["jfrench@cottfn.com"](mailto:jfrench@cottfn.com)
Cc: [Bergman, Stephanie](#)
Subject: Union Sanitary Servicing Municipal Class Environmental Assessment
Date: Wednesday, October 16, 2019 9:26:00 AM
Attachments: [pic1_display_boards_20190905_fnl_red.pdf](#)
[Union EA PIC 1 Notice 20190913.pdf](#)

Hello Chief Jacqueline French,

The Municipality of Central Elgin is currently in the process of undertaking a Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. A Public Information Centre (PIC) was held the evening of October 2nd, 2019 to present background information on the study, alternatives for sanitary servicing, and preliminary recommendations for public review.

On behalf of the Municipality of Central Elgin, please find attached the Class EA Notice of PIC and the PIC Display Boards for your review. Should you have any comments and/or concerns regarding information mention in the attached or regarding the project in general, we are open to discussing these with you.

Best regards,

Moira Davidson BES

Urban Planner

Direct: 519 585-7295

Mobile: 226 203-0040

Moira.Davidson@stantec.com

Stantec

100-300 Hagey Boulevard

Waterloo ON N2L 0A4



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From: [Davidson, Moira](#)
To: chief@munsee.ca
Cc: [Bergman, Stephanie](#)
Subject: Union Sanitary Servicing Municipal Class Environmental Assessment
Date: Wednesday, October 16, 2019 9:36:00 AM
Attachments: [pic1_display_boards_20190905_fnl_red.pdf](#)
[Union EA PIC 1 Notice 20190913.pdf](#)

Hello Chief Roger Thomas,

The Municipality of Central Elgin is currently in the process of undertaking a Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. A Public Information Centre (PIC) was held the evening of October 2nd, 2019 to present background information on the study, alternatives for sanitary servicing, and preliminary recommendations for public review.

On behalf of the Municipality of Central Elgin, please find attached the Class EA Notice of PIC and the PIC Display Boards for your review. Should you have any comments and/or concerns regarding information mention in the attached or regarding the project in general, we are open to discussing these with you.

Best regards,

Moira Davidson BES

Urban Planner

Direct: 519 585-7295

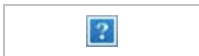
Mobile: 226 203-0040

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Please consider the environment before printing this email.

From: [Davidson, Moira](#)
To: Jessica.hill@oneida.on.ca
Cc: [Bergman, Stephanie](#)
Subject: Union Sanitary Servicing Municipal Class Environmental Assessment
Date: Wednesday, October 16, 2019 9:30:00 AM
Attachments: [pic1_display_boards_20190905_fnl_red.pdf](#)
[Union EA PIC 1 Notice 20190913.pdf](#)

Hello Chief Jessica Hill,

The Municipality of Central Elgin is currently in the process of undertaking a Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. A Public Information Centre (PIC) was held the evening of October 2nd, 2019 to present background information on the study, alternatives for sanitary servicing, and preliminary recommendations for public review.

On behalf of the Municipality of Central Elgin, please find attached the Class EA Notice of PIC and the PIC Display Boards for your review. Should you have any comments and/or concerns regarding information mention in the attached or regarding the project in general, we are open to discussing these with you.

Best regards,

Moira Davidson BES

Urban Planner

Direct: 519 585-7295

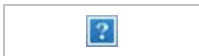
Mobile: 226 203-0040

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Please consider the environment before printing this email.

From: [Davidson, Moira](#)
To: drskoke@wifn.org
Cc: [Bergman, Stephanie](#)
Subject: Union Sanitary Servicing Municipal Class Environmental Assessment
Date: Wednesday, October 16, 2019 9:42:00 AM
Attachments: [pic1_display_boards_20190905_fnl_red.pdf](#)
[Union EA PIC 1 Notice 20190913.pdf](#)

Hello Chief Dan Miskokomon,

The Municipality of Central Elgin is currently in the process of undertaking a Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. A Public Information Centre (PIC) was held the evening of October 2nd, 2019 to present background information on the study, alternatives for sanitary servicing, and preliminary recommendations for public review.

On behalf of the Municipality of Central Elgin, please find attached the Class EA Notice of PIC and the PIC Display Boards for your review. Should you have any comments and/or concerns regarding information mention in the attached or regarding the project in general, we are open to discussing these with you.

Best regards,

Moira Davidson BES

Urban Planner

Direct: 519 585-7295

Mobile: 226 203-0040

Moira.Davidson@stantec.com

Stantec

100-300 Hagey Boulevard

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Oliveira, Nelson

From: Will Hayhoe <will.hayhoe@hayhoehomes.com>
Sent: Wednesday, October 28, 2020 10:52 AM
To: Bergman, Stephanie
Cc: Lloyd Perrin; McCoomb, Jim (jmccoomb@stthomas.ca); Don Leitch - Municipality of Central Elgin (dleitch@centralelgin.org); Walt Hayhoe (wchayhoe@gmail.com); Harry Froussios; Alex Muirhead; Oliveira, Nelson; Tom Looby; Deren Lyle
Subject: Union Sanitary Class EA - 6082 Stone Church Road
Attachments: 18089_Letter to Stantec (12 May 2020).pdf

Good morning Stephanie,

Trust your summer and early fall have been enjoyable.

Hayhoe Developments Inc. (HDI) is now the owner of 6082 Stone Church Road.

Deren Lyle's letter of 12 May 2020 included information and questions.

We are interested to receive an update on the progression of the Class EA study and next steps.

Also, we would appreciate receiving answers to the questions in the letter of 12 May 2020.

We look forward to your reply,

Will Hayhoe

President, Hayhoe Homes - Performance Communities Inc.
1 Barrie Blvd., St Thomas, ON N5P 4B9
T- 519-633-2050 x.224
C-519-671-4628



----- Forwarded message -----

From: **Bergman, Stephanie** <Stephanie.Bergman@stantec.com>
Date: Mon, Jul 20, 2020 at 9:16 AM
Subject: RE: Union Sanitary Class EA - 6082 Stone Church Road
To: Deren Lyle <dlyle@cjd leng.com>
Cc: Lloyd Perrin <LPerrin@centralelgin.org>, Jim McCoomb <jmccoomb@stthomas.ca>, Donald Leitch <DLeitch@centralelgin.org>, Walter Hayhoe <wchayhoe@gmail.com>, Tom Looby <tom.looby@hayhoehomes.com>, Will Hayhoe <will.hayhoe@hayhoehomes.com>, harry.f@zpplan.com <harry.f@zpplan.com>, Alex Muirhead <amuirhead@cjd leng.com>, Oliveira, Nelson <nelson.oliveira@stantec.com>

Hi Darren,

Thanks for following up, and apologies for the delayed response. We've received your correspondence, and will issue a response shortly based on the analysis within the EA.

Thanks,

Stephanie Bergman

519-852-8945

Better Together, Even If We're Apart. [Read more](#) about Stantec's COVID-19 response, including remote working and business continuity measures.

From: Deren Lyle <dlyle@cjd leng.com>
Sent: Thursday, July 16, 2020 9:27 AM
To: Bergman, Stephanie <Stephanie.Bergman@stantec.com>
Cc: Lloyd Perrin <LPerrin@centralelgin.org>; Jim McCoomb <jmccoomb@stthomas.ca>; Donald Leitch <DLeitch@centralelgin.org>; Walter Hayhoe <wchayhoe@gmail.com>; Tom Looby <tom.looby@hayhoehomes.com>; Will Hayhoe <will.hayhoe@hayhoehomes.com>; harry.f@zpplan.com; Alex Muirhead <amuirhead@cjd leng.com>
Subject: RE: Union Sanitary Class EA - 6082 Stone Church Road

Hi Stephanie,

I am following up on this circulation. Can you please confirm receipt and advise if you have had a chance to review?

We remain interested in the progression of the Class EA study, next steps, anticipated delivery dates, etc.

Thank you. If there are any questions, please do not hesitate to contact this office.

Deren Lyle, P. Eng.

Cyril J. Demeyere Limited

From: Deren Lyle <dlyle@cjd leng.com>
Sent: Thursday, May 14, 2020 6:05 AM
To: Bergman, Stephanie <Stephanie.Bergman@stantec.com>
Cc: Lloyd Perrin <LPerrin@centralelgin.org>; Jim McCoomb <jmccoomb@stthomas.ca>; Donald Leitch <DLeitch@centralelgin.org>; Walter Hayhoe <wchayhoe@gmail.com>; Tom Looby <tom.looby@hayhoehomes.com>; Will Hayhoe <will.hayhoe@hayhoehomes.com>; harry.f@zpplan.com; Alex Muirhead <amuirhead@cjd leng.com>
Subject: Union Sanitary Class EA - 6082 Stone Church Road

Good Morning Stephanie,

Please find the attached correspondence on the above noted project.

We would also appreciate an update with respect to the progression of the Class EA study, next steps, anticipated delivery dates, etc.

If there are any questions, please do not hesitate to contact this office.

Regards,

Deren Lyle, P. Eng.

Design Engineer



Cyril J. Demeyere Limited
Consulting Engineers
261 Broadway, P.O. Box 460
Tillsonburg, Ontario. N4G 4H8
Phone: 519-688-1000 / 866-302-9886

Cell: 519-857-7664 / Fax: 519-842-3235

E-mail: dlyle@cjdle.com

18089

12 May 2020

Stephanie Bergman, MA, ENV SP
Planner
Stantec Consulting Ltd.
600 – 171 Queens Avenue
London, ON
N6A 5J7

RE: UNION SANITARY SERVICING
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
MUNICIPALITY OF CENTRAL ELGIN

Dear Ms. Bergman:

Walter Hayhoe Enterprises Inc. ("WHEI") is the owner of the lands located on the south side Sparta Line, east of Stone Church Road, identified municipally as 6082 Stone Church Road ("subject lands"), within the community of Union, Municipality of Central Elgin. Hayhoe Developments Inc. ("HDI") has entered into an agreement with WHEI to purchase the subject lands in 2020. On behalf of our clients, WHEI and HDI, we appreciate the opportunity to be able to participate in the Union Sanitary Servicing Municipal Class Environmental Assessment process.

The subject lands have a total area of approximately 47.1 ha (116.5 ac); a portion (1.8 ha/4.5 ac) of which are within the Community of Union Urban Settlement Area, and the balance (45.3 ha/112.0 ac) are immediately abutting the Urban Settlement Area boundary. The portion of the subject lands within the Urban Settlement Area boundary are designated "Residential"; the remainder of the subject lands are designated "Agricultural", according to Schedule "F" of the Central Elgin Official Plan ("OP").

WHEI and HDI have engaged with both Elgin County and the Municipality of Central Elgin, and have formally requested that, during the 5-year comprehensive review of Central Elgin's OP that is currently underway, the subject lands be considered for inclusion within the Union Urban Settlement Area. The subject lands represent a logical expansion of the current settlement boundary which is adjacent to the north and west boundary of the property, and the subject lands are well positioned to make efficient use of existing and planned infrastructure.

Along with our clients, Cyril J. Demeyere Limited ("CJDL") attended the 2 October 2019 Public Information Centre. We have reviewed available material presented at the meeting, and have the following questions/comments;

1. It is requested that the proposed sanitary servicing strategy for the Community of Union be prepared in consideration of future sewage generation from 6082 Stone Church Road. In the event that the Urban Settlement Area is expanded to include these lands, this will ensure newly constructed infrastructure is suitable for use and will not prohibit residential growth and development.

2. Upon cursory review of the proposed sanitary servicing strategy and existing topographic information, it is our opinion that the subject lands are well suited to be provided municipal sanitary service utilizing the strategy as presented at the PIC. In the context of the subject lands, we are in general agreement with the proposed strategy.
3. It is requested that the gravity outlet sewers on Stone Church Road and Sparta Line (size and elevation), the sanitary pumping station (at Sparta Line and Sunset Road: PS-1), forcemain, and any downstream upgrades be designed in consideration of sanitary flows from the subject lands within the initial 20-year servicing period.
4. It is noted that the 20-year design flow is approx. 21 l/s. Although it is recognized that the presented material remains pre-design at this time, it is recommended that a larger flow be considered for the initial phase of construction, as design flow from the subject lands alone is calculated as approx. 45 l/s, assuming low density residential development and current Central Elgin design factors.
5. It is understood that the proposed forcemain south from PS-1 will outlet to a gravity sewer extension that will terminate on Sunset Drive at East Road (County Road 23), to be installed Summer 2020, being an extension of the trunk sewer on Sunset Road installed Summer 2016 in conjunction with Sunset Bluffs subdivision servicing. These sewer segments outlet approx. 100m north of Warren Street to an existing sewer, which may be required to be upsized in the future, prior to full build-out of the tributary area. Have upgrades to this outlet sewer and PS 51 (at Kettle Creek) been considered within the scope of work of the Class EA? Assuming so, can you share available information with respect to timing, scope of work, etc.? It does not appear that upgrades to this existing outlet sewer are identified in the 'Forcemain Connection to the Port Stanley WWTP' slide presented at the PIC, nor the recent trunk sewer extensions.
6. It is understood that sanitary sewage flows from the Community of Union were considered when the Port Stanley Wastewater Treatment Plant was recently upgraded. Can you please consider potential inflows from 6082 Stone Church Road and confirm that the WWTP has sufficient capacity to accept these flows as well?
7. Will "high-level" cost estimates for the proposed works be provided within the scope of this assignment? If so, we would appreciate receipt of this information for review, once available.

We appreciate the opportunity to participate in the Municipal Class Environmental Process and thank you for receiving our comments. We look forward to your response and welcome further discussion on this topic. If there are any questions, please do not hesitate to contact this office.

Yours very truly,



Deren Lyle, P. Eng.

DJL/avm

Encl.

c.c. Mr. Lloyd Perrin, Director of Asset Management and Development, Mun. of Central Elgin
Mr. Walter Hayhoe, Walter Hayhoe Enterprises Inc.
Mr. Will Hayhoe, Hayhoe Developments Inc.
Mr. Tom Looby, Hayhoe Developments Inc.

June 10, 2021
File: 1656-30144

Attention: Deren Lyle, P.Eng.
CJDL Consulting Engineers
261 Broadway, P.O. Box 460
Tillsonburg, ON N4G 4H8

Dear Mr. Lyle,

**Reference: Union Sanitary Servicing Municipal Class Environmental Assessment
Municipality of Central Elgin**

Thank you for your letter dated May 12, 2020 and subsequent email correspondence. We appreciate your interest in this Class Environmental Assessment (EA) and have reviewed your questions and comments as we've worked towards finalizing the planning process.

The following provides our response to each inquiry (provided in italic):

1. *It is requested that the proposed sanitary servicing strategy for the Community of Union be prepared in consideration of future sewage generation from 6082 Stone Church Road. In the event that the Urban Settlement Area is expanded to include these lands, this will ensure newly constructed infrastructure is suitable for use and will not prohibit residential growth and development.*

At present, the assessment of sanitary servicing needs is based on the Union Urban Settlement Area boundary (Schedule F) per the Official Plan.

2. *Upon cursory review of the proposed sanitary servicing strategy and existing topographic information, it is our opinion that the subject lands are well suited to be provided municipal sanitary service utilizing the strategy as presented at the PIC. In the context of the subject lands, we are in general agreement with the proposed strategy.*

Noted.

3. *It is requested that the gravity outlet sewers on Stone Church Road and Sparta Line (size and elevation), the sanitary pumping station (at Sparta Line and Sunset Road: PS-1), forcemain, and any downstream upgrades be designed in consideration of sanitary flows from the subject lands within the initial 20-year servicing period.*

As previously noted, the Class EA considered lands that are currently within the Union Urban Settlement Area boundary (Schedule F). Exact sizing of infrastructure will be determined in the

Reference: Union Sanitary Servicing Municipal Class Environmental Assessment Municipality of Central Elgin

subsequent design phase and at that time strategic oversizing for future development will be reviewed and assessed.

4. *It is noted that the 20-year design flow is approx. 21 l/s. Although it is recognized that the presented material remains pre-design at this time, it is recommended that a larger flow be considered for the initial phase of construction, as design flow from the subject lands alone is calculated as approx. 45 l/s, assuming low density residential development and current Central Elgin design factors.*

The initial capacity for the primary pump station will be confirmed in detailed design. The estimate provided in the Class EA is to provide some general context for the initial phase capital cost estimate however it should be noted that major elements such as wet well sizing, forcemain, and building, etc. would be reviewed and potentially oversized to account for additional future flows and upgrade to capacity. It is also noted that the pump station must also be capable of operating within existing capacity limits, notably downstream conveyance and treatment capacity/allocations.

5. *It is understood that the proposed forcemain south from PS-1 will outlet to a gravity sewer extension that will terminate on Sunset Drive at East Road (County Road 23), to be installed Summer 2020, being an extension of the trunk sewer on Sunset Road installed Summer 2016 in conjunction with Sunset Bluffs subdivision servicing. These sewer segments outlet approx. 100m north of Warren Street to an existing sewer, which may be required to be upsized in the future, prior to full build-out of the tributary area. Have upgrades to this outlet sewer and PS 51 (at Kettle Creek) been considered within the scope of work of the Class EA? Assuming so, can you share available information with respect to timing, scope of work, etc.? It does not appear that upgrades to this existing outlet sewer are identified in the 'Forcemain Connection to the Port Stanley WWTP' slide presented at the PIC, nor the recent trunk sewer extensions.*

PS 51 was previously upgraded as part of the overall upgrades to the Port Stanley WWTP project completed in 2019. At that time, the firm capacity of PS 51 was upgraded to 107 L/s to accommodate increased flows in the service area and need for redundancy.

It is noted that, over time, additional sewer upgrades may be required to accommodate growth beyond the 10-year timeframe covered by the Class EA. While the extent of future works may vary, it is anticipated that any sewer upgrades could be undertaken as a Schedule A or A+ activity as currently defined by the MEA process given where the work is anticipated to occur (within exiting right-of-way).

6. *It is understood that sanitary sewage flows from the Community of Union were considered when the Port Stanley Wastewater Treatment Plant was recently upgraded. Can you please consider potential inflows from 6082 Stone Church Road and confirm that the WWTP has sufficient capacity to accept these flows as well?*

At present, the assessment of sanitary servicing needs is based on the Union Urban Settlement Area boundary (Schedule F) per the Official Plan.

Reference: Union Sanitary Servicing Municipal Class Environmental Assessment Municipality of Central Elgin

7. *Will “high-level” cost estimates for the proposed works be provided within the scope of this assignment? If so, we would appreciate receipt of this information for review, once available.*

Yes, an Order of Probable Cost estimate will be provided in the Project File for review. This Order of Probable Cost includes some separation of costs related to gravity sewers, pump station(s) and forcemain items.

Thank you once again for your interest in this Class EA process. Should you have any further questions or comments, please do not hesitate to contact the undersigned.

Regards,

Stantec Consulting Ltd.



Nelson Oliveira P.Eng
Vice President, Regional Business Leader,
Water - Canada East
Cell: 519-494-7642
nelson.oliveira@stantec.com

- c. Mr. Lloyd Perrin, Director of Asset Management and Development, Municipality of Central Elgin
Mr. Walter Hayhoe, Walter Hayhoe Enterprises Inc.
Mr. Will Hayhoe, Hayhoe Developments Inc.
Mr. Tom Looby, Hayhoe Developments Inc.

A.6 Notice of Study Completion

A.6 Notice of Study Completion



Union Sanitary Servicing Municipal Class Environmental Assessment Notice of Study Completion

The Municipality of Central Elgin completed a Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union.

The study was completed in accordance with the Municipal Engineers Association Municipal Class Environmental Assessment (Class EA) process for Schedule 'B' Projects (2000, as amended), which is an approved process under the Ontario Environmental Assessment Act. The study recommended the preferred sanitary servicing options for the Urban Settlement Area of Union, including the preferred pump station locations, forcemain route, and conveyance solution.

A Project File Report summarizing the study process and recommendations is available for public review for 30 calendar days from June 30, 2021 to July 30, 2021. In light of the COVID-19 pandemic, the Project File Report will only be available for review online, on the Municipality of Central Elgin website: <https://www.centralelgin.org/en/municipal-office/union-sanitary-environmental-assessment.aspx#>

Interested persons may provide written comments to our project team by July 30, 2021. All comments and concerns should be emailed directly to Lloyd Perrin, Director of Asset Management/Development Services of the Municipality of Central Elgin (lperrin@centralelgin.org), or discussed via telephone (519-631-4860, extension 277).

In addition, a request may be made to the Ministry of the Environment, Conservation and Parks for an order requiring a higher level of study (i.e., requiring an individual/comprehensive EA approval before being able to proceed), or that conditions be imposed (e.g., require further studies), only on the grounds that the requested order may prevent, mitigate, or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. Requests on other grounds will not be considered. Requests should include the requester contact information and full name for the ministry.

Requests should specify what kind of order is being requested (request for additional conditions or a request for an individual/comprehensive environmental assessment), how an order may prevent, mitigate, or remedy those potential adverse impacts, and any information in support of the statements in the request. This will ensure that the ministry is able to efficiently begin reviewing the request. The request should be sent in writing or by email to the Municipality of Central Elgin and to:

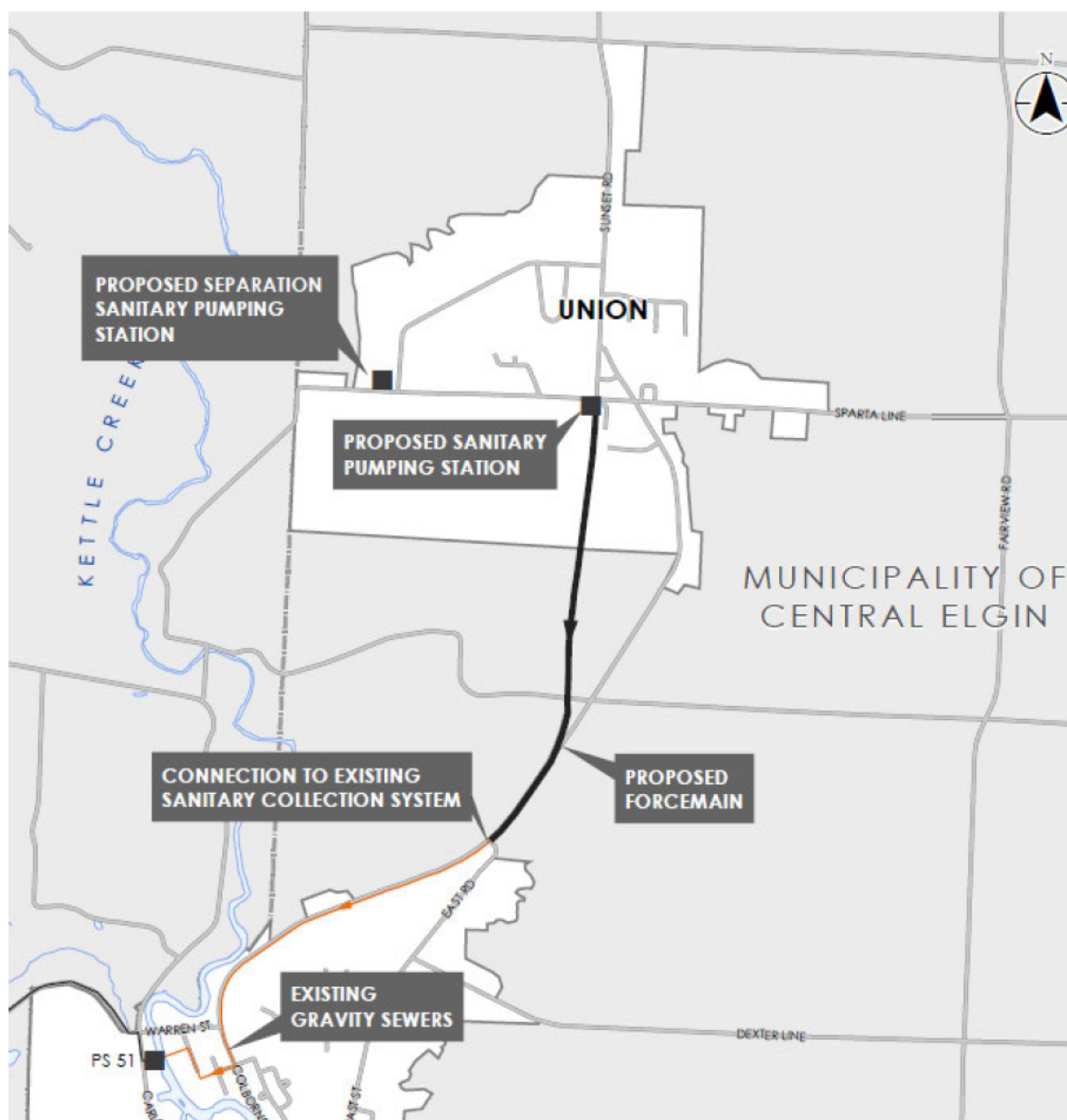
Minister of the Environment, Conservation and Parks
Ministry of Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto ON M7A 2J3
minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto ON, M4V 1P5
EABDirector@ontario.ca

All correspondence received with respect to this study will be kept on file for use during the decision making process, and will become part of the public record. Under the Municipal Freedom of Information and Protection of Privacy Act, and the Environmental Assessment Act, unless otherwise stated in the submission, personal information such as name, address, telephone number, and property location included in a submission may become part of the public record, and will be released, if requested, to any person.

This Notice was first issued on June 30, 2021.



From: [Oliveira, Nelson](#)
Cc: [Lloyd Perrin](#); [Lang, Sarah](#)
Bcc: [jfrench@cottfn.com](#); [fburch@cottfn.com](#)"; [adrian.chrisjohn@oneida.on.ca](#); [ccounciltemp@oneida.on.ca](#); [chief@munsee.ca](#); [reception@munsee.ca](#); [denise.stonefish@delawarenation.on.ca](#); [loganju@explornet.ca](#); [drskoke@wifn.org](#); [janet.macbeth@wifn.org](#); [councillor.perkins@caldwellfirstnation.ca](#); [nikki@caldwellfirstnation.ca](#); [jason.henry@kettlepoint.org](#); [fdesk@kettlepoint.org](#); [chief@aamjiwnaang.ca](#); [sjohnston@aamjiwnaang.ca](#); [consultation@metisnation.org](#); [chief.peteres@munsee.ca](#)
Subject: Notice of Completion - Union Sanitary Servicing Class EA, Municipality of Central Elgin
Date: Wednesday, June 30, 2021 2:06:00 PM
Attachments: [Notice of Completion - Union Sanitary Servicing Class EA.pdf](#)

Hello,

The Municipality of Central Elgin completed a Schedule 'B' Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union.

This email is to notify you that the Project File Report summarizing the study process and recommendations is available for review for 30 calendar days from June 30, 2021 to July 30, 2021. In light of the COVID-19 pandemic, the Project File Report will only be available for review online, on the Municipality of Central Elgin website. A link to the website is provided below:

<https://www.centralelgin.org/en/municipal-office/union-sanitary-environmental-assessment.aspx#>

We recognize that not everyone will be able to access this information online. If you require any special accommodation to access the online material, we will work together to best share the information with you. Interested persons may provide written comments to our project team by July 30, 2021. All comments and concerns should be emailed directly to Lloyd Perrin, Director of Asset Management/Development Services of the Municipality of Central Elgin (lperrin@centralelgin.org) or discussed via telephone (519-631-4860 ext. 277).

Thank you,

From: [Oliveira, Nelson](#)
Cc: [Lloyd Perrin](#); [Lang, Sarah](#)
Bcc: [REDACTED]

Subject: Notice of Completion - Union Sanitary Servicing Class EA, Municipality of Central Elgin
Date: Wednesday, June 30, 2021 2:04:00 PM
Attachments: [Notice of Completion - Union Sanitary Servicing Class EA.pdf](#)

Hello,

The Municipality of Central Elgin completed a Schedule 'B' Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. A Project File Report summarizing the study process and recommendations is available for public review for 30 calendar days from June 30, 2021 to July 30, 2021. In light of the COVID-19 pandemic, the Project File Report will only be available for review online, on the Municipality of Central Elgin website. A link to the website is provided below:

<https://www.centralelgin.org/en/municipal-office/union-sanitary-environmental-assessment.aspx#>

Interested persons may provide written comments to our project team by July 30, 2021. All comments and concerns should be emailed directly to Lloyd Perrin, Director of Asset Management/Development Services of the Municipality of Central Elgin (lperrin@centralelgin.org) or discussed via telephone (519-631-4860 ext. 277).

Thank you,

From: [Oliveira, Nelson](#)
Cc: [Lloyd Perrin](#); [Lang, Sarah](#)
Bcc:

Subject: Notice of Completion - Union Sanitary Servicing Class EA, Municipality of Central Elgin
Date: Wednesday, June 30, 2021 2:06:00 PM
Attachments: [Notice of Completion - Union Sanitary Servicing Class EA.pdf](#)

Hello,

The Municipality of Central Elgin completed a Schedule 'B' Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union.

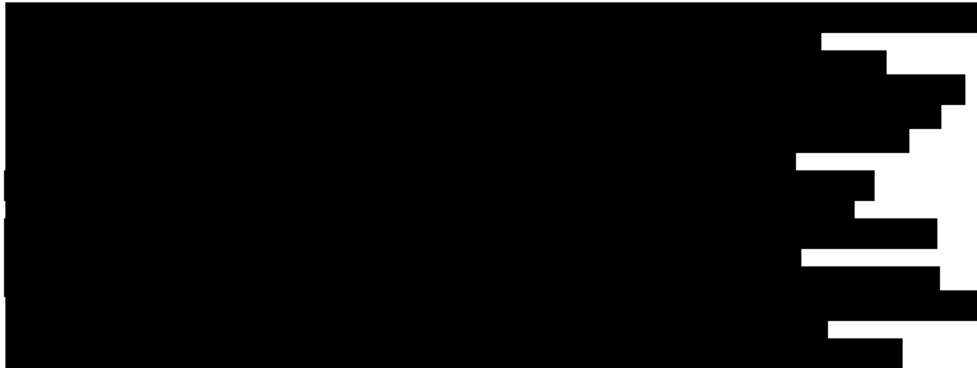
This email is to notify you that the Project File Report summarizing the study process and recommendations is available for review for 30 calendar days from June 30, 2021 to July 30, 2021. In light of the COVID-19 pandemic, the Project File Report will only be available for review online, on the Municipality of Central Elgin website. A link to the website is provided below:

<https://www.centralelgin.org/en/municipal-office/union-sanitary-environmental-assessment.aspx#>

We recognize that not everyone will be able to access this information online. If you require any special accommodation to access the online material, we will work together to best share the information with you. Interested persons may provide written comments to our project team by July 30, 2021. All comments and concerns should be emailed directly to Lloyd Perrin, Director of Asset Management/Development Services of the Municipality of Central Elgin (lperrin@centralelgin.org) or discussed via telephone (519-631-4860 ext. 277).

Thank you,

From: [Lang, Sarah](#)
Cc: [Oliveira, Nelson](#); lperrin@centralelgin.org
Bcc:



Subject: Notice of Completion - Union Sanitary Servicing Class EA, Municipality of Central Elgin
Date: Monday, July 5, 2021 11:56:00 AM
Attachments: [Notice of Completion - Union Sanitary Servicing Class EA.pdf](#)

Hello,

The Municipality of Central Elgin completed a Schedule 'B' Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. A Project File Report summarizing the study process and recommendations is available for public review for 30 calendar days from June 30, 2021 to July 30, 2021. In light of the COVID-19 pandemic, the Project File Report will only be available for review online, on the Municipality of Central Elgin website. A link to the website is provided below:

<https://www.centralelgin.org/en/municipal-office/union-sanitary-environmental-assessment.aspx#>

Interested persons may provide written comments to our project team by July 30, 2021. All comments and concerns should be emailed directly to Lloyd Perrin, Director of Asset Management/Development Services of the Municipality of Central Elgin (lperrin@centralelgin.org) or discussed via telephone (519-631-4860 ext. 277).

Thank you,

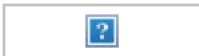
Sarah Lang

Environmental Planner

Direct: 519-432-4292

sarah.lang@stantec.com

Stantec



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Please consider the environment before printing this email.

Lloyd Perrin

To: [REDACTED]
Subject: RE: Union Sanitary Servicing

[REDACTED]

Thank you for your email. [REDACTED] the study area for the Union Area Sanitary Environmental Assessment. Essentially, an environmental assessment is a technical study that addresses how services can be provided to an area. That EA provide options with respect to providing those services while reviewing technical, social, environmental and financial components and constraints. From that analysis a preferred alternative on how to provide those services is identified. Essentially, the EA is the first step to providing those services. From that point, design is undertaken and finally construction of the infrastructure.

As you are aware, Union is not currently serviced with sanitary collection or treatment. As a result, the EA was undertaken with the context of determining how all of the designated hamlet of Union could be serviced. The EA and the alternative proposed provides accommodation for your property to be serviced with waste water collection at a future point in time. At this time there has been no commitment by Council to proceed with the construction of the pumping station or determination on when it would be constructed.

If you have any questions, please feel free to contact me.

Thanks

Lloyd J. Perrin

Director of Asset Management and Development

Corporation of the Municipality of Central Elgin

450 Sunset Drive, St. Thomas, ON N5R 5V1

Phone: (519) 631 4860 ext 277

Fax: (519) 631 4036

lperrin@centralelgin.org

www.letstalkcentralelgin.ca



[MunCentralElgin](#)



[Municipality of Central Elgin](#)



To: Lloyd Perrin <LPerrin@centralelgin.org>

Subject: Union Sanitary Servicing

Union Sanitary Servicing Municipal Class Environmental Assessment Notice of Study Completion

Hi Lloyd,

Will you please advise how [REDACTED] will be affected by this if it goes through?

Thanks
[REDACTED]

[REDACTED]

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you have received this in error, please contact the sender and delete the material from any computer.



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Lloyd Perrin

From: Lloyd Perrin
Sent: Wednesday, July 14, 2021 5:26 PM
To: [REDACTED]
Subject: RE: Union Sanitary Servicing....study

Good afternoon [REDACTED]

The proposed main pumping station is to be located on the south west corner of Sparta Line and Sunset Road. To deal with the lands west of Bostwick Road and second smaller station would be constructed on the north west corner of Bostwick and Sparta Line.

If you require anything further, please do not hesitate to contact me.

Thanks

Lloyd J. Perrin

Director of Asset Management and Development

Corporation of the Municipality of Central Elgin

450 Sunset Drive, St. Thomas, ON N5R 5V1

Phone: (519) 631 4860 ext 277

Cell: (519) 617 0469

Fax: (519) 631 4036

lperrin@centralelgin.org

www.letstalkcentralelgin.ca



[MunCentralElgin](#)



[Municipality of Central Elgin](#)



[REDACTED]
Sent: Friday, July 09, 2021 10:52 AM
To: Lloyd Perrin <LPerrin@centralelgin.org>
Subject: Union Sanitary Servicing....study

Hello Mr Perrin,

Just asking for some information on the proposed sanitary pumping station for Union [REDACTED]

[REDACTED] Are these pumping stations anywhere near these locations, are they above ground and will they affect the land or property surrounding their streets? I read the property file report and

wasnt sure of the exact locations for these pumping stations. Thanks for getting back to me when you can. [REDACTED]

Lloyd Perrin

To: [REDACTED]
Subject: RE: Completed a Schedule 'B' Municipal Class Environmental Assessment (Class EA

Good afternoon [REDACTED]

Thanks for your email. It will form part of the public record for the Environmental Assessment.

Regards

Lloyd J. Perrin

Director of Asset Management and Development

Corporation of the Municipality of Central Elgin

450 Sunset Drive, St. Thomas, ON N5R 5V1

Phone: (519) 631 4860 ext 277

Fax: (519) 631 4036

lperrin@centralelgin.org

www.letstalkcentralelgin.ca



[MunCentralElgin](#)



[Municipality of Central Elgin](#)



From: [REDACTED]

Sent: Monday, July 12, 2021 8:22 PM

To: Lloyd Perrin <LPerrin@centralelgin.org>

Subject: Completed a Schedule 'B' Municipal Class Environmental Assessment (Class EA

Good afternoon Lloyd

Just a few short comments regarding the email on , "Union environment assessment"

First of all, I couldn't believe how big that email was, 217 pages.. wow.. I printed them all, and read them all..

Quite frankly I found it to be very misleading. The guesstimates on the cost were so far out, just terrible, unreal..

Also, the damage to the environment, and the existing infrastructure was totally unrepresented..

I read all the comments submitted, nobody wants sewers, other than one guy.

Why doesn't someone listen? How can council go against so many people, and families , for the sake of one person?

I put a well in a few years ago it cost 20 grand..

Before I did, I called the twp, they said the water was not going west of Sunset..haha

All you have to do is read the Aylmer paper, or drive around port ,or any subdivision and see all the signs regarding the rates..

Aylmer paper has written numerous articles on Central Elgin water rates, "how high they're going" and how there's no more money left for capital maintenance projects. I cut them out, and have a file full of them..

Regarding Union sewers, who's paying for all these reports? the force main, pumping stations? I hope the developer is..

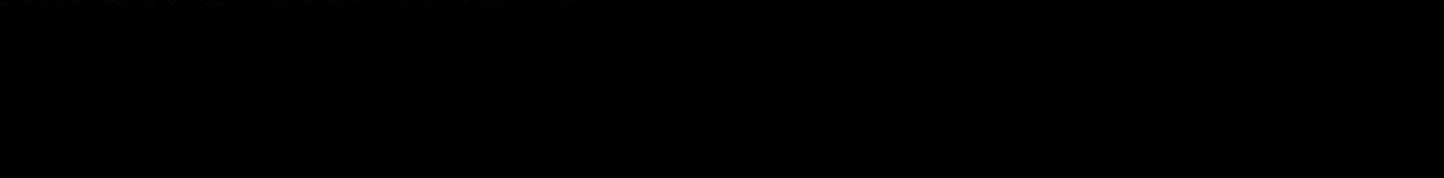
People came on my property doing engineering studies, archeology study, god knows what else, without my knowledge or permission..

I came home one day and there had been holes dug all over my place, I had no idea what was going on..

One guy even hinted they could black mail me over something. I honestly have no idea what he was referring to ..

To put it in a nut shell Lloyd. The existing residents of Union DO NOT want sewers. That I'm sure of..

Kind regards, hope all is well with the family..



Lloyd Perrin

From: Lloyd Perrin
Sent: [REDACTED] 4:47 PM
To: [REDACTED]
Subject: RE: Union Sanitary Servicing

Good afternoon [REDACTED]

Thank you for your email. The capacity of the downstream collection system, pumping stations have all been evaluated and capacity constraints will be addressed prior to any surcharging of the collection and conveyance system occurring. Like you, the municipality would not want to see any negative environmental impacts as a result of the work.

If you require anything further, please contact me. Your email will form part of the public record for the Environmental Assessment.

Regards

Lloyd J. Perrin
Director of Asset Management and Development

Corporation of the Municipality of Central Elgin
450 Sunset Drive, St. Thomas, ON N5R 5V1
Phone: (519) 631 4860 ext 277
Fax: (519) 631 4036
lperrin@centralelgin.org
www.letstalkcentralelgin.ca

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Municipality of Central Elgin

-----Original Message-----
From: [REDACTED]
Sent: Saturday, July 10, 2021 8:58 AM
To: Lloyd Perrin <LPerrin@centralelgin.org>
Subject: Union Sanitary Servicing

This looks like a possible disaster happening as our communities and the accompanying sewage needs grow. Isn't it possible the gravity sewers on Colborne could overflow into Kettle Creek (the effluent could end up on our pristine beaches).

[REDACTED]

From: [Badali, Mark \(MECP\)](#)
To: [Lloyd Perrin](#)
Cc: [Wrigley, Rob \(MECP\)](#); [Smith, Mark \(MECP\)](#); [Oliveira, Nelson](#); [Lang, Sarah](#)
Subject: RE: Notice of Completion - Union Sanitary Servicing Class EA, Municipality of Central Elgin
Date: Wednesday, July 28, 2021 3:41:47 PM
Attachments: [MECP PRU Comments - Central Elgin MCEA Sch B Union Sanitary Servicing - Project File Report.pdf](#)

Good afternoon,

In response to the Notice of Study Completion and Project File Report provided for the Union Sanitary Servicing Municipal Class EA, Schedule B, please find attached the ministry's comments for your consideration.

We look forward to receiving a written response from the Municipality of Central Elgin to address the comments provided.

Best regards,

Mark Badali (he/him)
Regional Environmental Planner (REP) – Southwest Region
Project Review Unit | Environmental Assessment Branch
Ontario Ministry of the Environment, Conservation and Parks
Mark.Badali1@ontario.ca | (416) 457-2155

From: Oliveira, Nelson <nelson.oliveira@stantec.com>
Sent: June 30, 2021 2:04 PM
Cc: Lloyd Perrin <LPerrin@centralelgin.org>; Lang, Sarah <Sarah.Lang@stantec.com>
Subject: Notice of Completion - Union Sanitary Servicing Class EA, Municipality of Central Elgin

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hello,

The Municipality of Central Elgin completed a Schedule 'B' Municipal Class Environmental Assessment (Class EA) to investigate options for sanitary servicing within the Urban Settlement Area of Union. A Project File Report summarizing the study process and recommendations is available for public review for 30 calendar days from June 30, 2021 to July 30, 2021. In light of the COVID-19 pandemic, the Project File Report will only be available for review online, on the Municipality of Central Elgin website. A link to the website is provided below:

<https://www.centralelgin.org/en/municipal-office/union-sanitary-environmental-assessment.aspx#>

Interested persons may provide written comments to our project team by July 30, 2021. All comments and concerns should be emailed directly to Lloyd Perrin, Director of Asset Management/Development Services of the Municipality of Central Elgin (lperrin@centralelgin.org) or discussed via telephone (519-631-4860 ext. 277).

Thank you,

**Ministry of the Environment,
Conservation and Parks**

**Ministère de l'Environnement,
de la Protection de la nature
et des Parcs**

Environmental Assessment
Branch

Direction des évaluations
environnementales

1st Floor
135 St. Clair Avenue W
Toronto ON M4V 1P5
Tel.: 416 314-8001
Fax.: 416 314-8452

Rez-de-chaussée
135, avenue St. Clair Ouest
Toronto ON M4V 1P5
Tél. : 416 314-8001
Téléc. : 416 314-8452

July 28, 2021

Lloyd Perrin
Director of Asset Management/Development Services
Municipality of Central Elgin

**Re: Union Sanitary Servicing
Municipality of Central Elgin
Municipal Class Environmental Assessment – Schedule B
Project File Report
Project Review Unit Comments**

Dear Lloyd Perrin,

This letter is in response to the Notice of Study Completion provided for the above noted Project File Report (Report). Our understanding is that the preferred alternative for sanitary servicing within the community of Union is the collection and conveyance of sanitary flows to the Port Stanley Wastewater Treatment Plant by way of a new forcemain from a proposed pumping station at Sunset Drive and Sparta Line south to an existing gravity sewer on Sunset Drive north of Warren Street. As part of the preferred solution, a gravity sewer along Sunset Drive would be installed above the existing culvert at the Union Pond crossing. The Ministry of the Environment, Conservation and Parks (ministry) provides the following comments for your consideration.

Section 3.5.6 Species at Risk

- 1) The last sentence of the first paragraph of this Section states, "*Full NHIC records are included in 0.*" The "0" seems to be a malfunctioning link and should be corrected.

Section 5.1 Proposed Potential Development Areas and Flow Projections

- 2) The "*Est. Flow (m³/d)*" column for *Area 1* of *Table 5-1* is empty, which seems to be an error because there is no indication as to why there should be no estimated average daily flow calculated for the lots in Area 1.

Air Quality and Odour

- 3) Please note that the ministry recommends that non-chloride dust suppressants be applied during construction.

Excess Materials Management

- 4) In December 2019, the ministry released a new regulation under the Environmental Protection Act, titled *On-Site and Excess Soil Management* (O. Reg. 406/19) to support improved management of excess construction soil. The regulation is being phased in over time, with the first phase in effect on January 1, 2021. For more information, please visit www.ontario.ca/page/handling-excess-soil. The Report should reference that activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the ministry's current guidance document titled "[Management of Excess Soil – A Guide for Best Management Practices](#)" (2014).
- 5) All waste generated during construction must be disposed of in accordance with ministry requirements.

Indigenous Consultation

- 6) The proponent has consulted with an appropriate list of communities for the purposes of this Class Environmental Assessment (Class EA) study. Communities were provided with sufficient opportunity (notices and follow-up emails/phone calls) to be made aware and provide comments on the Class EA. No substantive comments or concerns were raised to date, but if comments are received on the Report they should be included in the record of consultation, including how any comments or concerns are resolved or addressed.

Public Consultation

- 7) Section 8.0 *Phase 2 Engagement* summarizes the key concerns raised during the Public Consultation Centre. Please note that Section A.4.1 of the Municipal Class EA document (accessible online here: www.municipalclassea.ca/manual/page30.html) states, "*The Project File shall contain a complete record of all activities associated with the planning of the project and shall include... the public consultation program employed and how concerns raised have been addressed.*" The Report should be revised to include how the concerns raised in Section 8.0 have been or will be addressed. For example, mitigation measures to address these concerns could be included in the *Socio-Economic Impacts* section of Table 9-2 in Section 9.4 *Potential Impacts and Recommended Mitigation Measures*.

Species at Risk

- 8) Section 3.5.6 *Species at Risk* of the Report indicates that Eastern False Rue Anemone has the potential to be present within the study area. It is the responsibility of the proponent to ensure that Species at Risk are not killed, harmed, or harassed, and that their habitat is not damaged or destroyed through the proposed activities to be carried out on the site. If the proposed activities cannot avoid impacting protected species and their habitats, then the proponent will need to apply for an authorization under the Endangered Species Act (ESA). If

the proponent believes that their proposed activities are going to have an impact or are uncertain about the impacts, they should contact SAROntario@ontario.ca to undergo a formal review under the ESA.

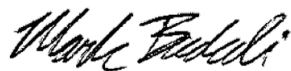
Surface Water

- 9) Both the *Water Quality* and the *Aquatic Habitat and Fish Passage* sections of *Table 7.2* of the Report note that monitoring will be undertaken during construction. A surface water related monitoring program before the construction of the any water crossing to establish baseline conditions as well as to track the changes in environmental conditions during the construction is required. The Ministry would like to review this monitoring program once it is developed.
- 10) As is noted in the *Water Crossing* section of *Table 9-2* of the Report, erosion and sediment control plans will need to be developed for any water crossing that is part of the undertaking. Installing sediment and erosion control measures during the construction is critical both in terms of protecting the water quality and reducing the impacts to local aquatic community. Please submit this plan(s) to the Ministry for review once finalized.
- 11) As is noted in the *Water Crossing* section of *Table 9-2* of the Report, “*A trenchless crossing plan should be prepared to detail the methodology and response to potential spills/frac-out.*” The Ministry would like to review this trenchless crossing plan once it is developed.

Thank you for circulating this Report for the ministry’s consideration. We look forward to receiving a written response from the Municipality of Central Elgin to address our comments provided above.

Should you or any members of your project team have any questions regarding the material above, please contact me at mark.badali1@ontario.ca.

Sincerely,



Mark Badali
Regional Environmental Planner
Project Review Unit, Environmental Assessment Branch
Ontario Ministry of the Environment, Conservation and Parks

cc Rob Wrigley, Manager, London District Office, MECP
Mark Smith, Water Compliance Supervisor, London District Office, MECP
Nelson Oliveira, Vice President, Stantec Consulting Ltd.
Sarah Lang, Environmental Planner, Stantec Consulting Ltd.

From: [Oliveira, Nelson](#)
To: [Badali, Mark \(MECP\)](#)
Cc: [Wrigley, Rob \(MECP\)](#); [Smith, Mark \(MECP\)](#); [Lang, Sarah](#); [Lloyd Perrin](#)
Subject: RE: Notice of Completion - Union Sanitary Servicing Class EA, Municipality of Central Elgin
Date: Tuesday, December 14, 2021 9:50:19 AM
Attachments: [MECP Comments Review & Responses.pdf](#)

Good morning Mark;

Hope all is well with you. Apologies as this was not circulated to the MECP previously, however please refer to the attached responses to the comments received.

If you require anything further, please do not hesitate to contact us.

Regards,

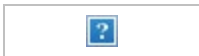
Nelson Oliveira P.Eng
Vice President, Regional Business Leader, Water - Canada East

Direct: 519-675-6620

Mobile: 519-494-7642

nelson.oliveira@stantec.com

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600-171 Queens Avenue
London ON N6A 5J7



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From: Badali, Mark (MECP) <Mark.Badali1@ontario.ca>

Sent: Wednesday, July 28, 2021 3:40 PM

To: Lloyd Perrin <LPerrin@centralelgin.org>

Cc: Wrigley, Rob (MECP) <Rob.Wrigley@ontario.ca>; Smith, Mark (MECP) <Mark.Smith@ontario.ca>; Oliveira, Nelson <nelson.oliveira@stantec.com>; Lang, Sarah <Sarah.Lang@stantec.com>

Subject: RE: Notice of Completion - Union Sanitary Servicing Class EA, Municipality of Central Elgin

Good afternoon,

In response to the Notice of Study Completion and Project File Report provided for the Union Sanitary Servicing Municipal Class EA, Schedule B, please find attached the ministry's comments for your consideration.

We look forward to receiving a written response from the Municipality of Central Elgin to address the comments provided.

Best regards,

Mark Badali (he/him)
Regional Environmental Planner (REP) – Southwest Region

Union Sanitary Servicing Municipal Class EA

Response to MECP Comments Dated July 28, 2021

ID #	Page #	Comment	Resolution
1	37	The last sentence of the first paragraph of this Section states, " <i>Full NHIC records are included in 0.</i> " The "0" seems to be a malfunctioning link and should be corrected.	Fixed.
2	46	The " <i>Est. Flow (m3/d)</i> " column for <i>Area 1</i> of <i>Table 5-1</i> is empty, which seems to be an error because there is no indication as to why there should be no estimated average daily flow calculated for the lots in Area 1.	Fixed.
3	73	Please note that the ministry recommends that non-chloride dust suppressants be applied during construction.	Added.
4	74	In December 2019, the ministry released a new regulation under the Environmental Protection Act, titled <i>On-Site and Excess Soil Management</i> (O. Reg. 406/19) to support improved management of excess construction soil. The regulation is being phased in over time, with the first phase in effect on January 1, 2021. For more information, please visit www.ontario.ca/page/handling-excess-soil . The Report should reference that activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the ministry's current guidance document titled "Management of Excess Soil – A Guide for Best Management Practices" (2014).	Added.
5	74	All waste generated during construction must be disposed of in accordance with ministry requirements.	Added.
6	X	The proponent has consulted with an appropriate list of communities for the purposes of this Class Environmental Assessment (Class EA) study. Communities were provided with sufficient opportunity (notices and follow-up emails/phone calls) to be made aware and provide comments on the Class EA. No substantive comments or concerns were raised to date, but if comments are received on the Report they should be included in the record of consultation, including how any comments or concerns are resolved or addressed.	We will include any comments received from Indigenous communities in the final version of the report.
7	68	Section <i>8.0 Phase 2 Engagement</i> summarizes the key concerns raised during the Public Consultation Centre. Please note that Section <i>A.4.1</i> of the Municipal Class EA	Responses have been included in the revised report.

Union Sanitary Servicing Municipal Class EA

Response to MECP Comments Dated July 28, 2021

ID #	Page #	Comment	Resolution
		document (accessible online here: www.municipalclassea.ca/manual/page30.html) states, " <i>The Project File shall contain a complete record of all activities associated with the planning of the project and shall include... the public consultation program employed and how concerns raised have been addressed.</i> " The Report should be revised to include how the concerns raised in Section 8.0 have been or will be addressed. For example, mitigation measures to address these concerns could be included in the <i>Socio-Economic Impacts</i> section of Table 9-2 in Section 9.4 <i>Potential Impacts and Recommended Mitigation Measures</i> .	
8	37, 74	Section 3.5.6 <i>Species at Risk</i> of the Report indicates that Eastern False Rue Anemone has the potential to be present within the study area. It is the responsibility of the proponent to ensure that Species at Risk are not killed, harmed, or harassed, and that their habitat is not damaged or destroyed through the proposed activities to be carried out on the site. If the proposed activities cannot avoid impacting protected species and their habitats, then the proponent will need to apply for an authorization under the Endangered Species Act (ESA). If the proponent believes that their proposed activities are going to have an impact or are uncertain about the impacts, they should contact SAROntario@ontario.ca to under a formal review under the ESA.	Prior to conducting work in natural areas, an assessment will be conducted to determine if there is potential for False Rue-anemone to occur by reviewing existing records and suitability of habitat. If there is potential of False Rue-anemone to occur in a work area and suitable habitat will be disturbed such as deciduous forest, shaded stream banks and/or thickets, a pre-screening survey will be conducted to determine if the species is present. The survey will be conducted during the growing season when the species is identifiable. If the species is found, authorization requirements under the <i>Endangered Species Act, 2007</i> will be determined in consultation with the MECP via submission of an Information Gathering Form (IGF). Mitigation strategies will prioritize protection of existing plants to the extent possible, and may also include restoration of any habitat disturbance, salvage/relocation of plants that cannot be protected, and other overall benefit measures determined in consultation with MECP.
9		Both the <i>Water Quality</i> and the <i>Aquatic Habitat and Fish Passage</i> sections of Table 7.2 of the Report note that monitoring will be undertaken during construction. A surface water related monitoring program before the construction of the any water crossing to establish baseline conditions as	Water crossings are proposed to be undertaken by trenchless construction measures to mitigate impacts. At this time, excessive dewatering is not anticipated although it is recognized that dewatering may be required for sending and receiving pits. Subject to future design phases and

Union Sanitary Servicing Municipal Class EA

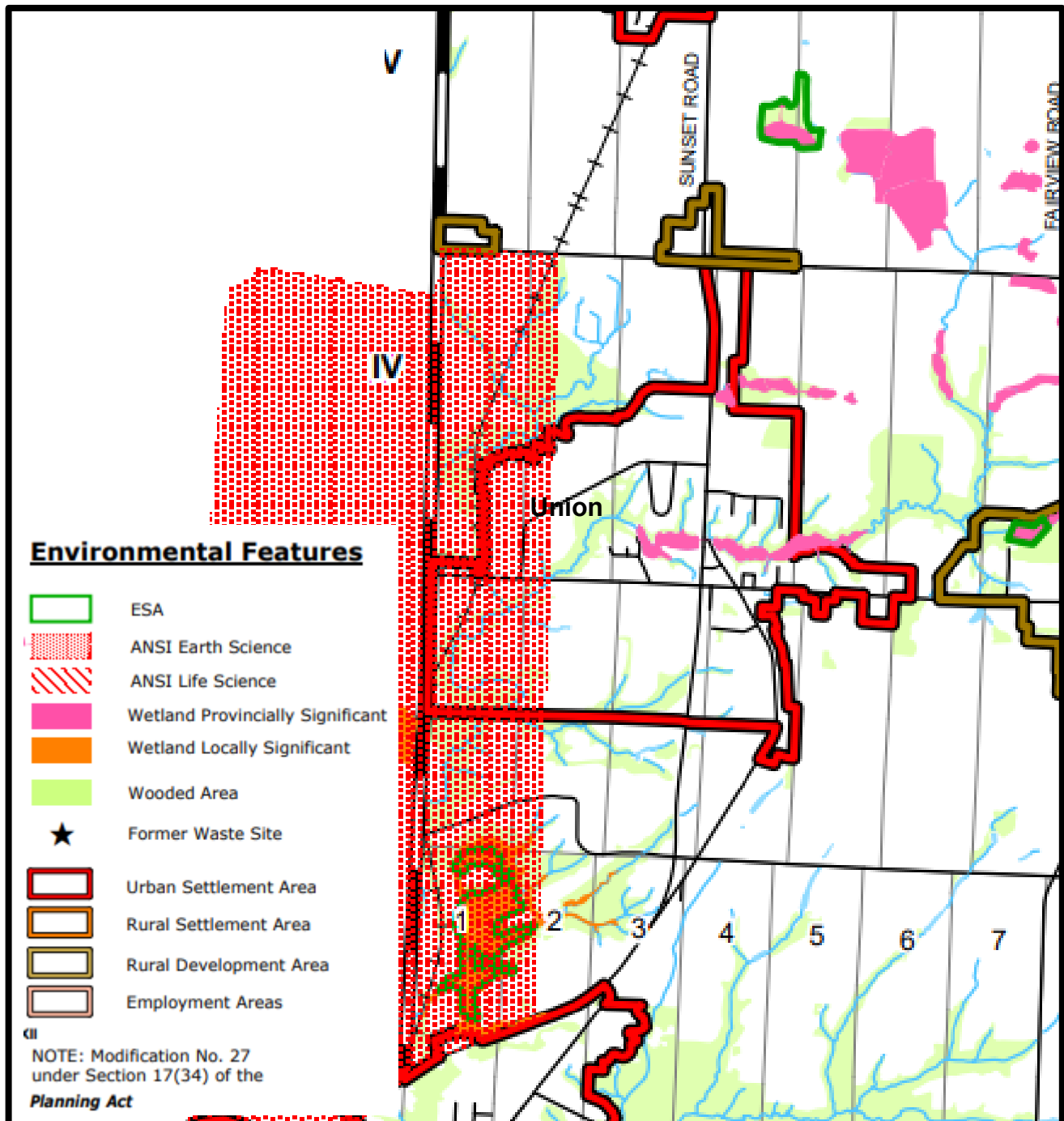
Response to MECP Comments Dated July 28, 2021

ID #	Page #	Comment	Resolution
		well as to track the changes in environmental conditions during the construction is required. The Ministry would like to review this monitoring program once it is developed.	additional geotechnical and hydrogeological investigation, potential impacts on the surface water via nearby dewatering can be determined. We would request that, at that time, the requirement for surface water monitoring be reviewed.
10		As is noted in the <i>Water Crossing</i> section of <i>Table 9-2</i> of the Report, erosion and sediment control plans will need to be developed for any water crossing that is part of the undertaking. Installing sediment and erosion control measures during the construction is critical both in terms of protecting the water quality and reducing the impacts to local aquatic community. Please submit this plan(s) to the Ministry for review once finalized.	This information would be included in the design package to be submitted as part of a future Environmental Compliance Approval for the works.
11		As is noted in the <i>Water Crossing</i> section of <i>Table 9-2</i> of the Report, “ <i>A trenchless crossing plan should be prepared to detail the methodology and response to potential spills/frac-out.</i> ” The Ministry would like to review this trenchless crossing plan once it is developed.	This information would be included in the design package to be submitted as part of a future Environmental Compliance Approval for the works.

APPENDIX B

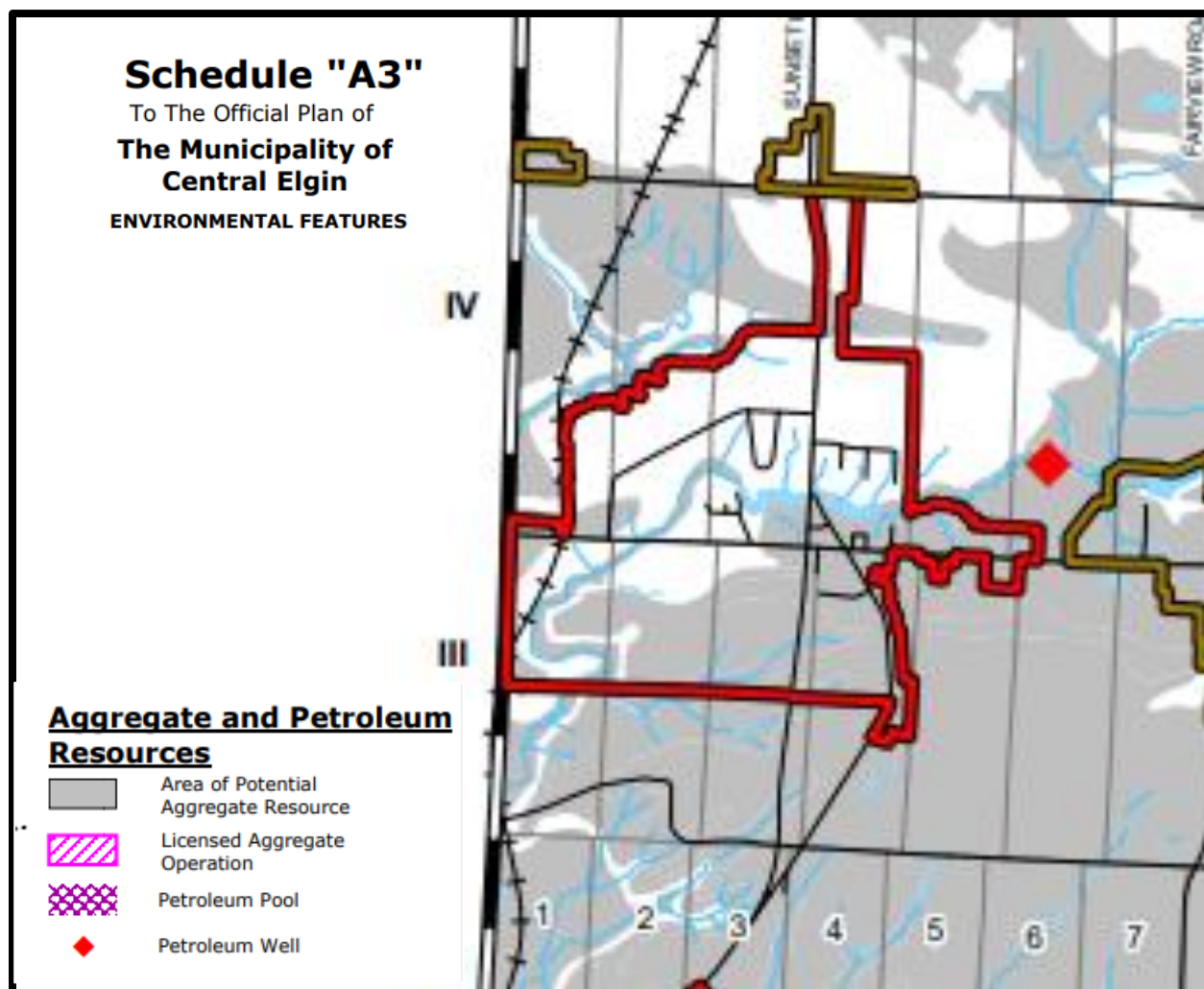
Municipality of Central Elgin Official Plan Figures

APPENDIX B – Municipality of Central Elgin Official Plan Schedules
Figure B-1 Environmental Features within the Union Settlement Area

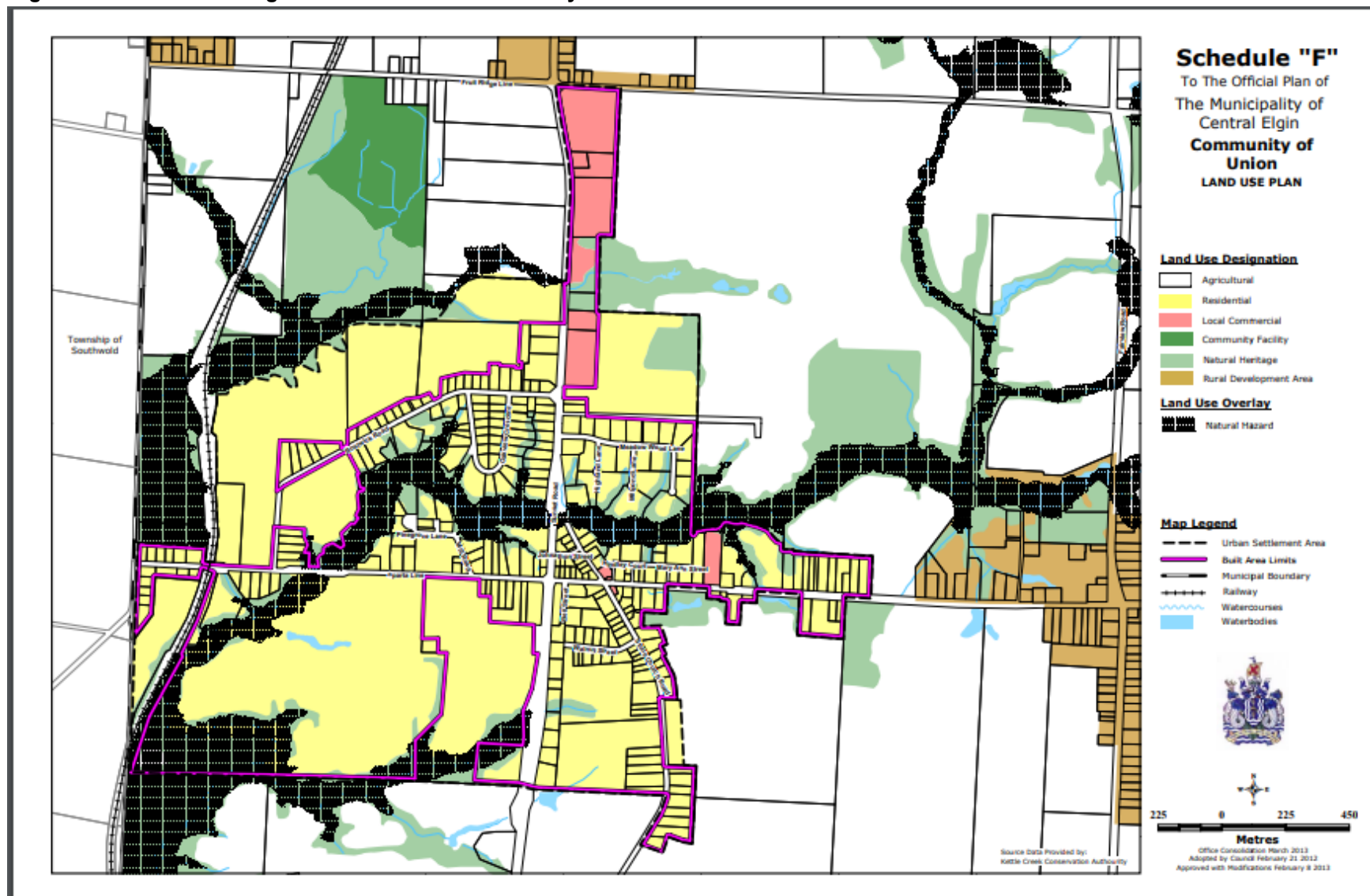


APPENDIX B – Municipality of Central Elgin Official Plan Schedules

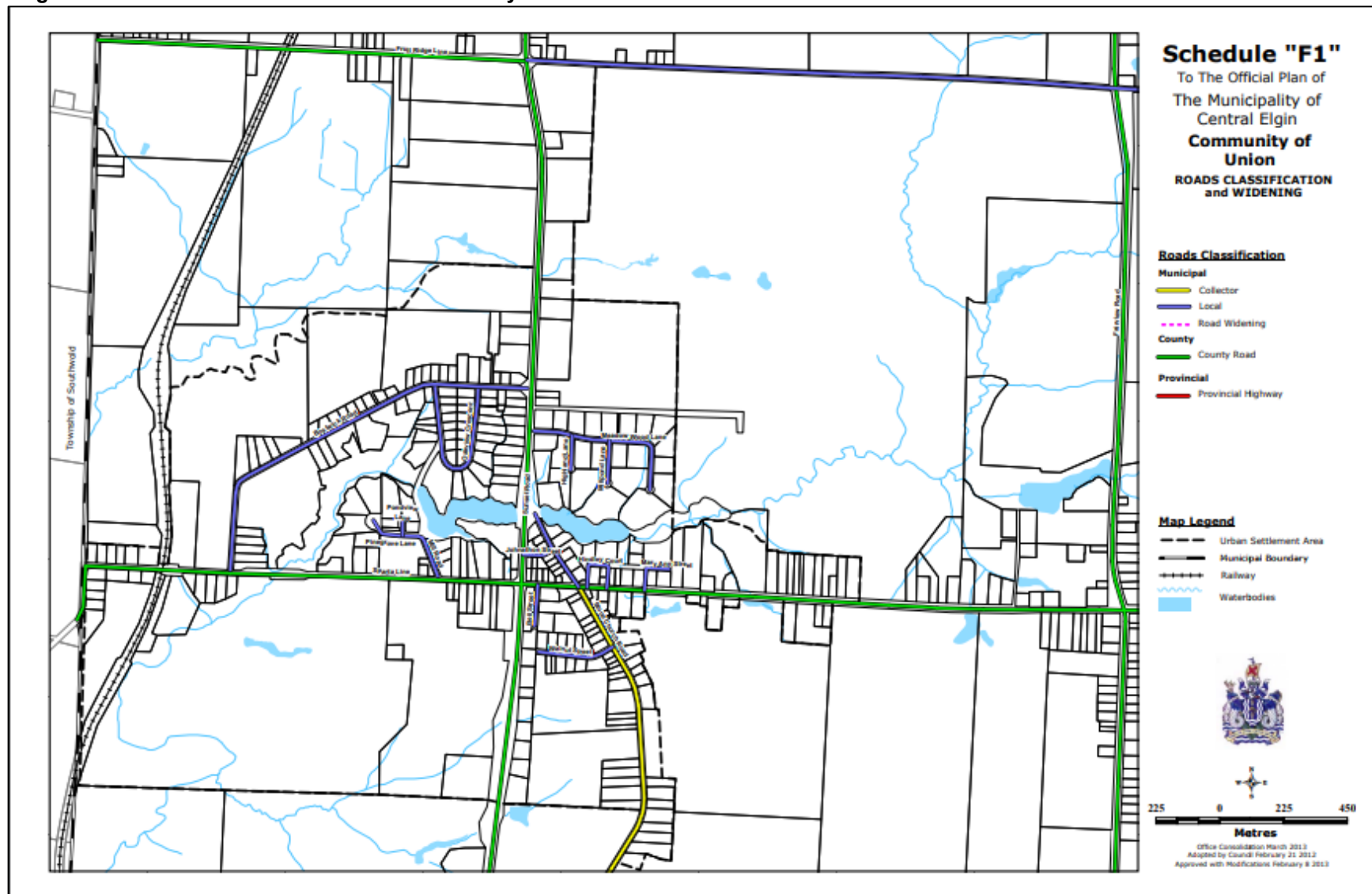
Figure B-2 Potential Aggregate Resources within the Union Settlement Area



APPENDIX B – Municipality of Central Elgin Official Plan Schedules
Figure B-3 Land Use Designations within the Community of Union



APPENDIX B – Municipality of Central Elgin Official Plan Schedules
Figure B-4 Road Classifications in the Community of Union



APPENDIX C

Cultural Heritage Checklist / Stage 1-2 Archaeological Assessment

Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes

A Checklist for the Non-Specialist

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
 - is a recognized heritage property
 - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
 - the main project area
 - temporary storage
 - staging and working areas
 - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name
Union Sanitary Servicing Municipal Class Environmental Assessment

Project or Property Location (upper and lower or single tier municipality)
Community of Union, Central Elgin, ON

Proponent Name
Municipality of Central Elgin

Proponent Contact Information
c/o Stantec Consulting Ltd., Nelson Oliveira, P.Eng., nelson.oliveira@stantec.com

Screening Questions

	Yes	No
1. Is there a pre-approved screening checklist, methodology or process in place?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If Yes, please follow the pre-approved screening checklist, methodology or process.

If No, continue to Question 2.

Part A: Screening for known (or recognized) Cultural Heritage Value

	Yes	No
2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If Yes, do **not** complete the rest of the checklist.

The proponent, property owner and/or approval authority will:

- summarize the previous evaluation and
- add this checklist to the project file, with the appropriate documents that demonstrate a cultural heritage evaluation was undertaken

The summary and appropriate documentation may be:

- submitted as part of a report requirement
- maintained by the property owner, proponent or approval authority

If No, continue to Question 3.

	Yes	No
3. Is the property (or project area):		
a. identified, designated or otherwise protected under the <i>Ontario Heritage Act</i> as being of cultural heritage value?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. a National Historic Site (or part of)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. designated under the <i>Heritage Railway Stations Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. designated under the <i>Heritage Lighthouse Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes to any of the above questions, you need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report, if a Statement of Cultural Heritage Value has not previously been prepared or the statement needs to be updated

If a Statement of Cultural Heritage Value has been prepared previously and if alterations or development are proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No, continue to Question 4.

Part B: Screening for Potential Cultural Heritage Value

	Yes	No
4. Does the property (or project area) contain a parcel of land that:		
a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has or is adjacent to a known burial site and/or cemetery?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. is in a Canadian Heritage River watershed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. contains buildings or structures that are 40 or more years old?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Part C: Other Considerations

	Yes	No
5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area):		
a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has a special association with a community, person or historical event?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. contains or is part of a cultural heritage landscape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes to one or more of the above questions (Part B and C), there is potential for cultural heritage resources on the property or within the project area.

You need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report (CHER)

If the property is determined to be of cultural heritage value and alterations or development is proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No to all of the above questions, there is low potential for built heritage or cultural heritage landscape on the property.

The proponent, property owner and/or approval authority will:

- summarize the conclusion
- add this checklist with the appropriate documentation to the project file

The summary and appropriate documentation may be:

- submitted as part of a report requirement e.g. under the *Environmental Assessment Act*, *Planning Act* processes
- maintained by the property owner, proponent or approval authority

Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

1. Is there a pre-approved screening checklist, methodology or process in place?

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

Part A: Screening for known (or recognized) Cultural Heritage Value

2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

3a. Is the property (or project area) identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value e.g.:

- i. designated under the *Ontario Heritage Act*
 - individual designation (Part IV)
 - part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
 - [Ontario Heritage Trust](#)
 - local land registry office (for a title search)
-

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
 - municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
 - local land registry office (for a title search)
-

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
 - municipal heritage planning staff
 - municipal heritage committee
-

iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
 - [Ontario Heritage Trust](#)
-

- v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

3b. Is the property (or project area) a National Historic Site (or part of)?

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

3c. Is the property (or project area) designated under the *Heritage Railway Stations Protection Act*?

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

3d. Is the property (or project area) designated under the *Heritage Lighthouse Protection Act*?

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada](#) website.

3e. Is the property (or project area) identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office?

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

3f. Is the property (or project area) located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

Part B: Screening for potential Cultural Heritage Value

4a. Does the property (or project area) contain a parcel of land that has a municipal, provincial or federal commemorative or interpretive plaque?

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

4b. Does the property (or project area) contain a parcel of land that has or is adjacent to a known burial site and/or cemetery?

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

4c. Does the property (or project area) contain a parcel of land that is in a Canadian Heritage River watershed?

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

4d. Does the property (or project area) contain a parcel of land that contains buildings or structures that are 40 or more years old?

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

Part C: Other Considerations

5a. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) is considered a landmark in the local community or contains any structures or sites that are important to defining the character of the area?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

5b. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) has a special association with a community, person or historical event?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

5c. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) contains or is part of a cultural heritage landscape?

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
- Ontario Historical Society's "[Heritage Directory](#)" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through [Ontario Trails](#).



**Stage 1-2 Archaeological Assessment:
Proposed Pumping Station, Union
Sanitary Servicing Municipal Class
Environmental Assessment**

Part of Lot 3, Concession 3,
Geographic Township of Yarmouth,
now Municipality of Central Elgin,
Elgin County, Ontario

February 11, 2021

Prepared for:

Corporation of the Municipality of
Central Elgin
450 Sunset Drive
St. Thomas, Ontario N5R 5V1

Prepared by:

Stantec Consulting Ltd.
600-171 Queens Avenue
London, Ontario N6A 5J7

Licensee: Parker Dickson, MA
License Number: P256
PIF Number: P256-0608-2020
Project Number: 165630144

ORIGINAL REPORT



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**STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION
SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

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Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by the Corporation of the Municipality of Central Elgin (the Municipality) to conduct a Stage 1-2 archaeological assessment for a proposed pumping station (the Project) as part of the Union Sanitary Servicing Municipal Class Environmental Assessment (EA). The Stage 1-2 archaeological assessment was completed as part of the preliminary planning and design process for the Project's Municipal Class EA under the Ontario *Environmental Assessment Act* (Government of Ontario 1990a). The study area for the archaeological assessment of the Project comprises approximately 0.49 hectares (ha) on part of Lot 3, Concession 3, Geographic Township of Yarmouth, now Municipality of Central Elgin, Elgin County, Ontario.

The Stage 1-2 archaeological assessment was conducted in accordance with the Ministry of Heritage, Sport, Tourism and Culture Industries' (MHSTCI) 2011 *Standards and Guidelines for Consultant Archaeologists* (MHSTCI 2011). The Stage 2 archaeological assessment of the study area was conducted on May 6, 2020 under Project Information Form number # P256-0608-2020 issued to Parker Dickson, MA of Stantec by the MHSTCI.

The Stage 2 archaeological assessment for the Project identified one new Indigenous archaeological site, Location 1 (AeHh-162). The Stage 2 assessment of Location 1 (AeHh-162) resulted in the recovery of five Indigenous artifacts, all pieces of chipping detritus, from five positive test pits over a 10 metre by 10 metre area. Despite the non-diagnostic nature of the artifacts recovered from Location 1 (AeHh-162), the site represents a spatially discrete cluster of Indigenous artifacts. Five chipped lithic artifacts were recovered from five positive test pits within a 10 metre by 10 mere area fulfilling the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii(2) of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, Location 1 (AeHh-162) retains further cultural heritage value or interest, and Stage 3 archaeological assessment is recommended to further evaluate the site's cultural heritage value or interest.

Location 1 (AeHh-162) fulfills the criteria for Stage 3 archaeological investigation as per Section 2.2 Standard 1.a.ii(2) of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, **Stage 3 archaeological assessment is recommended for Location 1 (AeHh-162) to further evaluate the site's cultural heritage value or interest.** Full and detailed recommendations are provided in the body of the report. Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990b) and may not be altered, or have artifacts removed, except by a person holding an archaeological license.

The MHSTCI is asked to review the results presented and to accept this report into the *Ontario Public Register of Archaeological Reports*.

The Executive Summary highlights key points from the report only; for complete information and findings, the reader should examine the complete report.



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Personnel

Licensed Archaeologist:	Parker Dickson, MA (P256)
Project Manager:	Nelson Oliveira, P.Eng.
Licensed Field Director:	Darren Kipping, MA (R422)
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Independent Review:	Tracie Carmichael, BA, B.Ed. (R140)

Acknowledgements

Proponent Contact:	Lloyd Perrin, Director of Asset Management and Development
Ministry of Heritage, Sport, Tourism and Culture Industries	Robert von Bitter, Archaeological Data Coordinator



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Project Context
February 11, 2021

1.0 PROJECT CONTEXT

1.1 DEVELOPMENT CONTEXT

Stantec Consulting Ltd. (Stantec) was retained by the Corporation of the Municipality of Central Elgin (the Municipality) to conduct a Stage 1-2 archaeological assessment for a proposed pumping station (the Project) as part of the Union Sanitary Servicing Municipal Class Environmental Assessment (EA). The Stage 1-2 archaeological assessment was completed as part of the preliminary planning and design process for the Project's Municipal Class EA under the Ontario *Environmental Assessment Act* (Government of Ontario 1990a). The study area for the archaeological assessment of the Project comprises approximately 0.49 hectares (ha) on part of Lot 3, Concession 3, Geographic Township of Yarmouth, now Municipality of Central Elgin, Elgin County, Ontario (Figure 1).

1.1.1 Objectives

In compliance with the provincial standards and guidelines set out in the Ministry of Heritage, Sport, Tourism and Culture Industries' (MHSTCI) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), the objectives of the Stage 1 are as follows:

- To provide information about the study areas' geography, history, previous archaeological fieldwork and current land conditions.
- To evaluate the study area's archaeological potential which will support recommendations for Stage 2 survey for all or parts of the property.
- To recommend appropriate strategies for Stage 2 survey.

To meet these objectives, Stantec archaeologists employed the following research strategies:

- A review of relevant archaeological, historical, and environmental literature pertaining to the study area.
- A review of the land use history, including pertinent historical maps.
- An examination of the *Ontario Archaeological Sites Database* to determine the presence of registered archaeological sites in and around the project area.

In compliance with the provincial standards and guidelines set out in MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), the objectives of the Stage 2 property assessment are as follows:

- Document archaeological resources within the study area.
- Determine whether the study area contains archaeological resources requiring further assessment.
- Recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

Permission for Stantec staff to enter the study area to conduct archaeological field work was provided by the Municipality.



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Project Context
February 11, 2021

1.2 HISTORICAL CONTEXT

1.2.1 Post-contact Indigenous Resources

“Contact” is typically used as a chronological benchmark in discussing Indigenous archaeology in Canada and describes the contact between Indigenous and European cultures. The precise moment of contact is a constant matter of discussion. Contact in what is now the province of Ontario is broadly assigned to the 16th century (Loewen and Chapdelaine 2016).

The post-contact Indigenous occupation of southern Ontario was heavily influenced by the dispersal of various Iroquoian-speaking communities by the New York State Iroquois and the subsequent arrival of Algonkian-speaking groups from northern Ontario at the end of the 17th century and beginning of the 18th century (Konrad 1981; Rogers 1978; Schmalz 1991). Once the Iroquois moved further into southern Ontario due to conflict with the French, the Ojibway moved into the Bruce Peninsula and the surrounding area (Schmalz 1991). This is also the period in which the Mississaugas are known to have moved into southern Ontario and the lower Great Lakes watersheds (Konrad 1981). In southwestern Ontario, members of the Three Fires Confederacy (Chippewa, Ottawa, and Potawatomi) were immigrating from Ohio and Michigan in the late 1700s (Feest and Feest 1978:778-779).

Despite the differentiation among these Algonkian groups in Euro-Canadian sources, there was a considerably different view by Algonkian groups concerning their self-identification during the first few centuries of European contact. These peoples relied upon kinship ties that cut across European notions of nation identity (Bohaker 2006:277-283). Many of the British-imposed nation names, such as Chippewa, Ottawa, Potawatomi, or Mississauga, artificially separated how self-identified Anishinaabeg classified themselves (Bohaker 2006:1-8) and as a result a number of these groups were culturally and socially more alike than contemporary European documentation might indicate.

The nature of Indigenous settlement size, population distribution, and material culture shifted as European settlers encroached upon their territory. However, despite this shift, “written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity...of ideology and thought” (Ferris 2009:114). As a result, Indigenous peoples have left behind archaeological resources which show continuity with past peoples, even if they have not been recorded in Euro-Canadian documentation.

In the winter of 1626-1627, Recollet Father Daillon travelled through the region of the study area along the north shore of Lake Erie and encountered numerous villages occupied by the Neutral, also called Attikadaron, Atiouandaronk, or Attiwondaronk, who cultivated fields of maize, tobacco, and squash, in addition to hunting and fishing (Coyne 1895). In 1641-1642, the Jesuit missionaries Brebeuf and Chaumonot passed through 28 Neutral villages and gave some of them Christian names, which appear on Sanson’s 1656 map of New France (Sanson 1656). The village of St. Alexis appears to be located near Kettle Creek, but the rivers and creeks are not named on the map and therefore the exact location of the village cannot be determined (Unknown n.d.). Population estimates by the Jesuits of the Neutral



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Nation range from 12,000 to 30,000 people (Coyne 1895:10). In 1650, the Iroquois Confederacy declared war on the Neutral and they were expelled from their villages and lands (Reville 1920:20).

Since contact with European explorers and immigrants, and, later, with the establishment of provincial and federal governments (the Crown), the lands within Ontario and the Geographic Township of Yarmouth have been included in various treaties, land claims, and land cessions. Though not an exhaustive list, Morris (1943) provides a general outline of some of the treaties within the Province of Ontario from 1783 to 1923. Based on Morris (1943), the study area in part of Treaty Number 2, a parcel of land given to the Odawa, Chippewa, Pottawatomi, and Huron by the Crown on May 19, 1790. Treaty Number 2:

... was made with the O[dawa], Chippew[a], Pottawatom[i] and Huro[n] May 19th, 1790, portions of which nations had established themselves on the Detroit River all of whom had been driven by the Iroquois from the northern and eastern parts of the Province, from the Detroit River easterly to Catfish Creek and south of the river La Tranche [Thames River] and Chenail Ecarte, and contains Essex County except Anderdon Township and Part of West Sandwich; Kent County except Zone Township, and Gores of Camden and Chatham; Elgin County except Bayham Township and parts of South Dorchester and Malahide. In Middlesex County, Del[a]ware and Westminster Townships and part of North Dorchester [are included].

(Morris 1943:17)

While it is difficult to exactly delineate treaty boundaries today, Figure 2 provides an approximate outline of Treaty Number 2 (identified by the letter “C”).

1.2.2 Euro-Canadian Resources

The study area is located in part of Lot 3, Concession 3, Geographic Township of Yarmouth, now Municipality of Central Elgin, County of Elgin, Ontario. Elgin County was not officially formed until 1851. Prior to that time, it was part of Suffolk County. Settlement of the area that is now known as Elgin County began in 1803 with the arrival of Colonel Thomas Talbot and the creation of a settlement at Port Talbot (Ermatinger 1904).

Yarmouth Township is named after a seaport in Norfolk County, England (Mika and Mika 1983). The Township of Yarmouth was first surveyed in 1792 and settled in 1810. The township was incorporated in 1850 and was initially attached to Middlesex County. Yarmouth Township was attached to Elgin County with its creation in 1851 (Carter 1984).

The study area is located on the southwest boundary of the village of Union. Union was the name of the post office established in 1851 at the corner of Sparta Line and Sunset Road, located to the east of the study area. The post office was established by three European settlers, William Mandeville, Squire Johnson, and James Haight; with James Haight becoming the postmaster. The post office, and subsequent village, was named Union due to the connection, or union, of what is now Sparta Line and Sunset Road. By 1857, Union had a population of 300 and a variety of businesses, such as a blacksmith,



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shoemaker, cabinetmaker, carpenter, distillery, and multiple taverns (Sims 1988). In 1864, the buildings were concentrated along present-day Sparta Line and Stone Church Road. Additional streets off of Stone Church Road were surveyed but never built (Tremaine 1864). By 1877, Union had expanded further to the west with the construction of present-day Sunset Road. The 1877 town plot of Union depicts the village lots but does not depict any buildings (Page & Co. 1877). By 1908, the village population remained at 300, suggesting little growth in the village (Sims 1988).

The 1809 survey map of Yarmouth Township depicts Lot 3, Concession 3 as reserved for the Crown (Figure 3). The map also depicts a rough outline of the St. Thomas village plot to the north. The 1864 *Historical County Map of Elgin County* (Tremaine 1864) indicates James Haight as the landowner of Lot 3, Concession 3. The map also shows the village of Union encroaching on the current study area (Figure 4). James Haight was the first postmaster of the Union post office. The map depicts a structure along Sparta Line to the west of the study area. The 1877 *Illustrated Historical Atlas of Elgin County* (Page & Co. 1877) indicates W. Vail as the landowner for the north half of Lot 3, Concession 3 (Figure 5). A structure and orchard are depicted south of the study area along Sunset Road. The structure depicted on the 1864 map is not illustrated on this map. James Haight is listed as the landowner for the south of Lot 3, Concession 3 with a structure and orchard depicted along Sunset Road. Sunset Road, along the eastern boundary of the study area, was not depicted on the 1864 map suggesting it was constructed between 1865 and 1877.

1.3 ARCHAEOLOGICAL CONTEXT

1.3.1 Natural Environment

The study area is situated within the Norfolk Sand Plain physiographic region, as defined by Chapman and Putnam (1984). This region includes a large area of fine textured, water deposited sands laid down as part of the delta of the glacial Grand River (Chapman and Putnam 1984). Moreover:

The sands and silts of this region were deposited as a delta in glacial Lakes Whittlesy and Warren. A great discharge of meltwater from the Grand River area entered the lakes between the ice front and the moraines to the northwest, building the delta from west to east as the glacier withdrew.

(Chapman and Putnam 1984:154)

The soils of the study area consist of Fox sandy loam, which is a well-drained soil and suitable for agricultural activities. The closest extant source of potable water is Beaver Creek, which runs approximately 350 metres to the south of the study area.



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1.3.2 Pre-contact Indigenous Resources

It has been demonstrated that Indigenous people began occupying southern Ontario as the Laurentide glacier receded, as early as 11,000 years ago (Ellis and Ferris 1990:13). Much of what is understood about the lifeways of these Indigenous peoples is derived from archaeological evidence and ethnographic analogy. In Ontario, Indigenous culture prior to the period of contact with European peoples has been distinguished into cultural periods based on observed changes in material culture. These cultural periods are largely based on observed changes in formal lithic tools, and separated into the Early Paleo-Indian, Late Paleo-Indian, Early Archaic, Middle Archaic, Late Archaic, and Terminal Archaic periods. Following the advent of ceramic technology in the Indigenous archaeological record, cultural periods are separated into the Early Woodland, Middle Woodland, and Late Woodland periods, based primarily on observed changes in formal ceramic decoration. It should be noted that these cultural periods do not necessarily represent specific cultural identities but are a useful paradigm for understanding changes in Indigenous culture through time. The current understanding of Indigenous archaeological culture is summarized in Table 1 below, based on Ellis and Ferris (1990). The provided time periods are based on the “Common Era” calendar notation system: Before Common Era (BCE) and Common Era (CE).

Table 1: Generalized Cultural Chronology of North Shore of Lake Erie

Period	Characteristics	Time Period	Comments
Early Paleo-Indian	Fluted Projectiles	9000 – 8400 BCE	Spruce parkland/caribou hunters
Late Paleo-Indian	Hi-Lo Projectiles	8400 – 8000 BCE	Smaller but more numerous sites
Early Archaic	Kirk and Bifurcate Base Points	8000 – 6000 BCE	Slow population growth
Middle Archaic	Brewerton-like points	6000 – 2500 BCE	Environment similar to present
Late Archaic	Lamoka (narrow points)	2500 – 1800 BCE	Increasing site size
	Broad Points	1800 – 1500 BCE	Large chipped lithic tools
	Small Points	1500 – 1100 BCE	Introduction of bow hunting
Terminal Archaic	Hind Points	1100 - 950 BCE	Emergence of true cemeteries
Early Woodland	Meadowood Points	950 - 400 BCE	Introduction of pottery
Middle Woodland	Dentate/Pseudo-Scallop Pottery	400 BCE – 500 CE	Increased sedentism
	Princess Point	550 – 900 CE	Introduction of corn
Late Woodland	Early Ontario Iroquoian	900 – 1300 CE	Emergence of agricultural villages
	Middle Ontario Iroquoian	1300 – 1400 CE	Long longhouses (100+ metres)
	Late Ontario Iroquoian	1400 – 1650 CE	Tribal warfare and displacement
Contact Indigenous	Various Indigenous Groups	1650 – 1875 CE	Early written records and treaties
Late Historic	Euro-Canadian	1796 CE – present	European settlement



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Between 9000 and 8000 BCE, Indigenous populations were sustained by hunting, fishing, and foraging, and lived a relatively mobile existence across an extensive geographic territory. Despite these wide territories, social ties were maintained between groups. A common method of maintaining social ties between groups was through gift exchange, evident through exotic lithic material documented on many sites (Ellis 2013:35-40).

By approximately 8000 BCE, evidence exists and becomes more common for the production of ground-stone tools such as axes, chisels, and adzes. These tools themselves are believed to be indicative specifically of woodworking. This evidence can be extended to indicate an increase in craft production and arguably craft specialization. This latter statement is also supported by evidence, dating to approximately 7000 BCE, of ornately carved stone objects which would be laborious to produce and have explicit aesthetic qualities (Ellis 2013:41). This is indirectly indicative of changes in social organization which permitted individuals to devote time and effort to craft specialization. Since 8000 BCE, the Great Lakes basin experienced a low-water phase, with shorelines significantly below modern lake levels (Stewart 2013: Figure 1.1.C). It is presumed that the majority of human settlements would have been focused along these former shorelines. At approximately 6500 BCE, the climate had warmed considerably since the recession of the glaciers and the environment had grown more similar to the present day. By approximately 4500 BCE, evidence exists from southern Ontario for the utilization of native copper (i.e., naturally occurring pure copper metal) (Ellis 2013:42). The known origin of this material along the north shore of Lake Superior indicates the existence of extensive exchange networks across the Great Lakes basin.

At approximately 3500 BCE, the isostatic rebound of the North American plate following the melt of the Laurentide glacier had reached a point which significantly affected the watershed of the Great Lakes basin. Prior to this, the Upper Great Lakes had drained down the Ottawa Valley via the French-Mattawa river valleys. Following this shift in the watershed, the drainage course of the Great Lakes basin had changed to its present course. This also prompted a significant increase in water-level to approximately modern levels (with a brief high-water period); this change in water levels is believed to have occurred catastrophically (Stewart 2013:28-30). This change in geography coincides with the earliest evidence for cemeteries (Ellis 2013:46). By 2500 BCE, the earliest evidence exists for the construction of fishing weirs (Ellis *et al.* 1990: Figure 4.1). Construction of these weirs would have required a large amount of communal labour and are indicative of the continued development of social organization and communal identity. The large-scale procurement of food at a single location also has significant implications for permanence of settlement within the landscape. This period is also marked by further population increase and by 1500 BCE evidence exists for substantial permanent structures (Ellis 2013:45-46).

By approximately 950 BCE, the earliest evidence exists for populations using ceramics. Populations are understood to have continued to seasonally exploit natural resources. This advent of ceramic technology correlated, however, with the intensive exploitation of seed foods such as goosefoot and knotweed as well as mast such as nuts (Williamson 2013:48). The use of ceramics implies changes in the social organization of food storage as well as in the cooking of food and changes in diet. Fish also continued to be an important facet of the economy at this time. Evidence continues to exist for the expansion of social



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organization (including hierarchy), group identity, ceremonialism (particularly in burial), interregional exchange throughout the Great Lakes basin and beyond, and craft production (Williamson 2013:48-54).

By approximately 550 CE, evidence emerges for the introduction of maize into southern Ontario. This crop would have initially only supplemented Indigenous people's diet and economy (Birch and Williamson 2013:13-14). Maize-based agriculture gradually became more important to societies and by approximately 900 CE permanent communities emerge which are primarily focused on agriculture and the storage of crops, with satellite locations oriented toward the procurement of other resources such as hunting, fishing and foraging. At around 1250 CE, evidence exists for the common cultivation of historic Indigenous cultigens, including maize, beans, squash, sunflower, and tobacco. The extant archaeological record demonstrates many cultural traits similar to historic Indigenous nations (Williamson 2013:55).

1.3.3 Registered Archaeological Sites and Surveys

In Canada, archaeological sites are registered within the Borden system, a national grid system designed by Charles Borden in 1952 (Borden 1952). The grid covers the entire surface area of Canada and is divided into major units containing an area that is two degrees in latitude by four degrees in longitude. Major units are designated by upper case letters. Each major unit is subdivided into 288 basic unit areas, each containing an area of 10 minutes in latitude by 10 minutes in longitude. The width of basic units reduces as one moves north due to the curvature of the earth. In southern Ontario, each basic unit measures approximately 13.5 kilometres east-west by 18.5 kilometres north-south. In northern Ontario, adjacent to Hudson Bay, each basic unit measures approximately 10.2 kilometres east-west by 18.5 kilometres north-south. Basic units are designated by lower case letters. Individual sites are assigned a unique, sequential number as they are registered. These sequential numbers are issued by the MHSTCI who maintain the *Ontario Archaeological Sites Database*. The study area is located within Borden block AeHh.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (Government of Ontario 1990b). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MHSTCI will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

An examination of the *Ontario Archaeological Sites Database* has shown that there are no archaeological sites registered within one kilometre of the study area (Government of Ontario 2020a). Based on a query of the *Ontario Public Register of Archaeological Reports* (Government of Ontario 2020b), the closest archaeological assessment to the study area was completed by Wood Environment & Infrastructure Solutions (2019) approximately 100 metres to the south and the west. The report by Wood Environment & Infrastructure Solutions (2019) was completed under Project Information Form (PIF) number P066-0295-2018 and is titled *Original Report: Stage 1 & 2 Archaeological Assessment, Proposed Residential Subdivision, 42439 Sparta Line, Union, Municipality of Central Elgin, Part of Lot 3, Concession 3, Geographic Township of Yarmouth, Elgin County, Ontario*. No archaeological resources were identified



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by Wood Environment & Infrastructure Solutions (2019) and no further archaeological work was recommended.

1.3.4 Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Stantec applied archaeological potential criteria commonly used by the Ontario MHSTCI (Government of Ontario 2011) to determine areas of archaeological potential within the region under study. These variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography and the general topographic variability of the area.

Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. Finally, extensive land disturbance can eradicate archaeological potential (Government of Ontario 2011).

Distance to water is an essential factor in archaeological potential modeling. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect site locations and types to varying degrees. The MHSTCI (Government of Ontario 2011) categorizes water sources in the following manner:

- Primary water sources: lakes, rivers, streams, creeks.
- Secondary water sources: intermittent streams and creeks, springs, marshes, and swamps.
- Past water sources: glacial lake shorelines, relic river or stream channels, cobble beaches, shorelines of drained lakes or marshes.
- Accessible or inaccessible shorelines: high bluffs, swamp or marshy lake edges, sandbars stretching into marsh.

Beaver Creek is located approximately 350 metres to the south of the study area. Additional ancient and/or relic tributaries of other primary and secondary water sources may have existed but are not identifiable today and are not indicated on historic mapping. Soil texture can be an important determinant of past settlement, usually in combination with other factors such as topography. The study area soils consist of Fox sandy loam, which is a well-drained soil and is suitable for agriculture.

For Euro-Canadian sites, archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements; early transportation routes; properties listed on the municipal register or designated under the *Ontario Heritage Act* (Government of Ontario 1990b); and properties that local histories or informants have identified with possible historical events, activities, or occupations. The 1864 map depicts James Haight, the first postmaster of Union, as the landowner for Lot 3, Concession 3 and a structure is illustrated to the west of the study area. The study area is adjacent to the village of Union in the 1864 and 1877 maps.



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When the above listed criteria are applied, the study area retains potential for the identification of Indigenous and Euro-Canadian archaeological resources.

1.3.5 Existing Conditions

The study area for the Project comprises approximately 0.49 ha on part of Lot 3, Concession 3, Geographic Township of Yarmouth, now Municipality of Central Elgin, Elgin County, Ontario. The study area is located within Lawton Park, a small parkland owned by the Municipality, and includes manicured lawn and a gravel parking area.



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2.0 FIELD METHODS

The Stage 1-2 archaeological assessment was conducted under PIF number P256-0608-2020 issued to Parker Dickson, MA, of Stantec by the MHSTCI. The Stage 1-2 archaeological assessment was conducted on May 6, 2020. Prior to the start of the Stage 2 archaeological assessment, preliminary mapping of the proposed impacts which defined the assessment area (i.e., study area) was confirmed with the Municipality. This mapping was then geo-referenced by Stantec's Geographical Information Services (GIS) team and a digital file (i.e., a shape file) was created of the Project's study area. The digital file was uploaded to handheld Global Positioning Service (GPS) devices for use in the field.

During the Stage 1-2 survey weather was sunny and cool. At no time were the field, weather, or lighting conditions detrimental to the identification and recovery of archaeological material. Photos 1 to 7 confirm that field conditions met the requirements for a Stage 2 archaeological assessment, as per the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Section 7.8.6 Standard 1a; Government of Ontario 2011). Figure 6 provides an illustration of the Stage 2 assessment results, as well as photograph locations and directions.

Approximately 74% of the study area was inaccessible for ploughing and was subject to test pit survey. The test pit survey was completed at a five metre interval (Photos 1 to 3) in accordance with Section 2.1.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Each test pit was at least 30 centimetres in diameter and excavated five centimetres into sterile subsoil. The soils were then examined for stratigraphy, cultural features, or evidence of fill. Test pits were approximately 25 centimetres deep. Soil was screened through six millimetre hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit. The test pits were backfilled after excavation. Photos 1 to 3 illustrate the test pit survey of the study area.

In accordance with Section 2.1.3 Standard 1 of the MHSTCI's 2011 *Standards and Guidelines* (Government of Ontario 2011), when archaeological resources were encountered during the Stage 2 test pit survey, the test pit excavation continued on the survey grid to determine the extent of further positive test pits. Universal Transverse Mercator (UTM) coordinates were recorded for all positive test pits identified by Stantec using ArcGIS Collector powered by ESRI, customized for archaeological survey and assessment, on a handheld mobile device paired with an R1 Receiver to an accuracy of less than one metre. The UTM coordinates are located in zone 17T and are based upon the North American Datum 1983 (NAD83). A map illustrating the exact test pit locations and UTM coordinates recorded during the assessment are provided in the Supplementary Documentation to this report.

Five positive test pits were identified by Stantec during the test pit survey. The artifacts were collected and recorded according to their associated positive test pit. Stantec determined that sufficient archaeological resources had been recovered to make a recommendation for Stage 3 assessment. Thus, in accordance with Section 2.1.3 Standard 1 of the MHSTCI's 2011 *Standards and Guidelines*



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(Government of Ontario 2011), no further Stage 2 field methods were employed for the recovered archaeological resources.

The remainder of the study area, approximately 26%, was identified as previously disturbed (Photos 4 to 7). The eastern and northern boundaries of the study area are previously disturbed due to extensive ditching from municipal road rights-of-way. The northwestern portion of the study area is disturbed due to an existing gravel parking lot and a built-up berm (Photo 6). These areas were not subject to Stage 2 survey as per Section 2.1 Standard 2a and Standard 2b of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). While these areas were not surveyed, they were photo documented as per Section 7.8.6 Standard 1b of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).



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3.0 RECORD OF FINDS

The Stage 1-2 archaeological assessment was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by fieldwork is provided in Table 2. One new archaeological location was identified during the Stage 2 survey of the study area: Location 1 (AeHh-162). Maps illustrating exact site locations do not form part of this public report, rather they are found in the Supplementary Documentation.

Table 2: Inventory of Documentary Record

Document Type	Current Location of Document Type	Additional Comments
2 pages of field notes	Stantec office in London, Ontario	In original field book and photocopied in project file
1 map provided by the Municipality	Stantec office in London, Ontario	Hard and digital copies in project file
24 digital photographs	Stantec office in London, Ontario	Stored digitally in project file

The material culture collected during the Stage 2 archaeological survey of the study area is contained in one Bankers box, labeled by location and Borden number. The box will be temporarily housed at the Stantec London office until formal arrangements can be made for a transfer to an MHSTCI collections facility.

3.1 LOCATION 1 (AeHh-162)

Location 1 (AeHh-162) was identified during a test pit survey. The Stage 2 assemblage comprises five Indigenous artifacts from five positive test pits. Artifacts associated with Location 1 (AeHh-162) were recovered from an area measuring approximately 10 metres by 10 metres. All identified artifacts were collected and retained for analysis. A total of five pieces of chipping detritus were recovered from Location 1 (AeHh-162). A sample of the artifacts from Location 1 (AeHh-162) is illustrated in Plate 1.

3.1.1 Raw Material

For any Indigenous lithic artifact recovered, chert type identifications were accomplished visually using reference materials located in the Stantec London office. Kettle Point chert was the only chert recovered from Location 1 (AeHh-162). Chert is a naturally occurring mineral found in sedimentary rocks that is a granular crystalline form of quartz, composed of cryptocrystalline and microcrystalline crystals (Eley and von Bitter 1989). Raw material acquisition and procurement strategies have long been theorized in academic literature. Some researchers suggest that raw material choices are purely utilitarian (e.g., Deller 1979; Ellis 1989; Parker 1986a, 1986b; Roosa 1977; and Whitthoft 1952), while others suggest non-utilitarian reasons (e.g., Wheat 1971; Wormington 1957; Simmons *et al.* 1984; and Hall 1993). Regardless of the reason, chert type identification and their respective quantities within a particular



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assemblage provide an opportunity to evaluate numerous archaeological variables, including group mobility and sedentism, lithic reduction strategy and technique, transportation, trade, and symbolism.

Of the five lithic materials recovered, four were manufactured from Kettle Point chert and one was manufactured from quartzite. Kettle Point formation chert is from the Late Devonian age and is situated between the Kettle Point (Late Devonian shales) and the Ipperwash Formations (Middle Devonian Limestone). It occurs as submerged outcrops that extend approximately 1,350 metres into Lake Huron (Janusas 1984). Secondary deposits have been reported in Essex County (Janusas 1984) and in the Ausable Basin (Kenyon 1980; Eley and Von Bitter 1989). Kettle Point chert can be identified by the presence of a waxy lustre and occurs in a wide range of colours including brown, grey and greenish colours as well as reddish purple and dark blue varieties (Eley and von Bitter 1989). A rusty staining on the surface of artifacts is frequently noted (Fisher 1997).

3.1.2 Chipping Detritus

The Stage 2 archaeological assessment of Location 1 (AeHh-162) recovered five pieces of chipping detritus. The recovered flakes were subject to morphological analysis following the classification scheme described by Lennox *et al.* (1986) and expanded upon by Fisher (1997). The results of the morphological analysis of the chipping detritus are presented in Table 3.

Table 3: Chipped Stone Debitage Analysis

Material	Primary		Secondary		Tertiary		Broken		Shatter		Micro		Total Analyzed	
	n	%	N	%	n	%	n	%	n	%	n	%	n	%
Kettle Point	0	0.00	0	0.00	2	40.00	2	40.00	0	0.00	0	0.00	4	80.00
Quartzite	0	0.00	0	0.00	0	0.00	1	20.00	0	0.00	0	0.00	1	20.00
Total	0	0.00	0	0.00	2	40.00	3	60.00	0	0.00	0	0.00	5	100.00

Primary flakes feature dorsal surfaces that are either entirely covered with cortex or have substantial visible cortex present. Secondary flakes can also have a trace of cortex on the dorsal surface. Both varieties, along with shatter, are associated with early stages of lithic reduction as chert cores or flint nodules are converted into blanks or preforms. Tertiary flakes and micro flakes are produced during the further reduction of blanks and preforms into formal tool shapes. They are the result of precise flake removal through pressure flaking, where the maker applies direct pressure onto a specific part of the tool in order to facilitate flake removal. Pressure flaking generally produces smaller, thinner flakes than does percussion flaking. Broadly, primary, secondary, and shatter flakes indicate early stages of lithic reduction, while tertiary and micro flakes indicate later stages of the reduction sequence.

Broken flakes were most often encountered within the Stage 2 assemblage, comprising 60% of the collection, with tertiary flakes representing the balance of the collection (40%). No primary, secondary, shatter or micro flakes were identified. A sample of the chipping detritus recovered from Location 1 (AeHh-162) is presented in Plate 1.



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The morphological analysis of the chipped stone debitage indicates that the lithic practices at the site consist mainly of the re-sharpening and finishing of formal tools from prepared blanks. Primary reduction activities, from which primary, secondary, and shatter flakes would be created, were most likely being conducted at a different location. However, a definitive determination of lithic practices at the site is difficult to ascertain with such a small sample size.

3.1.3 Location 1 (AeHh-162) Artifact Catalogue

Table 4 provides the complete catalogue of the Stage 2 artifact assemblage recovered by Stantec from Location 1 (AeHh-162).

Table 4: Location 1 (AeHh-162) Artifact Catalogue

Catalogue #	Subunit or Context	Artifact	Quantity	Chert	Morphology
1	Test pit 1	Chipping detritus	1	Kettle Point	Tertiary
2	Test pit 2	Chipping detritus	1	Kettle Point	Broken
3	Test pit 3	Chipping detritus	1	Kettle Point	Tertiary
4	Test pit 4	Chipping detritus	1	Kettle Point	Broken
5	Test pit 5	Chipping detritus	1	quartzite	Broken



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Analysis and Conclusions
February 11, 2021

4.0 ANALYSIS AND CONCLUSIONS

The Stage 2 archaeological assessment for the proposed pump station identified one Indigenous archaeological site, Location 1 (AeHh-162). Maps identifying exact site locations do not form part of this public report; they may be found in the Supplementary Documentation. The Stage 2 assessment of Location 1 (AeHh-162) resulted in the recovery of five Indigenous artifacts from five positive test pits over a 10 metre by 10 metre area. The Indigenous assemblage from Location 1 (AeHh-162) comprises five pieces of chipping detritus.

Chipping detritus is the waste product from the production of lithic tools and is the most often recovered artifact on pre-contact Indigenous archaeological sites in southern Ontario. Chipping detritus, along with utilized and retouched flakes, are generally considered to be temporally non-diagnostic other than being produced by pre-contact Indigenous peoples. For this reason, artifacts such as these cannot help place the archaeological site within a specific time period or cultural group. Generally, the recovered artifacts suggest the site's use as a small and temporary Indigenous camp or work site.

Despite the non-diagnostic nature of the artifacts recovered from Location 1 (AeHh-162), the site represents a spatially discrete cluster of Indigenous artifacts. Five chipped lithic artifacts were recovered from five positive test pits within a 10 metre by 10 mere area fulfilling the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii(2) of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, Location 1 (AeHh-162) retains further cultural heritage value or interest, and Stage 3 archaeological assessment is recommended to further evaluate the site's cultural heritage value or interest.

A preliminary indication of whether any site could be eventually recommended for Stage 4 archaeological mitigation is required under the MHSTCI' 2011 *Standards and Guidelines for Consultant Archaeologists* Section 7.8.3 Standard 2c (Government of Ontario 2011). No firm recommendation for, or against, Stage 4 archaeological mitigation will be made until the Stage 3 archaeological assessment has been conducted, whether as a part of the current project or at a later date. However, due to the paucity of artifacts recovered during Stage 2 assessment, it is unlikely that Stage 4 archaeological mitigation will be required based on available information.



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Recommendations
February 11, 2021

5.0 RECOMMENDATIONS

Location 1 (AeHh-162) fulfills the criteria for Stage 3 archaeological investigation as per Section 2.2 Standard 1.a.ii(2) of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, **Stage 3 archaeological assessment is recommended for Location 1 (AeHh-162) to further evaluate the site's cultural heritage value or interest.**

The Stage 3 archaeological assessment of Location 1 (AeHh-162) will be conducted according to the procedures outlined in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The Stage 3 archaeological assessment will include the relocation of the site and then Stage 3 test units excavated by hand every five metres in systematic levels and into the first five centimetres of subsoil. No controlled surface pickup is required since the site was not discovered in a ploughed agricultural field or within lands accessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

The MHSTCI is asked to review the results presented and to accept this report into the *Ontario Public Register of Archaeological Reports*.



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Advice on Compliance with Legislation
February 11, 2021

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18 (Government of Ontario 1990c). The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Heritage, Sport, Tourism and Culture Industries, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* (Government of Ontario 1990c) for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the *Ontario Public Register of Archaeological Reports* referred to in Section 65.1 of the *Ontario Heritage Act* (Government of Ontario 1990c).

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990c). The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990c).

The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (Government of Ontario 2002) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Government and Consumer Services.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990c) and may not be altered, or have artifacts removed, except by a person holding an archaeological licence.



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Bibliography and Sources
February 11, 2021

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STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

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STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

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STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Images
February 11, 2021

8.0 IMAGES

8.1 PHOTOGRAPHS

Photo 1: Test pit survey at five metre intervals, facing northwest



**STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION
SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

Images
February 11, 2021

Photo 2: Test pit survey at five metre intervals, facing north



Photo 3: Test pit survey at five metre intervals, facing southeast



**STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION
SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

Images

February 11, 2021

Photo 4: Area of previous disturbance from municipal road right-of-way ditching, facing south



Photo 5: Area of previous disturbance from municipal road right-of-way ditching, facing east



**STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION
SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

Images
February 11, 2021

Photo 6: Area of previous disturbance from construction berm, facing southeast



Photo 7: Area of previous disturbance from gravel parking area, facing northwest

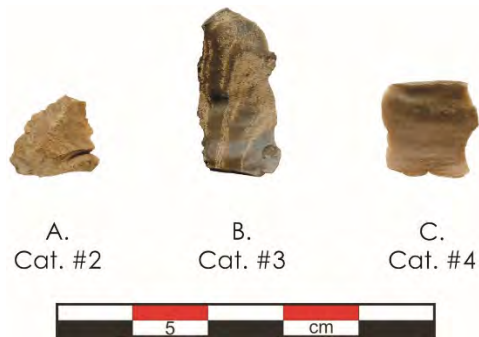


**STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION
SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

Images
February 11, 2021

8.2 ARTIFACTS

Plate 1: Sample of chipping detritus recovered from Location 1 (AeHh-162)



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

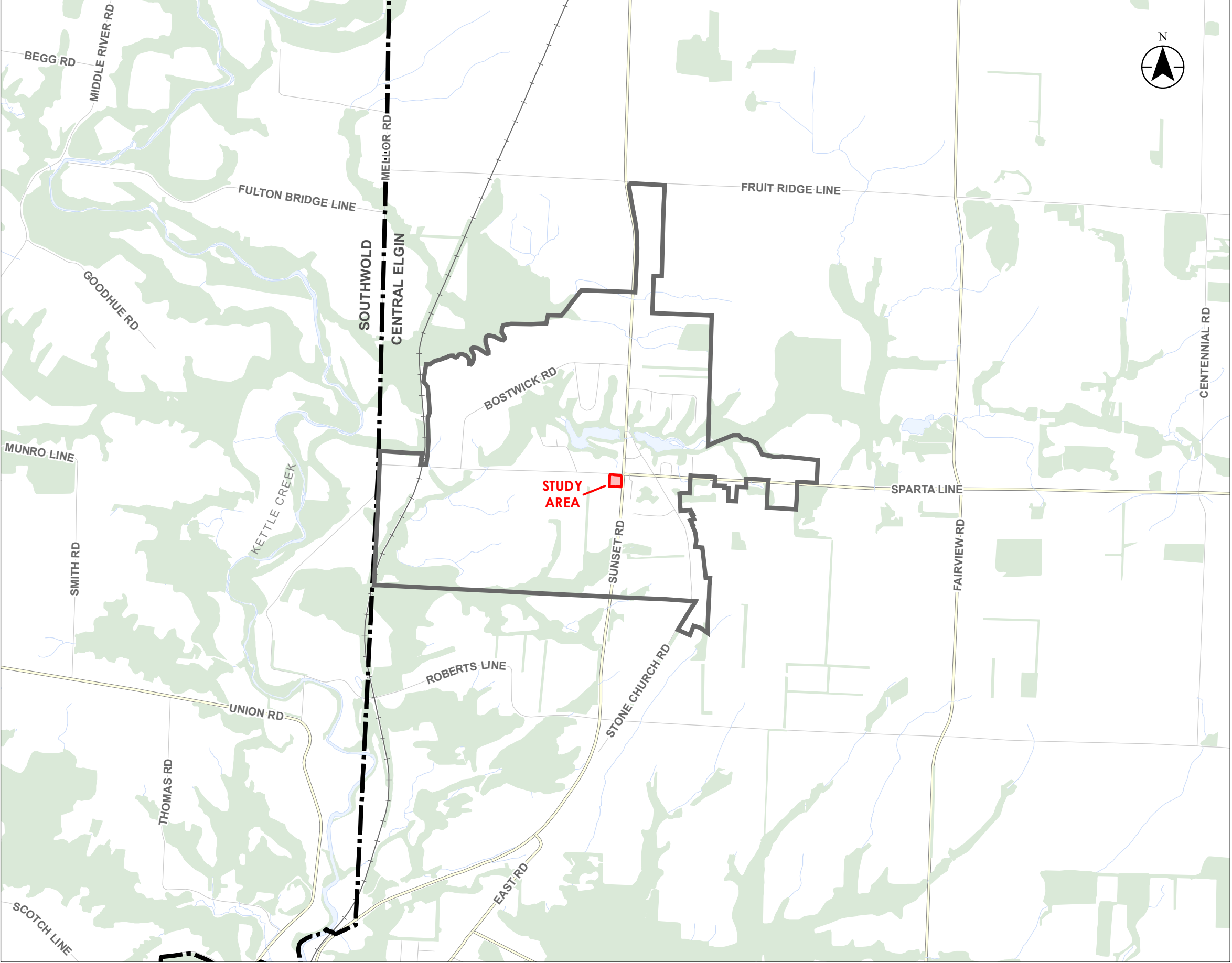
Maps
February 11, 2021

9.0 MAPS




General maps of the study area will follow on succeeding pages. Maps showing the exact location of Location 1 (AeHh-162) can be found in Supplementary Documentation.

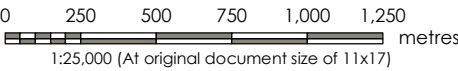


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Legend

-  Study Area
-  Municipality Limit
-  Union Settlement Area



Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Contains information licensed under the Open Government Licence – Ontario.
3. 2015 orthoimagery © Municipality of Central Elgin.

Project Location
Municipality of
Central Elgin

165630144 REVA
Prepared by AB on 2020-05-20
Independent Review by PD on 2020-05-20

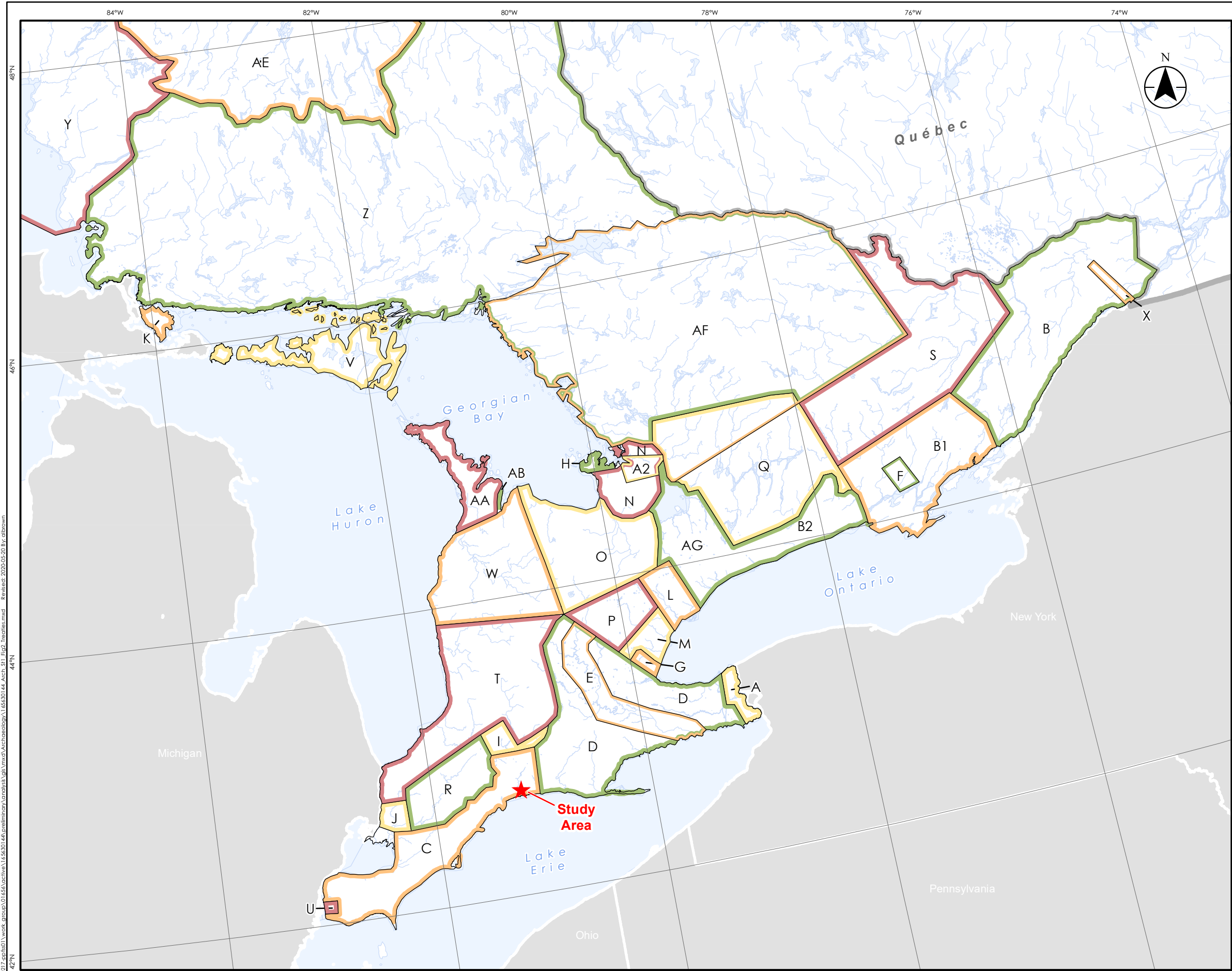
Client/Project
MUNICIPALITY OF CENTRAL ELGIN
STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
UNION SANITARY SERVICING MUNICIPAL CLASS EA

Figure No.

1

Title

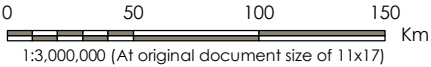
Location of Study Area



Legend

- ★ Study Area
- Waterbody

- A Treaty No. 381, May 9th, 1781 (Mississauga and Chippewa)
- AA Treaty No. 72, October 30th, 1854 (Chippewa)
- AB Treaty No. 82, February 9th, 1857 (Chippewa)
- AE Treaty No. 9, James Bay 1905, 1906 (Ojibway and Cree)
- AF Williams Treaty, October 31st and November 15th, 1923 (Chippewa and Mississauga)
- AG Williams Treaty, October 31st, 1923 (Chippewa)
- A2 John Collins' Purchase, 1785 (Chippewa)
- B Crawford's Purchase, October 9th, 1783 (Algonquin and Iroquois)
- B1 Crawford's Purchase, October 9th, 1783 (Mississauga)
- B2 Crawford's Purchase, 1783, 1787, 1788 (Mississauga)
- C Treaty No. 2, May 19th, 1790 (Odawa, Chippewa, Pottawatomi, and Huron)
- D Treaty No. 3, December 2nd, 1792 (Mississauga)
- E Haldimand Tract: from the Crown to the Mohawk, 1793
- F Tyendinaga: from the Crown to the Mohawk, 1793
- G Treaty No. 3 3/4: from the Crown to Joseph Brant, October 24th, 1795
- H Treaty No. 5, May 22nd, 1798 (Chippewa)
- I Treaty No. 6, September 7th, 1796 (Chippewa)
- J Treaty No. 7, September 7th, 1796 (Chippewa)
- K Treaty No. 11, June 30th, 1798 (Chippewa)
- L Treaty No. 13, August 1st, 1805 (Mississauga)
- M Treaty No. 13A, August 2nd, 1805 (Mississauga)
- N Treaty No. 16, November 18th, 1815 (Chippewa)
- O Treaty No. 18, October 17th, 1818 (Chippewa)
- P Treaty No. 19, October 28th 1818 (Chippewa)
- Q Treaty No. 20, November 5th, 1818 (Chippewa)
- R Treaty No. 21, March 9th, 1819 (Chippewa)
- S Treaty No. 27, May 31st, 1819 (Mississauga)
- T Treaty No. 27½, April 25th, 1825 (Ojibwa and Chippewa)
- U Treaty No. 35, August 13th, 1833 (Wyandot or Huron)
- V Treaty No. 45, August 9th, 1836 (Chippewa and Odawa, "For All Indians To Reside Thereon")
- W Treaty No. 45½, August 9th, 1836 (Saugeen)
- X Treaty No. 57, June 1st, 1847 (Iroquois of St. Regis)
- Y Treaty No. 60, Robinson, Superior, September 7th, 1850 (Ojibwa)
- Z Treaty No. 61, Robinson, Huron, September 9th, 1850 (Ojibwa)



- Notes
- 1. Coordinate System: NAD 1983 Statistics Canada Lambert
 - 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2018.
 - 3. Treaty boundaries adapted from Morris 1943 [1964 reprint]. For cartographic representation only.

Project Location 165630144 REVA
Municipality of Central Elgin Prepared by AB on 2020-05-20
Independent Review by PD on 2020-05-20

Client/Project
MUNICIPALITY OF CENTRAL ELGIN
STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
UNION SANITARY SERVICING MUNICIPAL CLASS EA

Figure No.
2

Title
Treaties and Purchases (Adapted from Morris 1943)





Stantec

Legend

Study Area - Approximate Location

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Source: Jones, A. 1809, Yarmouth.
3. Historical information not to scale.

Project Location

Municipality of
Central Elgin

165630144 REVA

Prepared by AB on 2020-06-04

Independent Review by PD on 2020-06-04

Client/Project

MUNICIPALITY OF CENTRAL ELGIN
STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
UNION SANITARY SERVICING MUNICIPAL CLASS EA

Figure No.

3

Title

**Portion of the 1809 Survey of Yarmouth
Township**



Legend
 Study Area - Approximate Location

Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
2. Source: Tremaine, George. 1864. Historical County Map of Elgin County.
3. Historical information not to scale.

Project Location	165630144 REVA
Municipality of	Prepared by AB on 2020-06-04
Central Elgin	Independent Review by PD on 2020-06-04

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STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
UNION SANITARY SERVICING MUNICIPAL CLASS EA

Figure No.
4

Title
Portion of the 1864 Map of Yarmouth Township



Legend
 Study Area - Approximate Location

- Notes**
- 1. Coordinate System: NAD 1983 UTM Zone 17N
 - 2. Source: Page, H.R. and Company. 1877. Historical Atlas of the County of Elgin, Ontario, Toronto.
 - 3. Historical information not to scale.

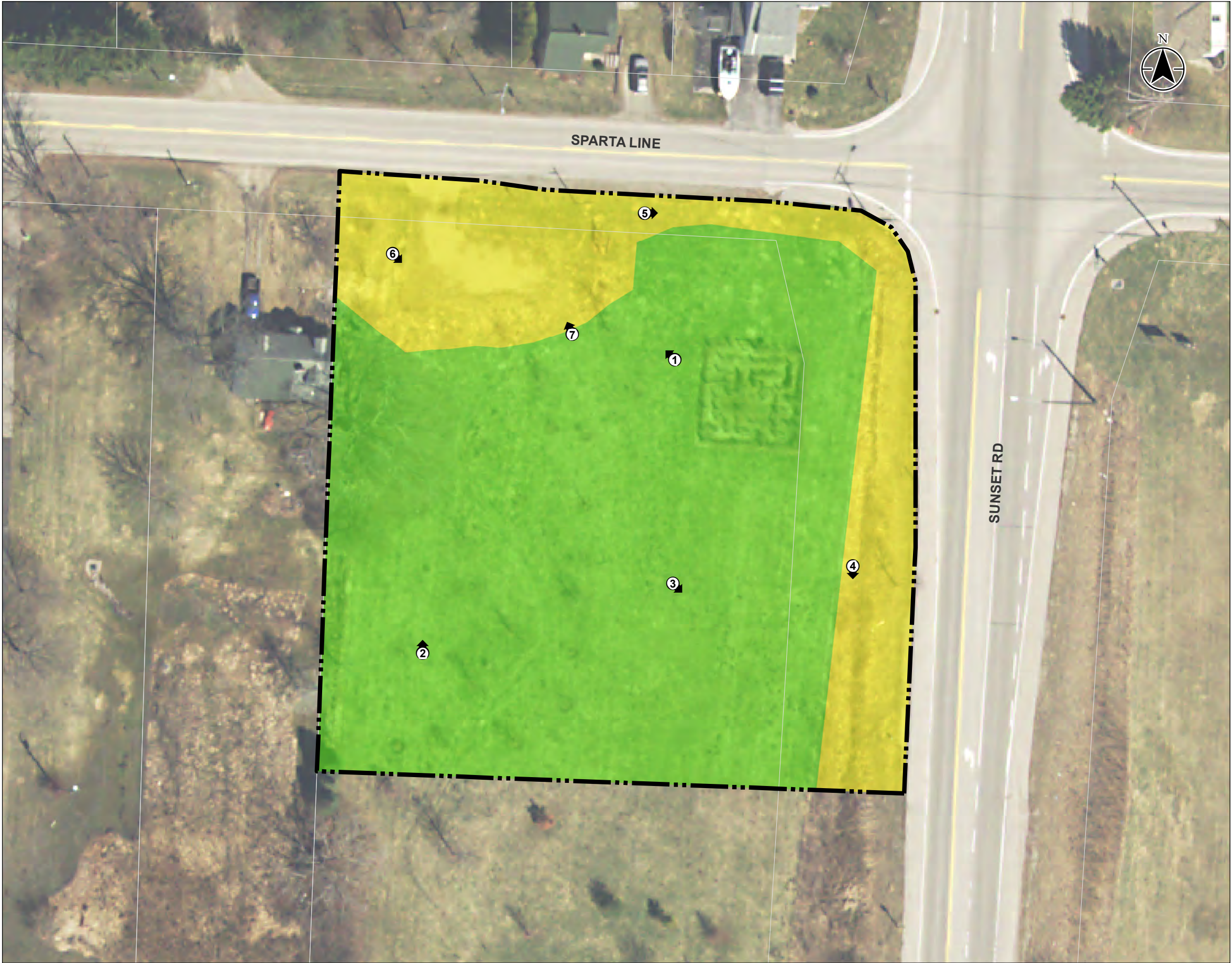
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Municipality of Central Elgin	Prepared by AB on 2020-06-04
	Independent Review by PD on 2020-06-04

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MUNICIPALITY OF CENTRAL ELGIN
STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
UNION SANITARY SERVICING MUNICIPAL CLASS EA

Figure No.
5

Title
Portion of the 1877 Map of Yarmouth Township

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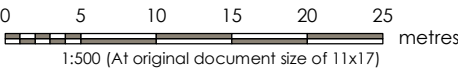


Legend

- Study Area
- Property Parcel
- Photo Location

Archaeological Potential:

- Previously Disturbed, Low to No Archaeological Potential
- Test Pit Survey - 5m Intervals



Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Contains information licensed under the Open Government Licence – Ontario.
3. 2015 orthomagery © Municipality of Central Elgin.

Project Location
Municipality of
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MUNICIPALITY OF CENTRAL ELGIN
STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
UNION SANITARY SERVICING MUNICIPAL CLASS EA

Figure No.

6

Title

Stage 1-2 Methods and Results

STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: PROPOSED PUMPING STATION, UNION SANITARY SERVICING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Closure
February 11, 2021

10.0 CLOSURE

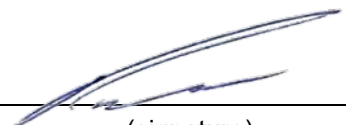
This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential archaeological resources associated with the identified property.

All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available and the results of the work. The conclusions are based on the conditions encountered by Stantec at the time the work was performed. Due to the nature of archaeological assessment, which consists of systematic sampling, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire property.

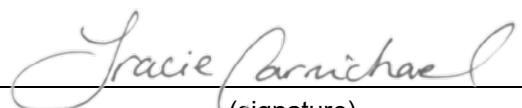
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Quality Review


(signature)

Parker Dickson – Associate, Senior Archaeologist

Independent Review


(signature)

Tracie Carmichael – Managing Principal, Environmental Services

