MUNICIPALITY OF WEST PERTH

CLASS ENVIRONMENTAL ASSESSMENT FOR DEVELOPMENT OF THE HERON INDUSTRIAL PARK IN THE SOUTHEAST AREA OF MITCHELL

SCREENING REPORT

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MUNICIPALITY OF WEST PERTH

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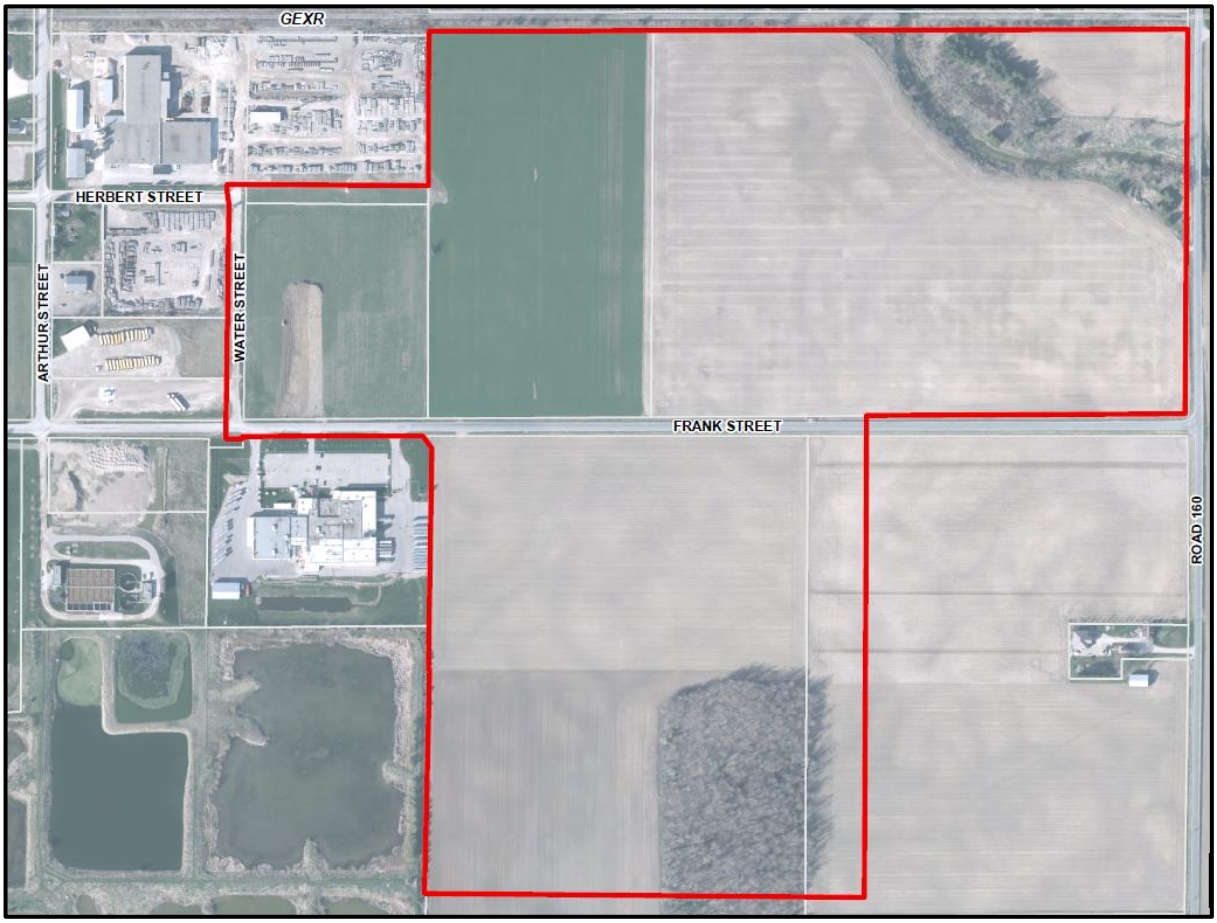

March 4, 2026

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Engineers and Planners
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File No. 16045

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

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File No. 16045

MUNICIPALITY OF WEST PERTH
CLASS ENVIRONMENTAL ASSESSMENT FOR DEVELOPMENT OF THE HERON INDUSTRIAL PARK IN THE SOUTHEAST AREA OF MITCHELL

SCREENING REPORT

1.0 INTRODUCTION

1.1 Purpose of Report

The Municipality of West Perth initiated a Class Environmental Assessment in September 2017 to evaluate potential solutions to address servicing deficiencies associated with lands designated for industrial development in the southeast area of Mitchell. The study process followed the procedures set out in the Municipal Class Environmental Assessment document, dated October 2000, as amended in 2007, 2011, 2015, and 2024. (Ref. 1). B. M. Ross and Associates Limited (BMROSS) was engaged to conduct the Class EA investigation on behalf of West Perth. The purpose of this report is to document the Class EA planning and design process followed for this project. This report includes the following major components:

- An overview of the general project area.
- A summary of the infrastructure deficiencies associated with the project area.
- A description of the alternative solutions considered to resolve the identified problems.
- A synopsis of the decision-making process conducted to select a preferred alternative.
- A detailed description of the preferred alternative.

1.2 Environmental Assessment (Class EA) Process

Municipalities must adhere to the Environmental Assessment (EA) Act of Ontario when completing road, sewer or waterworks activities. The Act allows the use of Class Environmental Assessments for most municipal projects. A Class EA is an approved planning document which describes the process that proponents must follow in order to meet the requirements of the EA Act. The Class EA approach allows for the evaluation of alternatives to a project, and alternative methods of carrying out a project, and identifies potential environmental impacts. The process involves mandatory

requirements for public input. Class EA's are a method of dealing with projects which have the following important characteristics in common:

- They are recurring.
- They are usually similar in nature.
- They are usually limited in scale.
- They have a predictable range of environmental effects.
- They are responsive to mitigating measures.

If a Class EA planning process is followed, a proponent does not have to apply for formal approval under the EA Act. The development of this study has followed the procedures set out in the Class EA. Figure 1.1 presents a graphical outline of the procedures.

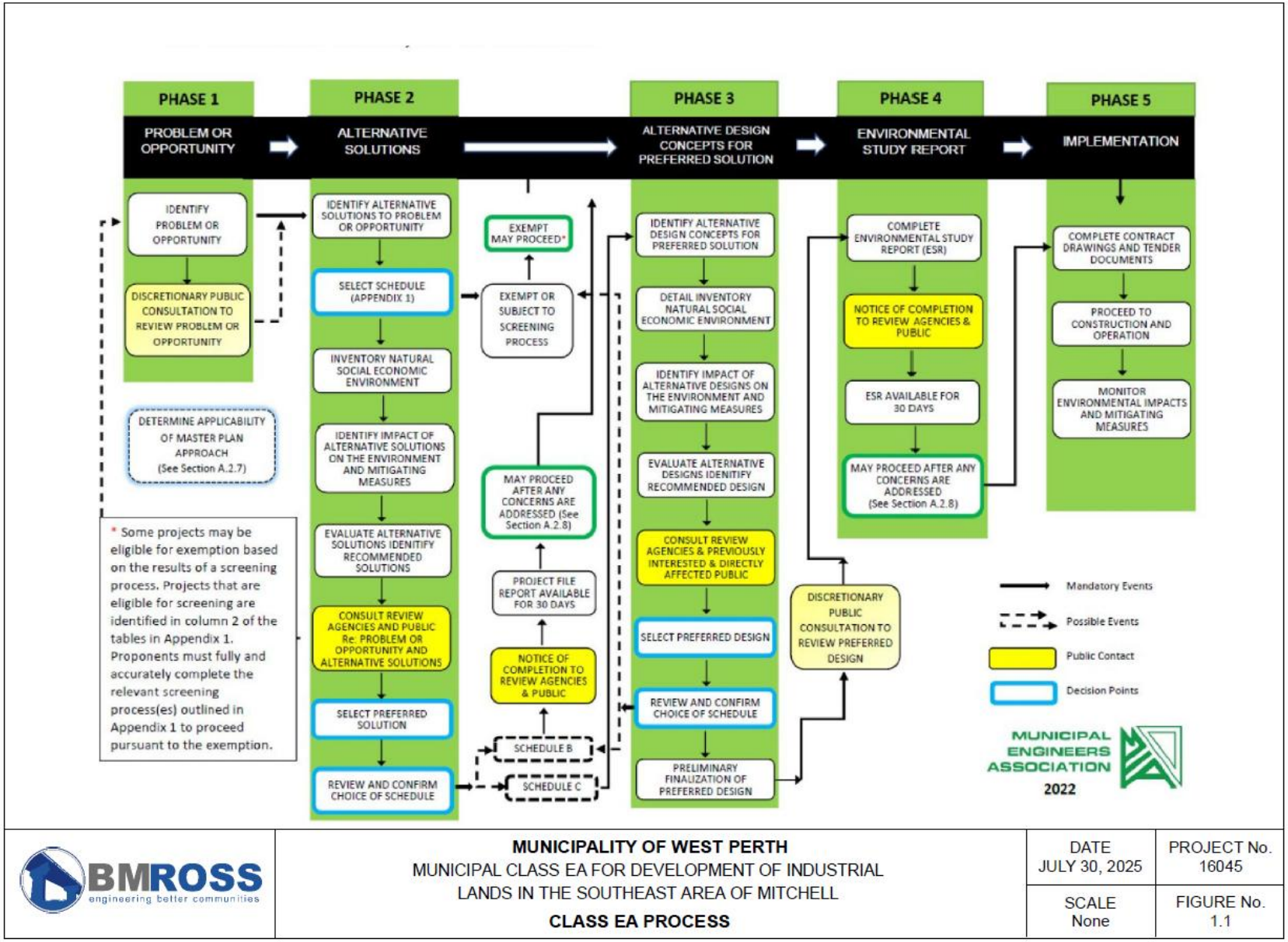
The Class EA planning process is divided into the following phases:

- Phase 1 - Problem identification.
- Phase 2 - Evaluation of alternative solutions to the defined problems and selection of a preferred solution.
- Phase 3 - Identification and evaluation of alternative design concepts in selection of a preferred design concept.
- Phase 4 - Preparation and submission of an Environmental Study Report (ESR) for public and government agency review.
- Phase 5 - Implementation of the preferred alternative and monitoring of any impacts.

Throughout the Class EA process, proponents are responsible for having regard for the following principles of environmental planning:

- Consultation with affected parties during the process.
- Examination of a reasonable range of alternatives.
- Consideration of effects on all aspects of the environment.
- Application of a systematic methodology for evaluating alternatives.
- Clear documentation of the process to permit traceability of decision-making.

Figure 1.1 - Class EA Process



1.3 Classification of Project Schedules

Projects are classified to different project schedules according to the potential complexity and the degree of environmental impacts that could be associated with the project. There are four schedules:

- Exempt – Projects are exempt from *Environmental Assessment Act* requirements;
- Eligible for Screening – Projects are eligible for exemption based on the results of the screening process(es);
- Schedule B – Projects that are approved following the completion of a screening process that incorporates, as a minimum, Phases 1 and 2 of the Class EA process; and
- Schedule C – Projects that are approved following the completion of the full Class EA process.

The Class EA process is self-regulating. Municipalities are expected to identify the appropriate level of environmental assessment based upon the project they are considering. Given that there may be works undertaken in a watercourse for the purposes of flood control or erosion control, it was identified initially that following the screening process associated with Schedule B projects was appropriate.

1.4 Mechanism to Request a Higher Level of Environmental Assessment

Under the terms of the Class EA, the requirement to prepare an individual environmental assessment for approval is waived. However, if it is perceived that a project going through the Class EA process has significant environmental impacts, a person/party may convey their concerns to the Municipality of West Perth for further consideration. A request may be made to the Ministry of the Environment, Conservation and Parks (MECP) 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 Indigenous and treaty rights. Requests made on any other grounds will not be considered by the MECP.

2.0 BACKGROUND

2.1 General Approach

The Municipality initiated a formal Class EA process in September 2017 to identify and evaluate impacts associated with the extension of servicing needed to service lands designated for industrial development in the southeast area of Mitchell. The associated investigations followed the environmental screening process prescribed for Schedule B projects under the MEA Class EA document. In general, the screening process required to conduct a Class EA incorporates these primary components:

i. Background Review and Problem Definition

ii. Identification of Practical Solutions
iii. Evaluation of Alternatives
iv. Project Recommendations and Implementation

The following sections of this report document the findings for each stage of the Class EA. Figure 2.1 illustrates the general tasks associated with the Schedule B screening process.

2.2 Background Review

A background review was carried out to characterize the project area and to identify factors that could influence the selection of alternative solutions to the defined problems.

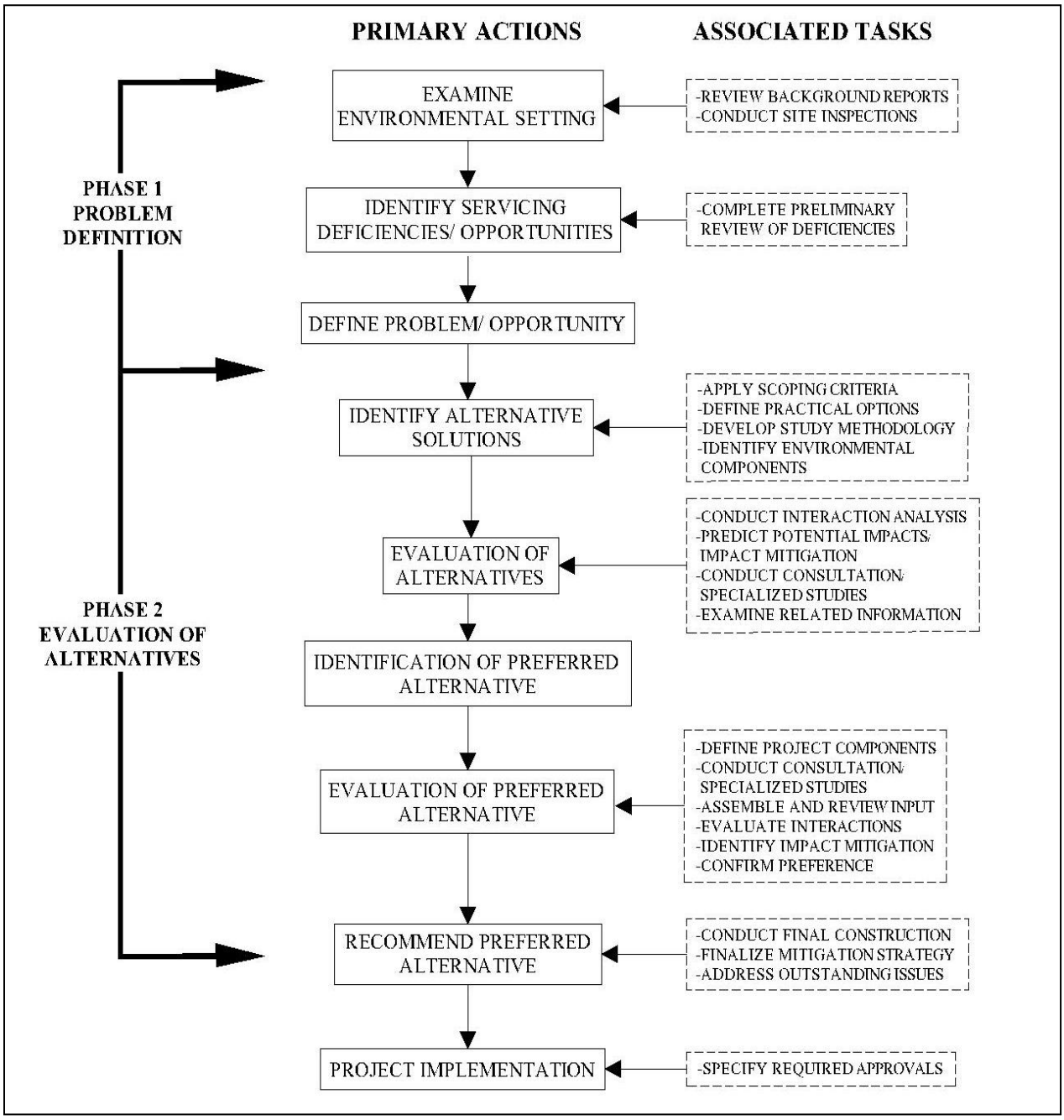
The background review for this Class EA process incorporated these activities:

- Development of a general description of the study area and the Municipality of West Perth.
- Assembly of information on the environmental setting and existing infrastructure.
- Review of previous studies and reports pertaining to the Town of Mitchell and the southeast Industrial area.
- Preliminary assessment of the identified deficiencies and potential remediation.

A desktop analysis of the project setting was completed as part of the background review. The following represents the key sources of information for the analysis:

- B. M. Ross and Associates Limited - Files and related studies.
- Upper Thames River Conservation Authority - Website and Mapping Services.
- Chapman, L.J. and Putnam, D.F. The Physiography of Southern Ontario.
- Government of Canada. Species at Risk Public Registry website.
- Ministry of Natural Resources - Natural Heritage Information Centre (website).
- Perth County Official Plan and West Perth Zoning By-Law and Official Plan
- Municipality of West Perth - Files and discussions with staff.

Figure 2.1 - Class EA Schedule B Screening Process and Related Tasks



2.3 Project Study Area

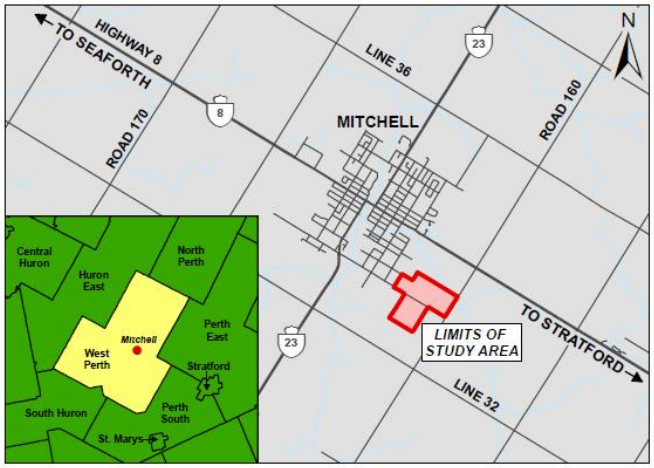
2.3.1 Community of Mitchell

The community of Mitchell was founded in 1837 and first incorporated as a Village in the County of Perth in 1857. In January 1998, the Town of Mitchell and the Townships of Hibbert, Logan and Fullarton amalgamated to form the Municipality of West Perth. The Municipality has a population of more than 8,800 permanent residents and a land base of approximately 580 km^2. In general, West Perth is comprised of one prominent urban centre (Mitchell) and a number of smaller urban settlements dispersed throughout a largely agricultural landscape. Mitchell has an estimated population of approximately 4,900 persons and a land base of approximately 550 ha. The community is located at the intersection of Provincial Highways 8 and 23, near the geographical centre of the Municipality (refer to Figure 2.2).

The Town of Mitchell is characterized as a low-density residential community which incorporates a traditional downtown commercial core and a limited amount of highway commercial development. The community also contains five large industrial operations, various smaller manufacturing and processing activities and a number of institutional facilities. In general, the scale and nature of development evident in Mitchell is consistent with smaller urban communities throughout Midwestern Ontario.

2.3.2 Industrial Lands to be Serviced

The project study area is located in the southeast industrial area of Mitchell, south of Provincial Highway No. 8 (Ontario Road) and the Goderich Exeter rail line (GEXR). The project study area is situated east of Water Street, and both north and south of Frank Stree; comprising a total of 40 ha (99.1 acres) on the north side of Frank Street and 23 ha (56.6 acres) to the south. The north parcel will be serviced with sanitary, water and stormwater servicing via an internal road network that will be constructed through the centre of the parcel. The south parcel will be serviced from Frank Street with sanitary and water. Road corridors could also be utilized by other utilities (gas/hydro/ communications). The study area lands are currently in agricultural production and are located adjacent to existing industrial uses to the north and west. Lands to the south and east are currently in agricultural production. Water Street, which extends in a north to south orientation from Frank Street to the GEXR rail line in the north, forms the westerly extent of the lands to be serviced. The GEXR rail line forms the north limit of the parcel located on the north side of Frank Street. Figure 2.3 illustrates the location of the proposed lands to be serviced. Figure 2.4 displays site photos of the study area.



KEY PLAN
NOT TO SCALE

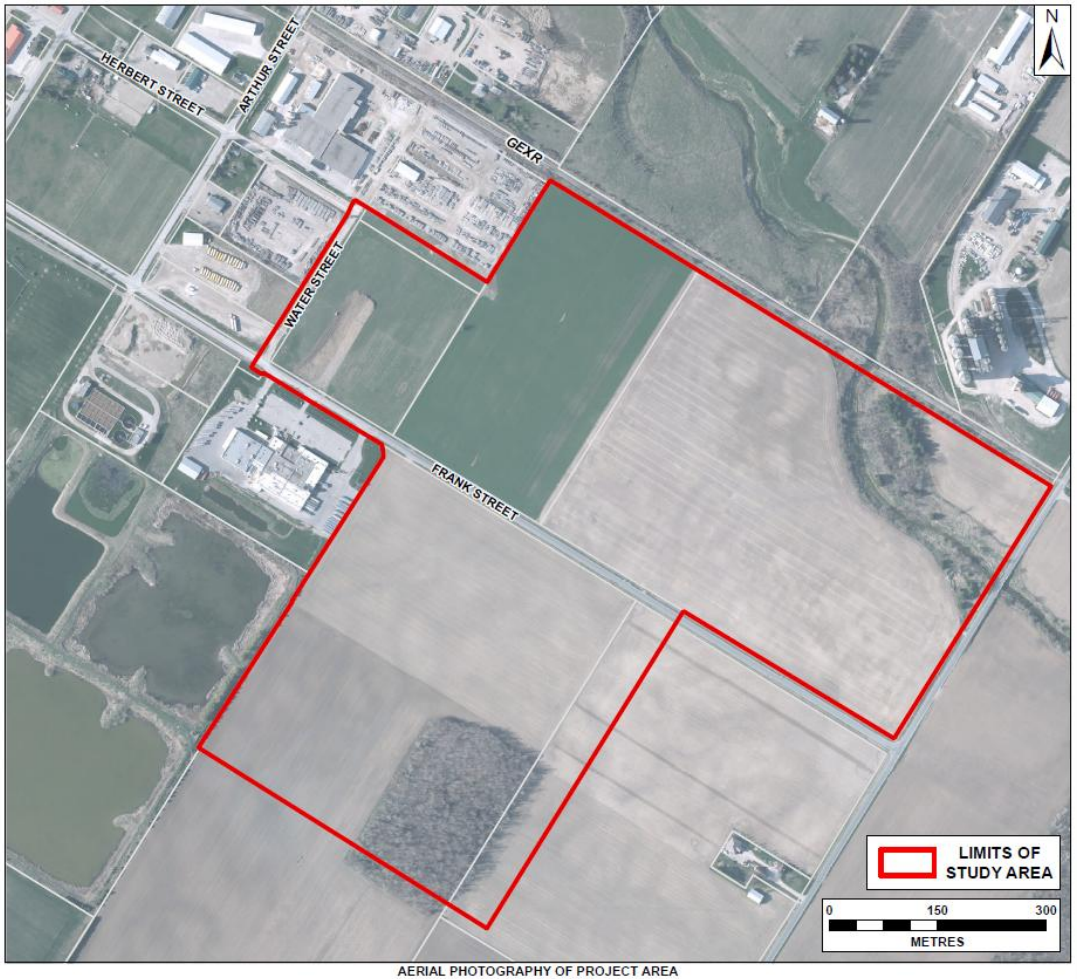
FRANK STREET FACING NORTHWEST TOWARDS WATER STREET

FRANK STREET FACING NORTH TOWARDS STUDY AREA

INTERSECTION OF HERBERT STREET AND WATER STREET LOOKING EAST

WATER STREET FACING SOUTH TOWARDS FRANK STREET

SITE PHOTOS TAKEN ON OCTOBER 13, 2017



AERIAL PHOTOGRAPHY OF PROJECT AREA
SCALE AS SHOWN

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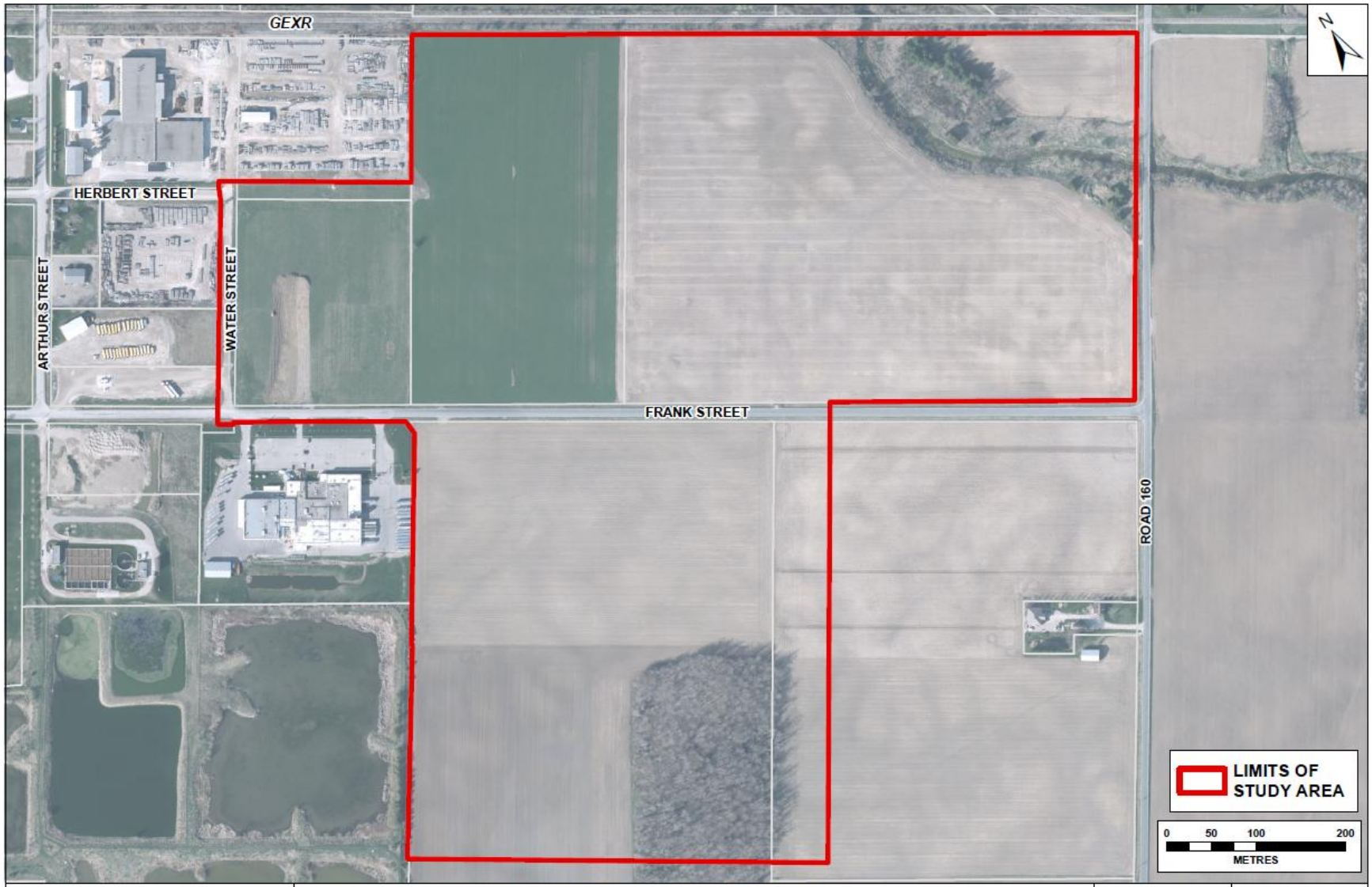
MUNICIPALITY OF WEST PERTH
MUNICIPAL CLASS EA FOR DEVELOPMENT OF INDUSTRIAL LANDS IN THE SOUTHEAST AREA OF MITCHELL
GENERAL LOCATION PLAN

DATE	PROJECT No.
JULY 30, 2025	16045
SCALE AS SHOWN	FIGURE No. 2.2



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MUNICIPALITY OF WEST PERTH

MUNICIPAL CLASS EA FOR DEVELOPMENT OF INDUSTRIAL LANDS IN THE SOUTHEAST AREA OF MITCHELL

PROJECT STUDY AREA

DATE	PROJECT No.
JULY 30, 2025	16045
SCALE	FIGURE No.
AS SHOWN	2.3

Z:

G

Figure 2.4 – Site Photographs

View looking north at lands to be serviced north of Frank Street ▲

View looking northwest toward parcel immediately east of Water Street ▲

2.4 West Perth Planning Policies

The lands located west of the parcels to be serviced are currently designated 'Industrial' on Schedule "A" of the Municipality of West Perth, Mitchell Ward land use schedule and County Official Plan Land Use Schedule, and would be subject to the policies of those documents. New industrial developments planned for designated Industrial areas must be serviced by full municipal services (sewage and water). Lands to the north and east of the subject property are currently designated Agricultural. The lands to be serviced in conjunction with the project are located partly within the settlement boundary and partly within the former Township of Fullarton, now Fullarton Ward, situated immediately east of the former Mitchell Town boundary. A portion of the lands to the east of the settlement boundary were the subject of an Official Plan Amendment OPA #47 which changed the lands from Agricultural to Urban Fringe and extended the settlement boundary for Mitchell to include additional development lands located adjacent to the former boundary. The site is currently zoned M2-H which is a holding zone associated with vacant industrial lands in Mitchell. The holding zone would be lifted once a Site Plan Approval process is successfully completed with the Municipality in conjunction with a development application for the lands. The remaining lands to the east (former Cargill property) will also be the subject of an OPA to change the land use from Agricultural to Industrial and further extend the settlement boundary. Copies of relevant excerpts from the Perth County Official Plan and Municipality of West Perth Zoning By-Law are included in Appendix A.

2.5 Environmental Setting

2.5.1 General Physiography

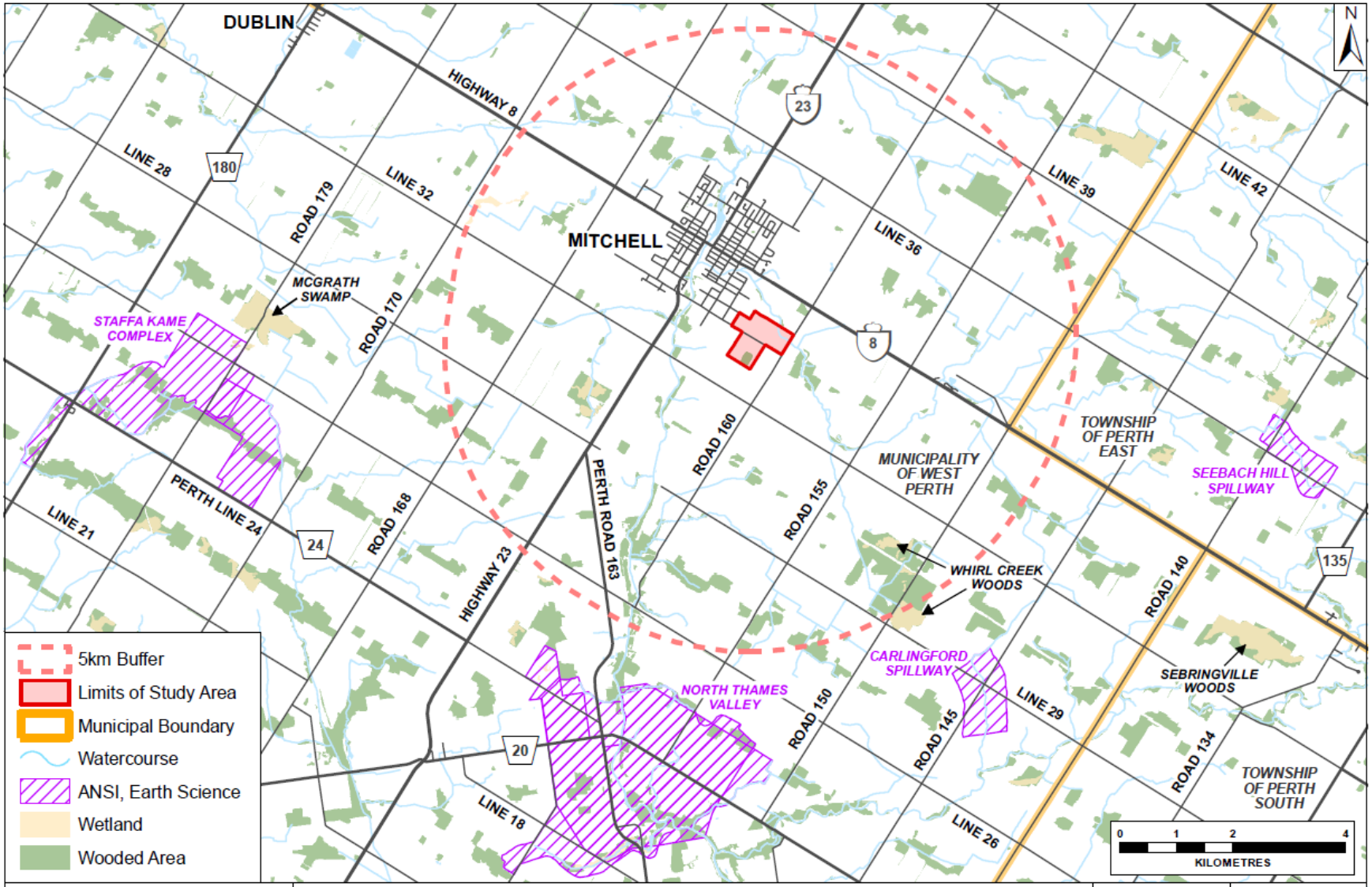
Mitchell is situated within the Stratford Till Plain geologic formation which incorporates a land base of approximately 3,550 km^2 extending across the Counties of Middlesex, Huron, Perth and Wellington. The till plain is characterized as an area of ground moraines interrupted by several terminal moraines. The till in the Stratford Till Plain formation is predominately a brown calcareous silty clay (being derived from the Huron Ice Lobe). Topographic relief in Perth County is relatively minimal with the exception of moraine ridges which extend across various parts of the region. Prominent topographic features in the County are largely the result of glacial deposition (moraines, eskers) and erosion (river valleys) during the Quartenary Period.

2.5.2 Thames River Sub-Watersheds

The Thames River bisects the community of Mitchell on a north-south axis, forming the most prominent natural heritage feature located within the urban limits. The river is utilized for recreational activities and is a popular location for residents to walk, bike, fish and enjoy nature. The Thames River is situated within the jurisdiction of the Upper Thames River Conservation Authority (UTRCA) and forms the northwest portion of the Conservation Authority's watershed.

One of the main tributaries of the Thames River is Whirl Creek, which extends northeast from Mitchell into portions of Perth East. The main branch of Whirl Creek passes through the northeasterly extent of the project study area and will be the receiving stream for discharges from the stormwater management facility proposed for the northeast corner of the project study area. The creek begins in Perth East, east of Monkton, and flows southwest to Mitchell where it discharges into the North Thames River and eventually empties into Lake St. Clair (UTRCA, 2022). A total of 35 fish species and 10 freshwater mussel species have been recorded within the Whirl Creek watershed, including gamefish such as Smallmouth and Largemouth Bass and Northern Pike (UTRCA, 2022). The project study area is situated in the Whirl Creek sub-watershed. Stormwater drainage runoff from the north parcel will discharge to Whirl Creek, while drainage from the south parcel will primarily enter the Glengowan drainage system.

A copy of the Whirl Creek Watershed Report Card (2022) is included within Appendix B. Figure 2.5 illustrates the location of significant natural features located in the vicinity of the study area described below.



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MUNICIPALITY OF WEST PERTH

MUNICIPAL CLASS EA FOR DEVELOPMENT OF INDUSTRIAL LANDS IN THE SOUTHEAST AREA OF MITCHELL

NATURAL HERITAGE FEATURES

DATE	PROJECT No.
JULY 30, 2025	16045
SCALE	FIGURE No.
AS SHOWN	2.5

2.5.3 Significant Natural Heritage Features

A review of the Natural Heritage Area mapping provided by the Ministry of Natural Resources (MNR) indicates that there are no Areas of Natural and Scientific Interest (ANSI) within 5 km of the study area (MNRF, 2017a). Beyond 5km from the study area, the North Thames Valley, Carlingford Spillway and the Staffa Kame Complex, all Earth Science ANSI's represent the most prominent natural heritage features within the general study area. These features were identified because they are representative of a geological formation within this eco-region. Figure 2.5 illustrates the extent of natural heritage features in the vicinity of the project study area. A description of the Earth Science ANSI's is included below.

Staffa Kame Complex:
This feature is a Provincially Significant Earth Science ANSI located 9 km west of Mitchell. Formed during the last ice age, kames are described as mounds of sand and gravel deposited by retreating glaciers during the last ice age.[1]

North Thames Valley:
Provincially Significant Earth Science ANSI located approximately 6 km south of the project study area. This feature was identified as a representative example of a well defined river valley.

Carlingford Spillway:
Provincially Significant Earth Science ANSI located approximately 7 km southeast of the project study area. This feature was identified as a representative example of a meltwater spillway created from melting glaciers as they retreated during the last ice age.

2.5.4 Species at Risk

An evaluation for the presence of significant species and their associated habitats within the study area has been incorporated into the project planning process. A review of available information on species and habitat occurrences determined that the study area may contain species and/or associated habitats that are legally protected under Provincial and Federal species at risk legislation. The protection for species at risk and their associated habitats is directed by the following federal and provincial legislation:

- The Federal *Species at Risk Act, 2002* (SARA) provides for the recovery and legal protection of listed wildlife species and associated critical habitats that are extirpated, endangered, threatened or of special concern and secures the necessary actions for their recovery on lands not federally owned, only aquatic species, and bird species included in the Migratory Bird Convention Act (1994), are legally protected; and

[1] Natural Heritage Information Centre.

- The Provincial *Endangered Species Act, 2007* (ESA) provides legal protection of endangered and threatened species and their associated habitat in Ontario. Under the legislation, measures to support their recovery are also defined.

Based on the information available for the occurrence of species at risk and their associated habitats from the following sources, a summary of federally and provincially recognized species with the potential to be present within the project study area are listed in Table 2.1:

- Ministry of Natural Resources, *Species at Risk by Area* (MNR, 2025)
- Natural Heritage Information Centre, *Make a Natural Heritage Map* (MNR, 2025). (Study area located within NHIC 1km grid: 17MJ8411)
- Environment Canada, Species at Risk Public Registry. SARA Schedule 1 Species List (Environment Canada, 2017)

The study area is located within the County of Perth. The relevant species list was provided by the Ontario Ministry of Natural Resources and Forestry. The County incorporates a large area and a wide variety of environs that include both terrestrial and aquatic habitat. Species listed in Table 2.1 were generated based on their occurrence within the entire county, and may not necessarily occur within the study area. Based on review of the MNR Natural Heritage Information Centre data, one (1) historical observation of Black Tern (*Chlidonias niger)* from 1897 occurs within the study area. The species and its associated habitat are not legally protected under provincial and federal legislation. It is noted that the project study area currently consists of lands utilized for agricultural purposes. The agricultural lands have historically been used for rotation cropping purposes; therefore, it is assumed there is limited habitat opportunity for this species to occur within the project study area limits.

2.5.5 Aquatic Species at Risk

Aquatic Species at Risk (SAR) are aquatic-based species that either live in, or rely on, an aquatic habitat for a significant portion of their life cycles. Federal authorities have released screening maps to aid in the identification of these rare, threatened or endangered species. Figure 2.6 is an excerpt from the on-line mapping tool used to indicate the presence of aquatic SAR. The dark red line indicates the presence of critical habitat associated with a specific species at risk. The yellow highlighted line segment indicates the potential presence of aquatic SAR designated as ‘Special Concern’. A purple line indicates the potential presence of Threatened aquatic SAR.

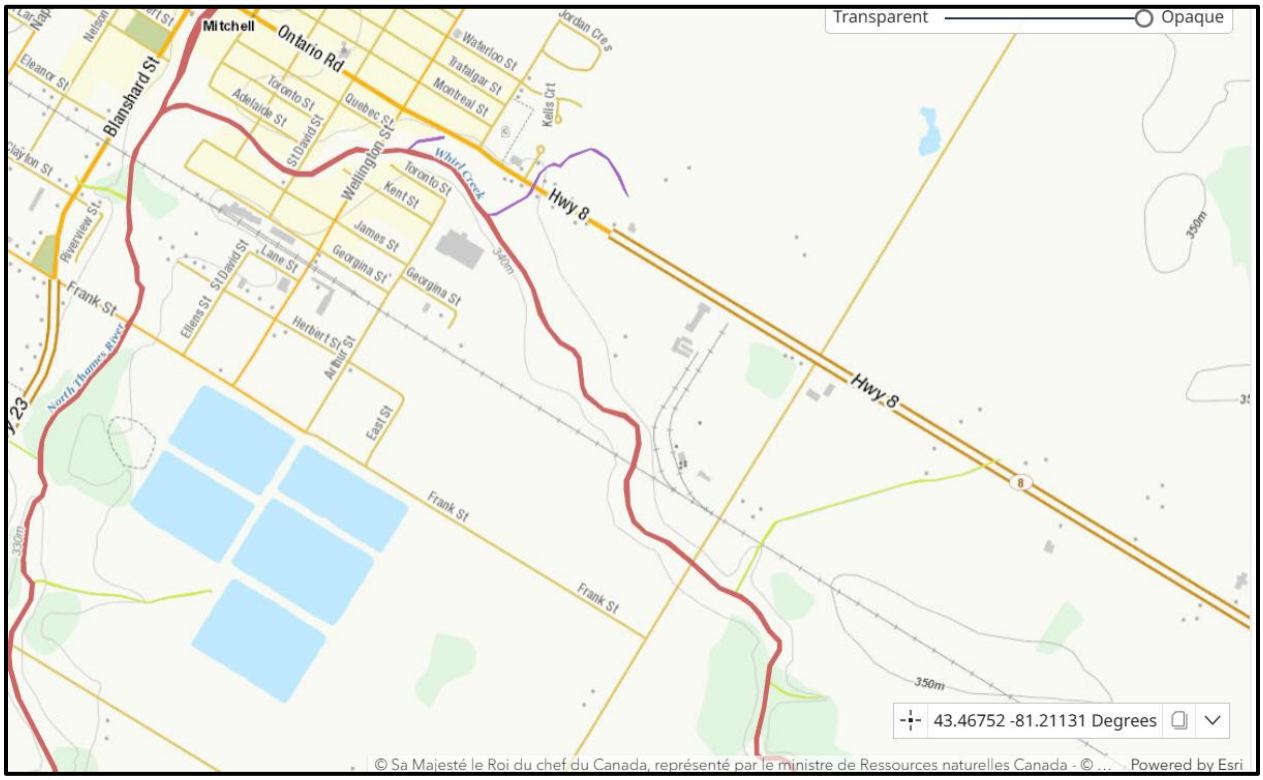
For the portion of Whirl Creek within the study area limits, the screening maps indicate the presence of critical habitat for Silver Shiner, a fish species, which is designated as ‘Threatened’. Northern Sunfish is also potentially present at the site and designated as ‘Special Concern’.

Table 2.1 : Potential Species at Risk within Perth County and the Study Area

	Species		Status Designation		Suitable Habitat in the Study Area
	Common Name	*Scientific Name*	*SARA** Schedule 1 *(Federal)*	*ESA** (Provincial)*	
Birds	**Black Tern**	***Chlidonias niger***	**-**	Special Concern	Potential
	Bobolink	*Dolichonyx oryzivorus*	-	Threatened	Potential – depends on crop
	Chimney Swift	*Chaetura pelagica*	Threatened	Threatened	Potential –cavities
	Eastern Meadowlark	*Sturnella magna*	-	Threatened	Potential – depends on crop
	Yellow Breasted Chat	*Icteria virens*	Special Concern	Endangered	No
Fish and Mussels	Black Redhorse	*Moxostoma duquesnei*	-	Threatened	No
	Northern Brook Lamprey	*Ichthyomyzon fossor*	Special Concern	Special Concern	No
	Reside Dace	*Clinostomus elongatus*	Endangered	Endangered	No
	Wavy-rayed Lampmussel	*Lampsilis fasciola*	Special Concern	Threatened	No
Plants and Lichens	Willowleaf Aster	*Symphyotrichum praealtum*	Threatened	Threatened	No
Turtles	Blanding`s Turtle	*Emydoidea blandingii*	Threatened	Threatened	No
	Northern Map Turtle	*Graptemys geographica*	Special Concern	Special Concern	No
	Snapping Turtle	*Chelydra serpentina*	Special Concern	Special Concern	No
	Spiny Softshell	*Apalone spinifera spinifera*	Threatened	Threatened	No

Species in **bold** are those identified as potentially occurring within 1km of the study area based on historical observation records

Figure 2.6 - Aquatic Species at Risk Screening Maps



2.5.6 Breeding Birds

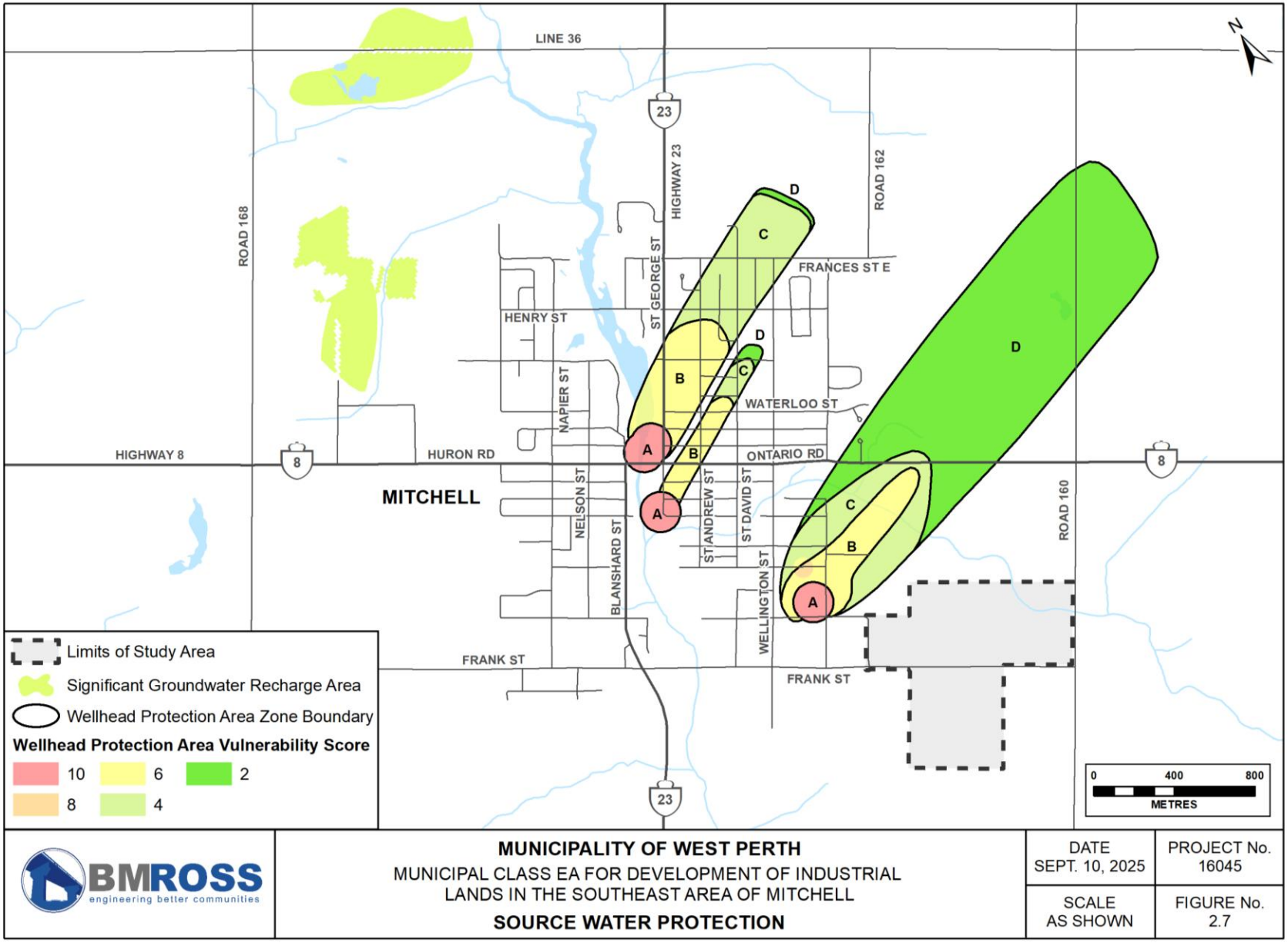
The Atlas of Breeding Birds of Ontario (2001 - 2005) was used to identify the bird species with confirmed, probable and possible breeding habitat in proximity to the study area (Bird Studies Canada, 2017). The survey area includes key habitat for the identified species, such as forests (in all stages of growth), riverine areas, agricultural areas, wetlands and shoreline areas.

The proposed Industrial Park lies within the 100 km^2 area identified by the Atlas as Square 17MJ81, in Region 6: Huron-Perth Region. Within the square, a total of 27 birds, have confirmed breeding status in the survey region, including the Barn Swallow, a species at risk in Ontario. An additional 28 species were categorized as having probable breeding status and 35 are considered to have possible breeding status in the area (Bird Studies Canada, 2009). The project area forms a relatively small portion of this region and habitat opportunities are limited within the proposed Industrial Park lands. There are no suitable structures located within the study area limits that would support Barn Swallow nesting habitat.

2.6 Clean Water Act

The intent of the Clean Water Act (CWA), 2006, is to "*protect existing and future drinking water sources*" in Ontario. Under the Act, source water protection areas and regions were established, giving Conservation Authorities the duties and powers of a drinking water source protection authority (Government of Ontario, 2006). The study area is located within the Thames-Sydenham and Region (TSR) Source Protection Region which covers an area of approximately 10,826m^2 (TSR Source Protection Committee, 2015a). The Source Protection Region includes the watersheds managed by the UTRCA, the Lower Thames Valley Conservation Authority (LTVCA) and the St. Clair Region Conservation Authority (SCRCA).

The Town of Mitchell is located within the jurisdiction of the UTRCA and is serviced by a series of four groundwater well systems that supply drinking water to approximately 4,000 residents (TSR Source Protection Committee, 2015b). All four wells that service Mitchell are located northeast of Frank Street and include a wellhead protection area (WHPA) surrounding each wellhead which identifies vulnerable areas that could potentially impact the water supply. The proposed Industrial Park footprint is located outside of the identified WHPA areas, as well as other vulnerable areas identified through Source Water Protection policies. It is anticipated that the development of the Industrial Park will have no impact on source protection policies, however, consultation with Source Water Protection staff at the TSR was undertaken as part of the Class EA process, to ensure that all appropriate policies and protocols are addressed. Figure 2.7 illustrates the location of the 4 wells servicing Mitchell as well as the limits of WHPA's associated with each well supply.


LINE 36
HIGHWAY 23
ROAD 168
ROAD 162
ROAD 160
FRANCES ST E
HENRY ST
ST GEORGE ST
NAPIER ST
WATERLOO ST
HIGHWAY 8
HURON RD
ONTARIO RD
MITCHELL
NELSON ST
BLANSHARD ST
ST ANDREW ST
ST DAVID ST
WELLINGTON ST
FRANK ST
FRANK ST
A
B
C
D
Limits of Study Area
Significant Groundwater Recharge Area
Wellhead Protection Area Zone Boundary
Wellhead Protection Area Vulnerability Score
10
8
6
4
2
0
400
800
METRES
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MUNICIPALITY OF WEST PERTH
MUNICIPAL CLASS EA FOR DEVELOPMENT OF INDUSTRIAL LANDS IN THE SOUTHEAST AREA OF MITCHELL
SOURCE WATER PROTECTION
DATE
SEPT. 10, 2025
PROJECT No.
16045
SCALE
AS SHOWN
FIGURE No.
2.7

2.7 Climate Change

As part of the Class Environmental Assessment process, the impacts associated with climate change need to be evaluated. Some of the phenomena associated with climate change that will need to be considered include:

- Changes in the frequency, intensity and duration of precipitation, wind and heat events;
- Changes in soil moisture;
- Changes in sea/lake levels;
- Shifts in plant growth and growing seasons;
- Changes in the geographic extent of species ranges and habitat.

There are two approaches that can be utilised to address climate change in project planning. These are as follows:

1) Reducing a project's impact on climate change (climate change mitigation).
    a. Impact of greenhouse gas emissions related to the project.
    b. Are there alternative methods to completing the project that would reduce any adverse contributions to climate change?
2) Increasing the project's and local ecosystem's resilience to climate change (climate change adaptation).
    a. How vulnerable is the project to climate-related severe events.
    b. Are there alternative methods of carrying out the project that would reduce the negative impacts of climate change on the project?

Through the evaluation of alternatives phase of the Class EA, a consideration of each of these approaches was completed and included in the final determination of the preferred approach to completing a project.

2.8 Historical Growth and Development

Development in Mitchell has historically occurred in a fairly compact manner, reflecting the grid layout of the original village survey and barriers provided by the North Thames River, Whirl Creek and the rail line. Generally, residential development in the community consists of single family detached dwellings extending north and south of Huron Road. The most extensive areas of residential development in Mitchell are found in the northeast and southwest sectors of the community. Commercial development in Mitchell has generally occurred within or in close proximity to the commercial core of the community with a majority of commercial land uses found near Huron Road, generally between Nelson and St. David Streets. There are two areas of industrial land-uses in Mitchell. The largest area is found in the southeast portion of the community, south of Whirl Creek, adjacent to the project study area. There is another area of industrial land

at the northwest limit of Mitchell, south of the landfill between Holmes Street and West Street.

The project study area is located within the southeast industrial area located adjacent to the former easterly perimeter of the Mitchell settlement area. These lands have been recently designated for industrial development through Perth County O.P.A. #47, which was the five year review of the Mitchell Official Plan. In keeping with the servicing policies of the Mitchell settlement area, new industrial development proposed for this area, must be serviced by full municipal sewage and water services. Sewage and water services were recently extended along the north boundary of the westerly development parcel, to provide municipal services to a portion of the property. A proposed road allowance is planned for the remaining parcel in order to extend the servicing to the entire development parcel.

Existing industrial activities located north and west of the subject lands are primarily 'dry' industrial uses that do not require a source of water to facilitate production. These include a school bus depot, a farm equipment manufacturer, an auction centre, a manufacturer of concrete noise barriers and other concrete building materials, and several vehicle supply and repair facilities. A meat processing facility was recently established on the south side of Frank Street immediately adjacent to the study area. This facility does require a water supply for processing and discharges directly to the wastewater treatment facility.

2.9 Existing Infrastructure

2.9.1 Sewage Collection System

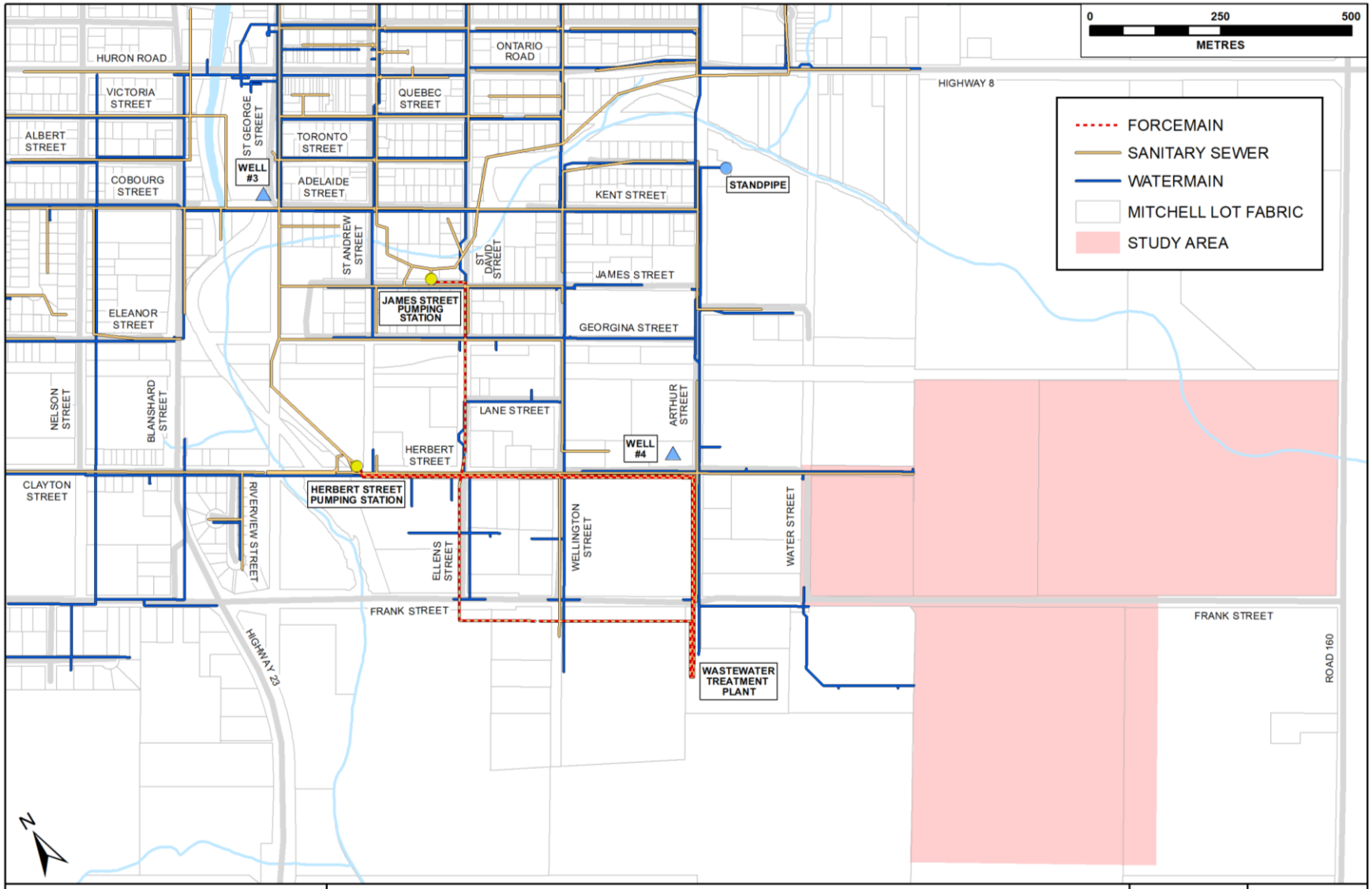
A municipally owned and operated sanitary sewage system was constructed in Mitchell in the mid-1960's and consisted of a gravity collection system serving a portion of the community, two sewage pumping stations (SPS's) and a 3-celled facultative lagoon. Through the 1960's and 70's the collection system was gradually extended to the balance of the community. A major upgrading of the wastewater treatment facilities (WWTP) took place in the late 1990's.

2.9.2 Existing Water Supply

The community of Mitchell is serviced by a groundwater-sourced well supply system currently consisting of four wells (2 pumping/2 standby). Wells 1 to 3 are located in central Mitchell on the east bank of the Thames River, discharging to a common pumphouse and reservoir for treatment. Well 4 is located in the southeast portion of the community with its own reservoir and pumphouse. Water disinfection equipment is housed within the reservoir buildings and chlorine contact time required for disinfection is provided within the existing reservoirs. The distribution system consists of over 44 km of watermain ranging in size up to 350 mm.

Distribution watermain currently exists at two locations in proximity to the proposed industrial site. A 200 mm diameter watermain is located within an existing servicing easement along the northerly extent of the west parcel to be serviced. A 200 mm diameter watermain is also located at the intersection of Frank Street and Water Street, extending west along Frank Street to Arthur Street where it goes north.

Figure 2.8 illustrates the location of existing water and sanitary servicing infrastructure in the vicinity of the subject lands. Various servicing alternatives are considered later in this report.



BMROSS engineering better communities

MUNICIPALITY OF WEST PERTH

MUNICIPAL CLASS EA FOR DEVELOPMENT OF INDUSTRIAL LANDS IN THE SOUTHEAST AREA OF MITCHELL

EXISTING INFRASTRUCTURE

DATE	PROJECT No.
SEPT. 12, 2025	16045
SCALE	FIGURE No.
AS SHOWN	2.8

3.0 PROBLEM DEFINITION & REVIEW OF ALTERNATIVES

3.1 Phase 1 - Identification of Problem/Opportunity

The community of Mitchell is the largest residential settlement area in the Municipality of West Perth and is well situated to take advantage of additional growth opportunities given its location at the intersection of two major highways, Nos. 8 and 23, as well as its proximity to other urban centres such as Stratford and Kitchener/Waterloo. The proposed creation of additional serviced industrial lands in the southeast of Mitchell would open up additional lands for industrial development in keeping with recent Planning Act approvals, which designated the lands for industrial use. The following problem/opportunity statement has been identified in conjunction with this project:

> *The extension of municipal services in the southeast area of Mitchell, is required to facilitate the creation of additional serviced industrial lands within the community.*

3.2 Class EA Schedule

The proposed servicing extension would involve the installation of sanitary sewers, watermains, and other utilities, outside of existing right of ways or utility corridors. From a Class EA perspective, this type of activity is considered a Schedule 'B' activity and approved subject to the completion of a screening process (incorporating Phases 1 and 2 of the Class EA process). This involves screening the project for environmental impacts and developing mitigation strategies. Public, aboriginal and government agency consultation is a component of the screening process.

3.3 Phase 2 - Identification of Alternative Solutions

The second phase of the Class EA process involves the identification and evaluation of alternative solutions to resolve the identified problem or opportunity. The evaluation of alternatives is conducted by examining the technical, cultural, economic, social and environmental considerations associated with implementing any alternative. Mitigation measures that could lessen environmental impacts are also defined. A preferred solution or solutions is then selected.

(a) Identification of Practical Alternatives

A limited number of practical solutions to the defined problem were identified at the outset of this study. These alternatives, stated below, build upon the findings of the studies and reports discussed previously in this report. They are as follows:

Alternative 1 – Extend municipal services to additional industrial lands in the southeast part of Mitchell.

This option involves the extension of sanitary sewers, watermains and other utilities (gas, hydro, cable, phone) east from the end of the existing servicing a distance of approximately 500 metres. Secondary roads would be constructed off the main servicing corridor, extending north and south, and connecting to Frank Street in order to provide access to variously sized and fully serviced industrial parcels. A new sewage pumping station (SPS) will be constructed near the east end of the Herbert St. extension to convey sewage to the existing collection system. A communal stormwater management facility will be constructed on the easterly extent of lands to be serviced, ultimately discharging to Whirl Creek.

Alternative 2 – Do nothing. This means that servicing of additional industrial lands would not occur as planning policy stipulates the need for municipal services. The Do Nothing alternative may be implemented at any time in the design process prior to construction. This decision is typically made when the costs of all alternatives, both financial and environmental, significantly outweigh the benefits.

(b) Assessment Methodology

An evaluation of alternatives process was carried out using a comparative assessment method designed to predict the nature and magnitude of environmental impacts resulting from each defined option and to assess the relative merits of the alternative solutions. The evaluation method involves these principal tasks:

- Identification of existing environmental conditions (baseline conditions, inventories)
- Assessment of existing land use activities, infrastructure, natural features and socio-economic characteristics (i.e., environmental scoping).
- Review of proposed alternatives and related works.
- Identification of environmental components and sub-components that may be affected by the defined alternatives (i.e., define evaluation criteria).
- Prediction of environmental impacts (positive, negative) resulting from the construction and implementation of the preferred alternative.
- Identification and evaluation of measures to mitigate adverse effects
- Selection of a preferred alternative following a comparative analysis of the relative merits of each option.

3.4 Identification of Environmental Components and Sub-Components

(a) Environmental Features

Section 3.3 of this report listed the alternative solutions that were identified in conjunction with the Class EA process. As part of the evaluation procedure, it is necessary to assess what effect each option may have on the environment and what measures can be taken to mitigate the identified impacts. The two main purposes of this exercise are to:

- Minimize or avoid adverse environmental effects associated with a project.
- Incorporate environmental factors into the decision-making process.

By definition, the EA Act generally separates the “environment” into five general elements:

- Natural environment
- Social environment
- Cultural environment
- Economic environment
- Technical environment

The identified environmental elements can be further subdivided into specific components which have the potential to be affected by the implementation of the alternative solutions. Table 3.1 provides an overview of the Specific Environmental Components considered of relevance to this investigation. These components and sub-components were identified following the initial round of public and agency input, and a preliminary review of each alternative with respect to technical considerations and the existing environmental setting of the project area. Table 3.1 summarizes the environmental features considered of relevance to this Class EA.

Table 3.1
Evaluation of Alternatives: Identification of Environmental Components

Element	Component	Sub-Component
Natural	Aquatic	• Aquatic Resources
	Atmosphere	• Air Quality, Noise
	Surface Water	• Water Quality/ Quantity • Drainage Characteristics
	Terrestrial	• Birds, Mammals, Species at risk • Vegetation
	Geologic	• Physiographic Features
Social	Neighbourhood	• Disruption
	Community	• Health and Safety • Recreational Activities
Cultural	Heritage	• Historical/ Cultural Resources
Economic	Project Area	• Capital and Operational Costs
	Community	• Property Taxes
Technical	Transportation	• Traffic Patterns/ Volumes • Pedestrian/ Vehicular Safety
	Infrastructure	• Condition/ Age • Servicing Capacity • Utilities

(b) Impact Analysis

The environmental effects of each study alternative on the identified environmental components and sub-components are generally determined through an assessment of the following impact predictors (i.e., impact criteria):

- Nature (direct, indirect, cumulative).
- Magnitude (level of effect, loss of function).
- Location/ Extent (where effect occurs, number/ volume affected).
- Scale (localized or regional effects).
- Timing (seasonality of effects, immediate or delayed impacts).
- Duration (period of impact).
- Socio-economic context (characteristics of community, implications for recovery).

For the purposes of this Class EA, impact determination criteria developed by Natural Resources Canada has been applied to predict the magnitude of environmental effects resulting from the implementation of a project. Table 3.2 summarizes the impact criteria.

Table 3.2
Criteria for Impact Determination

Level of Effect	General Criteria
High	Implementation of the project could threaten sustainability of feature and should be considered a management concern. Additional remediation, monitoring and research may be required to reduce impact potential.
Moderate	Implementation of the project could result in a resource decline below baseline, but impact levels should stabilize following project completion and into the foreseeable future. Additional management actions may be required for mitigation purposes.
Low	Implementation of the project could have a limited impact upon the resource during the lifespan of the project. Research, monitoring and/or recovery initiatives may be required for mitigation purposes.
Minimal/ Nil	Implementation of the project could impact upon the resource during the construction phase of the project but would have a negligible impact on the resource during the operational phase.

Given the criteria defined in Table 3.2, the significance of adverse effects is predicated on these considerations:

- Impacts from a proposed alternative assessed as having a Moderate or High level of effect on a given feature would be considered significant.
- Impacts from a proposed alternative assessed as having a Minimal/ Nil to Low level of effect on a given feature would not be considered significant.

3.5 Evaluation of Alternative Solutions

(a) General

The second component of Phase 2 of the Class EA process, being the evaluation of the defined alternatives, is conducted by examining the technical, economic, social, environmental and cultural considerations associated with implementing any alternative. Mitigation measures that could lessen environmental impacts are also defined. A preferred solution, or solutions, is then selected. Several activities were incorporated into this assessment process, including a field inspection of the lands to be serviced, an engineering evaluation of various servicing alternatives, a review of public and agency consultation received to date, and additional consultation with municipal staff. Table 3.3 summarizes the primary components of the alternatives being considered.

Table 3.3
Primary Components of the Identified Alternatives

Alternative	Required Works
Alternative 1 (Extend municipal services to additional industrial lands in the southeast part of Mitchell.)	- New sanitary sewer and watermain on Frank Street generally east of Water Street. - New sanitary sewer and watermain within the new industrial area including within an extension of Herbert St. - Construction of a roadway with rural cross-section (i.e. roadside ditches) within the development including on the extension of Herbert St. - Water and sanitary sewer services to each lot. - Construction of a new sewage pumping station with flow metering, and standby power facilities housed in a weather and noise attenuating enclosure. - Storm sewers where required and a regional stormwater management facility on lands to the east outtletting to Whirl Creek. - Electrical power supply and communications infrastructure on each roadway.
Alternative 2 (Do Nothing)	- No additional works planned.

(b) Comparative Analysis

Table 3.4 provides a summary of the key considerations for each option with respect to the environmental components described in Table 3.1. The table identifies benefits and impacts that were identified as significant during the initial evaluation of alternatives. Potential mitigation measures for the identified impacts are also presented.

(c) Environmental Effects Analysis

The potential interactions between the identified alternatives and environmental components (Table 3.1) were examined as part of the evaluation of alternatives phase. The purpose of this analysis was to determine, in relative terms, the environmental effects of each identified alternative on each of the environmental components and sub-components (using the impact criteria described in Table 3.2). In this regard, the level of effect for the environmental interactions were rated as High, Moderate, Low or Minimal/ Nil. Potential mitigation measures were also identified as part of this evaluation. Table 3.5 summarizes the outcome of the environmental effects analysis carried out for the identified alternatives and the environmental components summarized in Table 3.1. This analysis forms the basis for the identification of significant impacts which will be discussed in further detail later in this report.

Table 3.4
Preliminary Evaluation of Alternatives

Study Alternative	Benefits	Potential Impacts	Initial Remediation
Alternative 1 (Extend municipal services)	- Provides additional industrial development lands with access to municipal servicing infrastructure. - Promotes additional industrial growth within the community of Mitchell by providing access to additional serviced lands. - Limits traffic disruption by installing the services within relatively undeveloped areas. - Improves access and servicing infrastructure within the southeast area of Mitchell.	- Construction of new services within unserviced areas increases potential impacts to the natural and cultural environments. - Stormwater discharges from the site may result in negative impacts to Whirl Creek, the receiving stream.	- An archaeological investigation will be completed prior to servicing to ensure that lands are free of significant cultural material. - The proposed expansion area is cultivated at present and is not considered to be ecologically significance. - A stormwater management facility will be constructed to minimize impacts to Whirl Creek.
		- Will result in minor increases to traffic flow/volume in the immediate vicinity of the newly serviced lands.	- Few existing developments are located adjacent to the proposed servicing extension. Impacts to adjacent properties are minimal. - Adjacent roads have low traffic volumes, so impacts will be minimal.
		- Capital costs associated with the servicing extensions will be high.	- Capital costs associated with infrastructure installation can be recovered through sale of serviced lands.
Alternative 2 (Do Nothing)	- Represents the least expensive option. - Does not impact natural or cultural features.	- Fails to address the defined problem/opportunity.	- Identified impact cannot be mitigated.

Table 3.5
Alternative Solutions: Environmental Effects Analysis

Environmental Component	Alternative Solution	Level of Effect	Impact Considerations (Construction and Operational Activities)
Natural • Aquatic	**(1)** Extend municipal services	Low/Medium	• Given that there are no watercourses in the immediate vicinity of the proposed works, few impacts are anticipated from construction of the infrastructure extensions. • The proposed SWM outlet to Whirl Creek will need to incorporate erosion protection and energy dissipation at the outlet to minimize impacts to the channel. • Measures aimed at minimizing impacts to aquatic SAR will need to be incorporated into the design of the outfall • Sediment and erosion control measures will be implemented during construction to prevent the loss of sediment. • No impacts anticipated from the operation of the proposed works.
	(2) Do Nothing	Minimal/Nil	• No impacts anticipated.
• Atmosphere	**(1)** Extend municipal services	Minimal/ Nil	• Standard construction mitigation will be implemented to reduce or eliminate construction-related impacts on air quality and ambient noise levels. • No impacts are anticipated from the operation of the proposed works.
	(2) Do Nothing	Minimal/ Nil	• No impacts anticipated.
• Surface Water	**(1)** Extend municipal services	Low	• Downstream drainage areas may be impacted by increased runoff from the development lands to be serviced by the proposed servicing extensions. • Stormwater management measures will be implemented during development of industrial lands to protect downstream drainage areas.
	(2) Do Nothing	Minimal/ Nil	• No impacts anticipated.

Environmental Component	Alternative Solution	Level of Effect	Impact Considerations (Construction and Operational Activities)
• Terrestrial	**(1)** Extend municipal services	Minimal/Nil	• Given that the proposed servicing extension route is currently in active agricultural production, with little natural habitat features, no impacts to terrestrial habitats are anticipated. • No impacts anticipated from operation of the proposed works.
	(2) Do Nothing	Minimal/ Nil	• No impacts anticipated.
• Geologic	**(1)** Extend municipal services	Minimal/ Nil	• No impacts anticipated.
	(2) Do Nothing	Minimal/ Nil	• No impacts anticipated.
Social • Neighbourhood	**(1)** Extend municipal services	Minimal/Nil	• Given that the adjacent properties are industrial or agricultural uses and there are no residential properties or other sensitive land uses in the immediate vicinity, no impacts to the social environment are expected as a result of the project. • No impacts anticipated from the operation of the proposed works.
	(2) Do Nothing	Minimal/ Nil	• No impacts anticipated.
• Community	**(1)** Extend municipal services	Minimal/Nil	• Construction and operational activities associated with the proposed works do not present a threat to public health and safety. • Should result in an overall benefit to the community from improved servicing connections and additional industrial growth.
	(2) Do Nothing	Low	• A lack of new growth and development in the community may negatively impact the community over the long term.
Cultural • Heritage	**(1)** Extend municipal services	Minimal/ Nil	• No impacts anticipated. Archaeological assessments will be conducted on the subject lands to confirm this.
	(2) Do Nothing	Minimal/ Nil	• No impacts anticipated.

Environmental Component	Alternative Solution	Level of Effect	Impact Considerations (Construction and Operational Activities)
Cultural • Project & Community	**(1)** Extend municipal services	Low/Medium	• Although construction of servicing will be expensive initially, a majority of the servicing costs will be recovered as the lands are developed through development charges and sale of land. • No impacts anticipated from operation of the proposed project.
	(2) Do Nothing	Low/Medium	• A lack of serviced lands available for development will negatively impact the community over the long term.
Technical • Transportation	**(1**) Extend municipal services	Minimal/Low	• Given that the proposed servicing extensions are not located adjacent to a major traffic corridor, no impacts are anticipated during the construction phase of the project. (Traffic control measures will be implemented to provide site access, as required). • No impacts are anticipated from operation of the proposed works.
• Infrastructure	**(2)** Do Nothing	Minimal/Nil	• No impacts anticipated.
	(1) Extend municipal services	Minimal/Nil	• Sufficient capacity exists within the wastewater treatment and water supply systems to service the additional industrial lands • No impacts are anticipated from the operation of the proposed works.
	(2) Do Nothing	Minimal/Nil	• No impacts anticipated.

3.6 Identification of a Preliminary Preferred Solution

Based upon a review of the information noted in Tables 3.4 and 3.5, and additional input from municipal public works staff, the Municipality indicated a preference for Alternative 1 - construction of the proposed servicing extensions. The following are the key attributes associated with this alternative, which justified its selection as the preliminary preferred alternative.

- Provides the subject lands with municipal servicing designed to accommodate future industrial development.
- Promotes the further expansion and development of the community by providing access to a broader range of serviced parcels.
- Provides the Municipality with access to additional lands identified within the Official Plan for industrial development.
- Minimizes traffic disruption by limiting construction to relatively undeveloped areas.
- Proposes development on lands not considered to be ecologically or culturally significant.

Based upon these considerations, the overall benefit of implementing Alternative 1 was seen to substantially outweigh the potential adverse impacts associated with the project.

4.0 PUBLIC CONSULTATION PROGRAM

4.1 General

Public consultation is an integral component of the Class EA process. Public consultation allows for an exchange of information which assists the proponent in making informed decisions during the evaluation of alternative solutions. During Phases 1 and 2 of the study process, consultation was undertaken to obtain input from the general public, adjacent property owners, aboriginal communities and review agencies that might have an interest in the project. In general, the consultation program involved the preparation of information describing the defined problem, the identified alternatives and the preferred alternatives under consideration. Comments obtained through the various consultation methods described in this section of the report were incorporated into the evaluation of alternatives phase of the investigation. The components of the initial public consultation program are summarized in this section of the Report and documented in Appendix D. Comments received from the program and related correspondence are also discussed below and documented in the appendix.

4.2 Initial Public Notice

Contents: General project description, map of study area
Issued: November 8th, 2017
Placed In: Mitchell Advocate (November 8 and November 15, 2017)
Input Period: Concluded December 8th, 2017

No Comments from the general public were received as a result of this notice.

4.3 Review Agency Circulation

Contents: General study information, site plan illustrating proposed works
Circulated: November 2nd, 2017
Distributed To: 8 review agencies
Input Period: Concluded December 8th, 2017

Table 4.1 summarizes the agency input received as a result of this circulation.

Table 4.1
Summary of Review Agency Comments

Review Agency	Comments/ Concerns	Action Taken
Upper Thames River Conservation Authority (UTRCA) November 8th, 2017 Via-e-mail	- Portions of the work may occur within natural hazard and natural heritage areas regulated by the Conservation Authority. - Proponents are required to obtain written approval from UTRCA prior to undertaking any work in regulated areas. - For any proposed stormwater management facility, UTRCA technical staff may need to review the SWM Report and associated design drawings. - Would like to be included in future circulations regarding the project.	- Information noted and filed.
Ministry of the Environment and Climate Change November 7th, 2017 (Via-email)	- Noted that consultation with Aboriginal communities was required. - Provided additional information on consultation with First Nation and Métis communities. - Noted that proponents must identify early in the process whether the project is occurring within a source water protection vulnerable area and include a section in the report. - Would like to be kept fully informed of the status of the project as it proceeds.	- Information noted and filed.

Review Agency	Comments/ Concerns	Action Taken
Ministry of Tourism, Culture and Sport December 6, 2017 (via email)	- Concerned with potential impacts to built heritage resources, archaeological resources, and cultural heritage landscapes. - Advised using screening tools to determine if resources exist and document in EA report.	- Advised that a Stage 1 & 2 Archaeological Assessment had been completed.

4.4 Aboriginal Consultation

a) Aboriginal Consultation Process

The Crown has a duty to consult with First Nation and Métis communities if there is a potential to impact on Aboriginal or treaty rights. This requirement is delegated to project proponents as part of the Class EA process; therefore, the project proponent has a responsibility to conduct adequate and thorough consultation with Aboriginal communities as part of the Class EA consultation process. The project study area is located within the Thames River watershed, susbequently Aboriginal communities living within the watershed were contacted as well as those situated within a general proximity to the study area.

b) Background Review

In order to identify Aboriginal communities potentially impacted by the project the Aboriginal and Treaty Rights Information System (ATRIS) was consulted. A search was conducted for Aboriginal communities, including their traditional territories, within a 50 km radius of the project study area. Utilizing this process, several communities and organizations were identified as follows: Chippewas of Kettle and Stony Point First Nation, Chippewas of the Thames First Nation, Aamjiwnaang First Nation, Historic Saugeen Métis, Oneida Nation of the Thames, Munsee-Delaware Nation, and Metis Nation of Ontario. Correspondence was forwarded to each community/organization detailing the proposed project and asking for input. Table 4.2 summarizes results of the initial consultation phase. Copies of all correspondence is included within Appendix D.

Table 4.2
Summary of First Nation and Métis Community Correspondence

First Nation or Métis Community	Comments/Concerns	Actions Taken
Historic Saugeen Métis November 13, 2017 (via email)	- Advised that the project is located outside of their traditional territory and do not wish to be circulated further on the project.	- Information noted and filed.
Chippewas of the Thames First Nation December 18, 2017 (via mail)	- Project located within several historic treaty areas. - Have minimal concerns with the project. - Would like to be advised of substantive changes.	- Information noted and filed.

4.5 Summary of Public Consultation

The consultation program developed for this Class EA process focused on potentially impacted adjacent property owners, Federal and Provincial review agencies, Aboriginal Communities, and the general public. Feedback received as a result of the consultation was limited to standard comments from review agencies and Aboriginal Communities. There were no comments received from adjacent property owners and no significant concerns identified with the proposed servicing extensions.

5.0 SITE SERVICING

5.1 Background

The proposed development parcel located east of Water Street and south of the rail line was identified for future urban development in conjunction with Perth County Official Plan Amendment #47. Policies contained within the Perth County Official Plan indicate that new development planned for the Mitchell Ward must be serviced by municipal sewage and water infrastructure. A 200 mm diameter gravity sewer currently terminates at a manhole located at the easterly extent of the future Herbert Street extension, adjacent to the west boundary of the proposed north development parcel. A 200 mm diameter watermain also terminates in the same vicinity. Both were extended in 2016 as part of a servicing project to provide municipal water and sanitary servicing to industrial lands located adjacent to the former Mitchell settlement area, including the lands being assessed through the current Class EA process. The full extent of the lands to be serviced was previously unknown; therefore, additional servicing extensions were not finalized until the current evaluation was undertaken.

5.2 Site Servicing - General

The required servicing consists of roads, sanitary, water, and stormwater management, along with electrical power, natural gas, and communications. These are all required and normal for new development in an urban area. The water supply and wastewater collection systems will be designed consistent with MECP Design Guidelines. The sanitary sewer design was developed to take advantage of existing topography to limit sewer depth. Similarly, the location of the proposed SPS was selected, in conjunction with the sewer design, to limit the SPS depth and construction costs. The SPS design will incorporate flow metering and it will have standby power facilities. Initially the SPS forcemain will discharge to the existing 200 mm sanitary sewer on Herbert Street near Water Street. This location has capacity constraints and cannot provide a sufficient outlet for the entire service area. Prior to the sanitary capacity being reached, an investigation will be undertaken to determine if downstream sewers will be replaced or to extended the forcemain to the WWTP. The watermain design will incorporate looping for both redundancy and water quality reasons. Figure 5.1 illustrates the general arrangement of proposed water and wastewater components of the site servicing.

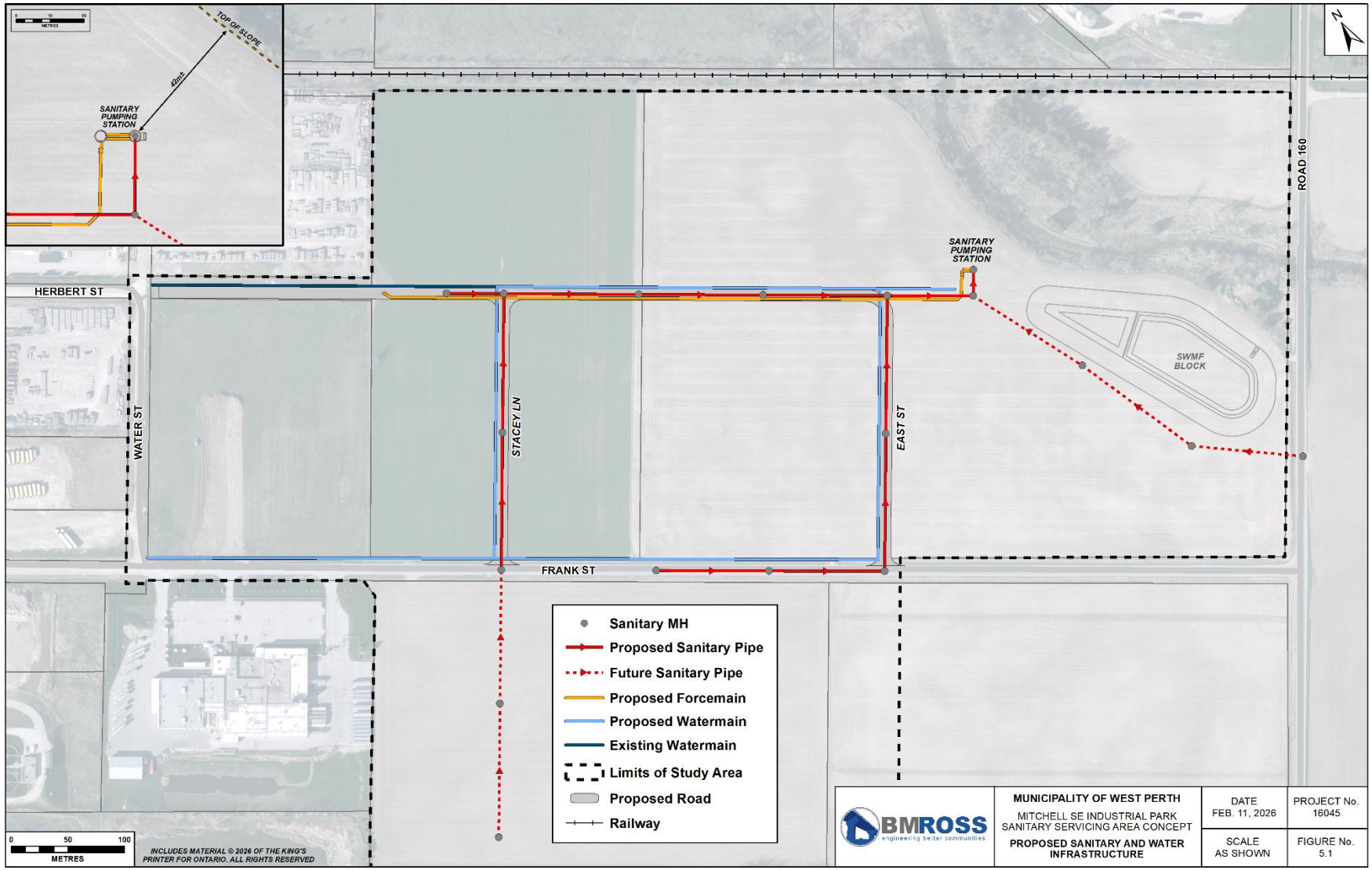
5.3 Stormwater Management

Stormwater runoff for all the lands north of Frank Street will be managed in roadside ditches and enclosed piping and culverts will be incorporated as necessary. The stormwater management facility will incorporate sediment and discharge controls consistent with MECP's and UTRCA's current standards. The proposed facility will be located generally at the northeast corner of the serviced lands and will discharge directly to Whirl Creek. The proposed design of the facility will serve two purposes:

a. to collect drainage runoff from road surface and other impervious areas within both sites and remove suspended sediments and other contaminants before discharging to the receiving stream.
b. to provide a storage area for stormwater runoff attenuation so that flows are discharged to the natural environment at a controlled rate.

In order to reduce potential impacts to the receiving stream, energy dissipation measures will be incorporated into the outlet at Whirl Creek. Standard sediment and erosion control measures (straw bale filters/silt fencing) will also be implemented during construction to minimize impacts to adjacent properties or downstream areas.

Climate change is predicted to result in more intense storms and potentially, periods of prolonged drought. To address potential impacts associated with these events, robust erosion control measures will be incorporated into the stormwater management facility outfall to Whirl Creek and potentially into the size and capacity of the facility. This will be considered during detailed design of the regional facility. Figure 5.2 shows the location of drainage infrastructure and the the proposed SWMF.


TOP OF SLOPE
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SANITARY PUMPING STATION
HERBERT ST
WATER ST
STACEY LN
EAST ST
FRANK ST
ROAD 160
SWMF BLOCK
SANITARY PUMPING STATION
Sanitary MH
Proposed Sanitary Pipe
Future Sanitary Pipe
Proposed Forcemain
Proposed Watermain
Existing Watermain
Limits of Study Area
Proposed Road
Railway
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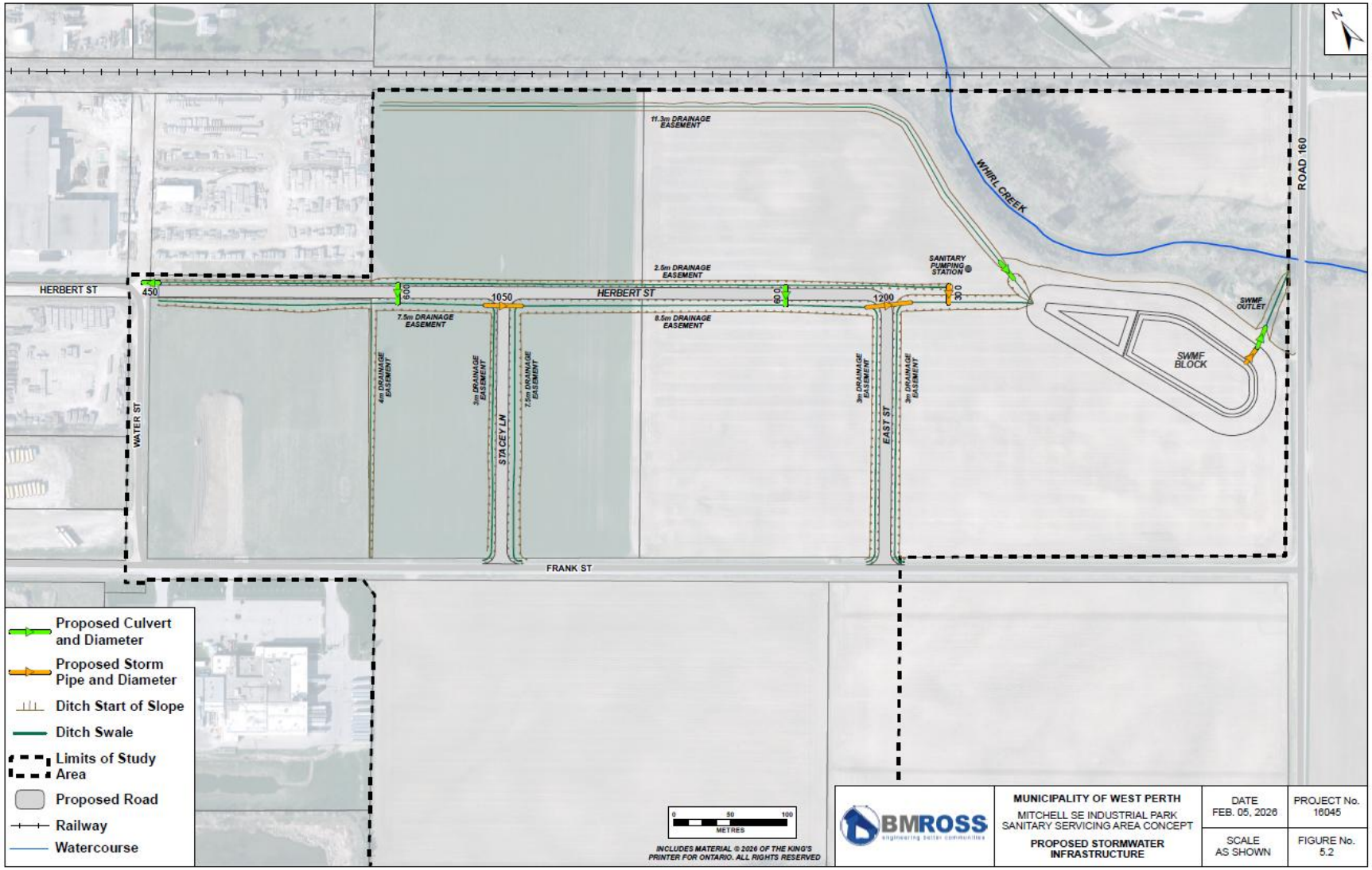
MUNICIPALITY OF WEST PERTH
MITCHELL SE INDUSTRIAL PARK
SANITARY SERVICING AREA CONCEPT
PROPOSED SANITARY AND WATER INFRASTRUCTURE
DATE
FEB. 11, 2026
PROJECT No.
16045
SCALE
AS SHOWN
FIGURE No.
5.1


HERBERT ST
HERBERT ST
FRANK ST
WATER ST
STACEY LN
EAST ST
ROAD 160
WHIRL CREEK
SANITARY PUMPING STATION
SWMF OUTLET
SWMF BLOCK
11.3m DRAINAGE EASEMENT
2.5m DRAINAGE EASEMENT
7.5m DRAINAGE EASEMENT
8.5m DRAINAGE EASEMENT
4m DRAINAGE EASEMENT
3m DRAINAGE EASEMENT
450
600
1050
600
1200
300
Proposed Culvert and Diameter
Proposed Storm Pipe and Diameter
Ditch Start of Slope
Ditch Swale
Limits of Study Area
Proposed Road
Railway
Watercourse
METRES
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PROPOSED STORMWATER INFRASTRUCTURE
DATE FEB. 05, 2026
PROJECT No. 16045
SCALE AS SHOWN
FIGURE No. 5.2

5.3 Stormwater Management

Stormwater runoff for all the lands north of Frank Street will be managed in roadside ditches and enclosed piping and culverts will be incorporated as necessary. The stormwater management facility will incorporate sediment and discharge controls consistent with MECP and UTRCA's current standards. The proposed facility will be located generally at the northeast corner of the serviced lands and will discharge directly to Whirl Creek. The proposed design of the facility will serve two purposes:

c. to collect drainage runoff from road surface and other impervious areas within both sites and remove suspended sediments and other contaminants before discharging to the receiving stream.

d. to provide a storage area for stormwater runoff attenuation so that flows are discharged to the natural environment at a controlled rate.

In order to reduce potential impacts to the receiving stream, energy dissipation measures will be incorporated into the outlet at Whirl Creek. Standard sediment and erosion control measures (straw bale filters/silt fencing) will also be implemented during construction to minimize impacts to adjacent properties or downstream areas.

Climate change is predicted to result in more intense storms and potentially, periods of prolonged drought. To address potential impacts associated with these events, robust erosion control measures will be incorporated into the stormwater management facility outfall to Whirl Creek and potentially into the size and capacity of the facility. This will be considered during detailed design of the regional facility. Figure 5.2 shows the location of drainage infrastructure and the the proposed SWMF.

5.4 Servicing Easements

To accommodate the proposed drainage infrastructure (roadside ditches) easements will be required of varying widths along most of the proposed road allowances and adjacent to the rail corridor. The proposed easements allow for a road surface comprised of 4.25 m lanes +1.0 m shoulders and roadside ditches with 3:1 side slopes. Existing setbacks and requirements contained within the General Industrial (M2) section of the West Perth Zoning-By-Law will not be negatively affected by the proposed easements. Figure 5.2 illustrates the general location of required easements.

5.5 Servicing of Parcel south of Frank Street

For the 23 ha parcel located south of Frank Street the following is noted:

- Some runoff generated from the area will be directed to the regional facility located north of Frank Street. However, a majority of the drainage from the site will be directed to the southwest and will discharge to a different subwatershed

(Glengowan subwatershed). Details related to stormwater management for the site will be finalized once proposed users are identified. This will be done as part of the site plan review process.

- Comments received from the UTRCA indicate that the small woodland located within the south 23 ha parcel, has been identified as a locally significant wetland. Additional stormwater management requirements and development setbacks may be required to address impacts to this feature, in conjunction with development of the parcel.

5.5 Proposed Sewage Pumping Station

The proposed sewage pumping station (SPS) will generally consist of the following principal components, to be confirmed at final design:

- A pre-cast concrete wet well with 2 or 3 submersible sewage pumps to cover the expected range of flows. The pumps will be provided with VFDs.
- A pre-cast concrete valve and meter chamber with a pumping station by-pass connection.
- An external diesel generator unit housed in a weather proof sound attenuating enclosure.
- Linkage to the Municipal SCADA System for flow monitoring recording and alarm purposes.

The SPS will discharge through a forcemain to the existing sanitary sewer on Herbert Street. Eventually the forcemain will be extended to the WWTP.

Climate change is predicted to cause more intense storm events and potentially periods of sustained greater precipitation. This could increase the severity of peak flow events which will impact on the capacity of the proposed SPS. This will be examined during detailed design of the facility. Figure 5.1 illustrates the proposed site servicing for the subject lands.

The proposed SPS site is located within an area that is currently used for agricultural purposes. There are no natural features present and the location is situated approximately 42 m from the top of the bank of Whirl Creek and 56 m from the creek itself.

6.0 SUMMARY OF IMPACT ASSESSMENT AND MITIGATION

6.1 General

Based upon the findings of the general impact assessment (Tables 3.4) and the environmental effects analysis (Table 3.5), the project has the potential to impact upon two environmental component as follows:

- Economic Environment
- Natural Environment (Aquatic)

The potential impacts to the identified environmental features are described in more detail within this section of the report. Measures designed to minimize the impacts are also presented. The determination of appropriate mitigation measures incorporated an assessment of previous studies and investigations, site specific requirements and an evaluation of a broad range of alternatives. This assessment was based on consideration of three broad approaches to impact mitigation: avoidance, minimization of adverse effects, and compensation.

6.2 Economic Environment

The initial capital costs related to construction of the proposed infrastructure will be funded through the Municipality's capital works budget. As developments proceed on lands to be serviced by the new infrastructure, a majority of the costs will be recovered through the sale of the lands and through development agreements negotiated with the purchasers, and through development charges.

6.3 Aquatic Habitat

The proposed regional stormwater management facility will discharge to Whirl Creek adjacent to the northeast corner of the site, where Whirl Creek passes beneath Road 160. Final design of the stormwater management facility and outfall to Whirl Creek will occur as part of the development review for the easterly parcel where the facility will be located. Preliminary consultation with the UTRCA has occurred. The facility must be designed to meet the SWM criteria of the UTRCA.

Water quality and quantity measures will be implemented within the stormwater facility to remove suspended solids and other potential contaminants that might enter the runoff from roadways and development parcels. Sediment and erosion control measures will be implemented during construction of the internal road network and servicing, and also during development of the individual parcels.

6.4 Easements

Permanent easements will be required to convey stormwater flows overland from the subject lands to the proposed regional stormwater management facility to be constructed adjacent to Whirl Creek.

6.5 Cultural Heritage Features

A Stage 1-2 Archaeological Assessment was completed by Timminis Martelle Heritage Consultants Inc. (TMHC) in 2017 for areas to be disturbed as part of the original industrial expansion lands. The Stage 2 field work, which involved a pedestrian survey of the proposed 20 metre road allowance and SWM facility, was completed after the area had been ploughed and weathered. There were no findings of historical significance identified through the 2017 review and no additional archaeological assessment was recommended for the lands that were assessed. The Stage 1 & 2 Assessment Report was submitted to the Ministry of Citizenship and Multiculturalism for review and clearance.

When additional industrial lands were added to the scope of the project in 2025, TMHC were retained to complete the additional field work that encompasses all of the lands included in the revised Class EA study area. As with the original assessment, a Stage 2 pedestrian survey will be completed for the site to ensure that cultural resources will not be negatively impacted by the proposed project. The additional field work will be completed in 2026 prior to the start of construction. Appendix C contains the reports.

6.5 General Construction Mitigation

Construction related activities associated with project implementation have the potential to impact upon existing environmental features, the general public and construction workers. The Contractor would therefore be responsible for carrying out these activities in accordance with industry safety standards and all applicable legislation. Mitigation measures would also be incorporated into the construction specifications to ensure that operations are conducted in a manner that limits detrimental effects to the environment. Table 6.1 outlines a series of mitigation measures that are commonly incorporated into construction specifications. For this project, contract specifications may need to be modified depending upon the nature of the construction activity and any additional requirements of the regulatory agencies.

6.6 Operations Phase

Upon completion of the proposed works, the Municipality of West Perth will maintain the water, wastewater and stormwater infrastructure located on the subject lands in accordance with normal municipal practices. In this regard, the new servicing infrastructure would be subject to routine maintenance activities.

Table 6.1
Typical Mitigation Measures for Construction-Related Activities

Construction Activity	Typical Mitigation Measure
Refuelling and Maintenance	- Identify suitable locations for refuelling and maintenance areas. - Restrict refuelling of equipment near watercourses. Non-spill equipment is required within 30 m of a watercourse. Fuelled equipment shall be stored overnight not less than 30 m from the edge of water. - Avoid cleaning equipment in watercourses and in locations where debris can gain access to sewers or watercourses. - Prepare to intercept, clean up, and dispose of any spillage that may occur.
Traffic Control	- Require the Contractor to prepare and submit a traffic plan to the Contract Administrator for review and acceptance. - Maintain traffic flow for private accesses at all times during construction (as practical). - Provide adequate signage and barricades.
Disposal	- Dispose of all construction debris in approved locations. - Avoid emptying fuel, lubricants or pesticides into sewers or watercourses.
Dust Control	- Cover or wet down dry materials and rubbish to prevent blowing dust and debris. - Avoid the use of chemical dust control products adjacent to wetlands and watercourses.
Site Clearing	- Implement protective measures to safeguard trees from construction operations. - Restrict equipment or vehicles from being parked, repaired or refuelled near the dripline of any tree not designated for removal. - Prohibit construction and earth materials from being stockpiled within the defined dripline areas. - Restrict tree removal to areas marked by Contract Administrator. - Minimize stripping of topsoil and vegetation.
Sedimentation/ Erosion Control	- Erect sediment fencing to control excess sediment loss during construction. - Minimize the removal of vegetation from sloped approaches to any affected watercourses. - Protect watercourses, wetlands, catch basins and pipe ends from sediment intrusion. - Complete restoration works following construction. - Install straw bale check dams in ditch lines following rough grading.
Noise Control	- Avoid night time or Sunday work, except in emergency situations.

7.0 CONCLUSIONS AND PROJECT IMPLEMENTATION

7.1 Selection of a Preferred Alternative

Given the foregoing, **Alternative 1 – Extend municipal services to additional industrial lands in the southeast part of Mitchell,** was selected as the preferred solution to the identified problem. This alternative would involve the construction of new roads and the extension of watermains, sanitary sewers and other utilities (gas, hydro, communications), from their current points of termination, to service the future development parcels located adjacent to the former Mitchell municipal boundary. A new SPS and forcemain and stormwater conveyance and management facilities will also be constructed as part of the project.

7.2 Impact Mitigation

Based upon a review of the current environmental setting, there were no impacts associated with implementation of the preferred Alternative that could not be mitigated. Therefore, implementation of the proposed servicing project appears to be appropriate for the subject lands and is not expected to result in significant impacts to the natural, social, economic or cultural environments.

7.3 Class EA Project Schedule

The recommended solution involves the construction of new road, water, wastewater and stormwater infrastructure on both private and public lands in the southeast industrial area of Mitchell. This is a Schedule ‘B’ project under the terms of the Class EA as it involves the extension of municipal infrastructure outside of existing road allowances or utility corridors. The process of implementing this alternative involves the submission of this screening report to the Municipality and the publication of a Notice of Completion of the Class EA process in the local newspapers.

7.4 Final Public Consultation

A Notice of Completion was recently circulated to local residents, First Nation and Métis Communities, and government review agencies. The notice identified the preferred Class EA alternative and indicated the approval process needed to move forward with implementation. The following summarizes the distribution of the Notice.

Contents:	Identification of preferred solution, key project components
Issued:	March 4, 2026
Placed In:	Mitchell Advocate (March 4 & 11, 2026)
Distributed To:	9 review organizations
Review Period:	Concludes April 3, 2026

7.5 Class EA Finalization

The following activities are required in order to complete the formal Class EA process:

- Address outstanding issues resulting from the Notice of Completion.
- Finalize the Screening Report following the conclusion of the 30-day review period.
- Advise the Municipality of West Perth and the MECP when the study process is complete.
- Obtain all necessary approvals.

7.6 Project Implementation

The works associated with Alternative 1, as outlined in Table 3.1 of this report, are anticipated to be constructed in the summer and fall of 2026 pending the successful completion of the Class EA process and the receipt of all necessary approvals. The project will be completed by a qualified Contractor, following a competitive selection process. The constructed works will be warranteed by the Contractor for a period prescribed in the contract documentation (typically one year). Following construction and commissioning of the facilities, the Municipality will maintain the physical condition and operation of all built works and will perform remediation work as required and in accordance with the requirements of applicable regulatory agencies.

8.0 APPROVALS

8.1 Ontario Water Resources Act

Wastewater works associated with the preferred alternative are subject to the *Ontario Water Resources Act*. Consequently, the project cannot proceed until the Municipality has received the necessary Environmental Compliance Approvals from the MECP. The approvals will define how the sewage works must be implemented and operated.

8.2 Upper Thames River Conservation Authority

Portions of the subject site are located within areas regulated by the Upper Thames River Conservation Authority. Accordingly, a permit application and engineering drawings will be submitted for review and approval in advance of construction.

8.3 Safe Drinking Water Act

Watermains require an amendment to the Municipality’s Drinking Water Works Permit, issued under the Safe Drinking Water Act. The amendment can be accomplished by completing a Form 1.

9.0 ENVIRONMENTAL COMMITMENTS

As an outcome of this Class EA planning process, the Municipality is committed to carrying out the following measures to mitigate potential environmental impacts related to project implementation:

- Completion of archeological investigations.
- Implementation of standard construction mitigation measures during the construction phase of the project, to minimize construction related impacts to the natural and social environments.
- Submission of relevant applications to the MECP and UTRCA in conjunction with the proposed works, as well as implementation of all conditions issued in association with the subsequent approvals.

10.0 SUMMARY

This report documents the Municipal Class Environmental Assessment process conducted to evaluate the potential impacts associated with the construction of new roads and the extension of water, wastewater and stormwater infrastructure in the southeast area of Mitchell. The following problem/opportunity was established at the start of the process:

> *The extension of municipal services in the southeast area of Mitchell, is required to facilitate the development of additional industrial lands within the community.*

Two alternatives were assessed as part of the Class EA process; 1) To extend municipal servicing in the southeast area of Mitchell to service additional industrial lands, or 2) Do nothing. Following a detailed evaluation of the alternatives, the servicing option was selected as no negative impacts were identified with implementation that could not be mitigated.

The evaluation process considered the potential for environmental impacts and the most cost effective means to extend both sanitary and water servicing to the subject lands, as well as providing stormwater drainage facilities to the site. The preferred solution; to construct new roads and extend the water distribution system to the site along a future extension of Herbert Street, and to provide sanitary servicing through the construction of a new SPS and forcemain and gravity sewers along portions of Frank Street and the internal streets represents the most practical approach to resolving the defined problem/opportunity.

Consultation with federal and provincial review agencies, aboriginal communities and the general public, was undertaken as part of the Class EA process. Feedback was received from the UTRCA, indicating that a permit would be required, and from the

Ministry of Ministry of Citizenship and Multiculturalism advising that cultural heritage features must be considered as part of the project. A Stage 1-2 Archaeological Assessment was subsequently completed for portions of the site; the remaining lands will be assessed in 2026. No buried cultural artefacts were found as part of the investigation and no further investigations were required for those lands.

The proposed project is a Schedule B activity under the terms of the Class EA. The Municipality of West Perth intends to proceed with the implementation of this project upon completion of the Class EA investigation and after receipt of all necessary approvals.

All of which is respectfully submitted.

B. M. ROSS AND ASSOCIATES LIMITED

Per _____
Stephen D. Burns, P. Eng.

Per _____
Kelly Vader, RPP, MCIP
Environmental Planner

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